

Xtreme Value Tower Series (XVT)

User's and Installation Manual

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Attention: To safely interact with and enjoy all the features and benefits of these **Xtreme Power** Uninterruptible Power Supplies (UPS's), please read and follow all installation and operation instructions completely. These UPS's are designed to provide power protection for connected electronic equipment.

Please read this manual before installing the XVT Series UPS, models XVT-600, XVT-800, XVT-1200, XVT-1500 as it provides important information that should be followed during installation and maintenance of the UPS and batteries allowing you to correctly set up your system for the maximum safety and performance. Included is information on customer support and factory service if it is required. If you experience a problem with the UPS please refer to the Troubleshooting section in this manual to correct the problem. If the problem is not corrected, please collect enough information so that the Technical Support Department can more effectively assist you.

CAUTION: Any changes or modifications not expressly approved by the guarantee of this device could void the user's authority to operate the equipment.

FCC Notice

This equipment has been tested and found to comply with the limits for a Class B Digital Device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in 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:

- (1) Reorient or relocate the receiving antenna.
- (2) Increase the separation between the equipment and receiver.

(3) Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.

(4) Consult the dealer or an experienced radio/TV technician for help. Any special Accessories needed for compliance must be specified in the instruction.

CAUTION: A shielded-type power cord is required in order to meet FCC emission limits and to prevent interference to the nearby radio and television reception. It is essential that only the supplied power cord be used. Use only shielded cables to connect I/O devices to this equipment.

CAUTION: Any changes or modifications not expressly approved by the guarantee of this device could void the user's authority to operate the equipment.

IMPORTANT SAFETY INSTRUCTIONS

(SAVE THESE INSTRUCTIONS)

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

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. Qualified Service Personnel must perform repairs and maintenance. No user serviceable parts inside.

CAUTION! Hazardous live parts inside can be energized by the battery even when the AC input power is disconnected.

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

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

DO NOT USE FOR MEDICAL OR LIFE SUPPORT EQUIPMENT!

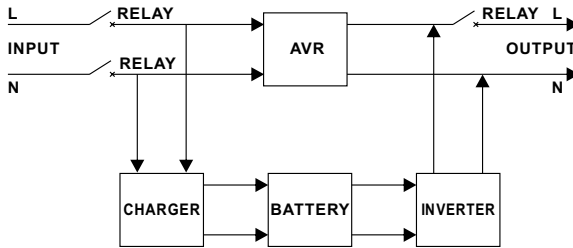
Xtreme Power does not sell products for life support or medical applications. DO NOT use these UPS' in any circumstance that would affect operation or safety of any life support equipment or with any medical applications or patient care.

DO NOT USE WITH OR NEAR AQUARIUMS! To reduce the risk of fire or electric shock, do not use with or near an aquarium. Condensation from the aquarium can cause the UPS to short out.

NOTICE! Not for use in a computer room as defined in the Standard for Protection of Electronic Computer/Data Processing Equipment.

NOTICE! Statement indicating that the socket-outlet shall be installed near the equipment and shall be easily accessible.

DESCRIPTION



Battery/Surge Outlets

Provides battery-powered/surge outlets for the connected equipment and insures uninterrupted operation of your equipment during a power failure.

Power Switch

Can be used as a master on/off switch for equipment connected to the battery-powered outlets.

Power On Indicator

This LED is illuminated when the utility condition is normal and the UPS outlets are providing power, free of surges and spikes.

Circuit Breaker

The circuit breaker that provides overload and fault protection.

USB

Port/protocol that provides communications between the UPS and PC.

Network Surge Protection: One in, One out RJ45 surge protection.

HOW TO DETERMINE THE POWER REQUIREMENTS OF YOUR EQUIPMENT

1. Make sure that the total Volt-Amp (VA) requirements of your computer, monitor and peripheral equipment does not exceed the maximum VA rating for the XVT-600, XVT-800, XVT-1200 and XVT-1500. The maximum VA values would be 600VA, 800VA, 1200VA and 1500VA, respectively.
2. Ensure that the equipment plugged into the battery-powered outlets does not exceed the UPS's rated capacity. If UPS's rated capacities are exceeded, an overload condition may occur and cause the UPS to shut down and trip the circuit breaker.
3. If the power requirements of your equipment are listed in values other than Volt-Amps (VA), convert Watts (W) or Amps (A) into VA by doing the calculations below. Note: The equation below only calculates the maximum amount of VA that the equipment can use, not what is typically used by the equipment at any given time. Users should expect usage requirements to be approximately 60% of below value to estimate power requirements:

$$\text{___ Watts (W)} \times 1.83 = \text{___ VA} \text{ or } \text{___ Amps (A)} \times 120 = \text{___ VA}$$

Add the totals for all of the equipment and multiply this total by 0.65 to calculate actual requirements.

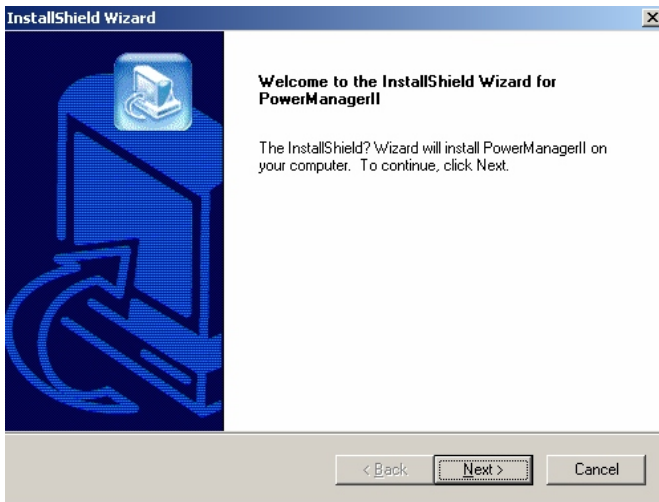
Note: Many factors can affect the amount of power that your computer system will require. The total load that you will be placing on the battery-powered outlets should not exceed 85% of the UPS's capacity.

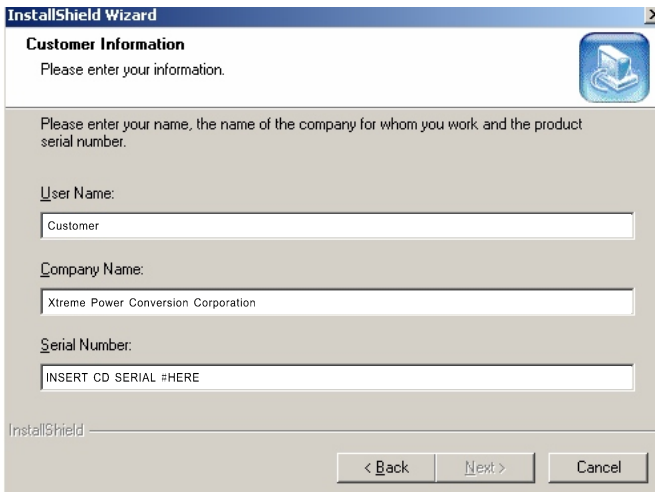
Hardware Installation Guide

1. Your new UPS may be used immediately upon receipt. However, **charging the battery for at least 4-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 power cord into the AC wall outlet and turn the power switch on. **Note:** Xtreme Power units will charge the battery with the power switch on or off.
2. With the UPS off and unplugged, connect your computer, monitor, and any externally powered data storage device (Zip drive, Tape drive, etc...) into the battery power supplied outlets. **DO NOT plug a laser printer, copier, space heater, vacuum or other large electrical device into the UPS. The power demands of these devices will overload and possibly damage the UPS.**
3. To protect a fax, single line phone or modem, connect a telephone cable from the wall jack outlet to the IN jack of the UPS. Connect a telephone cable from the OUT jack to the modem port on your computer. The OUT jack can be used to protect a single line telephone or fax machine.
4. Plug the UPS into a 2 pole, 3 wire grounding receptacle (AC wall outlet). Make sure the wall branch outlet is protected by a fuse or circuit breaker and does not service equipment with large inrush electrical demands (e.g. refrigerator, copier, etc...). Note: DO NOT use extension cords, power or surge strips on the input or the output of the UPS.
5. Depress the power switch to turn the UPS on. The power on LED indicator will illuminate and the UPS will "beep" once.
6. If an overload is detected, an audible alarm will sound and the UPS will emit one long beep every 2.4 seconds. To correct this, turn the UPS off and unplug at least one piece of equipment from the battery-powered outlets. Wait 10-seconds. Make sure the circuit breaker is depressed and then turn the UPS on.
7. Your UPS is equipped with an auto-charge feature (all units). When the UPS is plugged into an AC wall outlet and there is an acceptable AC voltage present, the battery will automatically recharge.
8. To maintain optimal battery charge, leave the UPS plugged into an AC wall outlet with the power switch turned on at all times.
9. To store your UPS for an extended period, cover and store it with the battery fully charged. Recharge the battery every two months to maintain battery life.

Quickstart Software Installation Guide

1. Locate the USB Cable inside of the box.
2. Insert one end of USB cable into the UPS and the other into the USB port on your computer.
3. Insert the CD into the computer.
4. When the software interface requests a serial number locate and input the serial number on the CD software jacket into the software interface.
5. Follow the software prompts
6. Quickstart Software Installation Guide





InstallShield Wizard [X]

Customer Information

Please enter your information.

Please enter your name, the name of the company for whom you work and the product serial number.

User Name:

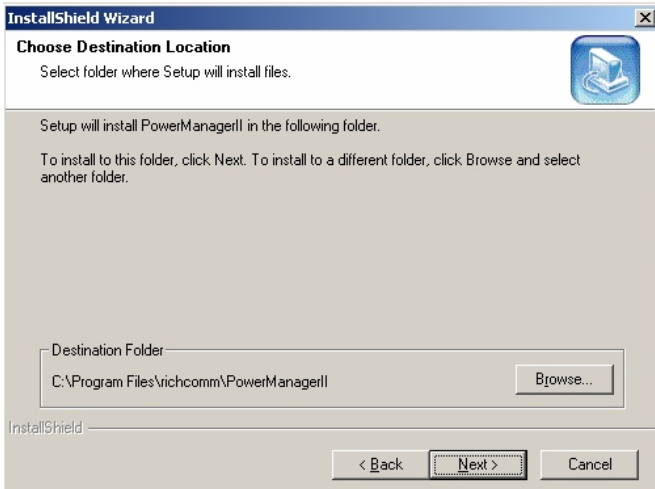
Company Name:

Serial Number:

InstallShield

< Back Next > Cancel

Input user name, company name and serial number into the software interface. Note: serial number is on the CD software iacket.



InstallShield Wizard [X]

Choose Destination Location

Select folder where Setup will install files.

Setup will install PowerManagerII in the following folder.

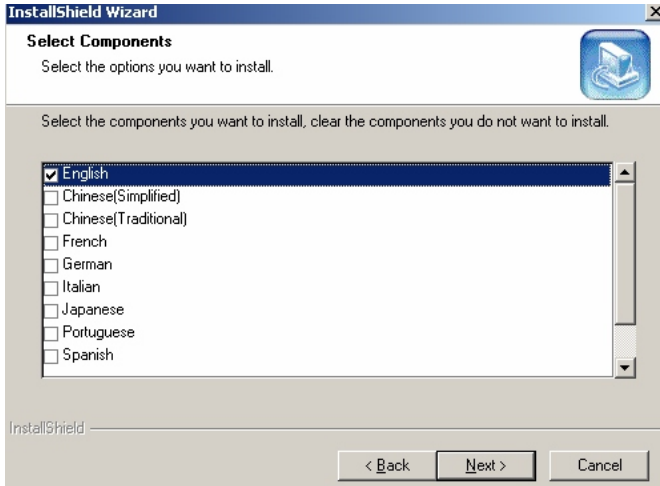
To install to this folder, click Next. To install to a different folder, click Browse and select another folder.

Destination Folder:

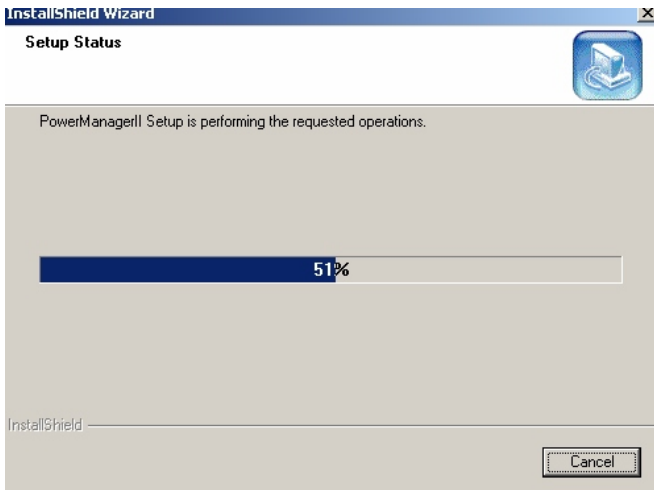
InstallShield

< Back Next > Cancel

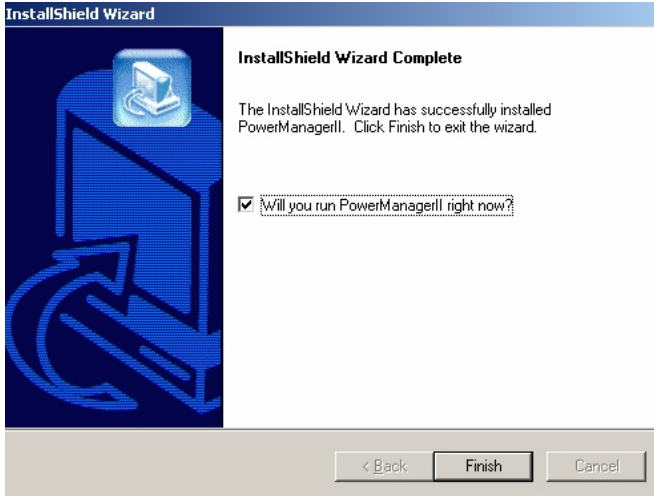
Choose installation location and click “next(N)”



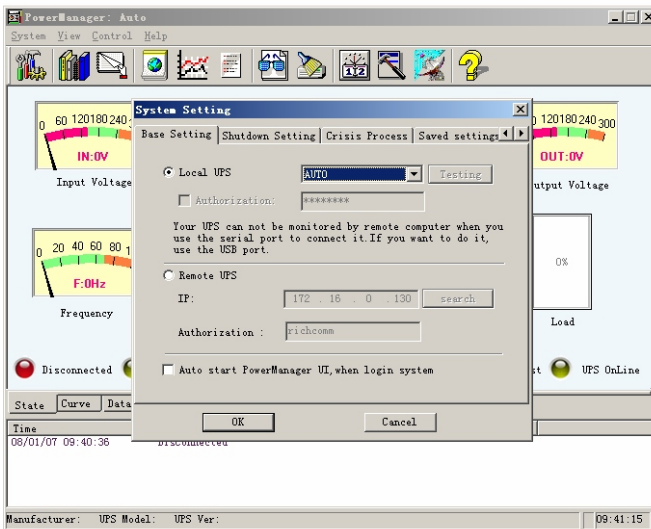
Choose software language and click “next(N)”



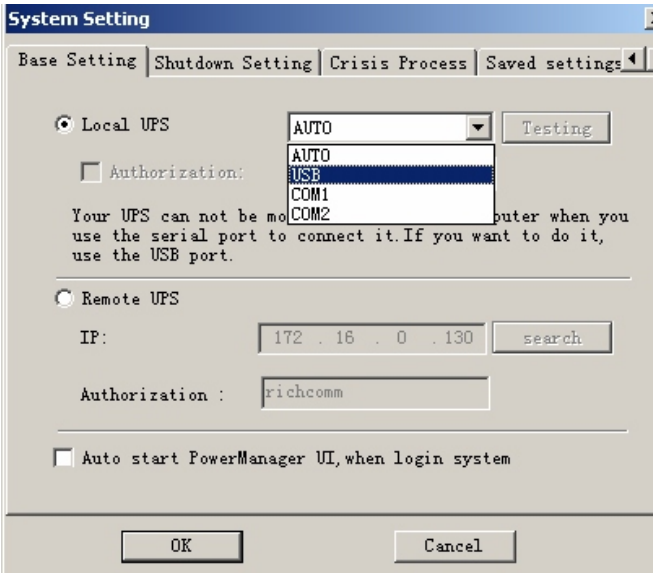
Software will install automatically



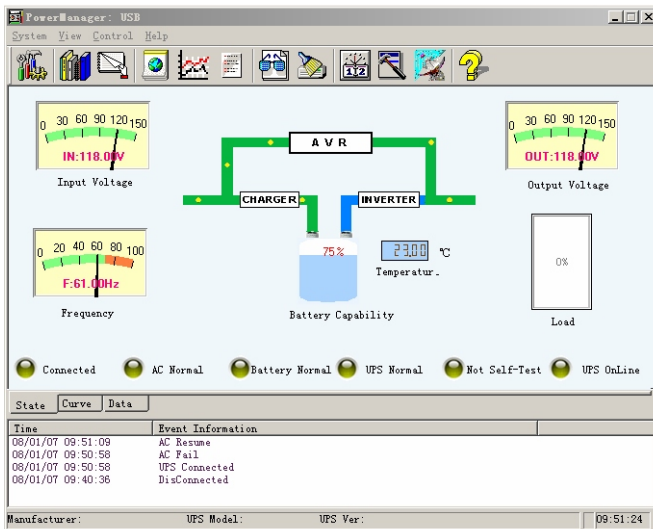
Choose, “Will you run Powermanager II right now?” and click “finish”



After the UPS switches on ,please choose the “setting system” tab from the drop down box:



Click “local ups” and chose “USB” --- Click “OK”



The UPS is now connected and in normal operation!

REPLACING THE BATTERY **(QUALIFIED SERVICE PERSONNEL ONLY)**

CAUTION! Read and follow the **IMPORTANT SAFETY INSTRUCTIONS** before servicing the battery. Service the battery under the supervision of Qualified Service Personnel knowledgeable of batteries and their precautions.

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

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

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

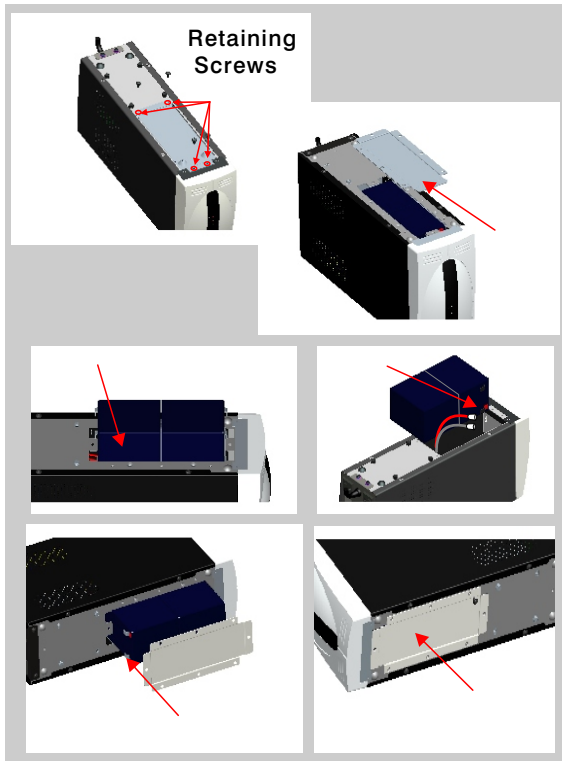
CAUTION! Although the battery system voltage is only 12VDC and 24VDC, the battery can present a high risk of short circuit current and electrical shock. The short circuit current capability of the battery is sufficient to burn wire or tools very rapidly producing molten metal. Observe these precautions when 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 protective eye gear (goggles), rubber gloves and boots.
5. Disconnect the charging source before connecting or disconnecting the battery terminals.
6. Determine if the battery is inadvertently grounded. If inadvertently grounded, remove the 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 **(QUALIFIED SERVICE PERSONNEL ONLY)**

Note: The XVT-600, the XVT-800, the XVT-1200, and the XVT-1500 have user replaceable batteries.

1. Turn off and unplug all connected equipment.
2. Turn the UPS off and unplug the UPS's power cord from the AC wall outlet.
3. Turn the UPS upside down.
4. Remove the retaining screws from the battery compartment door.
5. Remove the battery compartment door.



6. Remove the defective battery from the battery compartment.
7. Disconnect the battery positive (red) wire from the battery positive (+) terminal.
8. Turn the power switch on, to discharge the UPS.
9. Disconnect the battery negative (black) wire from the battery negative (-) terminal.
10. Set the defective battery aside.
11. Connect the battery negative (black) wire to the battery negative (-) terminal on the new battery.
12. Connect the battery positive (red) wire to the battery positive (+) terminal on the new battery.

Note: Some sparking may occur, this is normal.

13. Install the new battery into the battery compartment. DO NOT pinch the battery wires in between the battery and the case.
14. Reinstall the battery compartment door and the retaining screws.
15. Properly dispose of the old batteries at an appropriate recycling facility or return them to the supplier in the packing material for the new batteries.
16. The UPS is now ready for normal operation.

Note: Batteries are considered HAZARDOUS WASTE and must be disposed of properly at an appropriate recycling facility or return them to the supplier. Contact your local government for more information about proper disposal and recycling of batteries.

Model #	XVT-600	XVT-800	XVT-1200	XVT-1500
Battery QTY/Rating	1 x 12V / 7AH	1 x 12V / 9AH	2 x 12V / 7AH	2 x 12V / 9AH

Servicing of batteries should be performed or supervised by personnel knowledgeable about batteries and the required precautions.

When replacing batteries, replace with the same type and number of batteries or battery packs.

CAUTION: Do not dispose of batteries in a fire. The batteries may explode.

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

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:

- a) Remove watches, rings, or other metal objects.
- b) Use tools with insulated handles.
- c) Wear rubber gloves and boots.
- d) Do not lay tools or metal parts on top of batteries.
- e) Disconnect charging source prior to connecting or disconnecting battery terminals.
- f) 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.

DEFINITIONS FOR LED INDICATORS

1. LED indication

LED1(green)	LED2(yellow)	LED3(red)	Unit Status
ON	*	OFF	On AC power
OFF	OFF	FLASH	ON BATTERY
*	ON	*	Charge
*	*	ON	overheat
			Low battery
			Overload protection
			Short circuit

Note: * means any situation

2. Alarm

Alarm indication	Unit status
buzzer every 5s	DC start
buzzer every 1s	self test
2 buzzer every 1s	low battery
4 beep every 2.4s	overload
3buzzers every 1s	overheat
input is off, long beep, power off after 5s	short circuit

TROUBLESHOOTING

Problem	Possible Cause	Solution
Full-time surge protection outlets stop providing 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, replace the fuse with a fuse of like size and rating, and then turn the UPS on.
The UPS does not supply expected runtime.	Battery not fully charged.	Recharge the battery for at least 4-hours.
	The Battery is defective.	Contact Xtreme Power UPS about replacement batteries at
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 UPS is not plugged into an AC wall outlet.	Connect the UPS to an 110/120V 60Hz AC wall outlet.
	The battery is defective.	Contact Xtreme Power UPS about replacement batteries at
	Mechanical problem.	Contact Xtreme Power
The UPS shuts down when there is a loss of AC power.	The UPS 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 UPS.

SPECIFICATIONS

Model		XVT-600	XVT-800	XVT-1200	XVT-1500
Capacity		600VA/360W	800VA/480W	1200VA/720W	1500VA/900W
Input	Phase	Single phase			
	Voltage Range	94-144Vac \pm 5Vac			
	Frequency	60Hz \pm 5Hz			
Output	Voltage(battery mode)	120Vac \pm 12%			
	Waveform	Pure Sine Wave(Typical)			
	Frequency	AC mode-follow utility, Battery mode-60Hz \pm 0.5Hz			
		< 0.5Hz (Battery operation)			
Transfer Time	Typical 4ms, max 11ms				
Protection	Input Protection	Compliance with IEEE 587			
	Short Circuit	Circuit breaker			
Battery	Type	12V Sealed non-spillable lead acid, maintenance free			
	Recharge	After full discharge, 10 hours to 90% capacity			
	Backup Time	\geq 6 min at 50% load			
	Charge Current	1.5A(max)			
	F1,F2,F3	30A/32Vx2	40A/32Vx2	25A/32Vx3	30A/32Vx3
	Battery Configuration	1x12V/7AH	1x12V/9AH	2x12V/7AH	2x12V/9AH
Indication	AC Mode	Green LED on, Red LED off, No Alarm			
	Charging Battery	Yellow LED on			
	Battery Mode	Green and Yellow LED off, Red LED flash, Alarm slow beep			
	Battery Low	Green and Yellow LED off, Red LED on, Alarm fast beep			
Environment	Audible Noise at 1m(3 ft)	< 45dB			
	Temperature	0 to 35 °C			
	Humidity	0%-90% Non-Condensing			
Physical	Net Weight(lbs)	15.3	16.8	27.6	31.3
	Net Dimension (WxDxH) (In)	3.74x14.57x6.22	3.74x14.57x6.22	4.92x16.93x8.7	4.92x16.93x8.7
	Shipping Weight (lbs)	17.6	19.2	29.8	32.4
	Shipping Dimension (WxDxH) (In)	6.1x16.22x10.2	6.1x16.22x10.2	7.48x18.89x12.75	7.48x18.89x12.75
Outlets		6: NEMA 5-15R			

OBTAINING SERVICE

If the UPS requires Service:

1. Use the TROUBLESHOOTING section to eliminate obvious causes.
2. Verify there are no circuit breakers tripped.
3. Call your dealer for assistance. If you cannot reach your dealer, or if they cannot resolve the problem call or fax **Xtreme Power** Technical Support at the following numbers; Voice phone_, Fax line_ or Contact **Xtreme Power** at 800-582-4524. Please have the following information available BEFORE calling the Technical Support Department:
 - A. Your name and address.
 - B. Where and when the unit was purchased.
 - C. All of the model information about your UPS.
 - D. Any information on the failure, including LEDs that may not be illuminated.
 - E. A description of the protected equipment, including model numbers if possible.
 - F. A technician will ask you for the above information and, if possible, help solve your problem over the phone. In the event that the unit requires factory service, the technician will issue you a Return Material Authorization Number (RMA #).
 - G. If the UPS is under warranty, the repairs will be done at no charge. If not, there will be a charge for repair.
4. Pack the UPS in its original packaging. If the original packaging is no longer available, ask the Technical Support Technician about obtaining a new set. It is important to pack the UPS properly in order to avoid damage in transit. Never use Styrofoam beads for a packing material.
 - A. Include a letter with your name, address, daytime phone number, RMA number, a copy of your original sales receipt, and a brief description of the problem.
5. Mark the RMA # on the outside of all packages. The factory cannot accept any package without the RMA # marked on the outside.
6. Return the UPS by insured, prepaid carrier to: Call **Xtreme Power** at 800-582-4524.

XVT Series UPS Warranty Limited Two Year Product Warranty

XVT Series UPS products are warranted free from defects in material and workmanship for two years from date of purchase. This warranty is limited to repairing or replacing, at **Xtreme Power's** sole option. Any defective component, circuit board or module contained within the product only when it is returned with an **Xtreme Power** Return Material Authorization (RMA) number to **Xtreme Power**. **Xtreme Power** may, at its sole discretion, offer field repairs with warranty coverage limited to parts and labor only.

Batteries

Batteries, included in this product are warranted for one year. Batteries are deemed defective by **Xtreme Power's** sole discretion.

Limitations of Warranty

This limited warranty does not cover any losses or damage resulting from shipment to or from the customer, or from improper installation, inappropriate environment, abuse, modifications, adjustments, or unauthorized repair.

Exclusive Remedies

Except as set forth herein and except as to title, there are no warranties, express or implied, or any affirmations of fact or promises by **Xtreme Power** for the products,

their merchantability, or fitness for any particular purpose. In no event shall **Xtreme Power** be liable for lost profits, goodwill, or any other special or consequential damages. Any changes to this must be approved by an **Xtreme Power** corporate officer.

Life Support Disclaimer

Xtreme Power protection products are not designed, intended or authorized for use in systems intended to support or sustain life, or for any other application in which the failure of the **Xtreme Power** product could create a situation where personal injury or death may occur. Under no circumstances should the Buyer purchase or use **Xtreme Power** products for any such unintended or unauthorized application, if the Buyer does not comply with this, the Buyer shall indemnify and hold **Xtreme Power** and its officers, employees, affiliates, resellers, partners and distributors harmless against all claims, costs, damages and expenses, and reasonable attorney fees arising out of, directly or indirectly, any claim or personal injury or death associated with such unintended or unauthorized use, even if such claim alleges that **Xtreme Power** was negligent regarding the design or manufacture of the product.

Logistics and Shipping

Unless otherwise stated, the warranty period begins on the date the **Xtreme Power** product is shipped to the customer when shipped from an **Xtreme Power** owned facility. In cases in which products are purchased through and shipped from a Distributor or a Reseller, the warranty period begins 60 days from the date of shipment from **Xtreme Power**.

If a **Xtreme Power** product is found to be defective, **Xtreme Power** will, at its sole discretion either ship the customer a new replacement product or repair the returned product. The customer must return the defective unit to **Xtreme Power** within 30 days of issuance of the RMA.

All standard ground shipping charges, within the continental United States, will be paid by the customer, however, **Xtreme Power** may choose to pay for shipping depending upon circumstances.

All shipments of products to **Xtreme Power** must be prepaid. Shipments arriving collect to **Xtreme Power** will be refused and returned to the customer.

In cases in which **Xtreme Power** chooses to pay for the shipping and if the customer requests air shipment from **Xtreme Power**, the customer will be responsible for the difference between the air freight charges and standard ground freight charges.

Note: In cases of improper use, shipping damage due to improper packing or retest (no trouble found), the customer will be liable all shipping charges.

Shipping List

No.	Inclusion of items	Number
1	UPS	1
2	User's and Installation Manual	1
3	Intelligent monitoring software	1
4	USB Computer port cable	1

