

**X.TREME
P O W E R
C O N V E R S I O N**

U P S

Uninterruptible Power System

**Xtreme Value Rack Tower (XVRT)
Line-Interactive Rack-Mount
Network UPS**

**600VA/ 1000VA/ 1200VA
1500VA/ 2200VA/ 3000VA**

■ USER'S MANUAL ■

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Introduction

Please read and save this manual!

Thank you for selecting this uninterruptible power system (UPS). It provides you with a perfect protection for connected equipment. The manual is a guide to install and use the UPS. It includes important safety instructions for operation and correct installation of the UPS. If you should have any problems with the UPS, please refer to this manual before calling customer service.

Please save or recycle the packaging materials!

The UPS's shipping materials are designed with great care to provide protection within delivery. These materials are invaluable if you ever have to return the UPS for service. Damage happened during transit is not covered under the warranty.

Intelligent microprocessor control

The UPS is a microprocessor-controlled unit. This means that it operates with the newest technology, high performance and powerful function.

The UPS is an intelligent protector and provides pure, reliable AC power to the critical loads - protecting them from utility power blackout, swells, sags and interference.

Furthermore, in order to save the battery energy, the UPSs can automatically turn it off under backup mode if none of the connected loads is operating.

Advanced battery management

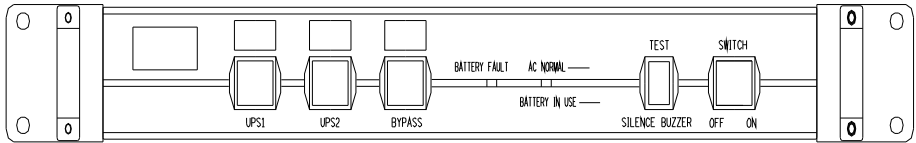
The visual and audible indications of the UPS present the battery's status. The self-test function allows the UPS to detect a weak battery before it is put into service. The UPS normally performs a self-test at power up condition.

1. Important Safety Instructions

- **SAVE THESE INSTRUCTIONS** - This Manual Contains Important Instructions that should be Followed during Installation and Maintenance of the UPS and Batteries.
- Intended for Installation in a Controlled Environment.
- Servicing of batteries should be performed or supervised by personnel knowledgeable of batteries and their required precautions. Keep unauthorized personnel away from batteries.
- When Replacing Batteries, replace With the Same Number and Type
- **CAUTION** - Do Not Dispose of Battery or Batteries in a Fire, The Battery May Explode.
- **CAUTION** - Do Not Open or Mutilate the Battery or 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:
 - Remove watches, rings or other metal objects.
 - Use tools with insulated handles.
 - Wear rubber gloves and boots.
 - Do not lay tools or metal parts on top of batteries.
 - Disconnect charging source prior to connecting or disconnecting battery terminals.

2. Presentation

Front Panel (600VA/ 1000VA), 1U size



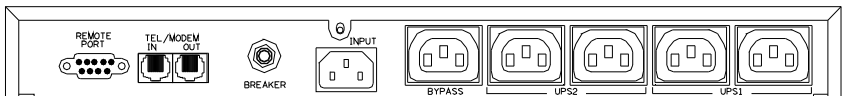
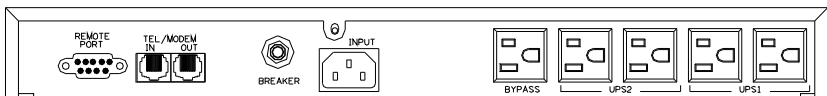
Front Panel (1200VA/ 1500VA), 2U size



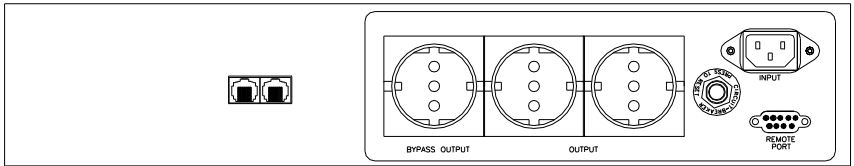
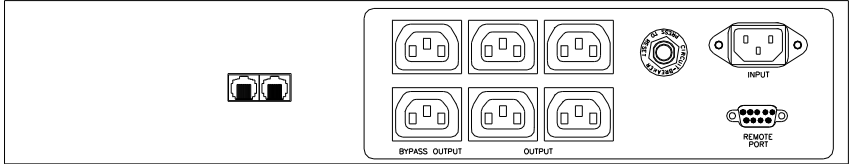
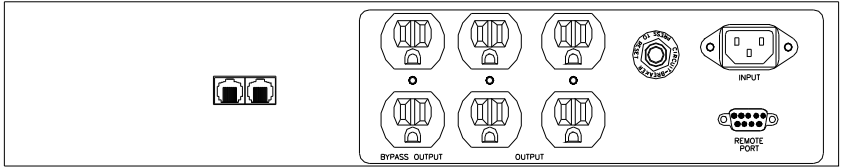
Front Panel (2200VA/ 3000VA), 3U size



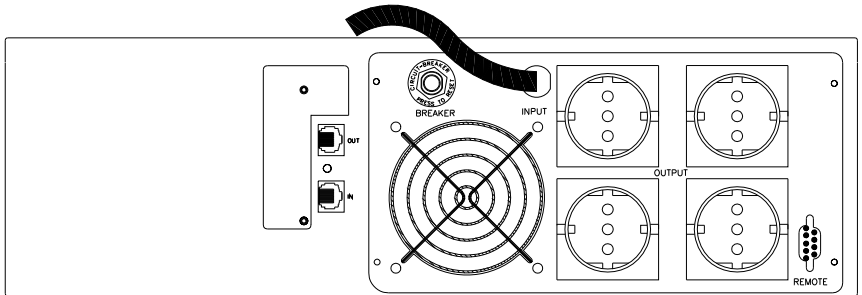
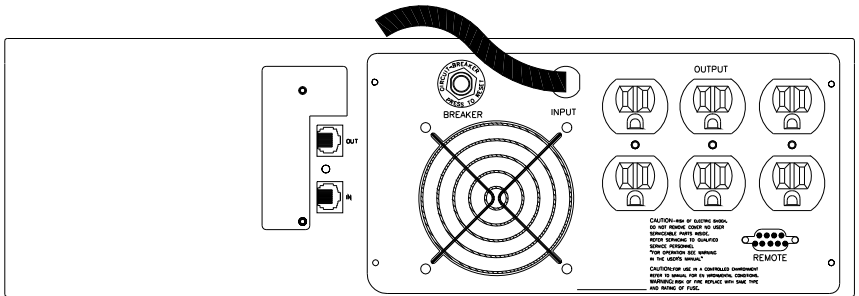
Back Panel (600VA/ 1000VA), 1U size



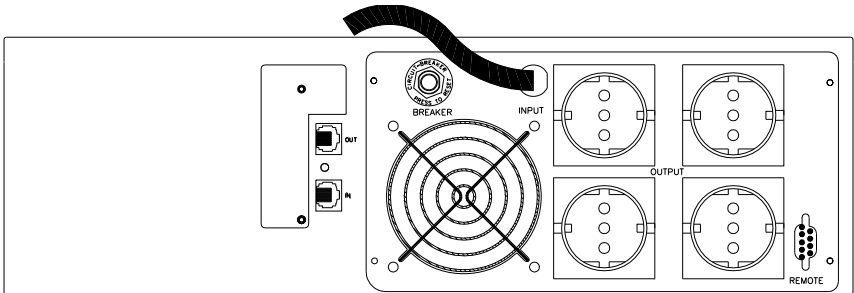
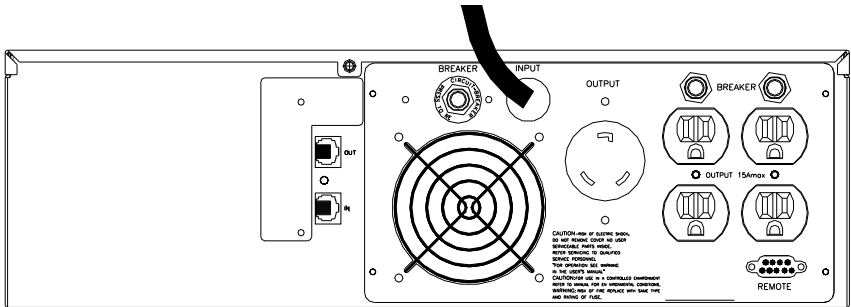
Back Panel (1200VA/ 1500VA), 2U SIZE



Back Panel (2200VA), 3U SIZE



Back Panel (3000VA), 3U SIZE



2.1 “Power On” Indicator

Power On indicator illuminates when utility power's condition is normal.

2.2 “BACKUP” indicator

The indicator illuminates when the power is supplied from the batteries.

2.3 “Battery Fault” Indicator

This illuminates indicating weak battery. Recharge the battery for at least four hours. If after recharging this is still illuminated, replace the battery by following the instructions in the manual. (You can plug out then check battery)

2.4 Power Switch

Can be used as the master on/off switch of your equipment by leaving your equipment connected to UPS and switched on.

2.5 UPS Outlets

Provide instantaneous back-up power protection to your equipment. Supply temporary uninterrupted operation for your equipment during power failure.

2.6 Bypass Power Sag Outlets

Provides bypass power sag protection to your equipment. Prevent power

problems traveling through your system via unprotected peripherals.

2.7 Circuit Breaker Protection

Serves as an overload and fault protection. This is a critical component of the advanced UPS

2.8 “Phone Jack” Communications Ports

Telecom transfer ports provide users to extend the applications.

- **Caution:** To reduce the risk of fire, use only No. 26AWG or larger telecommunication line cord.

2.9 communication function

Provide RS-232 interface and UPSMON software to support NOVELL, UNIX, DOS, WINDOWS and other operating systems.

3. Installation

Inspect the UPS upon receipt. The packaging is recyclable; keep it for reuse or dispose of properly.

3.1 Recharge the battery

UPS may be used by anyone immediately upon receipt. The battery is fully charged before shipping from the factory. However, the user is recommended to recharge the battery for at least eight hours before using UPS. Energy loss may occur during shipping or long duration storage. To recharge the battery, simply plug in the UPS to a wall outlet and let it charge.

3.2 Connect the loads

Plug your primary equipment (e.g. computer, monitor and critical data storage device, etc.) to the Battery Power-Supplied outlets. Plug your peripheral equipment (e.g. printer, scanner, fax, or audio device) to the bypass outlets. Do not plug a laser printer into the UPS output outlets, as its power demand is much higher than typical peripherals and may cause the circuit breaker to trip. It is suggested to connect similar heavy loads (like laser printer) to the bypass outlets.

3.3 Connect the telephone

If you wish to protect a fax or a modem, connect the telephone cable from the wall outlet to the “IN” jack. Connect the telephone cable (provided) from the “OUT” jack to the fax or modem. To protect a 10Base-T (UTP) network interface, obtain and use a UTP cable to connect the “OUT” jack to your computer.

3.4 Connect to the utility power

Plug UPS to a 2-pole, 3-wire grounding receptacle. Make sure the branch is protected and does not service equipment requiring heavy electricity (e.g. refrigerator, air conditioner, copier, etc.). Avoid using extension cords; if used, make sure they are rated for at least 15 Amps (A).

Special Note:: concerning connection to utility power . Size of Branch Circuit Overcurrent Protection - "CAUTION - To reduce the risk of fire, connect only to a circuit provided with 30 amperes maximum branch circuit overcurrent protection in accordance with the National Electric Code, ANSI/NFPA 70".

3.5 UPS self-test

UPS will conduct a self-test once switched on it each time. Do not add or take off

any equipment while UPS conducts self-test; await it until the Power indicator lights up. Besides this, switch on your equipment after the UPS is switched on..

3.6 Battery auto-charging

Once the power cord is connected, the battery of the UPS will be automatically charged by the UPS..

3.7 Overload protection

If an overload situation is detected during the self-test, UPS audible alarm will activate, emit a long beep and automatically shut down the system. Unplug at least one piece of equipment from the Battery Supplied Outlets. Switch off UPS, wait 5 seconds and check to make sure the circuit breaker is set then switch on, again.

3.8 Optimal battery status

To maintain the optimal status of battery, make sure the UPS remains plugged in..

3.9 Self-protection feature

UPS is equipped with a self-protection feature preventing people users from damaging the unit. It is programmed so that once switched off, the user must wait 5 seconds before switching UPS on again.

3.10 Storage

To store UPS, cover it and store it with the battery fully charged. During extended storage, recharge the battery every three months to ensure battery life.

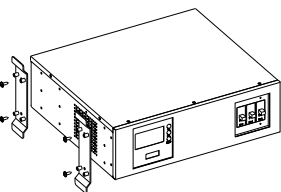
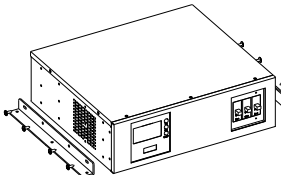
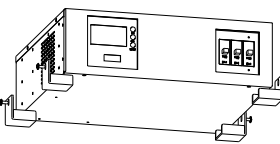
3.11 Power failure

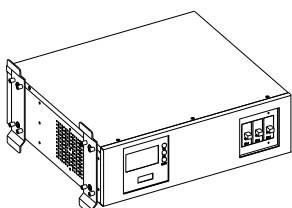
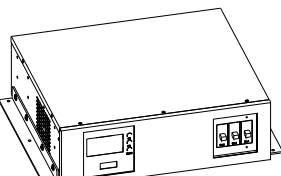
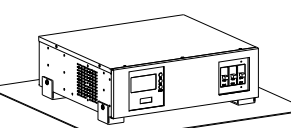
When the event of power failure occurs after turning on UPS, and prior to the self-test sequence, UPS will automatically shut down and not restart until utility power is restored. This is necessary to check the quality of power that is delivered to your connected equipment.

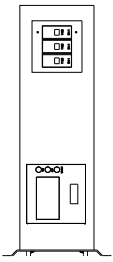
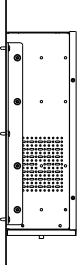
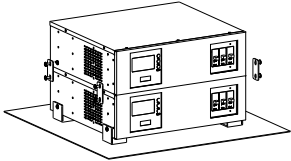
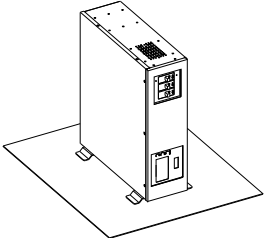
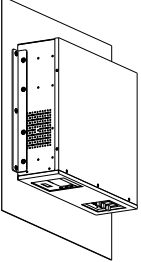
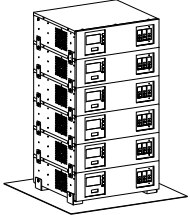
3.12 Installation with accessories of “Rack-mount” types:

Please install the rack-mount type units according to the following illustration.

<p>Installation with bottom plate. Part RMB-08 (1U), RMB-09 (2U), RMB-10 (3U), RMB-11 (4U) 2 PCS.</p>	<p>Installation with bottom bracket. Part RMB-12 (1U~4U) 2 PCS.</p>	<p>Installation with rear bracket Part RMB-13, RMB-14 (2U-4U) 4 PCS.</p>
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 <p>Step 1</p>	 <p>Step 1</p>	 <p>Step 1</p>
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Step 2	Step 2	Step 2
		
Step 3	Step 3	Step 3
		
Step 4	Step 4	Step 4

4. Operation

4.1 Simple test

It is recommended that the user perform a simulation test when using UPS for the first time or when adding an additional piece of equipment. Conduct a simulation-test: first, switch on UPS and wait for the power indicator to light up, then simply unplug UPS to simulate the event of utility failure.

4.2 Check the power requirement of your equipment

4.2.1. Make sure the total power of your equipment does not exceed rating capacity.

4.2.2. Also make sure the equipment you plugged into the Battery Power-Supplied outlets does not require total power exceeding the capacity of the UPS. Otherwise, overload may occur and cause the circuit breaker to trip. If the power requirement of your equipment differs from VA, convert the requirement power into VA by doing the calculations below:

4.2.3. If the power requirement of your equipment is listed other than VA, convert the requirement into VA by doing the calculations below.

___ Watt (W) X 1.67 = ___ VA, or ___ Amps(A) X 120= ___ VA (For 100-120V model)

___ Watt (W) X 1.67 = ___ VA, or ___ Amps(A) X 230= ___ VA (For 220-240 model)

4.3 Limited rating power of UPS

When utility failure occurs, the UPS output outlets will supply power to your equipment from its battery and the alarm will beep every 5 seconds. Be sure that your equipment is running under the limited rating power. To restore the utility by plugging UPS back in to the existing power source. Repeat the test a few times to make sure UPS works properly and to find out the expected runtime.

5. Software and Computer Interface

5.1 Power Monitoring Software

The UPSMON series software (or other power monitoring software) is applied via a standard RS-232 interface to perform monitoring functions, and then provides an orderly shutdown of a computer in the event of power failure. Moreover, UPSMON displays all the diagnostic symptoms on the monitor, such as Voltage, Frequency, Battery level and so on. The software is available for DOS, Windows 3.1x, Windows 95/97/2000/ME/XP, Windows NT or later, Novell Netware, Linux and others. Call your dealer for more information on computer OS compatible solutions.

5.2 Interface Kits

A series of interface kits is available allowing UPS monitoring. Each interface kit includes the special interface cable required to convert status signals from the UPS into signals which individual operating system recognize. The interface cable at UPS side must be connected to the REMOTE PORT, at computer side the connection can be either COM 1 or COM 2. For other installation instructions and powerful features, please refer to READ.ME file contained within the UPSMON software.

5.3 The characteristics of the computer interface port

The computer interface port has the following characteristics:

The communication port on the back of the UPS may be connected to host computer. This port allows the computer to monitor the status of the UPS and control the operation of the UPS in some cases. Its major functions normally

include some or all of the following:

- To broadcast a warning when power fails.
- To close any open file before the battery is exhausted.
- To turn-off the UPS.

Some computers are equipped with a special connector to link with the communication port. In addition, special plug-in cord may be needed. Some computers may need special UPS monitoring software. Contact your dealer for the details on the various interface Kits.

Attention: UPSMON software and interface port function just available for model name with "P" affix. The standard RS-232 cable (pin to pin D-SUB 9 pin cable) can be connected between UPS REMOTE PORT and computer COM port for the UPSMON series software. UPSMON software can be free download from www.xpcc.com

6. Battery Cabinet

6.1 Battery's life of UPS

The battery's life of UPS is about 3-6 years under normal usage.

6.2 Battery Replacement

Once the UPS's battery is no longer useful and must be replaced. Please call the service personnel to replace it.

Appendix a Troubleshooting

UPS has a self-protect feature that prevents the UPS from being damaged as a result of overheating. If the temperature is higher than 55°C, wait for a while and allow t the UPS to cool down..

Problems	Possible Cause	Solution
Full-time Bypass outlets stop providing power to the equipment	Circuit breaker button popped up as a result of overload.	Unplug at least one piece of equipment from the Full-time Bypass outlets. Switch off UPS, wait 5 seconds, reset the circuit breaker (press down breaker button), then switch on UPS.
UPS doesn't perform to its expected runtime.	Battery undercharged or depleted due to frequent power outages.	Recharge the battery by leaving the UPS plugged in and switched on.
	The power required by your equipment slightly exceeds the capacity of the UPS.	Unplug at least one piece of equipment from the UPS outlets.
	The battery is slightly worn-out.	Call the service personnel to replace the battery.
UPS cannot be turned on.	Special UPS is designed to prevent damage from flipping.	Switch UPS off, wait for 5 seconds, then switch UPS on.
	The battery is worn-out.	Replace the battery by following the instructions in this manual.
	Mechanical problem.	Contact your sales representative.

Appendix b Specifications

MODEL			600VA	1000VA	1200VA
Input	Capacity	(On Battery)	600VA/360W	1000VA/600W	1200VA/720W
		(Surge protection)	500VA	500VA	500VA
	Voltage		+/-25% at line input		
	Frequency		50 or 60 Hz +/-10% (auto sensing)		
Output	Voltage (on battery)		Simulated sine wave at 100V/115V/230V +/- 5%		
	Frequency (on battery)		50 or 60 Hz +/- 0.5%		

	Voltage Regulation (AVR)	AVR automatically increase output voltage 15% above input voltage if -9% to -25% of nominal. AVR decrease output voltage 13% below input voltage if +9% to +25% of nominal
	Transfer Time	2/4 milliseconds, including detection time
Protection and Filtering	Spike Protection	320 Joules, 2ms
	EMI/RFI filter	10Db at 0.15MHz, 50dB at 30MHz
	Overload Protection	UPS automatic shutdown if overload exceeds 110% of nominal at 60 seconds and 130% at 3 seconds
	Unit Input	For overload & Short circuit protection
	10Base-T Cable Port	Network (UTP, RJ-45) compatible jacks
	Short Circuit	UPS output cut off immediately or input fuse protection
Battery	Type	Sealed, Maintenance-free lead acid
	Typical Recharge Time	8 hours (to 90% of full capacity)
	Protection	Automatic self-test & discharge protection, Replace battery indicator
	Back-up Time	3- 180 min (depending on computer load)

MODEL			1500VA	2200VA	3000VA
Input	Capacity	(On Battery)	1500VA/900W	2200VA/1320W	3000VA/1800W
		(Surge protection)	500VA for 220-240V Models only	N/A	N/A
	Voltage		+/-25% at line input		
	Frequency		50 or 60 Hz +/-10% (auto sensing)		
Output	Voltage (on battery)		Simulated sine wave at 100V/115V/230V +/- 5%		
	Frequency (on battery)		50 or 60 Hz +/- 0.5%		
	Voltage Regulation (AVR)		AVR automatically increase output voltage 15% above input voltage if -9% to -25% of nominal. AVR decrease output voltage 13% below input voltage if +9% to +25% of nominal		

	Transfer Time	2/4 milliseconds, including detection time
Protection and Filtering	Spike Protection	320 Joules, 2ms
	EMI/RFI filter	10Db at 0.15MHz, 50dB at 30MHz
	Overload Protection	UPS automatic shutdown if overload exceeds 110% of nominal at 60 seconds and 130% at 3 seconds
	Unit Input	For overload & Short circuit protection
	10Base-T Cable Port	Network (UTP, RJ-45) compatible jacks
	Short Circuit	UPS output cut off immediately or input fuse protection
Battery	Type	Sealed, Maintenance-free lead acid
	Typical Recharge Time	8 hours (to 90% of full capacity)
	Protection	Automatic self-test & discharge protection, Replace battery indicator
	Back-up Time	3– 180 min (depending on computer load)

MAXIMUM Ambient Temperature For Operation	0-35C for Ambient operation
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All trademarks are property of their respective owners. Specifications subject to change without notice.

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

Limited Three Year Warranty

XVRT Series UPS products are warranted free from defects in material and workmanship for three 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 two years. 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 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 or will be charged full price for the replacement unit.