


Tetrex 500

USER MANUAL



Quick Start

- ❶ Put the unit in a dry, clean place.
- ❷ Plug the unit into a power outlet. Plug in the loads.
-  Never plug in a laser printer or plotter. These kind of loads can draw more power than the unit can provide
- ❸ Press the On/Off button for 1 second.
The green LED on the front panel turns on. If it doesn't, do troubleshooting as outlined in this manual.
- ❹ One at a time, turn on the loads.
If the buzzer is continuously on, the unit is over loaded. Turn off unnecessary loads.
- ❺ To turn the unit off, press the On/Off button for more than 3 seconds.

Safety Instructions



Do not expose this unit to water.

This unit contains sealed lead-acid batteries:

- ⚠ Servicing should be done by people qualified in the care of high-energy power supplies.
- ⚠ Use insulated tools.
- ⚠ Remove rings, watches, or other metal objects before opening the unit.
- ⚠ Do not open the battery. Its contents are toxic.
- ⚠ Do not short the battery terminals. This may cause a fire or explosion.
- ⚠ Do not put the battery in a fire to dispose of it. It may explode.

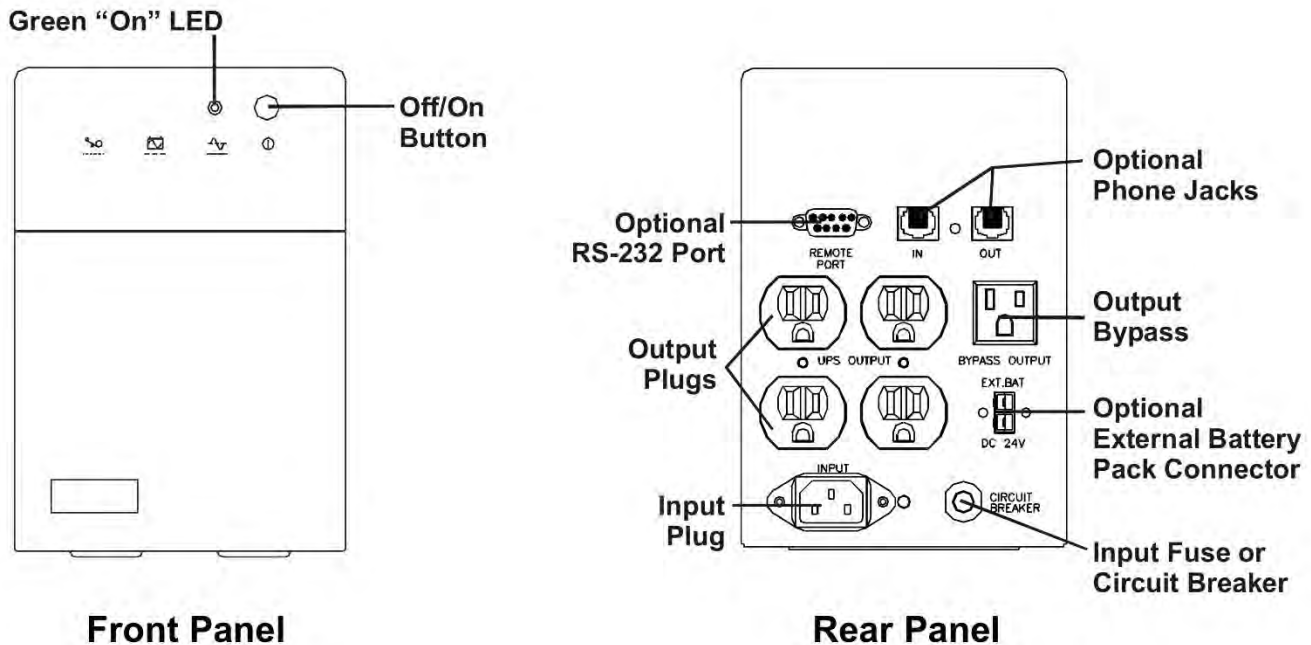
Save This Manual

It contains important installation and operating instructions.
Keep it in a safe place.

The Alpha Tetrex UPS

The Alpha Tetrex Uninterruptible Power Supply (UPS) is a microprocessor-controlled line inter- active unit designed for indoor use. It has automatic frequency sensing to match the output frequency with the input's. If the output is overloaded, the unit automatically shuts down to protect the loads.

The drawings below are for illustrative purposes only. See your unit for the exact type, number and location of the connectors and controls used.



Using the On/Off Button

AC start with green mode on: When the unit is connected to line power, press this button for 1 second to turn on the unit.



Green mode: When green mode is on and the line becomes unqualified and less than 20 watts of power is drawn by the loads, the unit automatically turns off. When the line is requalified, the unit automatically turns on.

AC start with green mode off: When the unit is connected to line power, press this button until the beeping stops. The unit is turned on and green mode is disabled.

DC start with green mode on: This starts the unit when line power is absent or unqualified. Press this button for up to three seconds. Backup battery power is provided to the loads.

DC start with green mode off: This starts the unit when line power is absent or unqualified. Press this button until the unit starts beeping. Backup battery power is provided to the loads and green mode is disabled.

Using the On/Off Button (Continued)

Shut off: Press the on/off button for more than 3 seconds.

Self test: When the unit is connected to line power, press the on/off button.

Buzzer off: Except for the low battery and overload alarms, turn off the buzzer by pressing the on/off button for 1 second.

Alarms and Troubleshooting

This unit has several audible alarms. To turn off the alarm, press the power button.

Slow Alarm (1 beep every 2 seconds): Most alarms except for low battery and overload. See the troubleshooting table.

Low Battery Alarm (1 beep every 1/2 second): The unit is operating on battery power and the battery is almost discharged. This alarm cannot be shut off.

Overload (continuous beeping): The unit is overloaded and it automatically turns itself off. Disconnect unnecessary loads and restart the unit. This alarm cannot be shut off.

Symptom	Troubleshooting Table Causes	Action
Unit does not turn on, the LED is not on.	The power switch is not pushed.	Push it for more than 1 second
	Battery voltage less than 20 VDC.	Plug the unit into the line for at least 6 hours to recharge the battery then restart.
	Load less than 20W when unit is in battery mode.	This is normal. The unit's "green mode" is active.
	PCB failure.	Contact AOE.
Unit is always in battery mode.	Power cord loose.	Plug it in.
	AC fuse blown or breaker tripped.	Replace the fuse or reset the breaker.
	PCB failure.	Contact AOE.
Backup time less than predicted	Battery is not charged.	Plug the unit into the line for at least 6 hours to recharge the battery then restart.
	PCB failure.	Contact AOE.
The buzzer is continuously beeping	The unit is overloaded.	Turn off some of the loads.

Communications

The Alphamon software and the unit's RS-232 port lets you remotely monitor and control the unit. The software is supported by DOS, Windows 3.1/95/98/2000/ME/XP/NT, Novell Netware and Linux. Contact AOE for more information.

The software lets you:

- Turn off the unit.
- Set up an alarm when line power is unqualified.
- Shut off power to the loads before the battery is drained.

Cable kits to connect your unit to a computer are available from Alpha and Outback Energy (AOE). Installation instructions are in the "read me" file in the software.

Specifications								
	00	500	600	800	1000	1200	1500	2000
Electrical								
Output Power	400VA / 240W	500VA / 300W	600VA / 360W	800VA / 480W	1000VA / 800W	1200VA / 720W	1500VA / 900W	2000VA / 1200W
Input Voltage (VAC)	100 / 110 / 115 / 120 / 220 / 230 / 240 ± 25% at the unit's input.							
Input Frequency (z)	50 / 60 ± 10% (Unit has auto frequency sensing)							
Output Voltage (VAC) Backup mode	Simulated sine wave voltage 100 / 110 / 115 / 120 / 220 / 230 / 240 ±5%.							
Output Frequency (z) Backup mode	50 / 60 ± 1%							
Voltage Regulation (AVR)	AVR automatically increases the input voltage by 15% if the line is -9% to -25% of nominal. AVR decreases the input voltage by 13% if the line is +9% to +25% of nominal.							
Transfer Time (mSec)	2 to 4, including detection time.							
Safety	UL, CSA, CE							
Protection								
Spike Protection	480 Joules, 2 mSec							
Input	Fuse or circuit breaker							
Overload	Automatic power off if overload exceeds 110% of nominal for 60 seconds or 130% for 3 seconds.							
Short Circuit	Automatic power off or input fuse protection.							
Battery								
Type	Sealed, maintenance free, lead-acid with 3 to 6 years typical lifetime.							
Typical Recharge Time	6 hours to 90% of full capacity.							
External Battery Option	No				Yes			
Protection	Auto discharge protection.							
Mechanical								
Dimensions W x D x H ; in (mm)	3.8 x 12.5 x 5.3 (9 x 320 x 135)				15 x 5.1 x 7.5 (382 x 130 x 192)			
Weight lbs (kg)	12.43 (5.65)	14.17 (6.44)	14.30 (6.5)	14.52 (6.6)	29.5 (13.4)	29.5 (13.4)	30.0 (13.6)	32.0 (14.5)
Input connector	IEC 320 inlet							
Output Connectors	NEMA 5-15R (115 V), IEC 320 female (220 V)							

		Specifications							
		00	500	600	800	1000	1200	1500	2000
Environment									
Altitude ft (m)		11,500 (3500)							
Storage Altitude ft (m)		9,000 (15,000)							
Humidity		0 to 95 (non-condensing)							
Audible Noise 1 m		0 dBA							
Operating Temperature ° C (F)		0- 0 (32-10)							

Specifications subject to change without notice.

Warranty

LIMITED 24-MONTH WARRANTY AC PRODUCTS

AOE warrants its equipment to be free of manufacturing defects in material and workmanship for a period of 24 months from the date of manufacture. The liability of AOE under this warranty is solely limited to repairing, replacing, or issuing credit for such equipment (at the discretion of AOE), provided that:

1. AOES' Customer Service Department is promptly notified, by facsimile or telephone, that a failure or defect has occurred.
2. AOE' Customer Service Department issues a Return Materials Authorization (RMA) number, and designates the service location. The RMA must be clearly marked on the outside of the shipping container.
3. Purchaser is responsible for all in-bound shipping and handling charges (COD and freight collect will not be accepted without prior approval from AOE) AOE will pay out-bound surface shipping charges for return of repaired equipment.
4. A satisfactory examination of the returned unit by AOE' Service personnel shall disclose that defects have not been caused by misuse, neglect, improper installation, repair, alteration, or accident, or failure to follow instructions furnished by AOE. If AOE' Service personnel determine that the unit has been damaged due to one of these causes, or if the unit is free of defects, a handling or repair fee may be assessed prior to returning the unit.

WITH RESPECT TO BATTERIES, PERIPHERAL DEVICES, ATTACHMENTS OR APPARATUS NOT MANUFACTURED BY AOE, AOE WILL ASSIGN TO THE PURCHASER ITS RIGHTS UNDER THE ORIGINAL MANUFACTURER'S WARRANTY OF SUCH BATTERIES, PERIPHERAL DEVICES, ATTACHMENTS OR APPARATUS, BUT OFFERS NO ADDITIONAL WARRANTIES IN CONNECTION THEREWITH.

THIS LIMITED 24-MONTH WARRANTY IS IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.

IN NO CASE SHALL AOE BE LIABLE FOR ANY INCIDENTAL, SPECIAL OR CONSEQUENTIAL DAMAGES WHATSOEVER, INCLUDING WITHOUT LIMITATION ANY CLAIM FOR LOST PROFITS OR REVENUES, EVEN IF AOE HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH, FOR BREACH OF THIS OR ANY OTHER WARRANTY, EXPRESS OR IMPLIED.

Any action for breach of this limited 2 -month warranty must be brought within a period of 2 months from date of manufacture.

This limited 2 -month warranty does not extend to any unit that has been repaired or altered by any party other than AOE or its Authorized Service Center.

AOE reserves the right to discontinue particular models and to make modifications in design and/or function at any time, without notice and without incurring obligations to modify previously purchased units.

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