

USER GUIDE / GUIDE D'UTILISATEUR / BENUTZERHANDBUCH / MANUALE UTENTE  
/ GUÍA DEL USUARIO / INSTRUKCJA OBSŁUGI ZASILACZA AWARYJNEGO

# Axxium Rackmount

1000 VA, 1500 VA, 2000 VA, 3000 VA

---

# Languages

---

<b>English</b> . . . . .	<b>.3</b>
<b>Français</b> . . . . .	<b>.27</b>
<b>Deutsch</b> . . . . .	<b>.51</b>
<b>Italiano</b> . . . . .	<b>.73</b>
<b>Español</b> . . . . .	<b>.95</b>
<b>J. polski</b> . . . . .	<b>.117</b>

Axxium<sup>®</sup>

Rackmount

1000 VA, 1500 VA, 2000 VA, 3000 VA

User Guide

Guide d'utilisateur

Benutzerhandbuch

Manuale Utente

Guía Del Usuario

Instrukcja Obsługi Zasilacza Awaryjnego

LTM-1326D

© Copyright 1999, Best Power. All rights reserved.

Tous droits réservés.

Alle Rechte vorbehalten.

Tutti i diritti riservati.

Reservados todos los derechos.

Wszelkie prawa zastrzeżone.



---

# If You Have a Question

---

Best Power is committed to outstanding customer service. Worldwide Service is happy to help you with your problems or questions. Trained service technicians are available 24 hours a day, 365 days a year. Just call Worldwide Service or the nearest Best Power office, or send a fax to the Worldwide Service Fax number. Please have your unit's serial number available when you call; this number is on the back of the unit.

If you prefer, you can contact Best on the World Wide Web to get more product information.

Best Power's toll free Fax-on-Demand service is also available 24 hours a day to give you access to technical notes and product information.

- . . . . .Worldwide Service: 1-800-356-5737 (U.S., Canada) or 1-608-565-2100
- . . . . .Worldwide Service FAX: 1-608-565-7642 or 1-608-565-2509
- . . . . .World Wide Web Site: <http://www.bestpower.com>
- . . . . .Sales Fax on Demand: 1-800-487-6813 (U.S. and Canada)
- . . . . .Service Fax on Demand: 1-608-565-9499 ext. 9000

Best Power Offices Section (see Table of Contents), lists Best Power offices around the world.

Best Power reserves the right to change specifications without prior notice.

---

# Table of Contents

---

If You Have a Question	2
Safety Instructions	4
UPS Features	5
Rack Installation	7
Wall Mount Installation	8
Connection to External Battery Packs	9
Quick Startup	10
Symbols, LEDs and Audible Beeps	11
BestDock™	13
Troubleshooting	14
Replacing the Batteries	15
Battery Replacement Instructions	16
Communication Port	17
DB-9 Pinouts	17
Specifications	18
Warranty	20
Warranty Registration	23
Best Power Offices	24

## Trademarks

---

Windows is a registered trademark of Microsoft Corporation.

All other brand and product names are trademarks or registered trademarks of their respective holders.

---

# Safety Instructions

---

## IMPORTANT SAFETY INSTRUCTIONS! SAVE THESE INSTRUCTIONS!

This User Guide contains important instructions for your Axxium Rackmount that must be followed during installation and maintenance of the UPS and batteries.



### CAUTION!

Whenever the Axxium Rackmount is “On,” there may be dangerous voltage present at the unit’s outlets. This is true because the unit’s battery supplies power even if the unit is not plugged into the wall outlet. The unit contains dangerous voltages.

To reduce the risk of electric shock, install in a temperature-controlled and humidity-controlled indoor area free of conductive contaminants.

The power supply cord is intended to serve as the disconnect device. The socket-outlet shall be near the equipment and shall be easily accessible.

With the exception of the user-replaceable batteries, all servicing of this equipment must be performed by qualified service personnel.

Before maintenance or repair, all connections must be removed. Before maintenance, repair or shipment, the unit must be completely switched off and unplugged or disconnected.

The installation and use of this product must comply with all applicable national, federal, state, municipal or local codes. For assistance, call Best Power’s Worldwide Service or your local Best Power office.

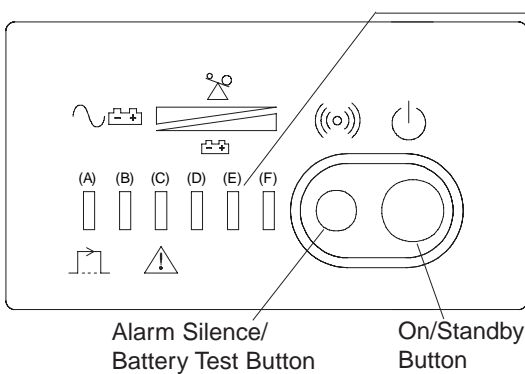
Refer to your Best Safety Manual for additional safety instructions.

If the Axxium Rackmount unit has been damaged during shipment, call your vendor immediately.

*If the Axxium Rackmount unit is stored, the batteries should be recharged every 6 months. If stored above 25° Celsius (77° Fahrenheit), recharge the batteries more often.*

# UPS Features

The Axxium Rackmount provides protection against power problems, including power outages, brownouts, and sudden increases in power. It also provides spike suppression and line noise filtering to protect your equipment. Front panel LEDs and an audible alarm keep you aware of the unit's status. Use the drawings on this and the following page to identify features of the unit.



Status/Alarm LEDs

A: Line/Bypass

B: Battery Mode/Site-Fault Warning

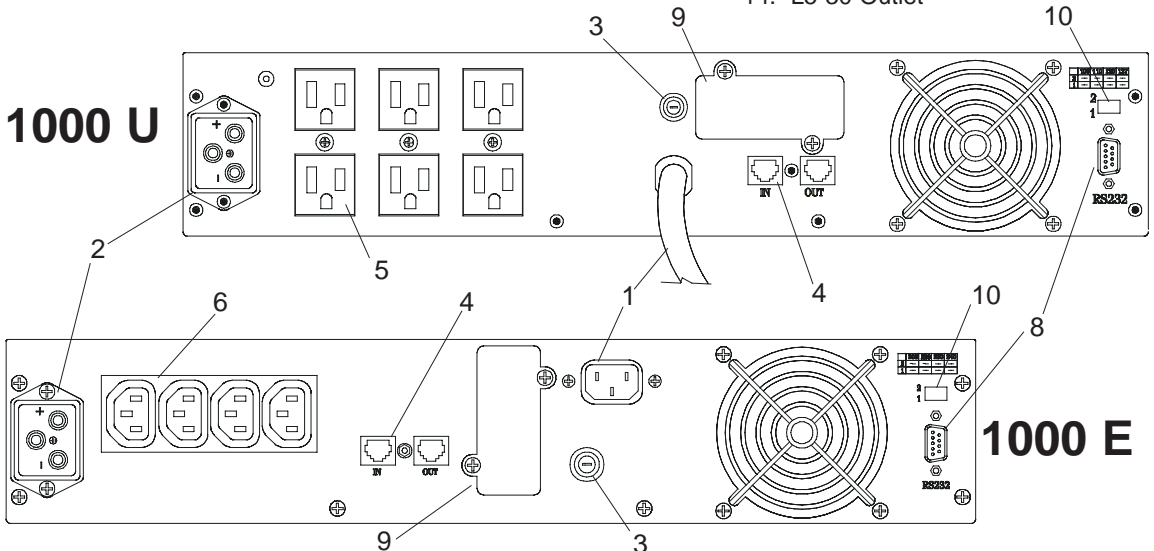
C – F: % Load or Battery Charge (see page 11)

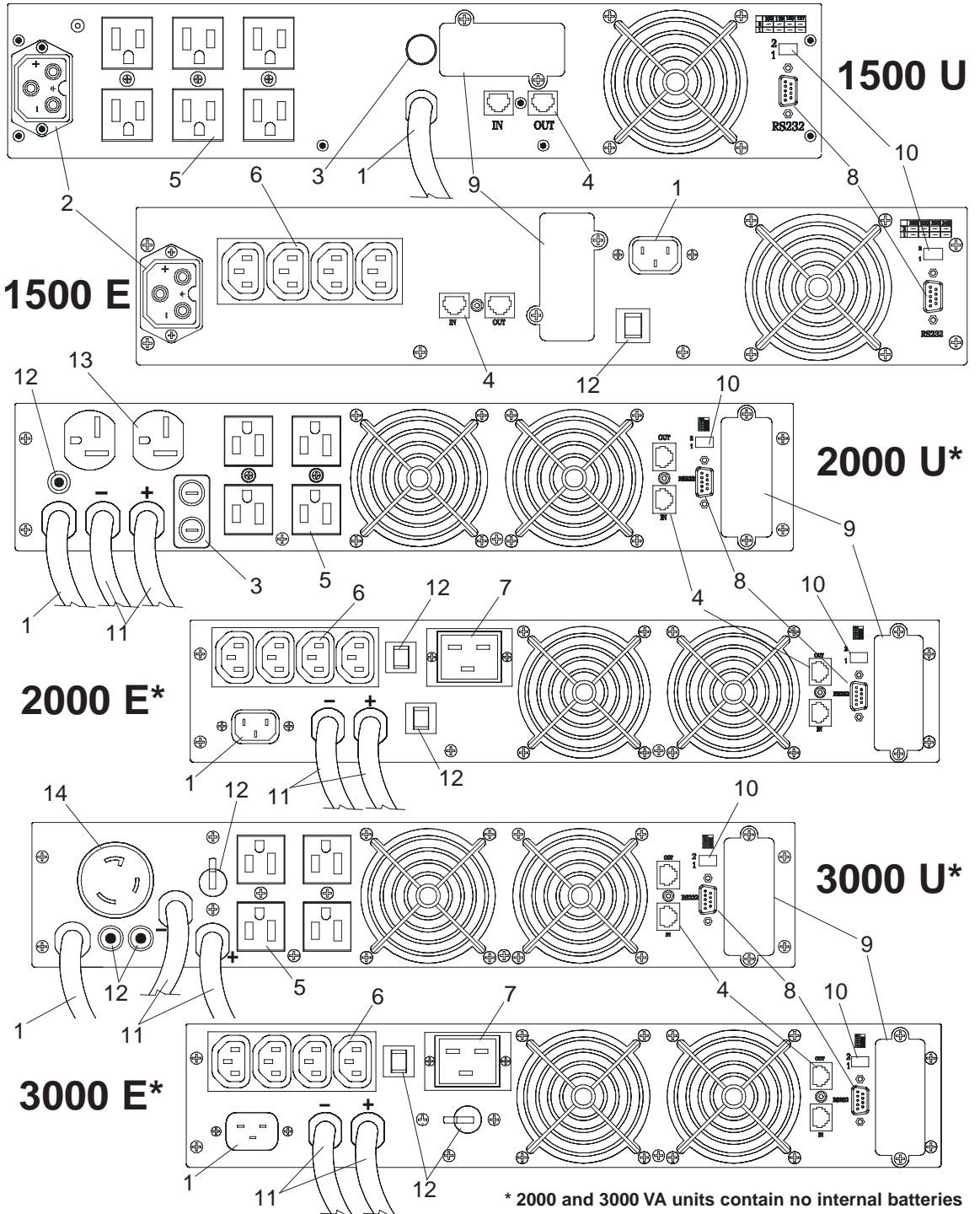
**Axxium Rackmount Controls and Indicators**

## Back Panel Details

1. Input Power Connector or Cord
2. External Battery Connector
3. Fuse
4. RJ11/RJ45 Jacks
5. 5-15R Outlets
6. IEC 320 Outlets
7. CEE19 Outlet
8. DB9 Communication Port
9. BestDock Access Panel
10. Voltage Selection Switches
11. External Battery Cables
12. Circuit Breaker
13. 5-20R Outlets
14. L5-30 Outlet

## Axxium Rackmount Back Panel Views







---

# Rack Installation

---

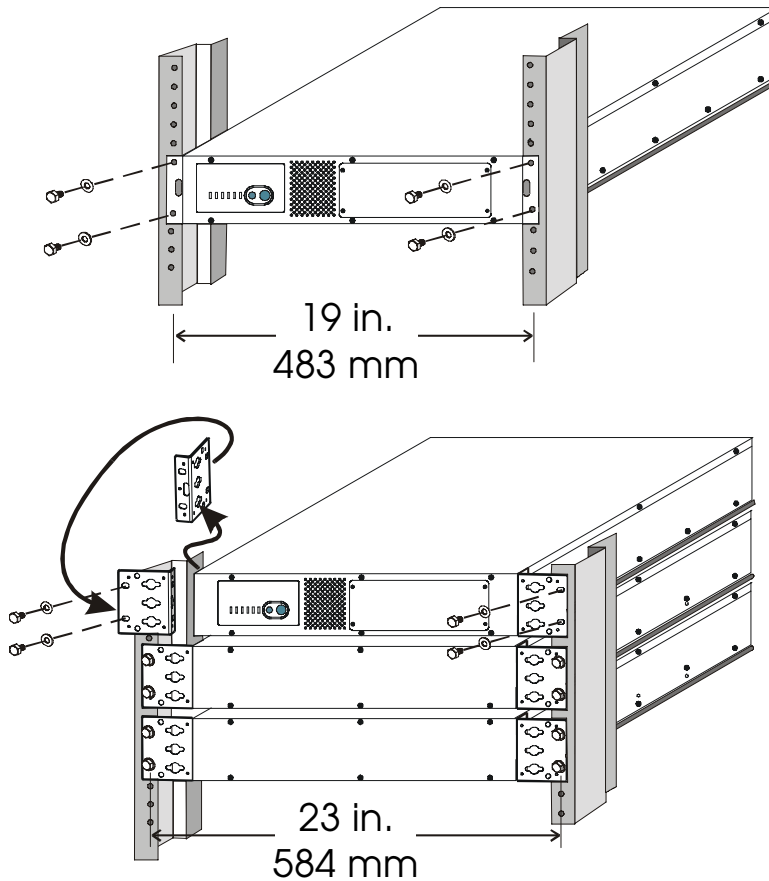
Mount the Axxium Rackmount in a 19-inch (483-mm) or 23-inch (584-mm) EIA 310 C standard rack.

To mount in a 23-in. (584-mm) rack, change the position of the two mounting brackets as shown.

Install a stationary shelf or supporting angle brackets (available as standard rack hardware from electronics distributors) below the intended rack location for the Axxium Rackmount. Secure the shelf or brackets at both the front and back of the rack using bolts, nuts, and washers.

Carefully lift the unit onto the shelf or brackets and slide it into the rack as shown below. The mounting holes on the sides of the front panel should match the holes in the rack.

Use bolts and washers to attach the unit securely to the rack.



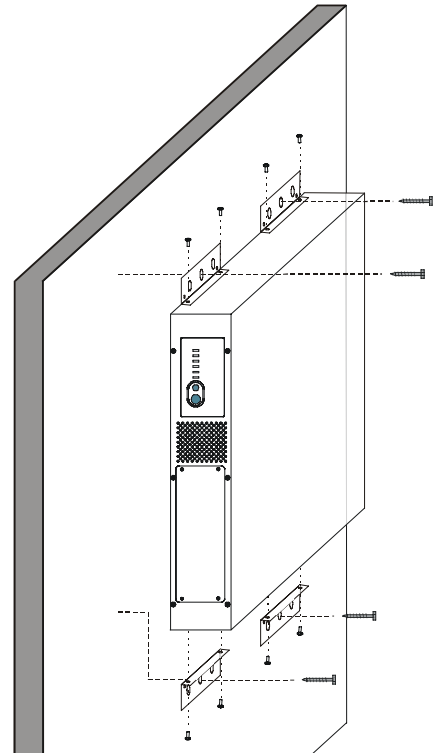
---

# Wall Installation

---

The Axxium Rackmount is shipped with screws and extra brackets to mount it to a wall surface. You must attach two brackets to each side of the UPS as shown, and then mount the UPS to the wall. Install the UPS by following the instructions below. **NOTE: The procedure requires two people.**

- 1 Measure the desired separation between mounting screws to locate into structural material in the wall. In steps 2 and 3 below, locate the brackets so that holes in the brackets are spaced the proper distance for the structural material.
- 2 Two of the brackets come attached to the UPS. They must be removed, turned and reattached to each side of the UPS using screws that secure the cover, as shown in the drawing below.
- 3 Two additional brackets are shipped in a separate envelope. They must be attached in a similar manner to each side of the UPS, as shown in the drawing.
- 4 Determine the construction type of the wall to which the UPS will be mounted. Also, decide upon the position of the UPS on the wall, so the brackets can be attached properly to structural material.
- 5 Based upon the wall material, select the required type of mounting screws: use wood screws for wood studs, steel stud screws for steel studs, or concrete screws for concrete or concrete blocks.
- 6 Mark desired screw locations on the wall and drill pilot holes for the four mounting screws: two screws for each bracket. Locate the holes to match the spacing between holes in the brackets, and **make sure that all holes are drilled into structural material.**
- 7 Partially screw all four screws into the wall, leaving enough length exposed to position the UPS onto the screws.
- 8 With someone helping you, lift the UPS onto the screws and lower it until the screws are in the key slots of brackets.
- 9 Tighten all four mounting screws to hold the Axxium Rackmount securely to the wall.



# Connection to External Battery Packs

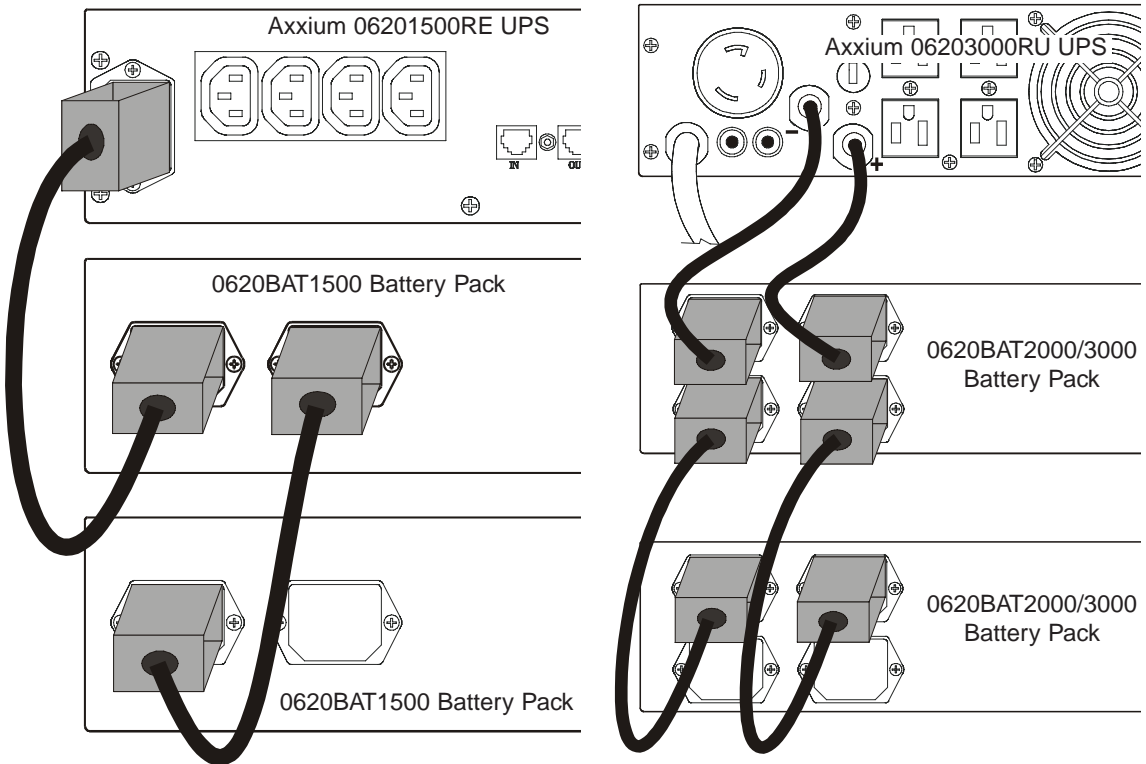
Before connecting the input power cord, connect all intended battery packs to the Axxium Rackmount by following the guidelines below.

The battery packs for 1000 and 1500 VA units may be connected serially (daisy-chained) to a maximum of two packs. The battery packs for 2000 and 3000 VA units may be daisy-chained to a maximum of five packs. Do not exceed these limits. **NOTE: The 2000 and 3000 VA units require at least one battery pack to provide off-line power.**

The receptacles on each battery pack and each UPS are unique, to prevent the wrong battery packs from being connected to an Axxium Rackmount. Make sure that battery cable connectors match the receptacles on the UPS and the battery pack.

Turn **OFF** the circuit breaker of all battery packs before connecting the cables.

After connecting all battery pack cables as shown in the example drawings below, turn **ON** the circuit breakers.

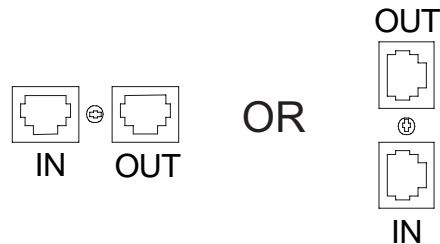


# Quick Startup

- 1 Refer to the chart next to the 2-position DIP switch on the back of the unit, and set the two positions to match the settings for the desired inverter output voltage. **NOTE:** The DIP switch does not control the output voltage when the UPS is operating in bypass mode
- 2 If your Axxium Rackmount UPS has a removable power cord, connect the power cord to the back of the unit. Plug the UPS into a wall outlet.
- 3 Let the unit charge the battery for at least 8 hours. You may use the unit while the battery charges, but the battery backup runtime will be reduced until the battery is fully charged.
- 4 Start the Axxium Rackmount by pressing and holding the On/Standby button (large button in the center of the front panel) in for about one second. Note: To turn the unit either on or off, the On/Standby button must be pressed for about one second.
  - 4.a. When it starts, the unit beeps and lights the front panel lights, turns them off and lights them again. **Next, the Axxium Rackmount applies AC output to the back panel receptacles.** It does a brief self test, turning various front panel lights off and on.
  - 4.b. After 30 seconds or less, the self test is complete. The top and bottom green lights will come on and remain on. If the unit beeps, or if the top light does not remain on even though input power is available from the wall outlet, go to the [Troubleshooting](#) section.
- 5 Switch off the equipment you want to protect, and plug each load into the outlets on the back of the Axxium Rackmount.
- 6 Switch on the protected equipment, one load at a time. If the UPS beeps an alarm when you start your equipment, the UPS may be overloaded. See the [Troubleshooting](#) section.

The bottom four lights on the front of the UPS show the % of load capacity that your equipment is using. See [Symbols, LEDs and Audible Beeps](#) Section for more information.

- 7 The RJ-11 or RJ-45 Surge Protection jacks will protect equipment that uses an RJ-11 or RJ-45 connection. Plug the 10BASE-T network connection (or phone, fax or modem line for U models) into the surge protection jack labeled “IN” on the back of the Axxium Rackmount. Plug the protected equipment into the surge protection jack labeled “OUT.” Network cabling is not provided. Network only on European model; do not connect any TNV equipment such as telephone, fax or modem to the circuitry. It may only be used for network protection purposes, on E models. *This connection is optional. It is not needed to use the Axxium Rackmount.*



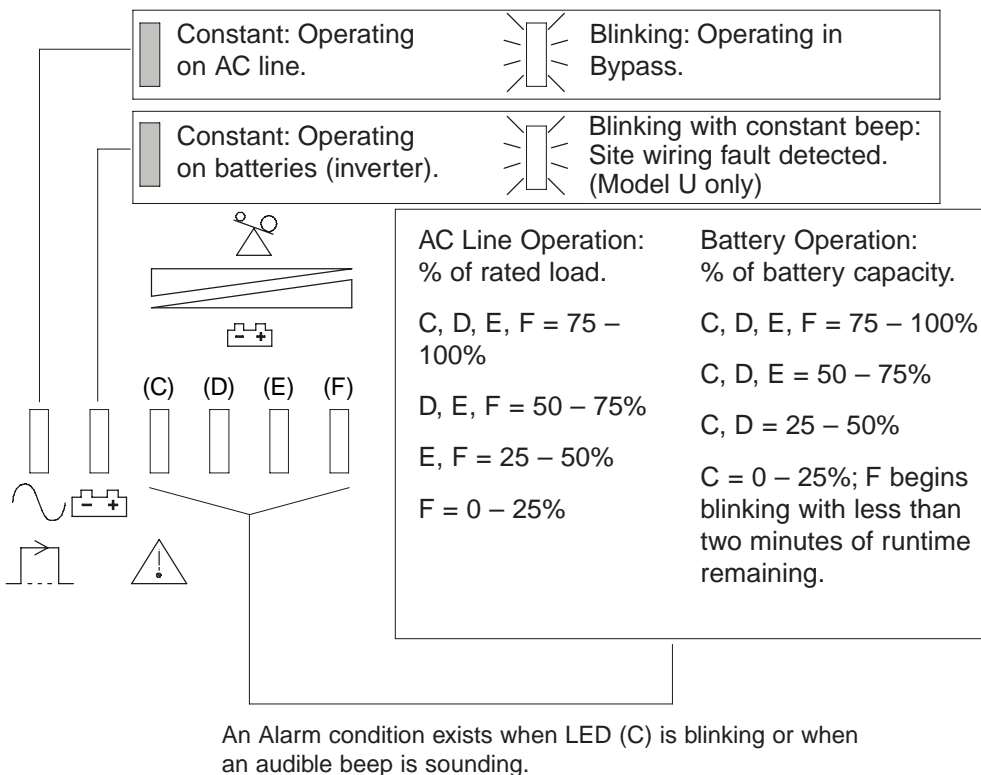
RJ-11 or RJ-45 Jacks

8 Please fill out the warranty registration card and return it to your local Best Power office. If you are in the U.S.A. or Canada and you would like to activate the Warranty for Transient Voltage Surge Suppression, please return the registration card within 10 days of installation.

## Symbols, LEDs and Audible Beeps


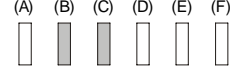
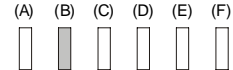
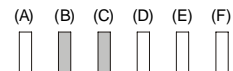
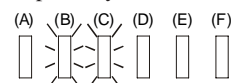
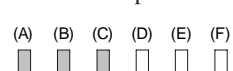
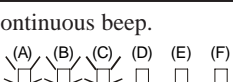
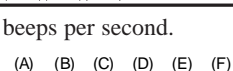
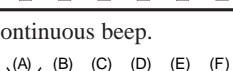
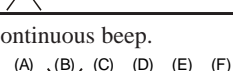
The front panel indicators (LEDs) and an audible beep indicate the unit status. The unit beeps whenever the unit is on battery power or an alarm exists. See Figure 1 for information about the LEDs and Table 1 for information about alarm displays.

**Figure 1: Front Panel LEDs**



The alarm display in [Table 1](#) shows several things: it shows the number of beeps per time period (for example, 3 beeps every 5 seconds), or a constant beep or no beeps, and the LED configuration. LEDs are shown as being off (no shading), on (shaded), or blinking (radiating lines).

**Table 1: Alarm Conditions**

Alarm Display	Alarm Description	What You Should Do
2 beeps per second. 	The UPS is overloaded (in Line Mode). Your equipment needs more power than the UPS can supply. The UPS is operating in Bypass.	Shut off the least important equipment connected to the UPS. If this solves the overload problem, the UPS will switch from bypass back to normal operation.
2 beeps per second. 	The UPS is overloaded (in Battery Mode). Your equipment needs more power than the UPS can supply.	Shut off the least important equipment connected to the UPS. Restart the unit by turning it off and on again.
No beep. 	The UPS is performing a battery test.	No action needed. The UPS returns to normal operation when it successfully completes the battery test.
Continuous beep. 	Battery test has determined the batteries are overcharged.	Turn off protected loads. Turn off the UPS and phone your nearest Best Power office.
3 beeps every 5 seconds. 	Battery test has determined the batteries should be replaced.	Phone your nearest Best Power Office.
Continuous beep. 	High internal temperature.	Make sure the unit's fans and vent holes are not blocked, and the ambient temperature is not above 40 degrees C (104 °F). If these conditions do not exist, phone your nearest Best Power office.
Continuous beep. 	High output voltage or inverter short circuit.	Phone your nearest Best Power Office.
2 beeps per second. 	High internal DC bus voltage.	Phone your nearest Best Power Office.
Continuous beep. 	Short circuit in the bypass static transfer switch.	Phone your nearest Best Power Office.
Continuous beep. 	Short circuit in the inverter static transfer switch.	Phone your nearest Best Power Office.

To silence an alarm, press the alarm silence button on the front panel. The beep will stop, but the alarm light will stay on. Note: Silencing the alarm does not solve the problem that caused it. See Tables 2 and 3.

**Table 2: Audible Beeps**

Number of Beeps	What It Means
1 every 5 seconds	<i>Line Loss:</i> The unit is on battery power. See <a href="#">Table 3</a> for more information.
2 every 5 seconds	<i>Low Battery Alarm:</i> The unit was running on battery power and shut down due to very low battery voltage. The unit will restart automatically when acceptable power returns.
3 every 5 seconds	<i>Replace the Battery:</i> The battery needs to be replaced. See “ <a href="#">Replacing the Batteries.</a> ”
3 every 5 minutes	<i>Battery is charging:</i> The battery is being charged and will not deliver full runtime.
2 beeps every second	<i>Output Overload:</i> Too much load equipment. Turn off or disconnect one or more pieces of protected equipment.
Continuous	<i>UPS Fault or Site Wiring Fault:</i> UPS internal failure or error in building power outlet.

---

## BestDock™

---

The Axxium Rackmount BestDock communication slot accepts optional communication cards, like the internal BestLink SNMP/WEB adapter. The insertion of a card into the BestDock communication slot replaces the normal communication channel from the Axxium Rackmount DB-9 Communication Port. The DB-9 port becomes the connection point for configuring the card in the BestDock.

# Troubleshooting

If you have a question or problem, the troubleshooting table may help. (See Table 3.) If you need assistance, phone Best Power's Worldwide Service or your local Best Power office. Please have the model number and serial number (located on the rear of the unit) available.

If the unit must be returned, Best Power will give you a Return Materials Authorization (RMA) number. Phone Best Power for an RMA number before returning the unit for any reason.

**Table 3: Troubleshooting**

<b>Problem</b>	<b>Possible Reasons</b>	<b>What To Do</b>
Green LINE LED is not on even though AC line input seems to be available, and the UPS beeps every few seconds.	<ol style="list-style-type: none"> <li>1. No input power may be available to the UPS.</li> <li>2. The input circuit breaker (or fuse) on the back of the UPS has been tripped (or opened).</li> </ol>	<ol style="list-style-type: none"> <li>1. Make certain the UPS is plugged into a receptacle with power applied.</li> <li>2. Reset the breaker (or replace the fuse) and restart the UPS.</li> </ol>
The UPS operates normally but some or all of the protected loads will not operate.	<ol style="list-style-type: none"> <li>1. The loads are not connected to the UPS.</li> <li>2. If the output receptacle has a circuit breaker, it has been tripped.</li> </ol>	<ol style="list-style-type: none"> <li>1. Make certain the loads are plugged into the receptacles of the UPS.</li> <li>2. Reset the circuit breaker for the receptacle by pressing the button or resetting the switch.</li> </ol>
The amount of time that the UPS can run on batteries is less than the rated time.	The battery may not be fully charged, it may be bad or the charger may have failed.	Recharge the battery for at least 10 hours by connecting the UPS to a source of AC line input. Then retest the battery backup time. If the problem has not been solved by recharging the batteries, phone the nearest Best Power office.
The yellow BATTERY LED is blinking. (Model U only)	Site wiring fault.	The wall outlet is improperly connected. Contact an electrician to check and repair the wiring to the wall outlet.



---

# Replacing the Batteries (1000VA and 1500VA only)

---

The Axxium Rackmount batteries are user-replaceable and can be replaced while the Axxium Rackmount has AC input applied and powers the loads (hot-swappable). This means that, if necessary, you can replace the batteries while the UPS is running. Before you replace the batteries, make sure that you read the safety information below.

**Note:** If you have a power outage while you are replacing the batteries, the UPS will not be able to run on battery power and your protected equipment will shut down.



## CAUTION!

The batteries used in the UPS and battery pack can produce dangerous voltage and high current. Therefore, the batteries may cause severe injury if their terminals contact a tool or the UPS cabinet. Be very careful to avoid electrical shock and burns from contacting terminals while you replace the batteries.

Batteries contain caustic acids and toxic materials and can rupture or leak if mistreated. Remove rings and metal wristwatches or other jewelry. Do not carry metal objects in your pockets: these objects could fall into the UPS.

Never allow any tool to contact both a battery terminal and the UPS cabinet or another battery terminal. Do not lay tools or metal parts on top of batteries.

To ensure continued superior performance of your UPS and to maintain proper charger operation, you must replace the UPS batteries with the same number and type of batteries. These batteries must be the same type as the original batteries: valve-regulated, low maintenance. The replacement batteries should have the same voltage and ampere-hour rating as the original batteries.

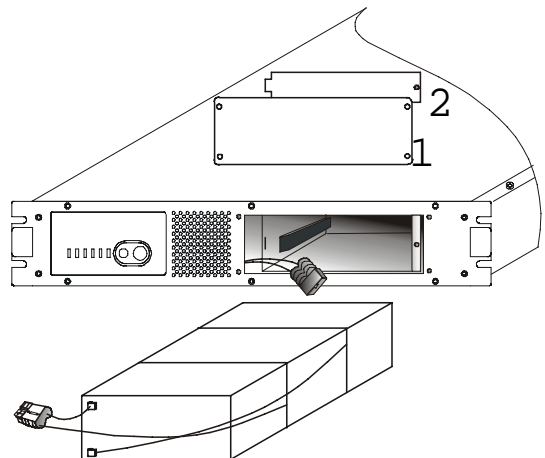
Assume that old batteries are fully charged. Use the same precautions you would use when handling a new battery. Do not short battery terminals with a cable or tool! Batteries contain lead. Many areas have regulations about disposing of used batteries. Please dispose of old batteries properly. DO NOT dispose of batteries in a fire because the batteries could explode. Do not open or mutilate batteries. Released electrolyte is harmful to the skin and eyes. It may be toxic.

This equipment may produce ozone. Take precautions to ensure that the concentration of ozone is limited to a safe value (0.1 ppm {0.2 mg / m<sup>3</sup>} calculated as an 8-hour time-weighted average).

## Battery Replacement Instructions (1000VA and 1500VA only)

---

- 1 Phone Best Power's Worldwide Service to order a replacement battery pack. It must be the same type and rating of the original batteries. See *Battery* information in Specifications.
- 2 If it is necessary, the batteries may be replaced while the Axxium Rackmount is running, with the protected equipment attached. **Option:** You may switch off and unplug the protected load equipment from the Axxium Rackmount. Then, turn off the Axxium Rackmount and disconnect the line cord.
- 3 Use the drawing below to identify the location on the battery pack in the Axxium Rackmount.
- 4 Remove the screws holding the exterior battery access panel (1) to the front panel. Set the screws and panel aside.
- 5 Remove the screw holding the interior panel (2) to the battery chamber. Use care to avoid dropping screw inside the unit. Set the screw and panel aside.
- 6 Unplug the battery connector from its mating socket.
- 7 Pull the tray of batteries from the Axxium Rackmount. Do not pull batteries out by pulling on battery terminals or cables. The 1000VA unit has three batteries on its tray; the 1500VA unit has four batteries.
- 8 Position the new battery tray and its cables so they will not be pinched by the interior panel or the battery pack. Slide the battery pack into the unit.
- 9 Reconnect the cable to the new battery pack.
- 10 Use the screws removed earlier to re-install the interior panel to the battery chamber and the exterior panel to the front panel.
- 11 **If you followed the option in step 2:** Reconnect the line cord to the Axxium Rackmount and turn the unit on.
- 12 Reconnect the load equipment. Switch on the protected load equipment one piece at a time.



---

# Communication Port

---

The Axxium Rackmount comes equipped with CheckUPS II power management software. Instructions included with the CheckUPS II CD tell you how to install the software. An interface cable for the following systems is provided.

SCO UNIX/XENIX	UNIX and Compatible Systems	OS/2
Windows 3.X, 95 and NT	Novell NetWare	

Best Power offers interface kits that allow you to connect many other computer systems to the Axxium Rackmount communication port. For the following computer systems, or specific information on Best Power interface kits, call Best Power's Worldwide Service or your local Best Power dealer.

Banyan VINES	IBM RS/6000 AIX	IBM AS/400 special
Latantic v4.0	LAN Manager/Server v2.0	

## DB-9 Pinouts

---

- Pin 1** *RS232 Receive Data:* Receives incoming RS232 communication data.
- Pin 2** *RS232 Transmit Data:* Sends outgoing RS232 communication data.
- Pin 3** *Normally Open On-Battery Contact:* A normally open contact that closes 15 seconds (pulls to Common) after the UPS switches to battery power.
- Pin 4** *Common:* The signal ground for all signal pins.
- Pin 5** *Normally Open Low-Battery-Alarm Contact:* A normally open contact that closes (pulls to Common) during a Low Battery Alarm. This tells CheckUPS II and other shutdown software when to start a computer shutdown.
- Pin 6** *Reserved.*
- Pin 7** *Remote Shutdown:* Shorting this pin to common for at least 5 seconds, while the UPS is operating on battery, shuts the UPS off after 120 seconds. NOTE: The shutdown sequence must continue even if AC line returns during the 120 second countdown.
- Pin 8** *Normally Closed On-Battery Contact:* A normally closed contact that opens (releases from Common) 15 seconds after the UPS switches to battery power.
- Pin 9** *Normally open bypass switch status contact.* A normally open contact that closes (pulls to common) whenever the UPS is in an Internal Bypass mode or is being externally bypassed through the use of a bypass switch.

Contacts consist of open collector circuits capable of switching up to +30 VDC, 6 mA resistive load. The internal pull-up voltage on pins 3, 5, 8, and 9 is +12 VDC.

An Emergency Power Off (EPO) function is available through the DB-9 port. Contact Best Power for specific technical details.

---

# Specifications

---

Best Power reserves the right to change specifications without prior notice.

**Line Transient Protection:** Passes ANSI/IEEE C62.41 Category A testing.

**Safety Compliance:** *Model U:* Tested to electrical requirement of UL1449; listed to UL1778, and CAN/CSA C22.2 No. 107.1 M95.  
*Model E:* ERG/GS listed.

**EMC Compliance:** *Model U:* FCC Class A.  
*Model E:* CISPR 22 Class B, Vfg 243-91/46-92 B, EN55022, CE Mark Self-certified to: CE Marking Directive 93/68/EEC, Low Voltage Directive 73/23/EEC; (Australia/New Zealand) Conforms with electromagnetic compatibility standards as required under the Radio Communications Act.

**Noise (RF) Suppression:** Full-time EMI/RFI filtering.

**Efficiency:** > 87% on-line operation (full load; fully charged, at least 50% load).

**Capacity VA/Watts:** 1000VA / 700W; 1500VA / 1050W; 2000VA / 1400W; 3000VA / 2100W

**Voltage Nominal:** *Model U:* 120 VAC, *Model E:* 230 VAC

**Voltage Range:** *Model U:* 0 to 160 VAC operating on battery, with 80 to 138 VAC normal input voltage range.  
*Model E:* 0 to 300 VAC operating on battery, with 160 to 276 VAC normal input voltage range.

**Frequency:** 50/60 Hz auto-sensing 55 - 65 Hz (60 Hz); 45 - 55 Hz (50 Hz) (50/60 Hz  $\pm$  0.5 Hz on battery.)

**Minimum Runtime (minutes):** *1000VA:* Full load: 7 minutes. Half load: 22 minutes.  
*1500VA:* Full load: 6 minutes. Half load: 22 minutes.  
*2000VA (with 1 external battery):* Full load: 13 minutes. Half load: 35 minutes.  
*3000VA (with 1 external battery):* Full load: 6 minutes. Half load: 19 minutes.

**Transfer Time to Bypass:** *1000U and 1500U Models:* 0-4 ms.  
*2000U and 3000U Models:* No transfer time.  
*All E Models:* 0-4 ms.

**Transfer Time to Battery:** *All E Models:* 0 ms.

**Telephone line surge suppression for U models:** per Bellcore 1089: 1.2/50msec waveform,  $\pm$  2kV peak, Compliant to UL497A.

**Battery:** Sealed, maintenance-free, valve-regulated, UL 924 recognized.  
*1000 VA Models:* Three 12-V, 9 AH batteries. Nominal Voltage is 36 VDC.  
*1500 VA Models:* Four 12-V, 9 AH batteries. Nominal Voltage is 48 VDC.  
*2000 VA Models:* No internal batteries.  
*3000 VA Models:* No internal batteries.

**Automatic Battery Test:** Automatic battery test occurs upon startup and every 14 days thereafter. Alarm will sound if the battery fails this test.

**Battery Recharge Time (to 95% of capacity):** All Models: 8 hours

**Overcurrent Protection (on line):** All Models: Fuse

**Input Fault Current (maximum):** 1000E and 1500E Models: 15 A

2000E Model: 26.1 A.

3000E Models: 35 A.

**AC input Plug/Cord Information:**

1000 U - NEMA 5-15P, cord attached.

1500 U - NEMA 5-15P, cord attached.

2000 U - NEMA 5-20P, cord attached.

3000 U - NEMA L5-30P, cord attached.

1000 E - IEC C14 (10A), recessed plug.

1500 E - IEC C14 (10A), recessed plug.

2000 E - IEC C14 (10A), recessed plug.

3000 E - IEC C20 (16A), recessed plug.

**AC Output Distribution:**

1000 U - (6) NEMA 5-15R.

1500 U - (6) NEMA 5-15R.

2000 U - (4) NEMA 5-15R,

(2) NEMA 5-20R.

3000 U - (4) NEMA 5-15R,

(1) NEMA L5-30R.

1000 E - (4) IEC C13 (10A).

1500 E - (4) IEC C13 (10A).

2000 E - (4) IEC C13,

(1) IEC C19.

3000 E - (4) IEC C13,

(1) IEC C19.

**Load Compatibility:** Can support 100% power factor corrected, switch-mode power supply load.

**Audible Noise:** < 45 dBA at one meter, except 2000 and 3000 VA models which are < 52 dBA at one meter.

**Ventilation:** Air around the unit must be free of dust, chemicals, or other materials that corrode or contaminate. Air must be free to move around the unit.

**Operating Temperature:** 32° - 104° F (0° - 40° C).

**Storage Temperature:** 5° - 122° F (-15° to +50° C). Battery life is reduced above 77° F (25° C).

**If the Axxium Rackmount unit is stored, the batteries should be recharged every 6 months.**

**If stored above 77° F (25° C), recharge the batteries more often.**

**Humidity:** 0% - 95% RH (non-condensing).

**Altitude:** 3000 m (10,000 ft maximum)

**Dimensions (Height x Width x Depth):** All Models: 3.35 x 19 x 19.3 (85.2 x 483 x 490mm)

**Weight:** 1000: 39.6 lbs. (18.0 kg)      2000: 57.2 lbs. (26.0 kg)

1500: 51.3 lbs (23.3 kg)      3000: 86.0 lbs. (39.1 kg)

---

# Warranty

---

## **LIMITED TWO YEAR WARRANTY Standard Warranty For All Purchases**

BEST POWER, a division of SPX Corporation, (hereinafter called BEST POWER) warrants that each product sold by BEST POWER is compatible with existing commercially available computer equipment with enclosed power supplies and is free from defects in materials and workmanship under normal use and service. This warranty is applicable only to the initial retail purchaser (PURCHASER), and is not transferable. The duration of this warranty is two (2) years from the date of the first retail sale or the date of delivery to the PURCHASER, whichever occurs first, subject to the following conditions.

If the PURCHASER discovers within the duration of this warranty a failure of the product to perform compatibly with presently existing computer equipment or a defect in material or workmanship, the PURCHASER must promptly notify BEST POWER in writing within the duration of the warranty or not later than one month after expiration of the warranty. BEST POWER's obligation under this warranty is limited to the replacement or repair, subject to the conditions specified below, of such product returned intact to BEST POWER which shall appear to BEST POWER, upon inspection, to have been either incompatible or defective. Replacement or repair will be made at BEST POWER's Worldwide Service, Highway 80, Necedah, Wisconsin 54646, U.S.A. Such repair or replacement shall be at BEST POWER's expense. This warranty does not cover any taxes which may be due in connection with replacement or repair, nor any installation, removal, transportation or postage costs. These expenses will be paid by PURCHASER. If BEST POWER is unable to repair or replace the product to conform to this warranty after a reasonable number of attempts, BEST POWER will refund the purchase price. Remedies under this warranty are expressly limited to those specified above.

TO THE EXTENT ALLOWED BY LAW, BEST POWER DISCLAIMS ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, ANY IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, AND ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE ON THIS PRODUCT IS LIMITED IN DURATION TO THE DURATION OF THIS WARRANTY. TO THE EXTENT ALLOWED BY LAW, BEST POWER SHALL NOT BE LIABLE FOR ANY SPECIAL, INCIDENTAL, OR CONSEQUENTIAL DAMAGES INCLUDING, BUT NOT LIMITED TO, LOSS OF PROFITS, INJURIES TO PROPERTY, LOSS OF USE OF THE PRODUCT OR ANY ASSOCIATED EQUIPMENT.

Some states do not allow limitations on how long an implied warranty lasts, so that the above limitation on duration of implied warranties may not apply to you. Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you. This warranty gives you specific legal rights, and you may also have other rights which vary from state to state. You are advised to consult applicable state laws.

No warranty is made with respect to other products sold by BEST POWER which do not bear the name BEST POWER, and no recommendation of such other product shall imply or constitute any warranty with respect to them. This warranty does not cover repair or replacement because of damage from unreasonable use (for example only, damage from road hazard, accident, fire or other casualty, misuse, negligence, or incorrect wiring) and any use or installation not in conformance with instructions furnished by BEST POWER, or repairs or replacements needed because of modifications or parts not authorized or supplied by BEST POWER.

# LIMITED WARRANTY

---

## **Transient Voltage Surge Suppression Circuitry (For U.S. and Canadian Purchasers Only)**

BEST POWER, a division of SPX Corporation, (“BEST POWER”) hereby warrants the transient voltage surge suppression circuitry in each FERRUPS®, Fortress®, PATRIOT®, PATRIOT® PRO, AXXIUM™ RACKMOUNT, UNITY/I®, CITADEL®, or SPIKEFREE™ product (hereinafter called “Product”) sold by it for installation in the United States of America and Canada to be free from defects in material and workmanship under normal use and service for the lifetime of the Product, beginning with the date of sale to the initial retail purchaser, subject to the following conditions.

This warranty is applicable only to the initial retail purchaser (hereinafter called PURCHASER), is not transferable, and is limited to the following remedies:

1. The replacement or repair of the transient voltage surge suppression circuitry in each Product that is returned intact to BEST POWER and which shall appear to BEST POWER upon inspection to have been defective in material or workmanship or to have been damaged through normal use;
2. The reimbursement to the PURCHASER of up to \$25,000 per occurrence of documented physical damage to specified computer equipment connected to a Product where such damage could have been prevented by transient voltage surge suppression circuitry as detailed in BEST POWER’s specification for the Product sold.

This warranty is made in addition to BEST POWER’s Limited Two Year Warranty.

This warranty does not include any taxes which may be due in connection with replacement or repair nor any installation, transportation or postage costs. These expenses will be paid by PURCHASER. Replacement or repair will be made at BEST POWER’s Worldwide Service, Highway 80, Necedah, Wisconsin 54646, U.S.A.

This warranty does not cover repair or replacement because of damage from unreasonable use (damage from road hazards, accident, fire or other casualty, misuse, negligence, incorrect wiring) and any use or installation not in conformance with instructions furnished by BEST POWER, or repairs or replacements needed because of modifications or parts not authorized or supplied by BEST POWER.

This warranty is operable only upon the written acceptance by BEST POWER of an application by the PURCHASER on BEST POWER’s standard form for the above warranty coverage for the Product sold. In such application, the PURCHASER shall represent that the Product sold has been properly installed and grounded in accordance with instructions received from BEST POWER, and the PURCHASER shall also specify the computer equipment to which the Product sold has been connected and the location of the computer equipment. This warranty will not apply to any equipment not specified in the application by the PURCHASER as protected equipment.

EXCEPT AS EXPRESSLY SET FORTH IN THIS WARRANTY AND BEST POWER'S LIMITED TWO YEAR WARRANTY, BEST POWER MAKES NO OTHER WARRANTIES, AND TO THE EXTENT ALLOWED BY LAW, BEST POWER DISCLAIMS ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, ANY IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.

REMEDIES UNDER THIS WARRANTY ARE EXPRESSLY LIMITED TO THE REPAIR OR REPLACEMENT OF PRODUCTS AND THE REIMBURSEMENT SPECIFIED ABOVE, AND TO THE EXTENT ALLOWED BY LAW ANY CLAIMS FOR LOSS ARISING OUT OF THE FAILURE OF PRODUCTS TO PERFORM FOR ANY PERIOD OF TIME, OR SPECIAL, INDIRECT, INCIDENTAL OR CONSEQUENTIAL DAMAGES OR OTHER ECONOMIC LOSS ARE EXPRESSLY EXCLUDED.

Some states do not allow limitations on how long an implied warranty lasts, so that the above limitation on duration of implied warranties may not apply to you. Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you. This warranty gives you specific legal rights, and you may also have other rights which vary from state to state. You are advised to consult applicable state laws.



# Warranty Registration

---

Fill out the information listed below, and retain this page for your records. Send a photocopy of this page by mail or by fax to your nearest Best Power office if you cannot register your warranty information online.

We recommend that you register your product by using the online registration form. To enter your warranty information online, go to <http://www.bestpower.com> and select “Warranty Registration” in the Service section. Use the information you have recorded on this page to complete the online registration.

## Best Power Standard Warranty Registration

Best Power Model Number \_\_\_\_\_

Best Power Serial Number \_\_\_\_\_

I acknowledge that the above product has been properly installed and grounded in accordance with instructions supplied by Best Power.

\_\_\_\_\_  
(signature)

\_\_\_\_\_  
(installation date)

Please print the following information:

Contact Person \_\_\_\_\_

Title \_\_\_\_\_

Company \_\_\_\_\_

Street Address \_\_\_\_\_  
\_\_\_\_\_

City \_\_\_\_\_

State/Country \_\_\_\_\_

Postal/Zip Code \_\_\_\_\_

Telephone \_\_\_\_\_

Fax \_\_\_\_\_

E-mail Address \_\_\_\_\_

---

# Best Power Offices

---

Best Power  
P.O. Box 280  
Necedah, Wisconsin 54646 U.S.A.  
Telephone: 1-608-565-7200  
Toll-free (U.S.A. and Canada): 1-800-356-5794  
FAX: 1-608-565-2221  
International FAX: 1-608-565-7675  
E-mail: [service@bestpower.gensig.com](mailto:service@bestpower.gensig.com)

Best Power Technology Mexico, S.A. de C.V.  
Golfo de Riga, 34  
Colonia Tacuba  
México D.F. 11410  
MÉXICO  
Telephone: (52) 5-527-8009  
Toll-free (in Mexico): 1-800-711-8978  
FAX: (52) 5-399-1320  
E-mail: [contacte@bestpower.com.mx](mailto:contacte@bestpower.com.mx)

Best Power Technology, Pte. Ltd.  
19 Neyhal Road  
SINGAPORE 628584  
Telephone: (65) 265-6866  
FAX: (65) 265-6636  
E-mail: [singservice@bestpower.gensig.com](mailto:singservice@bestpower.gensig.com)

Sola Australia Ltd.  
13 Healey Road  
Dandenong, Victoria 3175  
AUSTRALIA  
Telephone: (61) 3-9706-5022  
FAX: (61) 3-9794-9150  
E-mail: [sola@solaaust.com.au](mailto:sola@solaaust.com.au)

Best Power Technology Limited  
BEST House  
Wykeham Industrial Estate  
Moorside Road  
Winchester  
Hampshire  
SO23 7RX  
ENGLAND  
Telephone: (44) 1962-844414  
Toll-Free (in England): 0800 378444  
FAX: (44) 1962-841846  
E-mail: [uk.service@bestpower.gensig.com](mailto:uk.service@bestpower.gensig.com)

Best Power Technology Germany, GmbH  
Am Weichselgarten 23  
D-91058 Erlangen  
GERMANY  
Telephone: (49) 9131-77700  
Toll-Free (in Germany): 0130-84-7712  
FAX: (49) 9131-7770-444  
E-mail: [ger.service@bestpower.gensig.com](mailto:ger.service@bestpower.gensig.com)

Borri Elettronica Industriale Srl  
Via dei Lavoratori, 124  
20092 Cinisello Balsamo (Mi)  
Milan, ITALY  
Telephone (39) 02-6600661-2  
FAX: (39) 02-6122481

## For Users in the United States only

### For 1000, 1500, 2000 and 3000 VA Model U

Note: This equipment has been tested and found to comply with the limits for a Class A digital device pursuant to Part 15 of FCC Rules. These limits are designed to provide reasonable protection against harmful interference when this 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/her own expense.

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

## For Users in Canada only

### For 1000, 1500, 2000 and 3000 VA Model U

This Class A interference causing equipment meets all requirements for the Canadian Interference Causing Equipment Regulations ICES-003.

Cet appareil numérique de la Classe A respecte toutes les exigences du Règlement sur le matériel brouilleur du Canada.