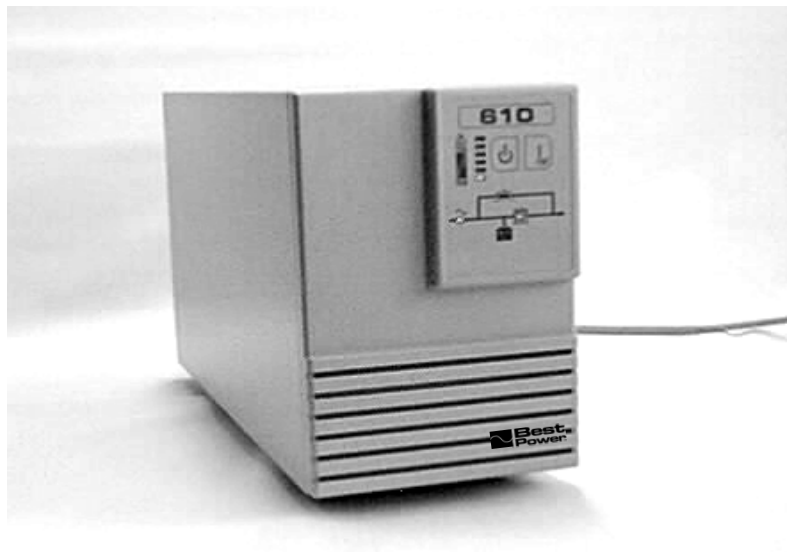




# **Best Power 610 Installation and Operation Manual**



**for  
700VA, 1.0kVA, 1.5kVA, 2.0kVA  
and  
3.0kVA**

LTM-1312E



# SAVE THESE INSTRUCTIONS

THIS MANUAL CONTAINS IMPORTANT INSTRUCTIONS FOR YOUR UPS



**WARNING!**

*This unit has an internal battery and is capable of generating dangerous voltages. Do not open the unit by removing the outer case. Please read the SAFETY WARNINGS on pages iv and v.*

The unit can generate power even when disconnected from the utility supply. Ensure you read this manual carefully and are aware of the correct operating parameters.

## How to talk to us

If you have any problem, a question, or require any information on Best Power's extensive range of UPS and power protection equipment, this is where to contact us.

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## 1.2 Notice to UPS Owners



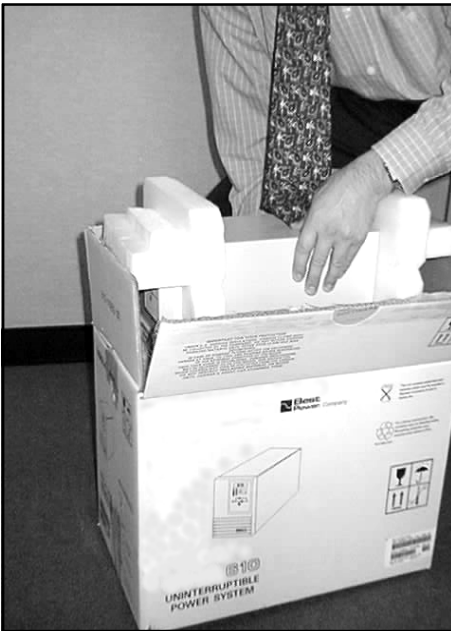
Thank you for choosing a Best Power product, your answer in power protection. Over many years Best Power has built a reputation for designing and manufacturing top quality, reliable power products. Your Best Power unit is designed to provide trouble-free operation in a normal commercial environment.

We encourage you to read this manual carefully in order to get full benefit from the features included in your Best Power product.

***Please see the last page of this manual for online warranty registration.*** Or you may complete the Warranty registration card and return it to us. This will enable us to ensure you get immediate service for your system both in the warranty period and beyond.



**WARNING!**  
***This unit has an internal battery and is capable of generating dangerous voltages. Do not open the unit by removing the outer case. Please read the SAFETY WARNINGS on pages iv and v.***



Check your unit for damage that may not be apparent by the outside appearance of the package. In case of damage, notify the delivering carrier at once regardless of the external condition of the boxes. After your claim has been established with the carrier, damaged merchandise may be returned for repair (see Page 19 for Return Policy).

**Do not destroy packing material or boxes until the carrier's agent has examined them. Save all packaging materials in case reshipment of the UPS is required. Any damage sustained in transit when shipped from the user, especially in an incorrect container, will not be covered under warranty.**

## 1.3 Preface

Best Power makes no warranty of any kind with regard to this document, including, but not limited to, the implied warranties of merchantability and fitness for a particular purpose. Best Power shall not be liable for errors contained herein or for incidental or consequential damages in connection with the furnishing, performance, or use of this material.

This document contains proprietary information which is protected by copyright. All rights are reserved. No part of this document may be photographed, reproduced or translated to another language without the prior written consent of Best Power.

This manual contains technical information about the 700VA, 1.0kVA, 1.5kVA, 2.0kVA and 3.0kVA Best Power 610 family of uninterruptible power systems.

Also available in the 610 family with single phase inputs are the 6.0kVA and 10kVA. The technical information for these products is detailed in a separate manual.

The family is further enhanced by units with a three phase input and single phase output at 7.5kVA, 10kVA, 15kVA and 20kVA. Again, technical information on these products is detailed in a separate manual.

## 1.4 Safety Notices and Warnings

**Important! Please read this before installing your UPS.**

Warnings, Cautions and Notes appear throughout this manual. Please familiarize yourself with them as they are essential for your safety and will enable you to maximize longevity of your UPS.



### WARNING

Denotes a procedure or practice, which, if not performed correctly or adhered to, *may result in personal injury*. **Do not proceed beyond a Warning sign until the indicated conditions are fully understood and met.**



### CAUTION

Denotes a procedure or practice, which, if not performed correctly or adhered to, *may result in damage to equipment*. **Do not proceed beyond a Caution sign until the indicated conditions are fully understood and met.**

### Note

Denotes an essential procedure or practice.



### Safety Warnings



1. Do not use the unit for other than its intended use.
2. **If the UPS is connected to a live AC supply, AC is ALWAYS present at the UPS receptacles.** The front panel | (ON) and ⏻ or ○ (STANDBY) switches do not control the delivery of power to the output receptacles. The ON switch can apply AC to the output receptacles from the batteries without a live AC supply. **To remove AC from the output receptacles, disconnect the input cord and press the STANDBY switch.**
3. Hazardous voltage can be present at the unit's output any time AC input power or DC battery voltage is applied. To avoid possible personal injury or equipment damage and to make certain there is no output voltage, turn the unit off, unplug the unit or disconnect AC input, and disconnect all DC sources.
4. The installation and use of this product must comply with all national, federal, state, municipal, or local codes that apply.
5. To reduce the risk of fire or electric shock, install the unit in a temperature-controlled indoor area free of dust, lint and conductive contaminants. Do not place the unit near liquids or in an excessively humid environment.
6. To reduce the risk of overheating, do not block the unit's ventilation panels. Do not expose the unit to direct sunlight or other heat sources.
7. Do not allow liquids or foreign objects to enter the unit.
8. The unit does not contain any user-serviceable parts. The batteries are not user replaceable. The user must not open the unit.

## 1.4 Safety Notices and Warnings (cont.)



9. All servicing of this equipment, including battery replacement must be performed by qualified service personnel. Remove rings, watches and other jewelry before servicing the unit. Always wear protective clothing and eye protection and use insulated tools when working near batteries.
10. Before maintenance, repair or shipment, the unit must be completely switched off and unplugged or disconnected from AC line, all DC sources must be disconnected, and all connections must be removed. For units with no input plug, switch the unit off and disconnect AC line input at the service panel.
11. The sealed, lead-acid battery(ies) contained in this unit must be disposed of properly according to local regulations. The batteries contain toxic lead and battery acid that pose environmental and human health hazards if not disposed of properly. Do not dispose of batteries in a fire; batteries could explode. For battery disposal assistance, call your local BEST Power office.
12. A battery can present a risk of electrical shock and high short circuit current. Keep unauthorized personnel away from batteries. Only a qualified service person familiar with battery systems should service the batteries.
13. Do not open or mutilate batteries. Released electrolyte or battery acid is harmful to the eyes and skin and may be toxic. If acid is spilled on skin or in the eyes, flush with fresh water and contact a physician immediately.

### Plug-in Models Only:

14. The AC outlet which supplies power to the unit must be near the unit and must be easily accessible. To de-energize the UPS in an emergency, press  or  and unplug the power cord from the wall outlet. The power cord is intended as the disconnect. To reduce the risk of electric shock, shut off and unplug the unit before making any connections to the UPS' communication port.
15. Refer to page 32 for important information regarding grounding (connecting to earth), and the UPS and protected equipment leakage current.

### Models without Input Plugs Only:

16. The UPS must be installed by a qualified service person. The service person must install AC line input according to local and national codes and must be familiar with batteries and battery installation. The Installation Manual that came with the UPS contains detailed information for the service person who installs the UPS.
17. If a bypass switch is provided, the bypass switch must be installed according to instructions in the Installation Manual that came with the UPS. Follow standard safety practices and remove all power before installing the bypass switch.
18. Before operating the bypass switch, the service person must perform the phase check described in the UPS Installation Manual.
19. DO NOT operate the bypass switch when the UPS is running from battery power.

## 2.1 Introduction and Product Description

An Uninterruptible Power System is designed to connect between your utility supply wall outlet and your critical load. Its function is to continually monitor the availability and quality of the electrical supply and to recreate the mains voltage to remain within the UPS specifications, as detailed for each model.

Your Best Power 610 is an advanced true on-line sine wave UPS with bypass line, using double conversion technology.

The utility power enters the UPS, where it is rectified to a DC voltage which will float charge the battery as well as run the DC to AC inverter. The inverter generates the true sine wave output, recreating the utility supply voltage. A bypass path is provided through a transfer switch, in case the UPS becomes overloaded or an inverter fault occurs.

Because the UPS is an on-line design, conditioned power is provided continuously to your load. During an electrical power failure, the unit employs its internal maintenance-free battery to supply continuous power for as long as the battery is capable. The UPS autonomy after a power failure will depend on (a) the size of the UPS and the load of your equipment, (b) the size of the battery used (either the standard internal battery or external battery pack options), and (c) the state of the battery and battery charge when the power failure occurs. Batteries have a finite life that can be affected by excessive use and/or high ambient temperatures. Under normal operation, you should expect a 3-5 year life from your UPS battery.

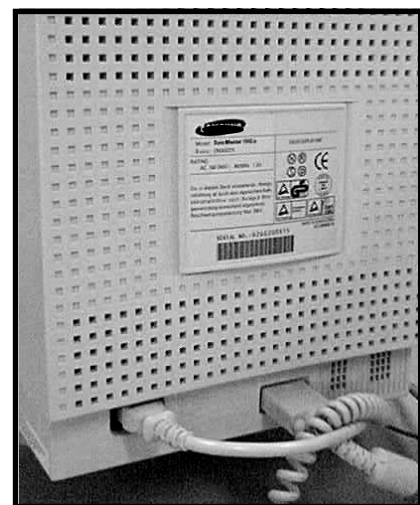


## 2.2 Sizing your Load

Electrical equipment is often rated in VA (volt-amps). This represents the rated voltage times the rated current, i.e. 230 Volts x 2 Amp = 460VA.

Check your equipment for the manufacturer's label. This label should state the equipment's desired operating voltage (V) and current (A) drawn by the equipment. The manufacturer's label is usually found on the external rear or underside of the equipment, or in the handbook or operator's manual.

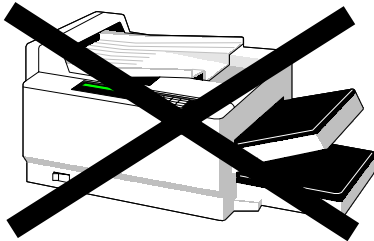
Most computers and their related components are rated at "worst case," with all of the expansion slots or bays fully loaded at low line voltage, so your actual load is probably less than the load indicated by the manufacturer.





## 2.3 Types of Loads

The Best Power 610 UPS is designed to power all modern computer equipment "loads." The UPS output is specifically designed to work with switching power supplies found in today's microprocessor-based equipment.

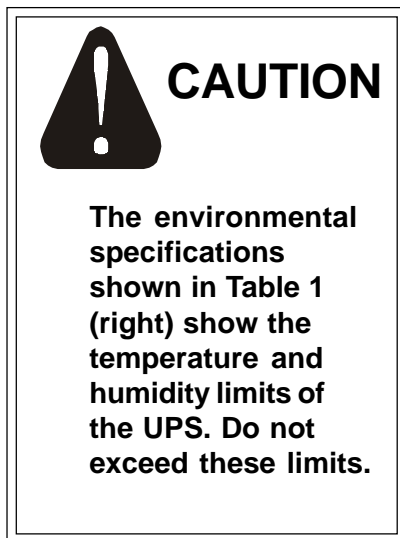


### Laser Printers and your UPS

Best Power **does not** recommend protecting laser printers with this UPS. Laser printers have a heating cycle which provides adhesion of the toner to the paper. This heating cycle draws large amounts of electrical current and will overload your UPS.

If your printer is mission-critical and you want to protect it with a UPS, the UPS must be sized to accommodate the high peak current surge of the printer.

## 2.4 UPS Locations



Your UPS should be in a controlled environment. A controlled environment is one that is indoor, temperature-controlled and free of conductive or semiconductive contaminants. **The Best Power 610 is intended for indoor use only.** There should be adequate ventilation and the location should be free of dust and fumes. Do not install the unit next to open windows where uncontrolled environmental conditions could affect the unit. Do not install the unit in any type of enclosure without first calling Best Power Technical Support. The unit must have unrestricted air flow.

ENVIRONMENTAL SPECIFICATIONS		
Ambient Operating Temperature	< 1500 m (4,900 feet)	0°C to 40°C (32°F to 104°F)
	1500 - 3000 m (4,900 - 9,800 feet)	0°C to 35°C (32°F to 95°F)
Ambient Storage	All Models:	-15°C to 50°C (5°F to 122°F)
Humidity	All Models:	0% to 95%, noncondensing
Altitude	All Models:	3000 m (9,800 feet) max.

Table 1

## 2.5 Installation and Startup



If your UPS unit has an AC inlet plug, plug the unit into a wall socket. If you have a hardwired unit, refer to the separate Installation and Wiring Instructions shipped with hardwire units.

## 2.6 Recharging the UPS Battery

To optimize the performance of your UPS, be sure the battery is fully charged before using the UPS to support your critical load.

To recharge the battery, place the UPS close to a wall outlet and connect the matching line cord to the UPS receptacle; then, plug it into the wall socket. If hardwired, turn the breaker on at the service panel supplying power to the UPS.

When power is supplied to the UPS (without operating any front panel switches), the UPS will go through a short test sequence, and the cooling fan will start.

On the front panel, the line indicator  and the bypass indicator  will illuminate. At this time there is power available at the output sockets.

**Note:** The battery backup feature of the UPS is not available in this mode. See section 3.1 “Switching on the UPS” to enable the battery backup mode.

In this mode, (and normal UPS operating mode) recharging occurs automatically and will take 10 hours if the batteries are completely discharged. As UPS units are normally delivered with charged batteries, providing the UPS has not been in storage for a long time, it will not take long for the battery to reach full capacity.



### CAUTION

**IN ALL CONDITIONS, if the UPS is connected to a live supply, AC POWER IS PRESENT AT THE UPS OUTPUT TERMINALS OR RECEPTACLES. The front panel | (ON) and ⏻ or ○ (STANDBY) switches do NOT control the delivery of power to the output receptacles.**

## 2.7 External Battery Connection



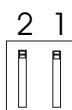
All units, excluding the 700VA model, can be fitted with an external battery option to increase the runtime on batteries when the UPS is operating during an input utility line (mains) failure. Refer to Section 5.1 for selection of external battery options for your specific UPS.

On the rear of each of the 1-3kVA capacity UPS units you will find an external battery receptacle. If you have purchased an external battery option, it will be supplied with an interconnecting cable to connect into this receptacle. Use only the matching battery option for your UPS rating. Using the incorrect battery option may cause damage to your UPS system. **After you make the connection between the external battery and the UPS, switch ON the circuit breaker on the external battery pack.**

Once connected, your UPS will maintain the charge in the external battery providing the utility mains is available.

## 2.8 Voltage Selection Switch

Output Voltage					
E Model			U Model		
High Voltage			Low Voltage		
Voltage	2	1	Voltage	2	1
208	↑	↓	100	↑	↓
220	↑	↑	110	↑	↑
230	↓	↓	120	↓	↑
240	↓	↑	127	↓	↓



Voltage Selection Switch

The voltage selection switch is in the upper left corner beside the communication port on the back of the UPS. The chart above the switch shows the proper settings for each voltage.

Set the voltage selection switch in the direction shown by the arrows for the inverter output voltage you need.

**For Hardwire Models: Make sure the UPS and its input breaker are off. If you have an optional bypass switch, make sure it is turned to "Bypass" or "Off."**

**Note:** When the UPS is in bypass mode or the optional maintenance bypass switch is set to "Maintenance" or "Bypass," the voltage selection switches do NOT control the output voltage.

## 2.9 Setting up the UPS Monitoring from your Computer

**Model Shown:  
0610-3000U soft-wired version**

Your UPS is fitted with a DB9 communications connector on the rear panel. From this connector, you can access opto-coupled outputs indicating mains failure or low battery. The contact ratings are 30 VDC at 10 mA. The diagram below shows DB9 contact connections.

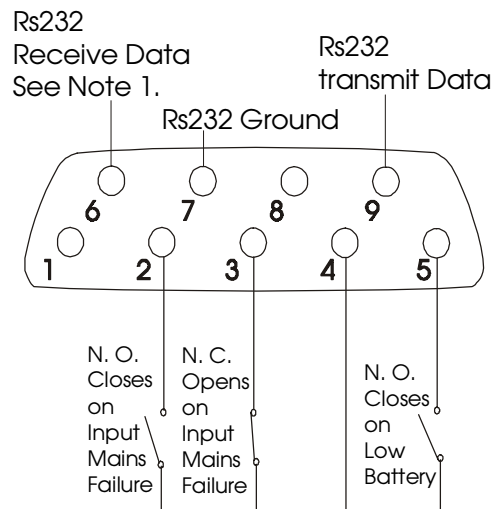
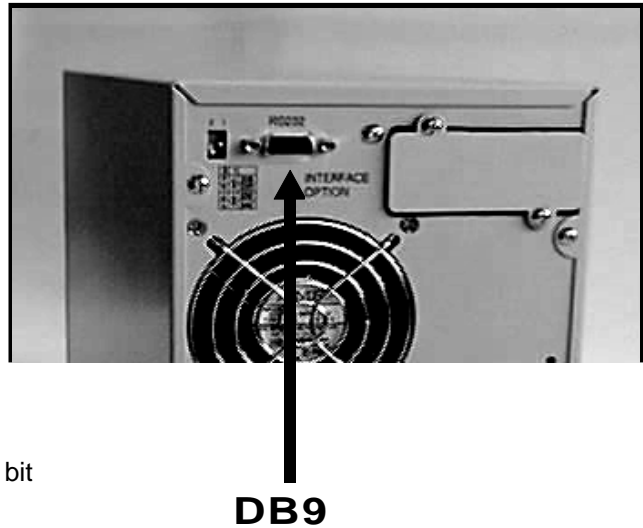
Alternatively, RS232 serial communication is available. This RS232 provides a proprietary command sequence for the computer to monitor the utility and the UPS status and to control the UPS output. The data format of the RS232 is 2400 bps, 8 bit data, 1 stop bit and no parity.

The battery test mode is also available through the RS232 command sequence when the UPS is operating and the power is normal. During the test, the 4 LED's (line, bypass, battery and inverter) will light alternatively until the test is completed.

Each UPS is supplied with a package of CHECKUPS II® Advanced UPS communications software. This package includes the correct interconnection cable for your Best Power 610 UPS. If your computer does not have a DB9 connector on the serial port, use a standard DB9-DB25 adaptor, available at most computer accessory stores. The CD-ROM provided with your UPS includes software for many standard operating systems. Refer to section 4.1 for more details of CheckUPS II® and its capabilities.

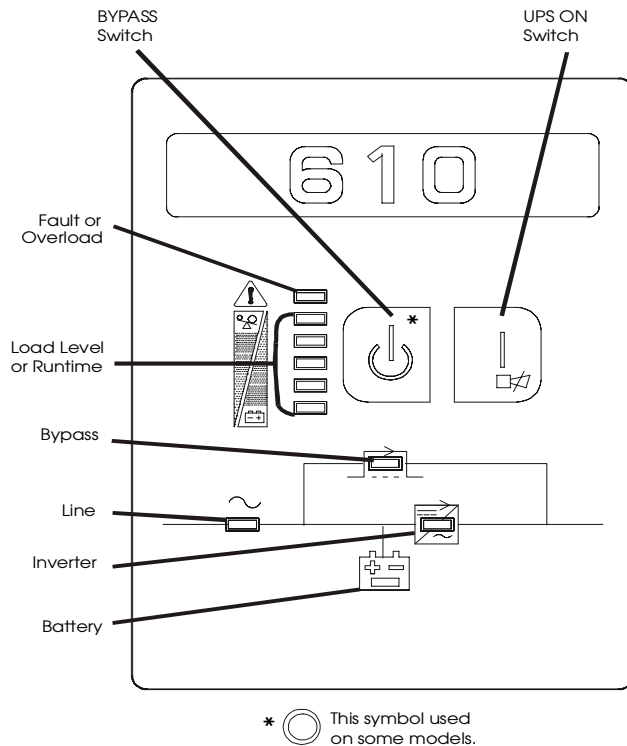
If you are adding the optional Best Relay Card (AS400®), refer to Section 5.2 for instructions to install the card. Be careful to connect your Best Relay (AS400®) interface cable to the correct DB9 connector. Refer to Section 5.2 for more details of the Best Relay (AS400®) card option.

If you are adding the BestLink SNMP/Web option card, refer to Section 5.3 for instructions to install the card. Only one (1) card, either Best Relay (AS400®) or SNMP, can be fitted into the slot at any one time.



**Note 1:** Remote shutdown is available in battery mode only, with no mains input power. Keeping pin 6 at +5 to +12 VDC for 1 second will turn off the UPS inverter.

### 3.1 Switching on the UPS



After completing the installation and battery recharge, switch on the UPS by pressing and holding the front panel switch I for one second. The unit will now commence a system check sequence before establishing its own inverter power.

At first, all the Load Level LEDs will illuminate together, and then one by one. Within a few seconds the Inverter indicator will illuminate, indicating the inverter has now started and the bypass indicator will extinguish, indicating that the UPS is now in normal mode.

**NOTE:** If the Line indicator flashes and the battery indicator illuminates at the same time, your incoming utility AC source voltage and/or frequency is out of the UPS specification. The UPS is drawing energy from the batteries.

You may now start the equipment connected to the UPS. If the load level indicator exceeds 100% and the audible alarm sounds twice per second, you have plugged too many items into the UPS and overloaded it. Remove the non critical items and check the load level indicators.

### 3.2 When the Power Fails

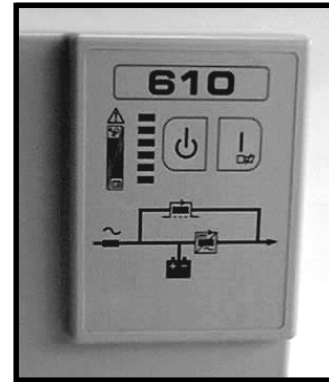
When the utility AC source fails, the UPS will continue to deliver output to the UPS receptacles from the internal or external batteries and the UPS inverter. When this occurs, an audible alarm will sound every 4 seconds and the "line" indicator will extinguish.

The "battery" indicator will be illuminated to show that the battery is now being discharged. The audible alarm can be silenced by pressing the I (ON) push button switch on the front panel and holding it momentarily. If the battery continues to discharge until the low battery charge point is reached, the audible alarm will sound again.

At any time, the audible alarm can be reactivated by pressing the I (ON) switch on the front panel.

### 3.3 When the Power Returns

When the utility AC Line returns after a power failure, the Line indicator will illuminate again, the audible alarm will silence, and the UPS will automatically commence the recharging of the battery. The battery indicator will go out, and the UPS will return to normal operation.



### 3.4 Front Panel Indicators

Your Best Power 610 UPS is fitted with 10 LED indicators to provide you with a simple but comprehensive explanation of the UPS status. The functions of these indicators are detailed below:

**Fault** will illuminate when a fault condition occurs in the UPS. At this time the audible alarm will sound continuously.

**Overload** will illuminate when the UPS is overloaded.

**Load Level and Runtime** perform two functions during different operating modes of the UPS. When utility AC mains is present, **Load Level** will show the equipment load connected as a percentage of the UPS capacity in increments. See LED Indications, Percent of Full Load, below.

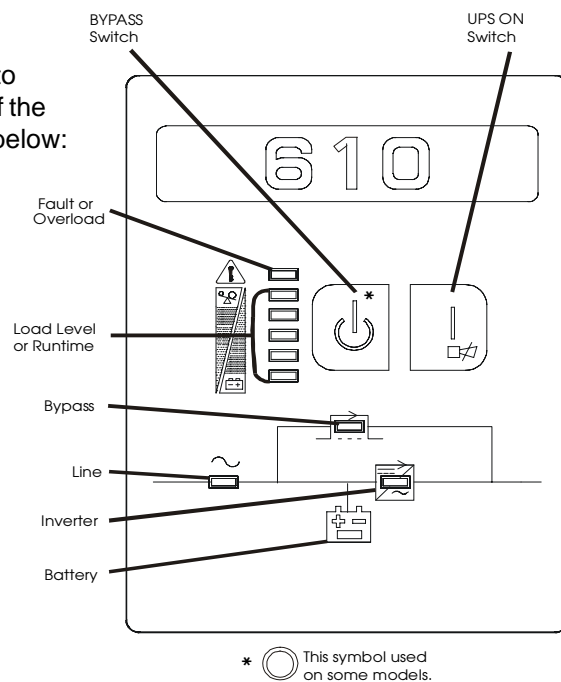
When the UPS is in battery mode, **Runtime** lights will show the amount of battery capacity remaining as a percentage of the full battery capacity in increments. See Percent of Battery Charge under LED Indications.

The **Bypass** light illuminates when the bypass line is in use and the UPS power is being sourced directly from the utility AC supply. When the UPS starts the bypass line will always be in service with the light illuminated until the inverter has started and accepted the load.

The **Line** light will illuminate when there is normal AC voltage entering the UPS from the utility supply.

The **Inverter** light should be on during normal (utility available) or mains failure mode. When OFF, the UPS cannot provide battery backup power.

The **Battery** light illuminates during mains failure, showing that the battery is discharging.



#### LED Indications

##### Percent of Full Load

0-35	35-55	55-75	75-95	95-105	Overload
□	□	□	□	□	■
□	□	□	□	■	■
□	□	□	■	■	■
□	□	■	■	■	■
□	■	■	■	■	■
■	■	■	■	■	■

##### Percent of Battery Charge

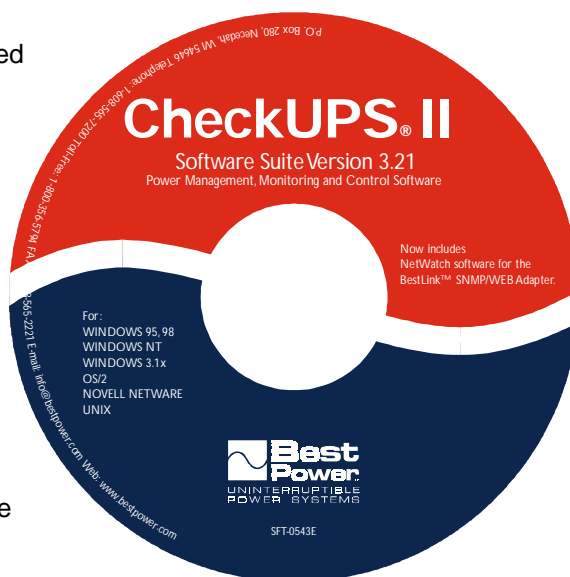
0-35	35-55	55-75	75-95	95-100
□	□	□	□	□
■	■	■	■	■
□	■	■	■	■
□	□	■	■	■
□	□	□	■	■
□	□	□	□	■



## 4.1 Installing the CheckUPS II® Software

Each Best Power 610 UPS is supplied with CheckUPS II® software, a sophisticated UPS Monitoring and orderly unattended system shutdown utility for most popular operating systems.

The CheckUPS II® Suite is contained on the CD-ROM in the software pack along with a special cable for use with your Best Power 610. On the CD-ROM you will find versions of the CheckUPS II® software to operate on Windows® v3.11, Windows 95 and 98®, Windows NT®, OS/2, Novell® and various UNIX platforms.



### Installation

The CheckUPS II® Suite CD-ROM is now completely browsable using your internet browser (Netscape Navigator 3.0 or Internet Explorer 3.0 or higher recommended).

If you previously installed CheckUPS for Windows 95, Windows NT, Windows 3.1x or OS/2, you must follow the instructions provided with the CheckUPS II v3.2x disk to remove the old software before installing v3.2x.

#### New Installation Instructions:

Step 1: System connection and startup.

Turn off the UPS and the PC to be protected. If using the supplied cable, look for the “UPS” label on one end. Connect this end to the COM port on the UPS. Connect the other end to a free serial port on your PC. Turn the UPS power on, and restart the PC.

Step 2: Install and run the software.

*(Note: These instructions assume <cd\_rom> is your CD-ROM drive designation. If not, substitute the appropriate drive letter or mount point.)*

#### Windows '95 (Release B) and '98 Plug and Play Installation:

If the **Update Device Driver Wizard (Add New Hardware Wizard** in Windows '98) appears, insert the CheckUPS II Suite Version 3.2x CD-ROM and click **Next** to continue with the Plug and Play installation process. The wizard either automatically searches your floppy drive(s) and CD-ROM drive, or prompts you to select the drive to be searched for the applicable driver file.

The installation process requires the use of your internet browser (Netscape 3.0 or Internet Explorer 3.0 or higher recommended). The entire installation process and associated documentation is presented in the form of HTML pages which may be browsed from any operating system. Follow the on-screen instructions to complete the Windows '95 or '98 installation of CheckUPS.

### Windows '95 (Release A) Installation:

If a dialog box appears announcing that Windows 95 has found a Fortress, Patriot, Patriot Pro or SOLA 320 or 520 UPS, follow these steps for a quick CheckUPS II installation:

When Windows 95 displays the **New Hardware Found** dialog box, select **the Driver from disk provided by hardware manufacturer** option, and click **OK**.

When the **Install from Disk** dialog box is displayed, insert the CheckUPS II Suite Version 3.2x CD-ROM and click **Browse**.

Under drives, select <cd\_rom>.

Make sure that the file name **abestups.inf** is selected and click **OK**.

Return to the **Install from Disk** screen and click **OK** to start the installation process. The installation process requires the use of your internet browser (Netscape 3.0 or Internet Explorer 3.0 or higher recommended). The entire installation process and associated documentation is presented in the form of HTML pages which may be browsed from any operating system. Follow the on-screen instructions to complete the Windows 95 installation of CheckUPS.

## 5.1 External Battery Options

External battery packs may be connected to the Best Power 610 1kVA, 1.5kVA, 2kVA and 3kVA models to give extended autonomy during power failure.

The standard battery packs available are listed below:

Battery pack Part Number	UPS Rating	Runtime with additional pack*	
		Half Load	Full Load
610-1BAT-1000	1.0kVA	41 minutes	18 minutes
610-2BAT-1000	1.0kVA	68 minutes	28 minutes
610-1BAT-1500	1.5kVA	65 minutes	25 minutes
610-2BAT-1500	1.5kVA	150 minutes	60 minutes
610-1BAT-2000	2.0kVA	60 minutes	25 minutes
610-2BAT-2000	2.0kVA	88 minutes	40 minutes
610-1BAT-3000	3.0kVA	35 minutes	16 minutes
610-2BAT-3000	3.0kVA	60 minutes	25 minutes

\* Runtimes are approximate and depend on state of charge of batteries at time of power failure, ambient temperature, connected load, age of battery, etc.

Larger runtimes are available on request.

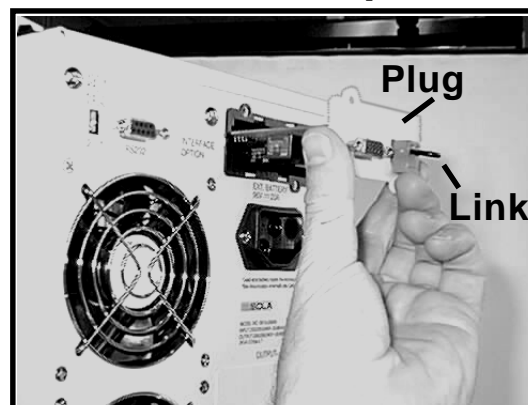


## 5.2 Best Relay (AS400®) Card Installation and Operation

### Output 2 (ES 2 Pin connector)


A plug with link is supplied with the Best Relay (AS400®) card option. This plug must be installed for normal operation. If this plug is removed, the load will be transferred to bypass.

The plug is removed only in applications where an external maintenance bypass switch is used. When using an external bypass switch, remove the link in the plug and connect the red and black wires from the cable routed out of the left side of the bypass switch cabinet.



### Output 1 (DB9 female connector)

To install the Best Relay (AS400®) card, complete the following steps:

1. Shut down your protected load. Press the UPS  or  (Standby) switch and remove the input line cord from the wall socket.



**CAUTION : Even with the UPS switched off, dangerous voltages may still be present at the UPS or its outlets.**

2. Remove the communications slot cover on the rear of the UPS by removing the two retaining screws. Slide the Best Relay (AS400®) card option into the slot and secure it with supplied screws.
3. Store the communications slot cover plate for reinstallation in case the Best Relay (AS400®) card option be removed and decommissioned in the future.
4. The Best Relay (AS400®) card will now be operational when the UPS is turned on and returned to service.

### AS400 DB9 Pin out connections

Pin No	Signal Name	Definition	I/O	Comments
1	UPS Fail	Normally open, active will close	0	Relay contact
2	Summary alarm	Normally open, active will close. Active when UPS fails, bypass activated, utility power and low battery status	0	Relay contact
3	Remote Shutdown (-)	Ground		
4	Remote Shutdown (+)	Activated by +5 ~ 12V for 1 sec duration	1	
5	Common	Common connection for pins 1,2,6,7,8 & 9		Relay common
6	Bypass	Normally open, will close when UPS is in bypass mode	0	Relay contact
7	Battery Low	Normally open, will close when battery is almost discharged	0	Relay contact
8	UPS - ON	Normally open, will close when UPS is on.	0	Relay contact
9	Utility line failure	Normally open, will close when ac input fails.	0	Relay contact

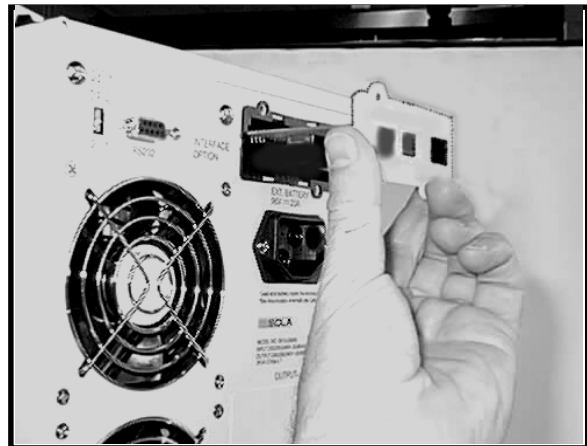
## 5.3 BestLink SNMP/WEB Card Installation and Operation

You may wish to connect your UPS to a network management system using SNMP. This will require the purchase of the Bestlink SNMP/WEB Adaptor card option (Part No. 0610-SNMP-00), which will install in the communications slot on the rear of the UPS. This device when, plugged into the UPS communications slot and connected to the network, can allow a network supervisor to monitor and control the UPS via SNMP protocol under such popular network management platforms like HP OpenView, IBM NetView, etc. In addition, the user may also manage the BestLink UPS through a web browser such as Netscape or Internet Explorer.

The BestLink SNMP/Web adaptor card has a 10BASE-T Ethernet interface built in. The SNMP adaptor has a DIP switch to set the I/P address assignments and two (2) LED indicators show power or network status plus error conditions.

In the BestLink SNMP/Web Adaptor card option package you will find the following items :

- One - SNMP adaptor card
- One - 3.5" DOS-formatted diskette containing the UPS SNMP Agent MIB
- One - 3.5" tar- formatted diskette containing the UPS SNMP Agent MIB
- One - User Manual
- One - Alternate mounting plate



To install the BestLink SNMP/Web adaptor card complete the following :

1. Shut down your protected load. Press the UPS  or  (Standby) switch and remove the input line cord from the wall socket.



**CAUTION : Even with the UPS switched off, dangerous voltages may still be present at the UPS or its outlets.**

2. Remove the communications slot cover on the rear of the UPS. Slide the BestLink SNMP/Web adaptor card option into the slot and secure it with supplied screws.
3. Store the communications slot cover plate for recovery in case the BestLink SNMP/Web adaptor card option is removed and decommissioned in the future.
4. Follow the detailed set-up instructions found in the "User Manual" that came with the BestLink SNMP/WEB Adaptor Card option package.

## 6.1 Storage

The UPS must be kept at reasonable temperatures to obtain maximum battery life (15° to 21° C is ideal).



**Note:**

**While in storage, the unit MUST be plugged into AC power for 10 hours every six months. This is necessary to recharge its internal batteries. The unit must be recharged more frequently if it is stored above 35°C (95°F) to obtain maximum battery life.**

The warranty on this product will be affected if the unit is improperly stored.

## 6.2 Maintenance and Cleaning

Turn off and disconnect loads before performing maintenance work. Your BEST POWER 610 UPS requires little or no maintenance. Occasionally, the input and output connections should be inspected for signs of damage and repaired if necessary.

If you would like to clean the unit, first remove all power to the unit by pressing  or  (Standby) and unplugging the unit from the wall outlet. For units with no input plug, switch the unit off and disconnect AC line input at the service panel or the maintenance bypass switch.

If the unit is operating in an unusually dusty or dirty area, carefully vacuum any dust from the input vents, as well as the chassis holes located on the sides of the UPS.



**WARNING**

**Clean only the external surfaces of the unit. Use a cloth dampened (not soaking) with water only. Allow the unit to completely dry before returning the unit to service.**

### 6.3 Troubleshooting

The TROUBLESHOOTING CHART covers most of the difficulties that you may encounter under normal working conditions. If the UPS fails to operate properly, please review the following checks before calling the repair center:

- Is the circuit breaker turned on in the electrical panel supplying power to the UPS?
- Is the UPS plugged into a correctly working outlet?
- Is the line voltage within the rating specified?
- Has the fuse or the circuit protector protecting the loads tripped?



**Fuse or Circuit Breaker**

Please note the following information when you call for service:

- Model number
- Serial number.
- Date of problem.
- Full description of problem.

**BEST POWER Customer Service Locations are listed on the inside of the front cover.**

#### Bypass LED

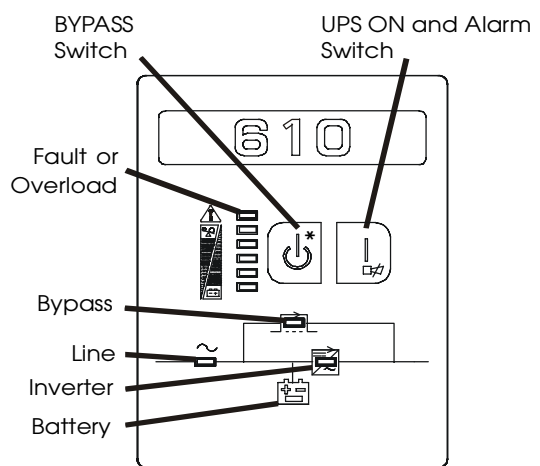
When the UPS is providing power directly through the internal bypass switch, the Bypass LED is on as shown. This will happen if the BYPASS Switch on the front panel is pressed. It also happens during an overload or if the UPS cannot run on battery power because of an inverter failure. (See the Alarm section and the table on the next page to find out the exact cause.) If the internal bypass operates because of an overload, the UPS can transfer back to normal operation after the overload has been removed.

#### Fault or Overload (Alarm) LED

Whenever the red Fault or Overload LED at the top of the front panel is on or flashing, the UPS has detected a problem. The UPS will also sound an alarm tone/beep to notify you of the problem. When this happens, use the table on the next page to determine the cause of the problem and how you should react.

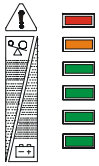
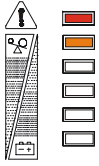
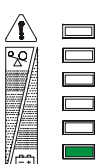
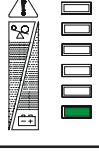
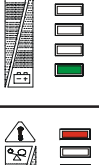
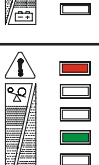
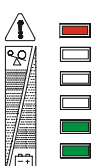
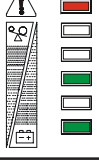

**To silence the alarm, press the Alarm Switch (also called UPS On). Note that silencing the alarm will not solve the problem that caused it.**

If you need to contact Best Power because of the alarm, make sure that you have your unit's model number and serial number available when you call.



\* This symbol used on some models for Bypass Switch.

**Troubleshooting Table - If LEDs are Lit**

LEDs Lit	Audible Alarm	Alarm Description	What You Should Do
	Two Beeps per second	The UPS is overloaded. Your equipment needs more power than the UPS is rated to provide. The UPS operates 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 (using either AC line or battery power).
	Two Beeps per second	The UPS is overloaded ( in Battery Mode). Your equipment needs more power than the UPS is rated to provide. The unit switches to 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 (using either AC line or battery power).
	No Audible Beep	The UPS is doing a battery test. The 4 operating mode lights flash counter-clockwise in sequence.	No action needed. The UPS will return to normal operation when it successfully completes the battery test.
	Five Beeps initially, then No Sound	If the Battery LED is flashing, this means replace the battery.	Phone the nearest Best Power office.
	Constant Beep	If the Battery LED is off, this is a High Ambient Temperature alarm.	Make sure the unit's fans and vent holes are not blocked, and make sure the temperature at the UPS location is not above 40° C(104° F). If these conditions did not cause the problem, phone the nearest Best Power office.
	Constant Beep	High output voltage or Inverter short circuit	Phone the nearest Best Power office.
	Constant Beep	High DC bus voltage.	Phone the nearest Best Power office.
	Constant Beep	Bypass static transfer switch is shorted. The bypass static transfer switch was shorted when the line breaker was turned on.	Phone the nearest Best Power office.
	Constant Beep	Inverter static transfer switch is shorted. The inverter static transfer switch was shorted when the UPS was started.	Phone the nearest Best Power office.

**Troubleshooting Table - No AC In/Out or Battery Problems**

<b>Problem</b>	<b>Possible Cause</b>	<b>What you should do...</b>
The 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 won't 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 on 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 battery is less than the rated time.	The battery may not be fully charged or 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 flashing.	The battery voltage is low.	Recharge the battery for at least 10 hours by connecting the UPS to a source of AC line input. If the problem continues, phone the nearest Best Power office.

## 6.4 Model Specifications

Rating VAW	Model Number	Nominal Input Voltage	Nominal Output Voltages	Input Connector	Output Socket Type
700 VA 490 W	B610-0700E	230	208/220/230/240	IEC 320 C14	(4) IEC320 C13
	B610-0700U	120	100/110/120/127	IEC 320 C14 NEMA 5-15P	(4)NEMA 5-15R
1000 VA 700 W	B610-1000E	230	208/220/230/240	IEC 320 C14	(4) IEC320 C13
	B610-1000U	120	100/110/120/127	IEC 320 C14 NEMA 5-15P	(4) NEMA 5-15R
1500 VA 1050 W	B610-1500E	230	208/220/230/240	IEC 320 C14	(4) IEC320 C13
	B610-1500U	120	100/110/120/127	IEC 320 C14 NEMA 5-15P	(4) NEMA 5-15R
2000 VA 1400 W	B610-2000E	230	208/220/230/240	IEC 320 C14	(4) IEC320 C13
	B610-2000U	120	100/110/120/127	NEMA L5-20P	(4) NEMA 5-15R and (2) NEMA 5-20R
3000 VA 2100 W	B610-3000E	230	208/220/230/240	IEC 320 C20	(4) IEC320 C19
	*B610-3000U	120	100/110/120/127	NEMA L5-30P	(4) NEMA 5-15R and (2) NEMA 5-20R

\*Also available as a hardwired unit

### Frequency (E and U models):

Input Range: 50/60 Hz  $\pm$  5%, Autosensing.

Output Frequency: Automatic; conforms to input.

Output Regulation:  $\pm$  0.5%; inverter free running (Phase locked to input under normal conditions).

### Nominal Input Voltage:

Typical for E models: 230 VAC + 10%, - 20%.

Typical for U models: 120 VAC + 10%, - 20%.

### Nominal Output Voltages (selected by DIP switches on back panel):

Values for E models: 208, 220, 230 or 240 VAC;  $\pm$  3% under all input mains (and battery charge) conditions.

Values for U models: 100VAC (30A), 110 VAC (27A), 120 VAC (25A) or 127 VAC (24A);  $\pm$  3% under all input mains (and battery charge) conditions.

## 6.4 Model Specifications (cont.)

### Output

Power Factor:	0.7 lagging to unity; the unit operates with up to 50 µfarad capacitive load.
Waveform:	Less than 4% THD at full linear load; less than 7% THD at full nonlinear load.
Overload Capacity:	Greater than 130% ± 10% for 1.5 seconds – 20 ms (inverter transfer to bypass). Greater than 110% for 10 seconds (inverter transfer to bypass) for E models. Greater than 110% to 130% for 10 seconds (inverter transfer to bypass) for U models. Application of a short circuit will not damage the UPS.
Battery Transfer Time:	All models-0 ms.
Bypass Transfer Time: (UPS to/from bypass)	700-1500 models-4 ms or less, 2.5 ms typical. 2000-3000 models-0 ms
Auto Reverse:	Returns to normal mode after overload condition is removed.

### Efficiency

(AC to AC) All Models:	83% at nominal input voltage (under full load, pf = 0.7), battery fully charged.
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### Acoustic Noise at one meter from the front panel

700-1000 VA, E and U:	41 dB in line mode; 45 dB in battery mode.
1500 VA, E and U	50 dB in line mode; 50 dB in battery mode.
2000 and 3000 VA E:	50 dB in line mode; 50 dB in battery mode.
2000 and 3000 VA U:	52 dB in line mode; 52 dB in battery mode.

### Protection

Output:	Electronic overload and short circuit protection.
Low Battery	Automatic low battery shutdown.
Thermal	High temperature shutdown.

### Automatic Restart

Following Battery Discharge or Remote OFF Signal:	When input mains power returns UPS starts automatically.
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### Audible Alarms

Battery Discharge	Two stage audible alarm. The alarm sounds every 4 seconds after input mains failure. When the battery discharge point is near, the alarm sounds every second.
Overload:	The alarm sounds once every second during an overload.
UPS Fault:	This continuous alarm sounds when there is an inverter short circuit, output overvoltage, DC bus overvoltage, or high temperature.



## 6.4 Model Specifications (cont.)

### Battery Specifications

Model	DC Float Voltage	DC Bus Voltage	Battery Rating	Number of Batteries	Discharge Time Full Load	Recharge Time to 90%	Cut Off Voltage
0610-0700	27.4	24	7.0 AH 12 VDC	2	> 5 min.	8 hours	20 VDC
0610-1000	41.1	36	7.0 AH 12 VDC	3	> 6 min.	8 hours	30 VDC
0610-1500	55.2	48	7.0 AH 12 VDC	4	> 5 min.	8 hours	40 VDC
0610-2000	110.4	96	7.0 AH 12 VDC	8	> 7 min.	8 hours	80 VDC
0610-3000	110.4	96	7.0 AH 12 VDC	8	> 5 min.	8 hours	80 VDC

### All Models - Physical

Model	Width (mm/in.)	Height (mm/in.)	Depth (mm/in.)	Weight (kg/lb.)
0610-0700	145/5.7	225/8.8	397/15.8	11.5/25.4
0610-1000	145/5.7	225/8.8	397/15.8	15/33
0610-1500	145.5/7	225/8.8	465/18.3	19/42
0610-2000	192/7.6	330/13.8	455/17.9	33.5/74 (E) 35/77 (U)
0610-3000	192/7.6	330/13.8	455/17.9	33.5/74 (E) 35/77 (U)
0610-3000 Hardwire	192/7.6	330/13.8	490/19.3	35/77 (U)

## 6.5 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®, 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.

## 6.6 Service Instruction and Service Locations

### Return Policy

Most instances of initial failure to operate properly can be remedied through a telephone conversation between the user and BEST POWER. Telephone and fax numbers for principal BEST POWER offices are on the inside of the front cover of this manual.

If, during the course of your call, it is determined that a product must be returned, your service representative will provide you with instructions.

All returns to BEST POWER must have a Return Authority (RMA) Number. The following information is required to obtain an RMA Number.

1. Best Power part number.
2. Serial number.
3. Company name, address, phone number and contact person.
4. Proof of purchase.
5. Special instructions, if any.
6. Description of problem.

Shipments must be made in the original packing container. Damage resulting from shipment in a non-original container will void this warranty.

For proper handling upon receipt at BEST POWER, the RMA Number must be clearly placed on the outside of the package. BEST POWER will not be responsible for damage to returned goods that have not been properly packaged or damage exceeding normal wear and tear.

### Service Telephone Numbers:

In the U. S. and Canada: 1-800-356-5737 or 1-608-565-2100  
Worldwide Service Fax: 1-608-565-7642 or 1-608-565-2509

For Service in UK: +44 (0) 1962 829050  
Fax: +44 (0) 1962 840108

For Service in Germany: +49 9131 77700  
Fax: +49 9131 777051

For Service in Latin America: +52 5 399 0369  
Fax: +52 5 399 1320

You have purchased a UPS that will provide you with many years of service, protecting your equipment from surges, sags, and blackouts. This product incorporates the highest quality standards in engineering, manufacturing and testing, and carries a 2 year warranty against defects in material and workmanship. This product is backed by over 75 years of pride and integrity. We are sure you will agree, there is no substitute for a BEST POWER Power Protection device.

Did you know that BEST POWER also makes:

- Single-Phase UPS systems up to 15kVA
- Three-Phase UPS systems to 400kVA
- Parallel Three-Phase UPS Systems to 2MVA
- Plug in Power Conditioners to 3kVA
- Hardwired Single Phase Power Conditioners to 22.5kVA
- Constant Voltage Transformers to 7.5kVA
- CVDC Constant Voltage Ferroresonant Power Supplies

BEST POWER products are available through an extensive distribution network. These distributors offer literature, technical assistance, and a wide array of off-the-shelf products for the fastest possible delivery.

Best Power is a world wide organization, and as well as the offices detailed on the inside cover of this manual, Best Power is also located:

### BEST POWER OFFICES

BEST POWER Technology Ltd.  
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**BEST POWER: Worldwide Manufacturers of Power Protection, Conversion, and Transformation Products**



## For Users in the United States only:

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 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:

This Class A interference causing equipment meets all requirements of 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.

### Leakage Current Information

The UPS ground (earth) conductor carries leakage current from the loads in addition to any leakage current generated by the UPS. Maximum UPS Leakage Current generated by the various UPS models is shown in Table 1, below.

**Table 1**

UPS Model	UPS Leakage Current
700 and 1000 (E)	0.5 mA
1500 and 2000 (E)	1.5 mA
3000 (E)	2.0 mA
700 (U)	0.5 mA
1000, 1500, 2000, and 3000 (U)	1.0 mA

To limit the total leakage current to 3.5 mA, the load leakage must be limited to the value shown under Load Leakage Current, for each UPS model, as shown in Table 2, below. If you do not know the load leakage current, replace the UPS power cord with a power cord that uses an industrial style locking plug, (such as IEC 309). If you do not have a matching receptacle, have an electrician install the correct receptacle. The three-wire receptacle that you plug the UPS into must have a good (low-impedance) ground (protective earth) connection to provide a safe path for leakage current.

**Table 2**

UPS Model	Load Leakage Current
700 and 1000 (E)	3.0 mA
1500 and 2000 (E)	2.0 mA
3000 (E)	1.5 mA
700 (U)	3.0 mA
1000, 1500, 2000, and 3000 (U)	2.5 mA

## 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 can't 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" on the Best Power home page. 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 \_\_\_\_\_

Company \_\_\_\_\_

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

City \_\_\_\_\_

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

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

Telephone \_\_\_\_\_

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