



User's Manual Legend SB500R UPS

K01-1120008-00

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Thank you for purchasing a Legacy Power Conversion Product. To enjoy all the features and benefits of this Uninterruptible Power System (UPS), please read and follow all installation and operation instructions completely. This UPS is designed to provide guaranteed power protection for connected electronic equipment. The accompanying SeeUPS2020 software saves data, closes open applications and automatically shuts down your computer system in an intelligent and orderly manner.

IMPORTANT SAFETY INSTRUCTIONS

(SAVE THESE INSTRUCTIONS)

This manual contains important instructions that should be followed during installation and maintenance of the UPS and batteries. Please read and follow all instructions carefully during installation and operation of the unit. Read this manual thoroughly before attempting to unpack, install, or operate.

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

CAUTION! DO NOT USE FOR MEDICAL OR LIFE SUPPORT EQUIPMENT! CyberPower Systems does not sell products for life support or medical applications. **DO NOT** use in any circumstance that would affect operation or safety of any life support equipment, with any medical applications, or patient care.

CAUTION! The battery can energize hazardous live parts inside even when the AC input power is disconnected.

CAUTION! To prevent the risk of fire or electric shock, install in a temperature and humidity controlled indoor area, free of conductive contaminants. (Please see specifications for acceptable temperature and humidity range).

CAUTION! To reduce the risk of electric shock, do not remove the cover, except to service the battery. No user serviceable parts inside, except for the battery.

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

CAUTION! DO NOT USE WITH OR NEAR AQUARIUMS! To reduce the risk of fire, do not use with or near aquariums. Condensation from the aquarium can come in contact with metal current contacts and cause the machine to short out.

CAUTION! DO NOT USE WITH LASER PRINTERS! The power demands of laser printers are too large for a UPS.

INSTALLING YOUR UPS SYSTEM

UNPACKING

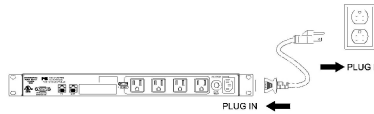
The box should contain the following:

- (1) UPS unit ; (1) User's manual for UPS; (1) SeeUPS2020 software; (1) serial interface cable (DB-9);
- (1) Telephone communication cable; (1) warranty registration card.

HARDWARE INSTALLATION GUIDE

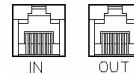
1. Your UPS may be used immediately upon receipt. However, **recharging the battery for at least four hours** is recommended to insure that the battery's maximum charge capacity is achieved. Charge loss may occur during shipping and storage. To recharge the battery, simply leave the unit plugged into an AC outlet. The unit will charge in both the on as well as the off position.

2. If you wish to use the software, connect the enclosed serial interface cable to the serial port on the UPS and an open serial port on the computer. If you are not going to use the software, you do not need to connect the cable.



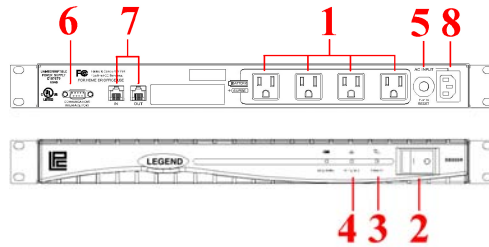
3. With the UPS unit off and unplugged, connect your computer, monitor, and any externally powered data storage device (Zip drive, Jazz drive, Tape drive, etc...) into the battery power supplied outlets. Plug your peripheral equipment (printer, scanner, speakers) into the full-time surge protection outlets. **DO NOT plug a laser printer, copier, space heater, vacuum, paper shredder or other large electrical device into the UPS. The power demands of these devices will overload and possibly damage the unit.**

4. To protect a fax, telephone, modem line or network cable, connect a telephone cable or network cable from the wall jack outlet to the IN jack of the UPS. Then connect a telephone cable or network cable from the OUT jack on the UPS to the modem, computer, telephone, fax machine, or network device.



5. Plug the UPS into a 2 pole, 3 wire grounding receptacle (wall outlet). Make sure the wall branch outlet is protected by a fuse or circuit breaker and does not service equipment with large electrical demands (e.g. refrigerator, copier, etc...). Avoid using extension cords.
6. Depress the power switch to turn the unit on. The power on indicator light will illuminate and the unit will "beep" once.
7. If an overload is detected, an audible alarm will sound and the unit will emit one long beep. To correct this, turn the UPS off and unplug at least one piece of equipment from the battery power supplied outlets. Wait 10 seconds. Make sure the circuit breaker is depressed and then turn the UPS on.
8. Your UPS is equipped with an auto-charge feature. When the UPS is plugged into an AC outlet, the battery will automatically recharge.
9. To maintain optimal battery charge, leave the UPS plugged into an AC outlet at all times.
10. To store your UPS for an extended period, cover it and store with the battery fully charged. Recharge the battery every three months to insure battery life.

FRONT AND REAR PANEL DESCRIPTIONS



1. Battery/Surge Outlets

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

2. Power Switch

Can be used as a mater on/off switch for equipment connected to the battery power supplied outlets.

3. Power On Indicator

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

4. Electrical Wiring Fault Indicator

This LED indicator will illuminate to warn the user that a wiring problem exists, such as bad ground, missed ground or reversed wiring. If this is illuminated, disconnect all electrical equipment from the outlet and have an electrician check to ensure the outlet is properly wired.

5. Circuit Breaker

Located on the side of the UPS, the circuit breaker serves to provide overload and fault protection. Under normal operating conditions, the circuit breaker is depressed.

6. Serial Port to PC

This port allows connection and communication from the DB-9 serial port on the computer to the UPS unit. The UPS communicates its status to the PowerPanel™ software. This interface is also compatible with the UPS service provided by Windows NT Windows 2000, and Windows XP.





7. Communication Protection Ports

Communication protection ports will protect any standard modem, fax , telephone line, or network cable.

8. Outlets Designed for AC Adapters

Allows six AC power adapter blocks to be plugged into the UPS without blocking adjacent outlets.

DEFINITIONS FOR ILLUMINATED LED INDICATORS

 Power ON	 Wiring Fault	 Circuit Breaker	 Alarm	CONDITION
On	Off	Set	Off	Normal
Off	On/Off	Set	Two Beeps	Utility Failure- the UPS is providing power to battery power-supplied outlets from its battery.
Off	On/Off	Set	Rapid Beeps	Utility Failure- The UPS is providing battery power. Rapid beeps indicate the unit will run out of power shortly.
Off	Off	Up	Two Beeps or Rapid Beeps	System Overload- Occurs when connected equipment exceeds the rating of unit. Turn the UPS off, unplug at least one piece of equipment, wait 10 seconds, reset the circuit breaker and turn the unit on.
Off	On/Off	Set	Long Beep	Battery Overload- Occurs when connected equipment exceeds the rating of battery outlets of the unit. Turn the UPS off, unplug at least one piece of equipment from battery outlets, wait 10 seconds, reset the circuit breaker and turn the unit on.
On/Off	On	Set	None	Electrical Wiring Fault- This indicates a wiring problem with the AC outlet such as bad ground, missed ground, or reversed wiring. User is advised to disconnect all electrical equipment from the outlet and have an electrician check the outlet to insure proper wiring.

TROUBLESHOOTING

Problem	Possible Cause	Solution
Full-time surge protection outlets stop providing power to equipment.	Circuit breaker has tripped due to an overload.	Turn the UPS off and unplug at least one piece of equipment. Wait 10 seconds, reset the circuit breaker by depressing the button, and then turn the UPS on.
The UPS does not perform expected runtime.	Battery not fully charged.	Recharge the battery by leaving the UPS plugged in.
	Battery is slightly worn out.	Contact Legacy Power Conversion about replacement batteries at service@lpc-ups.com or 800-859-5711.
The UPS will not turn on.	The on/off switch is designed to prevent damage by rapidly turning it off and on.	Turn the UPS off. Wait 10 seconds and then turn the UPS on.
	The unit is not connected to an AC outlet.	The unit must be connected to a 110/120v 60Hz outlet.
	The battery is worn out.	Contact Legacy Power Conversion about replacement batteries at service@lpc-ups.com or 800-859-5711.
	Mechanical problem.	Contact Legacy Power Conversion about replacement batteries at service@lpc-ups.com or 800-859-5711.
SeeUPS2020 is inactive (all icons are gray).	The serial cable is not connected.	Connect the serial cable to the UPS unit and an open serial port on the back of the computer. You must use the cable that came with the unit.
	The serial cable is connected to the wrong port.	Check the back of the computer for an additional serial port. Move the cable to this port.
	The unit is not providing battery power.	Shutdown your computer and turn the UPS off. Wait 10 seconds and turn the UPS back on. This should reset the unit.
	The serial cable is not the cable that was included with the UPS unit.	You must use the serial cable that was enclosed with the unit for the software and unit to be able to communicate.

TECHNICAL SPECIFICATIONS

	SB500R
Capacity	500VA(275W)
Input Voltage on Utility	100V to 140V
Input Frequency	57 Hz to 63 Hz
On-Battery Output Voltage	120Vac ± 5%
On-Battery Output Wave Form	Simulated Sine Wave Form
Transfer Time	4ms Typical
Overload Protection	On Utility: Circuit Breaker, On battery: Internal Current Limiting
Lightning / Surge Protection	Yes
Internet Ready (DSL/ Phone/ Fax/ Modem Protection)	RJ11/ RJ45 (One In/ One Out)
Operating Temperature	+ 32°F to 95° F. (0° C to 35° C)
Maximum Dimensions (cm)	1U Rack 43.1 x 24.7 x 4.4
Weight (kg)	5.3
Typical Battery Recharge Time	8 hours typical from total discharge
Battery Type Sealed Maintenance Free Lead Acid Battery	6V 7.0AH x 2
User Replaceable	n/a
Indicators	Power On, Using Battery, Wiring Fault,
Audible Alarms	On battery, Low battery, Overload
Communication Power Panel Software	Windows 95/ 98/ ME/ NT/ 2000/ XP
Self-Test	Yes
Auto-Charge	Yes
Auto-Restart	Yes
USB	Optional

TYPICAL RUNTIME IN MINUTES

	SB500R
Desktop PC with 15" Monitor	13 – 19
Desktop PC with 17" Monitor	11 – 17
Desktop PC with 21" Monitor	10 - 15

LIMITED WARRANTY

In purchasing SB500R in the United States or Canada, the original end user receives a Limited Warranty from Legacy Power Conversion, Inc. (for ease of reading, referred to as "Legacy"). The Limited Warranty is intended to be the original end-user's exclusive rights and remedies.

Limited Warranty. The original end user (referred to as the "Initial Customer") receives an express limited warranty (referred to as the "Limited Warranty") for the SB500R purchased from Legacy (referred to as the "Product"). The Limited Warranty is for the Product itself. The Limited Warranty is subject to the terms set forth below. Additionally, State or Provincial law may adjust the terms of the Limited Warranty or the State or Province may impose additional obligations, or additional "implied warranties." To the extent necessary to comply with those laws, the terms of the Limited Warranty should be read to adjust to those requirements only to the extent necessary to comply with such local law.

If you are an Initial Customer, you are asked to read the following terms and conditions carefully before using the Product. By using the Product you consent to be bound by and become a party to the Limited Warranty. If you do not agree to the terms and conditions of the Limited Warranty, you should return the Product for a full refund prior to using it.

REGISTRATION

Legacy requests that you complete and return the Warranty Registration Card enclosed with the Product or register the Product at its website (www.lpc-ups.com) to establish that you are the Initial Customer of the Product, and therefore entitled coverage under the Limited Warranty. (Registration is not required for Limited Warranty coverage, but note if you do not complete a registration card you will be required to provide proof of purchase, as described below, to have the benefits of this Limited Warranty.)

LIMITED WARRANTY

Legacy warrants to you, the Initial Purchaser, that the Product will be free from defects in material and workmanship for three years from the date of original purchase, subject to the terms of this Limited Warranty. This Limited Warranty gives you specific rights, and you may have other rights, which vary from State to State or Province to Province.

Any Implied Warranty of Merchantability or for Fitness for a Particular Purpose, if applicable to the Product, is limited in duration to the period of ownership by the Initial Customer. This provision shall NOT create any Implied Warranty or Merchantability or of Fitness for a Particular Purpose that would not otherwise apply to the Product. NOTE: **Some States and Provinces do not allow limitations on how long an implied warranty lasts, so the above limitation may not apply to you.**

To be covered you must still be the owner of the Product at the time of the failure that results in the claim made under this Limited Warranty.

Exclusive Remedies Under Limited Warranty.

Your exclusive remedy and Legacys' sole obligations are as follows for the Product:

If (a) the Legacy Product you purchased and still own is defective in material or workmanship under this Limited Warranty or any applicable warranty imposed by law, and (b) all Limited Warranty requirements have been met, Legacy will repair or replace

the Product if it proves to be defective in material or workmanship during the Warranty Period.

Making a Limited Warranty Claim.

To make a Limited Warranty claim on a Product, you must do the following:

1. Complete and return the Legacy Warranty Registration Card, or provide reasonable proof of purchase (for example, a sales receipt) that establishes you as the Initial Customer (the original end-user consumer purchaser) of the Product and prove that the Product was purchased within three (3) years of the event for which you want to make a claim for warranty service.
2. Call Legacy at (608) 565-5878 or (800) 859-5711 (toll free), write to Legacy Power Conversion at N9246 Hwy 80 South, Suite 7, Necedah, WI 54646, or e-mail Legacy at service@lpc-ups.com, within ten (10) days of the event for which you want to make a claim.
3. When you contact Legacy, identify the Product, the Purchase Date, and request Return Materials Authorization (RMA) information from Legacy.
4. Pack and ship the Product to Legacy as instructed in your RMA. Show the RMA code on the shipping label or include it with the Product.

You MUST prepay all shipping costs and you are responsible for packaging and shipment.

Legacy will inspect and examine the Product within ten (10) days of receipt. If the Product is not as warranted, Legacy will repair or replace the Product and return it to you at Legacy's expense, or, if Legacy is unable to or decides not to repair or replace the Product (if defective) within a reasonable time, Legacy will refund to you the full purchase price you paid for the Product (purchase receipt showing price paid is required).

CONDITIONS TO THE LIMITED WARRANTY

The Limited Warranty is the only and the exclusive express warranty of Legacy with respect to the Product. This exclusion of other express warranties applies to written and oral express warranties.

LIMITATION: THE LIMITED WARRANTY DOES NOT COVER

The Limited Warranty is intended to exclusive rights and remedies and replace any other rights, to the extent allowed by law.

As to the Legacy Product, the limited warranty **does not** cover or apply to: misuse, modification, operation or storage outside environmental limits for the Products, in transit, in shipment, or in storage, damage or deterioration, improper operation or maintenance, or use with items or equipment not designed or intended for use with the product.

The Limited Warranty Does Not Apply Unless The Initial Customer:

1. Has properly connected the Product and the Connected Equipment to properly wired and grounded outlets (including compliance with electrical and safety codes of the most current electrical code (ANS/NFPA 70), without the use of any adapters, extension cords or other connectors.
2. Has provided a suitable and proper environment for use and installation of the Product and Connected Equipment.
3. Has properly installed and operated the Legacy Product and Connected equipment.
4. Has operated the Product at all times within the limitations on the Product's VA

Legacy Does Not Cover or Undertake Any Liability in Any Event for Any of the Following:

1. Loss of or damage to data, records, or software or the restoration of data or records, or the reinstallation of software.
2. Damage from causes other than AC Power Line Transients, spikes, or surges on properly installed, grounded and code-compliant 120 volt power lines in the United States and Canada; transients, surges or spikes on standard telephone land lines, PBX telephone equipment lines or Base 10T Ethernet lines, when properly installed and connected. (This exclusion applies, for example, to fluctuations in data transmission or reception, by CATV or Therefore transmission or fluctuations, or by transients in such transmission.
3. Damage from any circumstance described as excluded above with respect to the product.
4. Damages from fire, flood, wind, rain, rising water, leakage or breakage of plumbing, abuse, misuse or alteration of either the product or the Connected Equipment.

Exclusion of Consequential and Other Damages.

The sole and exclusive remedies of the Initial Customer are those provided by the Limited Warranty. Legacy excludes any liability for personal injury under the Limited Warranty. Legacy excludes any liability for direct, indirect, special, incidental or consequential damages, whether for damage to or loss of property, loss of profits, business interruption, loss of information or data. This exclusion applies even though damage or loss is caused by negligence or other fault. NOTE: Some States or Provinces do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation may not apply to you.

DO NOT USE FOR MEDICAL OR LIFE SUPPORT EQUIPMENT OR OTHER HIGH RISK ACTIVITIES.

Legacy does not sell the Products for use in high-risk activities. The Product is not designed or intended for use in hazardous environments requiring fail-safe performance, including the operation of nuclear facilities, aircraft navigation or communication systems, air traffic control, weapons systems, life support or medical applications or for use in any circumstance in which the failure of the Product could lead directly to death, personal injury, or severe physical or property damage, or that would affect operation or safety of life support device (collectively, "High Risk Activities"). Legacy expressly disclaims any express or implied warranty of fitness for High Risk Activities.

Legacy does not authorize use of any of its products use in any High Risk Activities.

ANY SUCH USE IS IMPROPER AND IS A MISUSE OF LEGACY PRODUCTS.

The Limited Warranty is governed by the laws of the United States and the State of Wisconsin, without reference to conflict of law principles.

The application of the United Nations Convention of Contracts for the International Sale of Goods is expressly excluded.

Contact Information: Legacy's address is N9246 Hwy 80 South, Necedah, WI 54646 and its phone number is (608) 565-5878 or (800) 859-5711 (toll free). Legacy is the warrantor under this Limited Warranty. You may also contact Legacy on the Internet at www.lpc-ups.com.

FCC Notice

This equipment has been tested and found to comply with the limits for a Class B Digital Device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures: (1) Reorient or relocate the receiving antenna. (2) Increase the separation between the equipment and receiver. (3) Connect the equipment into an outlet on a circuit different from that to which the receiver is connected. (4) Consult the dealer or an experienced radio/TV technician for help. Any special accessories needed for compliance must be specified in the instruction.

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

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



For more information, contact us at:

Legacy Power Conversion, Inc.

N9246 Hwy 80 South, Suite 7

Necedah, WI 54646

Tel: (800) 859-5877

Fax: (608) 565-5879

Email: sales@lpc-ups.com

Web: www.lpc-ups.com

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