This manual contains important safety instructions. Please read and follow all instructions carefully during installation and operation of the unit. Read the manual thoroughly before turning on the unit to register your product by visiting CyberPower.com/registration. Registration certifies your product's warranty, confirms your ownership in the event of a product loss or theft and entitles you to free technical support.

INSTALLING YOUR UPS SYSTEM

1. Unplug all equipment from the battery immediately upon receipt. However, after receiving a new UPS, to ensure the battery's maximum capacity, it is recommended that you charge the battery for at least 8 hours. Your UPS is equipped with an auto-charge feature. When the UPS is plugged into an AC outlet, the battery will automatically charge when the AC power is disconnected.

2. There are many factors that can affect the amount of power that your electronic equipment will require. For optimal system performance keep the load below 80% of the unit's rated capacity.

HOW TO DETERMINE THE POWER REQUIREMENTS OF YOUR EQUIPMENT

1. Make sure that the equipment connected does not exceed the equipment capacity (460VA/260W for EC450G, 550VA/300W for EC550G, 650VA/390W for EC650G, 650VA/390W for EC650G, 850VA/510W for EC850G, and 850VA/510W for EC850G / EC650G). If the rated capacities of the outlets are exceeded, an overload condition may occur and cause the UPS unit to shut down or the circuit breaker to trip.

2. Plug the UPS into a 120 VAC, 3-wire grounded receptacle (wall outlet). Make sure the wall branch outlet is protected by a fuse or circuit breaker and does not service large equipment with large electrical demands (e.g. air conditioner, refrigerator, copier, etc.). The warranty prohibits the use of extension cords, outlet strips, and surge strips in conjunction with the UPS equipment. However, you can use extension cords only with products specifically designed for use with the UPS for AC outlets.

3. The UPS is designed with a safety feature to keep the system from being turned on during shipment. The first time you turn the UPS on, the unit will not want to have it connected to AC power or it will not power up. The UPS unit will automatically sense the AC power, and then turn the UPS on once AC power is connected. Due to this feature, there is no need for a surge protection device to be connected to the UPS.

4. Press the power switch to turn the unit on. The Power On indicator light will glow green and the unit will be "on".

5. To turn the UPS off, press the power button for approximately 3 seconds - you will hear a constant tone (1 second) - and release after short beep.

6. To turn the UPS ON, press the power button for approximately 2 seconds - you will hear a constant tone (1 second) - and release after short beep.

7. Alarm setting: The audible alarm can be turned Off or On by double click the POWER button. The default setting for the alarm is Off. To turn the Alarm Off, double click the button. You will hear two short beeps when the Alarm is turned on. To turn the Alarm off, double click the button. You will hear a single short beep when the Alarm is turned on. When the Alarm is turned on, there will be no audible notification when the UPS reaches a low battery state.

8. Mode Switch (EC650G and EC850G only)

   Press the Mode Switch for approximately 3 seconds to enter setup mode to select four functions: Utility High Voltage Range, Utility Low Voltage Range, ECO ON/OFF, and LCD sleep ON/OFF. When a function is selected, press Mode Switch for 3 seconds to view the menu option for that function. If the button is not selected for 8 seconds, the LCD screen will be confirmed. After the setting has been confirmed the LCD screen will show setup mode and go back to status display. If there is no action for 8 seconds during setup, the LCD will also leave setup mode and go back to the status display.

   a. Utility High Voltage Range: Adjust the value of high voltage range.
   b. Utility Low Voltage Range: Adjust the value of low voltage range.
   c. ECO Easy/Off (ON/OFF): Turn on or off ECO function. For more information, refer to ECO Function Setup section.
   d. LCD: ON/OFF (ON/OFF): * When LCD is set to L1, LCD will be always on. When LCD is set to L0, LCD will dim until it is touched.

9. Circuit Breaker

   Located on the side of the UPS, the circuit breaker serves to provide overload and fault protection.

1. USB Port to PC and USB Mode

   The USB port allows communication between the USB port on the computer and the UPS. The UPS communicates its status to the PowerPanel® Personal software. The USB port is also used for operating the UPS in ECO Mode for more information, refer to ECO Function Setup section.

1. ECO Mode, Surge Protected Outlet

   ECO mode automatically cuts power to peripherals when your computer is in Sleep mode or is turned off (USB connection required).

1. Outlets Designed for Adapters

   Some of the surge-only outlets are also ECO controlled outlets. When the PC is connected to the USB port turn off the UPS, the UPS will turn off the ECO controlled outlets and control power to the connected devices to them in order to save power.

   Generally, these are peripherals that are not used when the PC is not on.

ECO FUNCTION SETUP

1. ECO Function

   When the ECO function is active the UPS can detect whether the PC that is connected to the USB port is turned on or off. If the PC is turned off, the UPS will turn off the ECO controlled outlets and output power to the connected devices to them in order to save power.

   Generally, these are peripherals that are not used when the PC is not on.

ECO CONTROLLED OUTLET

Three of the surge-only outlets are also ECO controlled outlets. When the PC that is connected to the USB port is turned off, the UPS will turn off the ECO controlled outlets and save energy.

ECO SETUP

1. The factory default setting is Off. ECO mode can only be enabled/disabled and will only be active when the UPS is receiving utility power and not in battery mode.

2. For the EC450G/EC550G, press the Mode switch for approximately 3 seconds to enter setup mode and select the ECO function. When the ECO function is selected, press the Mode switch for 3 seconds to turn the function on or off. Once on or off is selected, wait 8 seconds for the setting to be confirmed and the LCD screen will return to status mode. For the EC650G/EC850G, press the button for 3 seconds to turn on or off the ECO function.

3. When the ECO function is turned on, utility power from the ECO outlets will always be off. When the ECO function is on, utility power from the ECO outlets will turn off if the PC connected to the UPS via the USB port is turned off or if there is no PC connected to the UPS via USB.

ECO INDICATOR

The LED will be blinking when the ECO function is turned on but the PC is either off or not connected. The LED will be solid if the ECO function is turned off and the connected PC is on. The LED is off when the ECO function is disabled. See below table for more information.

<table>
<thead>
<tr>
<th>ECO Indicator</th>
<th>ECO Function</th>
<th>ECO Outlet Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>Solid (green)</td>
<td>ON</td>
<td>With Utility Power</td>
</tr>
<tr>
<td>Blinking</td>
<td>OFF</td>
<td>Without Utility Power</td>
</tr>
<tr>
<td>Blinking</td>
<td>ON</td>
<td>Without Utility Power</td>
</tr>
<tr>
<td>Blinking</td>
<td>OFF</td>
<td>Peripherals are always Off.</td>
</tr>
</tbody>
</table>

POWER ON | Battery Overload - Occurs when connected equipment exceeds the listed capacity of the UPS. The UPS will turn off, unplug at least one piece of equipment from battery outlets, wait 5 seconds, reset the circuit breaker and turn the unit on.

BATTERY FAULT - The UPS is protecting battery power to powered outlets from its batteries. It will also leave setup mode and go back to the status display.

NORMAL icon: This icon appears when the UPS is working under normal conditions. BATTERY FAULT icon: This icon appears and an alarm sound (two short beeps followed by a pause) to indicate the UPS is protecting battery power to powered outlets from its batteries. It will also leave setup mode and go back to the status display.

The LCD display indicates warranty of UPS operational conditions. All descriptions apply when the UPS is plugged into an AC outlet and turned on or when the UPS is on battery.

DEFINITIONS FOR ILLUMINATED LCD INDICATORS

INPUT voltage meter: This meter measures the AC voltage that the UPS system is receiving from the utility wall outlet. The UPS is designed to continuously supply connected equipment with stable output voltage. In the event of a complete power loss, reverse brownout, or over-voltage, the UPS switches its internal battery to supply connected equipment.

The INPUT voltage meter can be used as a diagnostic tool to identify poor quality input power. OUTPUT voltage meter: This meter measures, in real time, the AC voltage that the system is supplying to the connected equipment. OUTPUT voltage can vary depending on the load profile and battery backup mode.

ESTIMATE RUN TIME: This display shows the run time estimate of the UPS with the current battery capacity. The display will be blank when the UPS is in ECO mode.

NORMAL icon: This icon appears when the UPS is working under normal conditions.

BATTERY fault: During a severe brownout or blackout, this icon appears and an alarm sound (two short beeps followed by a pause) to indicate the UPS is protecting battery power to powered outlets from its batteries. It will also leave setup mode and go back to the status display.

The BATTERY CAPACITY meter will show a 20% capacity segment remaining to indicate the UPS's battery is nearly out of power. You should turn OFF your equipment when the BATTERY CAPACITY meter reaches 0.

OVER LOAD icon: This icon appears and an alarm sound to indicate the battery-supplied outlets are overloaded. To clear the overload, unplug any one of the battery-supplied outlets and turn the icon off and alarm sound stops.

BATTERY CAPACITY meter: This meter displays the approximate charge level of the UPS's internal battery in 20% increments. During a severe brownout or blackout, the UPS switches to battery power (the BATTERY icon appears) and the battery charge level decreases.

LOAD CAPACITY meter: This meter displays the approximate output load level of the UPS's battery outlets in 20% increments.
Circuit breaker has been tripped due to overload.
Turn the UPS off and plug in at least one piece of equipment. Wait 10 seconds, reset the breaker by pressing the reset button, and then turn the UPS on.

The UPS does not perform expected runtime.
Battery is not fully charged.
Contact CyberPower Systems about replacement batteries at tech@cyberpower.com.

The UPS will not turn on.
Battery is worn out.
Contact CyberPower Systems about replacement batteries at tech@cyberpower.com.

PowerPanel® Personal is inactive (all icons are gray).
Check the USB cable is connected to a USB port and plug the cable in:

What are the Limitations?
1. This Warranty does not cover any software that was damaged or needs to be replaced due to the failure of the CPS Product or any defect in the software as a result of an unauthorized reinstallation or unauthorized modification.
2. This Warranty does not cover or apply to misuse, modification, operation or storage outside environmental limits of the CPS Product, such as temperatures above those specified for operation or below the freezing point, or use in any circumstance in which the failure of the CPS Product could lead to loss of life, injury or severe property damage, or that would affect operation or safety of any equipment connected to the CPS Product.
3. CPS excludes any liability for direct, indirect, special, incidental or consequential damages, whether for damage to or loss of property [EXCEPT FOR (AND ONLY FOR) the specific components referenced in the Equipment Guarantee (together referred to as this "Warranty")]. If you do not agree to the terms and conditions of this Warranty, you should return the CPS Product for a full refund prior to using it.

What Will We Do To Correct Problems?
1. We will repair or replace the equipment that was damaged because of the failure of our CPS Product or pay you for the replacement market value (the actual cost) of the equipment at the time of the damage. We will use Orion Blue Book, or another third-party evaluation guide, or eBay, Craigslist, or other source to establish that amount. Our maximum liability is limited to $300,000 for the IC50G, IC50S, IC750S, EcoL functions, and EcoLDCSD.

What Will We Do If I Have To Make A Claim?
All claims must be made within ten days of the occurrence.

How Do You Get Service?
CyberPower will inspect and examine the CPS Product.

How Do You Get Connected Equipment Claims?
Before contacting CyberPower, identify your CPS Product model number, the purchase date, and each item of Connected Equipment (computer, computer monitor, and other equipment, such as printers, cable modem, etc.).

Who is Providing this Warranty?
CyberPower Systems (USA), Inc. ("CyberPower") provides this Limited Warranty.

Who is the Warrantor under this Limited Warranty?
Cyber Power Systems (USA), Inc., 4241 12th Ave. E., STE 400, Shakopee, MN 55379; or e-mail us at: tech@cyberpower.com, for purchase made within 10 days of the occurrence of the equipment failure.

What is the Period of Coverage?
This warranty covers the CPS Product for three years from the date of purchase and connected equipment for as long as you own the CPS Product.

What Is Covered?
This warranty only covers the original purchaser. Coverage ends for you if you sell or otherwise transfer the CPS Product.

Additional troubleshooting information can be found at CyberPowerSystems.com/support/

Advanced Energy-Saving Design
The GreenPower UPS® has a high-efficiency charger, which makes it the most energy-efficient UPS in its class. The advanced high-frequency charging system significantly improves charging efficiency and conserves energy. As a result of this advanced design, the GreenPower UPS® uses less energy compared to competitive models. The GreenPower UPS® is manufactured in accordance with the Restriction of Hazardous Substances (RoHS) directive making it one of the most environmentally-friendly UPSs on the market today.

FCC Compliance Statement
This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Note: 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 a 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, you are encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment to an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced technician for help.

This device is intended for home or office use where it is protected from physical damage and environmental conditions.

> Advanced Energy-saving Design
The GreenPower UPS® has a high-efficiency charger, which makes it the most energy-efficient UPS in its class. The advanced high-frequency charging system significantly improves charging efficiency and conserves energy. As a result of this advanced design, the GreenPower UPS® uses less energy compared to competitive models. The GreenPower UPS® is manufactured in accordance with the Restriction of Hazardous Substances (RoHS) directive making it one of the most environmentally-friendly UPSs on the market today.

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