

CP550/900/1300/1500EPFCLCD User's Manual

K01-0000460-03

IMPORTANT SAFETY INSTRUCTIONS

This manual contains important safety instructions. 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 your UPS.

CAUTION! The UPS must be connected to a grounded AC power outlet with fuse or circuit breaker protection. **DO NOT** plug the UPS 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 the operation and safety of life support equipment, medical applications, or patient care.

CAUTION! Hazardous live parts inside can be energized by the battery 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. There are 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 electrical contacts and cause the machine to short out.

DO NOT USE THE UPS ON ANY TRANSPORTATION! To reduce the risk of fire or electric shock, do not use the unit on any transportation such as airplanes or ships. The effect of shock or vibration caused during transit and the damp environment can cause the unit to short out.

INSTALLING YOUR UPS SYSTEM

UNPACKING

The box should contain the following:

(1) UPS Unit x 1; (2) USB Cable x 1; (3) User Manual x 1; (4) Function Setup Guide x 1; (5) Power Cord (Type and quantity may differ from models.)

OVERVIEW

The CP550/900/1300/1500EPFCLCD provides automatic voltage regulation for inconsistent utility power. The CP550/900/1300/1500EPFCLCD features 405 Joules of surge protection, and provides battery backup during power outages. The CP550/900/1300/1500EPFCLCD ensures consistent power to your computer system and its included software will automatically save your open files and shut down your computer system during a utility power loss.

SUPPORTS Active PFC POWER SUPPLIES

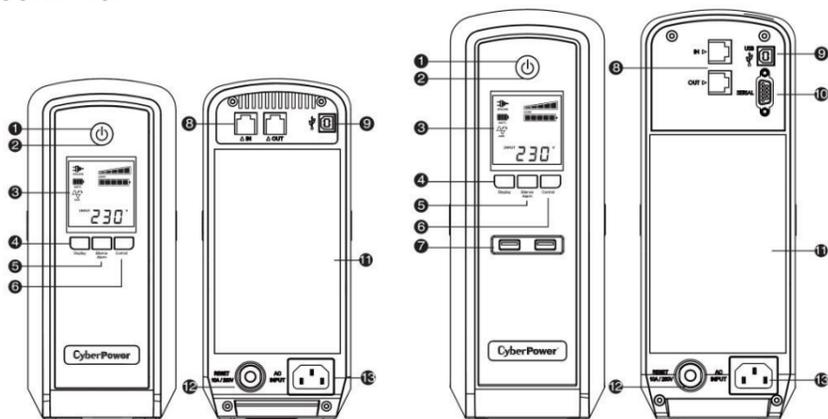
This CyberPower UPS system supports High Efficiency power supplies with Active Power Factor Correction (Active PFC). Active PFC is used to improve the efficiency of power delivery. The current US Energy Star® Program Requirements for Computers mandates Active PFC for all power supplies over 100 watts. Additionally, programs such as 80 Plus® are often used to identify high efficiency power supplies with Active PFC.

HOW TO DETERMINE THE POWER REQUIREMENTS OF YOUR EQUIPMENT

1. Make sure that the total Volt-Amp (VA) requirements of your computer, monitor, and peripheral equipment does not exceed the 550VA/900VA/1300VA/1500VA.
2. Ensure that the equipment plugged into the battery power-supplied/surge outlets does not exceed the UPS unit's rated capacity (550VA/350W for CP550EPFCLCD, 900VA/540W for CP900EPFCLCD, 1300VA/780W for CP1300EPFCLCD, 1500VA/900W for CP1500EPFCLCD). If the rated unit capacities are exceeded, an overload condition may occur and cause the UPS unit to shut down or the circuit breaker to trip.

BASIC OPERATION

DESCRIPTION



CP550/900EPFCLCD

CP1300/1500EPFCLCD

1. **Power Switch**
Used as the master on/off switch for equipment connected to the battery power supplied outlets.
2. **Power On Indicator**
This LED is illuminated when the utility power is normal and the UPS outlets are providing power, free of surges and spikes.
3. **LCD Module Display**
High resolution and intelligent LCD display shows all the UPS information with icons and messages. For more information, please check the "Definitions for Illuminated LCD Indicators" section.
4. **Display Switch**
The switch can be used to select the LCD display contents including Input Voltage, Output Voltage and Estimated Run Time. The toggle frequency is set to one time per 0.5 second. Press the switch to roll down the function menu. Pressing the switch for 2 seconds will turn the LCD display on or off while in AC/Utility power mode.
5. **Silence Alarm Switch**
The toggle frequency is set to one time per 0.5 second. Press the switch to roll up the function menu. Holding the switch for more than 2 seconds will silence the buzzer.
6. **Control Switch**
Press the Control switch for 3 seconds in AC/Utility Power Mode to perform a Self Test of the battery.
7. **USB Charging Ports**
The USB Power ports provide 5V 2.1A power output.
8. **Communication Protection Ports RJ45**
Communication protection ports will protect network cable from surge and spikes.
9. **USB Port to PC**
This port allows connection and communication from the USB port on the computer to the UPS unit. The UPS communicates its status to the **PowerPanel® Personal Edition** software.
10. **Serial Port to PC**
This port allows connection and communicates from the DB-9 serial on the computer to the UPS unit. The UPS communicates its status to the PowerPanel® Personal Edition software.
NOTE: Only one of these two ports can be used as communication and control of the UPS unit at one time.
11. **Battery and Surge Protected Outlets**
The unit has several battery powered/surge suppression outlets for connected equipment to ensure temporary uninterrupted operation of your equipment during a power failure. Check the type and quantity of outlets for different models in the following table. **(DO NOT plug a laser printer, paper shredder, copier, space heater, vacuum, sump pump or other large electrical devices into the "Battery and Surge Protected Outlets". The power demands of these devices may overload and damage the unit.)**

Model	NEMA	DE	UK	AU	FR
Outlet Type					
Quantity	8	6	2	4	6

*CP900EPFCLCD-AU has 3 Battery and Surge Protected Outlets and 3 Surge protected outlets

12. **Circuit Breaker**
Located on the back of the UPS, the circuit breaker serves to provide overload and fault protection.
13. **AC Input**
Connect the AC Power cord to a properly wired and grounded outlet.

HARDWARE INSTALLATION GUIDE

1. Your new UPS may be used immediately upon receipt. However, recharging the battery for at least 8 hours is recommended to ensure 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 and off position.
Note: This 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, you will need to have it connected to AC power or it will not power up.
2. If you will use the software, connect the USB cable to the USB port on the UPS.
3. With the UPS unit off and unplugged, connect the computer, monitor, and any externally powered data storage device (Zip drive, Jazz drive, Tape drive, etc.) into the battery power supplied outlets. **DO NOT** plug a laser printer, copier, space heater, vacuum, paper shredder or other large electrical device into the battery power supplied outlets. The power demands of these devices will overload and possibly damage the unit.
4. To protect network cable, connect a network cable from the wall jack outlet to the IN jack of the UPS. Then connect network cable from the OUT jack on the UPS to the computer or network device.
5. Plug the UPS into a 2 pole, 3 wire grounded 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. air conditioner, 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".
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 ensure battery life.
 - 11.

CYBERPOWER GREENPOWER UPS™ TECHNOLOGY

CyberPower's Green Commitment

CyberPower is dedicated to the development of green products, and has adopted Green practices throughout its business, including: membership in Climate Savers Computing Initiative (CSCI), accordance with the Restriction on Hazardous Substances (RoHS), Waste Electrical and Electronic Equipment (WEEE) protocols, as well as ISO 14001 and IECQ QC080000. CyberPower pledges to provide the advanced energy solution for the environment and become a leading eco-friendly organization in the UPS industry.

Reduce Energy Cost with GreenPower UPS™ Technology

CyberPower's goal is not only to provide eco-friendly products but also to bring the best value for consumers. The advanced energy-saving design improves the operating efficiency and eliminates waste energy consumption. As a result, consumers will enjoy significant energy cost savings with the adoption of GreenPower UPS™ technology.



BATTERY REPLACEMENT

CAUTION! Read and follow the **IMPORTANT SAFETY INSTRUCTIONS** before servicing the battery. **Service the battery under the supervision of personnel knowledgeable of batteries and their precautions.**

CAUTION! Use only the specified type of battery. See your dealer for replacement batteries.

CAUTION! The battery may present the risk of electrical shock. Do not dispose of batteries in a fire, as they may explode. Follow all local ordinances regarding proper disposal of batteries.

CAUTION! Do not open or mutilate the batteries. Released electrolyte is harmful to the skin and eyes and may be toxic.

CAUTION! A battery can present a high risk of short circuit current and electrical shock. Take the following precautions before replacing the battery:

1. Remove all watches, rings or other metal objects.
2. Only use tools with insulated handles.
3. **DO NOT** lay tools or other metal parts on top of battery or any battery terminals.
4. Wear rubber gloves and boots.
5. Determine if the battery is inadvertently grounded. If inadvertently grounded, remove source of ground.

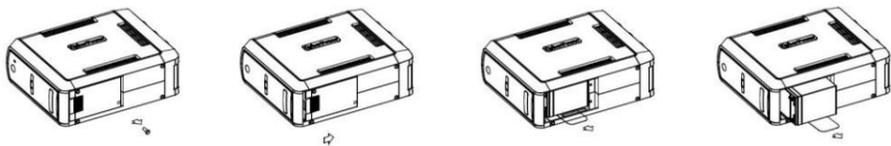
CONTACT WITH A GROUNDED BATTERY CAN RESULT IN ELECTRICAL SHOCK! The likelihood of such shock will be reduced if such grounds are removed during installation and maintenance (applicable to a UPS and a remote battery supply not having a grounded circuit)

BATTERY REPLACEMENT PROCEDURE:

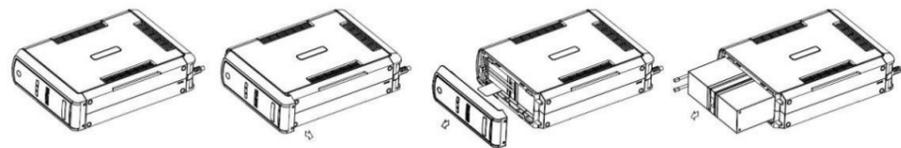
1. Turn off and unplug all connected equipment.
2. Turn the UPS off and unplug it from the AC power source.
3. Turn the UPS on its side.
4. Remove the retaining screw located on the bottom of the UPS.
5. Slide the battery compartment cover completely off of the unit.
6. Remove the batteries from the compartment.
7. Disconnect the battery wires from the batteries.
8. CP550/900EPFCLCD: Install the replacement batteries by connecting the red wire (+) and black wire (-) to the same color connectors from the battery pack.
9. CP1300/1500EPFCLCD: Install the replacement batteries by connecting the wire bundle (composed of one red wire and one black wire) to the connector from the battery pack.
10. Put the batteries back into the compartment.
11. Slide back the battery compartment cover and tighten the retaining screw.
12. Recharge the UPS for 8-16 hours to fully charge the battery.

REMINDER: Batteries are considered HAZARDOUS WASTE and must be disposed of properly. Almost any retailer that sells lead-acid batteries collects used batteries for recycling.

CP550/900EPFCLCD

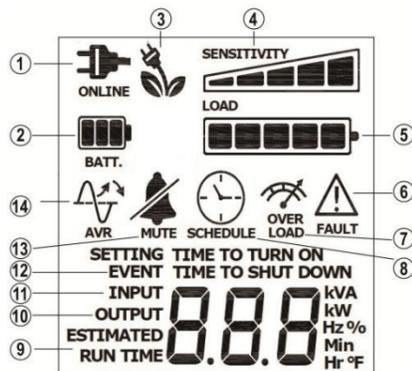


CP1300 / 1500EPFCLCD



DEFINITIONS FOR ILLUMINATED LCD INDICATORS

1. **ONLINE:** The UPS is supplying utility power to connected equipment.
2. **BATTERY:** When a severe brownout or blackout occurs, this icon appears and an alarm sounds (two short beeps followed by a pause) to indicate the UPS is operating from its internal batteries. During a prolonged brownout or blackout, the alarm will sound continuously to indicate the UPS's batteries are nearly out of power. You should save files and turn off your equipment immediately or allow the software to shut the system down.
3. **Energy-Saving:** The UPS in energy-saving bypass mode. See "CyberPower GreenPower UPS™ Technology" section for more information.
4. **LOAD capacity / Sensitivity setup:** This meter displays the approximate output load level (in 20% increments) of the UPS battery outlets. It can also be sensitivity setup meter if you are in programming mode. It is to control the sensitivity of the UPS to switch to Battery Mode by selecting UPS shutdown voltage range. The higher the sensitivity, the easier the UPS will switch to Battery Mode.
5. **BATTERY capacity:** This meter displays the approximate charge level (in 20% increments) of the UPS's internal battery. During a blackout or severe brownout, the UPS switches to battery power, the BATTERY icon appears, and the charge level decreases.
6. **FAULT:** This icon appears if there is a problem with the UPS. Press the POWER button to turn off the UPS.
 - F01: Battery Mode or AC/Utility Power Mode Overload fault** (Unplug at least one piece of equipment from battery outlets and turn the UPS on again.)
 - F02: Battery Output Short fault** (Turn on the UPS again.)
 - F03: Charger Fault** (Contact CyberPower Systems for support.)
 - F04: Internal Fault** (Contact CyberPower Systems for support.)
7. **OVER LOAD:** This icon appears and an alarm sounds to indicate the battery-supplied outlets are overloaded. To clear the overload, unplug some of your equipment from the battery-supplied outlets until the icon turns off and the alarm stops.
8. **SCHEDULE:** Users can setup the schedule to turn on and shut down the computer and UPS through PowerPanel® Personal Edition software. The LCD display will show how much time that the UPS is about to turn on or shut down.
9. **ESTIMATED RUNTIME:** This displays the run time estimate of the UPS with current battery capacity and load.
10. **OUTPUT meter:** This meter measure, in real time, the AC voltage that the UPS system is providing to the computer, such as normal AC line mode, AVR mode, and battery backup mode. (Note: The OUTPUT meter shows the status of the battery backup outlets in terms of load, frequency, and voltage.)
11. **INPUT meter:** This meter measures the AC voltage that the UPS system is receiving from the utility wall outlet. The UPS is designed, through the use of automatic voltage regulation, to continuously supply connected equipment with stable, 220/230 output voltage. In the event of a complete power loss, severe brownout, or over-voltage, the UPS relies on its internal battery to supply consistent 220/230



- output voltage. The INPUT meter can be used as a diagnostic tool to identify poor-quality input power.
12. **EVENT:** This meter records the number of power outages.
13. **MUTE:** This icon appears whenever the UPS is in silent mode. The buzzer does not beep during silent mode until the battery reaches low capacity.
14. **AVR (Automatic Voltage Regulation):** This icon appears whenever your UPS is automatically correcting low AC line voltage without using battery power. This is a normal, automatic operation of your UPS, and no action is required on your part.

For more information about functions setup, please refer to the **Function Setup Guide**.

TECHNICAL SPECIFICATIONS

Model	CP550EPFCLCD	CP900EPFCLCD	CP1300EPFCLCD	CP1500EPFCLCD
Capacity	550VA/350W	900VA/540W	1300VA/780W	1500VA/900W
Input				
Frequency Range	50/60Hz +/- 3 Hz (Auto Sensing)			
AVR Function	Yes			
Output				
On Battery Output Voltage	230Vac +/-10%			
On Battery Output Frequency	50/60Hz +/-1%			
Overload Protection	On Utility: Circuit Breaker, On Battery: Internal Current Limiting			
Surge Protection				
Lightning / Surge Protection	Yes			
Network Protection	RJ45			
Operating Temperature	0°C to 40°C			
Physical				
Maximum Dimensions(LxWxH)	275 x 100 x 230 mm		370 x 100 x 265 mm	
Weight (kg)	6.6 kg	7.1 kg	10.4 kg	11.3 kg
Battery				
Battery	Sealed Maintenance Free Lead Acid Battery			
Typical Recharge Time	8 hours			
Charging Current(Max.)	0.6A			
User Replaceable	Yes			
Status Indicators				
Indicators	Power On, LCD Display			
Audible Alarms	On Battery, Low Battery, Overload			
Communication				
PowerPanel® Personal Edition Software	Windows 10 / 8 / 7 / Vista / XP / 2000, Server2012 / 2008 / 2003, Linux			
Management				
Auto-Charger	Yes			
Auto-Restart	Yes			
USB interface	Yes			
Certifications				
Certifications	CE, EAC, RCM			

TROUBLESHOOTING

Problem	Possible Cause	Solution
Circuit breaker button is projecting from the back of the unit.	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 CyberPower Systems about replacement batteries.
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 battery is worn out.	Contact CyberPower Systems about replacement batteries.
	Mechanical problem.	Contact CyberPower Systems.
PowerPanel® Personal Edition is inactive.	The USB cable is not connected.	Connect the USB / serial cable to the UPS unit and an open USB / serial port on the back of the computer. You must use the cable that came with the unit.
	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.

Additional troubleshooting information can be found at www.cyberpower.com

For more information, visit www.cyberpower.com

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