UPS and Surge Protection Device Frequently Asked Questions (FAQs)

Zap Cap SYSTEMS℠

Uninterruptible Power Supply (UPS)

1. **What is an Uninterruptible Power Supply (UPS) and what are the benefits?** A UPS is a device that provides electrical energy to loads in the event of loss of the normal utility electrical power. The UPS powers the loads for a limited amount of time using stored energy from batteries.
2. **What is a Momentary interruption?** A momentary interruption is the loss of electrical power that lasts less than a minute and is usually caused by a short circuit.
3. **What types of equipment should be plugged into and powered by the UPS?** The UPS is designed to power low power electronic equipment that is sensitive to momentary power interruptions such as video selector boxes, DVRs, personal computers and home network routers.
4. **Can I plug large loads exceeding the UPS rating into the outlets labeled Surge?** No, if the load plugged into the Battery + Surge and Surge outlets of the UPS exceeds 12 amps, the UPS will alarm and the red Circuit Breaker button on the back of the UPS will pop out.
5. **Can I use an extension cord, multi-outlet power strip or surge strip with the UPS?** No, extension cords, multi-outlet power strips and surge strips cannot be installed before OR after the UPS unit. Doing so will void the UPS's warranty and connected equipment guarantee. The UPS must be plugged directly into the wall outlet.
6. **Can the UPS be installed outdoors?** No, the UPS is for use in dry locations with an ambient temperature range of 32 to 104 Deg F (0 to 40 Deg C). Placement in direct sunlight or in dusty locations should be avoided.
7. **The device(s) plugged into the outlets labeled Battery & UPS do not power on. What is causing this?** Typically this is caused by an insufficiently charged dead battery. Plug the UPS into a powered wall outlet to charge for the recommended 8 -10 hour charging time. If the battery does not maintain a charge, it may require replacement.
8. **How do I turn off the audible alarms?** The audible alarms can be activated and de-activated by pressing the **Silence Alarm** button on the front of the unit.
9. **What do I do if I think the UPS is not functioning properly?** First consult the operation guide provided at the time the UPS was installed to verify the operational steps required. A copy of the operation guide is available on at tampaelectric.com/zapcap. For technical assistance contact Zap Cap Systems toll free 877 SURGE 22 (877-787-4322).
10. **What is the difference between Watts & VA?** Apparent Power (VA) is the rate of conversion of electrical energy which includes the Real Power (Watts) and the Reactive Power (Q). The watt and VA ratings of the UPS are independent maximum values that cannot be exceeded by the combined load of devices connected to the UPS.

11. **How long will the UPS power equipment during a long term electrical outage?** The runtime in backup mode for UPS units is determined by the amount of load plugged into it. The UPS manufacturer provides runtimes for half load and full load operation to approximate how long the UPS can provide battery power to the devices plugged into the Battery + Surge outlets under varying conditions.
12. **How many Momentary outages will the UPS provide protection against?** Momentary outages are typically a few seconds in length, but by definition are less than a 1 minute. At half load the UPS would provide backup power through multiple momentary outages occurring consecutively within a short period of time (allowing no recharge time for the batteries). If the momentary outages are a few seconds in length, than the number would be much higher.
13. **Why do I need to a UPS?** Unfortunately, unavoidable events can interrupt electrical service. Tampa Electric manages more than 11,000 miles of distribution and 1,300 miles of transmission lines over four counties in Florida. These facilities are exposed to weather related impacts from lightning, tropical storms and even hurricanes. Other causes of outages are animals in contact with power lines, vehicle and construction accidents and trees making contact with power lines.
14. **What is Tampa Electric doing to reduce long term outages?** Tampa Electric's 10-point storm preparedness plan includes managing vegetation, inspecting electrical infrastructure and collaborating with local governmental agencies. The comprehensive plan meets or exceeds the State of Florida's design standards for new and replacement transmission and distribution line construction designed to withstand extreme winds.
15. **Why would I want to use Zap Cap Systems® service instead of just purchasing a UPS at a local retail outlet?** Zap Cap Systems® representatives provide assistance identifying equipment in your home that may be sensitive to momentary interruptions and determining the correct quantity and location of UPS units. In addition, Zap Cap Systems® representatives performs the required periodic replacement of UPS batteries and proper disposal of expired batteries.
16. **Will the UPS reduce my electric bill?** No the UPS does not reduce energy consumption. The UPS consumes a small amount of power during operation, however the UPS units offered by Zap Cap Systems® utilize energy saving design features to reduce the energy required to operate.
17. **What is the difference between the UPS outlets labeled Battery + Surge and the set labeled Surge?** The outlets labeled Battery + Surge will be powered by the UPS battery during loss of utility power. Low power electronic equipment that is sensitive to momentary power interruptions such as video selector boxes, DVRs, personal computers and home network routers should be plugged into the outlets labeled Battery + Surge. The outlets labeled Surge are intended for lower priority electronics that should have surge protection, but are not impacted by momentary power interruptions such as printers .
18. **How many UPS units will I need and where will they be located?** Zap Cap Systems® representatives provide assistance identifying equipment in your home that may be sensitive to momentary interruptions and determining the correct quantity and location of UPS units required.
19. **Why does my unit beep twice when I turn it on?** This is normal operation of the UPS. The beeps occur during the self-test routine performed when the UPS is turned on.

20. **Does the unit provide surge protection?** Yes, the UPS provides surge protection for devices plugged into the output receptacles labeled Battery + Surge and Surge.
21. **How long do the batteries in the UPS last before they need to be replaced and what is required?** The batteries typically last 2-6 years depending on the operating conditions and device load connected to the UPS. When issues arise, contact Zap Cap System's representatives at 877 SURGE 22 (877-787-4322) to arrange for replacement of UPS batteries and proper disposal of expired batteries.
22. **Can I use my UPS in conjunction with a generator?** Yes, as long as the generator maintains the output voltage within the limits of the normal utility power source.
23. **My unit is beeping twice every 15-45 seconds. What is happening?** This usually indicates that the unit is running on battery power. First, ensure that the unit is plugged in correctly to the wall outlet and that the outlet is not controlled by a wall switch in the off position. Second, check to see if the wall outlet is functioning properly by unplugging the CyberPower unit and plugging in a different device such as a lamp into the wall outlet. If the other device is not working, there is a problem with the outlet and you should contact a licensed electrician for repair. If the other device is working properly, plug the CyberPower unit into a different wall outlet in the house and see if it yields the same results.
24. **Should the cooling fan on my CyberPower UPS be running at all times?** The internal cooling fan will only run when it's required. CyberPower UPS systems utilize an internal thermometer which activates the fan when the temperature exceeds a certain threshold. When the UPS is running idle (not on battery power), it is completely normal for the fan to not be running.
25. **Do I have to have the UPS turned on in order for it to charge?** The UPS will charge the battery when it is plugged into an energized wall outlet whether the unit is turned on or turned off.
26. **How does CyberPower's GreenPower UPS™ with Bypass Technology reduce UPS energy costs?** Even when utility power is normal, conventional UPS models constantly pass power through a transformer. By contrast, under normal conditions the advanced circuitry of a CyberPower's GreenPower UPS™ bypasses the transformer. As a result, the power efficiency is significantly increased while decreasing waste heat, using less energy, and reducing energy costs. When an abnormal power condition occurs, the GreenPower UPS™ automatically runs power through its transformer to regulate voltage. The GreenPower UPS™ operates primarily in its efficient bypass mode yielding energy savings up to 75% compared to conventional UPS models.
27. **Can I increase the runtime by hooking up multiple UPS units in a row?** No, that configuration is called daisy-chaining and will void the UPS's warranty.
28. **Why is the wiring fault light illuminated on my UPS unit?** The wiring fault light indicates that the wall outlet that the unit is connected to is either not properly grounded, or is wired incorrectly. A licensed electrician should be contacted to troubleshoot and repair the issue.
29. **Why can I not get a dial tone through the communication protection ports of my Cyber Power UPS?** First, check to see that the phone cord is securely connected to the UPS and the phone or computer. Next, check if you can get a dial tone when the phone or computer is plugged directly into the phone board/jack. If you are able to get a dial tone when bypassing the UPS,

contact tech support. If you are unable to get a dial tone when bypassing the communication protection ports, contact your phone company.

30. **My unit emits a long solid beep. What should I do?** A long, solid tone indicates that the UPS is overloaded you will need to turn the UPS off and unplug at least one piece of equipment, wait 10 seconds, and then press the power button to turn the UPS on. Contact Zap Cap Systems® if an additional UPS is required.
31. **My LCD screen shuts off after 60 seconds. Is there a way to keep the LCD screen illuminated at all times?** The LCD screen shuts off after 60 seconds of inactivity, and is illuminated when one of the buttons on the front of the UPS is pressed. This extends the life of the LCD screen and is part of the energy saver features of the UPS.
32. **Where is the serial number located on the unit?** The serial number is located on a white label which is adhered to the back of the unit. The serial number is directly underneath the barcode.

Surge Protection Device (SPD)

1. **I don't get a dial tone when I plug my telephone/modem into my surge suppressor. Why?** There are three common reasons why this occurs:
    A. The phone board/jack may be faulty
    B. The phone cords are not properly seated in the phone jacks
    C. A surge has come through and damaged the phone board of the surge suppressor. [i]
2. **After a surge the circuit breaker on my surge protector did not trip. Why?** The circuit breaker on a surge suppressor serves the same purpose as a breaker in the circuit panel of a building. When an unsafe amount of current is pulled through the suppressor the breaker will open and stop the flow of electricity to your equipment. Surges and spikes are short events measured in fractions of a second. These events can deliver hundreds to thousands of amps during that short time span, but a circuit breaker takes more time to react to an over-current condition and will not trip for these types of events.
3. **What does it mean when the Ground OK LED is not lit?** The green Ground OK LED is not lit, it indicates a wiring or grounding problem with the outlet that the surge suppressor is plugged into. Ungrounded outlets are, by far, the most common condition that causes this LED to illuminate, but there are other conditions that can also trigger it, such as a loose outlet. If you find that the line fault LED comes on at your location, have a licensed electrician repair the problem. A line fault condition affects the surge suppression capability of the SPD and invalidates its Ultimate Lifetime insurance (equipment damage coverage).
4. **Can my surge suppressor protect against momentary power interruptions?** No. It is designed to protect against surges and spikes only. Uninterruptible Power Supply (UPS) units protect against momentary outages and overvoltages.
5. **Can I daisy-chain surge suppressors?** No, daisy-chaining will void all warranties.
6. **Can I plug my surge suppressor into an ungrounded outlet?** In order to divert the excess energy of a surge from connected equipment, a surge suppressor requires connection to a properly wired and grounded AC outlet. Running a surge suppressor from an ungrounded outlet virtually eliminates the suppression in your unit and voids all warranties.

7. **The protection light is out. Is my equipment still protected?** No. You should replace the surge suppressor immediately.
8. **Does my surge suppressor provide protection when it is turned off?** Yes. Connected equipment is protected regardless of the position of the power switch.
9. **What is a meter based surge protector?** A meter based SPD (Surge Protection Device) is a primary Type 1 listed protector for application/use in an IEEE category C operating environment. The IEEE location is defined as the area from the load side of the utility transformer to the main breaker located on the home.
10. **How does the device work?** Basically, SPDs utilizing MOV technology will:
    A. Conduct when voltage is too high
    B. Send current where voltage is lower
    C. Divert, store or use the energy associated with the surge
    D. Divide surge energy among conductors
    E. Equalize voltage across conductors
    F. Keep voltage to equipment below immunity/survival levels of the equipment
    G. Note: Good grounding and bonding is required to realize optimum SPD performance. Grounding needs to be established per the guidelines of the NEC (National Electric Code).
11. **What makes the SPD device credible?** Surge Protectors are tested and certified by the following organizations.
    A. OSHA - The U.S. Government mandates that all low voltage (under 1000 volts) surge protectors be tested and certified for purpose by a NRTL (Nationally Recognized Testing Laboratory). NRTLs are accredited and empowered to perform industry approved testing and upon successful completion an identifying stamp/logo is authorized to be placed on the product. The stamp/logo signifies to the market/consumer that the device has met the listing requirements of the certification process.
    B. ANSI/UL 1449 - The current industry test standard that all SPDs must meet (per OSHA) is the ANSI/UL 1449. This is the standard that OSHA requires NRTLs to test to. The current version of the standard went into effect on September 29, 2009 and all products manufactured since that date are required to be tested and approved for purpose. As proof of this testing, all SPDs must be marked with the logo of the testing/approving NRTL.
    C. NEC - The NEC (National Electric Code) Article 285 states that SPDs below 1000 Volts shall be listed for purpose.
12. **Where does it install?** The meter based SPD installs directly into the electric meter can. It goes across (in series) with the line (incoming) side terminals and the load (customer premise) side terminals. Installers simply remove the electric meter from service and insert the SPD. A ground pigtail must be attached then the installer reinserts the electric meter back into the can and replaces the cover and seal. Note: All safety procedures should be followed when working with utility service voltages and only qualified personnel should perform an installation. Because there are always additional ingress point locations and/or internal transients it is recommended

that point-of-use SPDs (plug-in devices) be used to protect products like TVs, DVR/DVD players, computers, printers, modems, low voltage lighting, security and irrigation systems, and other sensitive/costly products from golf carts to electric cars.

13. **Who does the installation?** Installation of the meter based SPD should only be done by qualified personnel authorized and approved by the utility providing the electrical service.
14. **Do SPDs lower electric bills?** No, there is currently no SPD technology available on the market today that is capable of lowering an electric bill.
15. **What does the device protect against?** Meter Based Surge Protectors protect against surges that come down utility power lines and enter a site at the ac service entrance. Surges or transients are a significant contributor to poor power quality. Surges increase the electrical stress on connected user equipment and appear in all applications involving electricity, no matter the source. The cumulative effect of repeated applications of small surges (or perhaps one large surge) may cause undesirable operation at best, and complete device failure at worst.

[i] Information in the Surge Protection Device (SPD) section provided by Meter-Treater Inc., 1349 South Killian Dr., Lake Park, Florida 33403, www.metertreater.com