BATTERY BACKUP SYSTEMS
SERIES UPS9

Status Indicators

Status	Visual Indications (Power On - Green) (Replace Battery - Red)	Audible Indication	Alarm Terminates When
Power On - UPS is supplying conditioned utility power to the load.	Power On pushbutton - ON (lit)	None	Not applicable.
On Battery - UPS is supplying battery power to the load connected to the Battery outlets.	Power On pushbutton - ON (off during beep)	Beeping 4 times every 30 seconds	UPS transfers back to Power On operation, or when UPS is turned off.
Low Battery Warning - UPS is supplying battery power to the load connected to the battery outlets, and the battery is near exhaustion.	Power On indicator is flashing	Rapid beeping (every 1/2 second)	UPS transfers back to normal operation, or when UPS is turned off.
Replace Battery - The battery is disconnected. The battery is in need of charging, or is at the end of its usual life and must be replaced.	Replace Battery indicator is Flashing Power On and Replace Battery indicators - flashing (alternating)	Constant tone Constant tone	UPS is turned off with the power switch.
Overload Shutdown - During On Battery operation a battery power supplied outlet overload was detected.	None	Constant tone	UPS is turned off with the power switch.
Sleep Mode - During On Battery operation the battery power has been completely exhausted and the UPS is waiting for utility power to return to normal.	None	Beeping once every 4 seconds	Utility power is restored, or if utility power is not restored within 32 seconds, or the UPS is turned off.
Building Wiring Fault - Your building wiring presents a shock hazard that should be corrected by a licensed electrician.	Building Wiring Fault LED (red) - ON	None	UPS is unplugged, or UPS is plugged into a properly wired outlet.

Transfer Voltage and Sensitivity Adjustment
(Optional)

To adjust the transfer voltage:

1. Plug the Back-UPS into the utility power source. The Back-UPS will be in "Standby mode" (no indicators are lit).
2. Press the ON/OFF push button fully in for 10 seconds. The Online LED will begin glowing in a cyclical order: GREEN-AMBER-RED, indicating it is going into "Program mode".
3. The Back-UPS will then indicate the current sensitivity, as shown in the *Transfer Voltage and Sensitivity Adjustment* table below.
4. To select the LOW sensitivity setting, press the ON/OFF push button until the LED begins flashing GREEN.
5. To select the MEDIUM sensitivity setting, press the ON/OFF push button until the LED begins flashing RED.
6. To select the HIGH sensitivity setting, press the ON/OFF push button until the LED begins flashing AMBER.
7. To exit Programming mode, once sensitivity is set, wait approximately 5 seconds, and all of the LED indicators will be off (unlit).

Indicators Flashing	Sensitivity Setting	Input Voltage Range (For Utility Operation)	When to Use
Green Flashing	LOW	88-142	Input voltage is extremely low or high. Not recommended for computer loads.
Red Flashing	MEDIUM (factory default)	92-139	Back-UPS frequently goes on battery.
Amber Flashing	HIGH	96-136	Connected equipment is sensitive to voltage fluctuations.

Troubleshooting

Problem	Probable Cause	Solution
Back-UPS ES will not turn on.	The battery is disconnected, and either power is unavailable at the wall outlet, or utility power is having a "brownout" or an "over voltage" condition.	Connect the battery (see *Connect Battery*) and ensure power is available at the wall outlet. If battery is connected and power is unavailable, the unit can be "cold started" (operated on battery power) by holding the power button down until two beeps are heard.
No power available at the Surge Protection outlets.	Surge Protection outlets were overloaded. Utility power not available at the wall outlet.	Reduce the amount of equipment plugged into the Surge Protection outlets. Ensure the fuse or circuit breaker for the outlet is not tripped, and that the wall switch controlling the outlet (if any) is in the ON position.
Back-UPS is on, but Replace Battery indicator flashes, and unit emits a constant tone.	Battery is disconnected.	Connect the battery (see *Connect Battery* diagram).
Connected equipment loses power.	The Back-UPS ES is overloaded.	Make sure the equipment plugged into the outlets of the unit are not overloading its capacity. Try removing some of the equipment and see if the problem continues.
		The Back-UPS ES is operating normally.
	The Back-UPS ES has exhausted its available battery power.	The Back-UPS ES can only operate on battery power for a limited amount of time. The unit will eventually turn off when the available battery power has been used. Allow the unit to recharge for 16 hours before expecting maximum runtime.
	Connected equipment does not accept the step-approximated sine waveform from the Back-UPS ES.	The output waveform is designed for computers and computer-related equipment. It is not designed for use with motor-type equipment.
	The Back-UPS ES may require service.	
The Power On indicator is lit and the Back-UPS ES beeps four times every 30 seconds.	The Back-UPS ES is On Battery.	The Back-UPS ES is operating normally, and using battery power. Once On Battery, you may want to save your current work, power down your equipment, and turn the unit OFF. Once normal power is restored, you may turn the unit back ON, and power your equipment.
The Power On indicator flashes and the Back-UPS beeps twice per second at the same time.	Battery capacity is low (about 2 minutes of use remaining).	The Back-UPS ES is about to shut off due to a low battery charge condition! When the unit beeps twice every second, the battery has about 2 minutes of power remaining. Immediately power down your computer ,and turn the unit OFF. When normal power returns, the unit will recharge the battery.
Building Wiring Fault indicator is lit.	Your building wiring presents a shock hazard. Using the Back-UPS with this condition will void the warranty.	Call a qualified electrician for service.
Inadequate runtime.	The battery is not fully charged. Battery is near the end of useful life.	Allow the unit to charge by leaving it plugged into the wall at least 16 hours. As a battery ages, the amount of runtime available will decrease. You can replace the battery by ordering one at www.apc.com. Batteries also age prematurely if the Back-UPS ES is placed near excessive heat.

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Specifications

Input	Voltage	120 Vrms nominal
	Frequency	60 Hz ± 3
	Brownout Transfer	92 Vrms, typical
	Over-voltage Transfer	139 Vrms, typical
Output	UPS Capacity (4 outlets)	450 VA/550 VA ; 257 W/330 W
	Total Amperage (8 outlets)	12 Amps (including UPS output)
	Voltage - On Battery	115 Vrms ± 8% (step-approximated sine wave)
	Frequency - On Battery	60 Hz ± 1 Hz
	Transfer Time	6 ms typical, 10 ms maximum
Protection and Filter	AC Surge Protection	Full time, 340 joules
	Phone/fax/DSL Surge Protection	Single line (2-wire)
	EMI/RFI Filter	Full time
	AC Input	Resettable circuit breaker
Battery	Type	Sealed, maintenance-free lead acid
	Average Life	3 - 5 years depending on the number of discharge cycles and environmental temperature
Physical		
	Operating Temperature	+32°F to 104°F (0°C to 40°C)
	Storage Temperature	+5°F to 113°F (-15°C to 45°C)
	Operating Relative Humidity	0 to 95% non-condensing
	Operating Elevation	0 to 10,000 ft (0 to 3,000m)