

by Schneider Electric

# Installation and Operation Back-UPS BX550CI-AR

# Safety



This unit is intended for indoor use only.

Do not operate this unit in direct sunlight, in contact with fluids, or where there is excessive dust or humidity.

Be sure the air vents on the unit are not blocked. Allow adequate space for proper ventilation.

Environmental factors impact battery life. High temperatures, poor quality A/C power, and frequent, short duration discharges will shorten battery life.

Connect the Back-UPS directly to a wall outlet. Do not use surge protectors or extension cords.

# Installation



- **2** Battery connector
- Orcuit breaker
- Input power cord
- **5** Battery and surge protected outlets



### **Connect the Battery**

Pull down on the battery connector handle, and then push it into the unit.

### **Connect Equipment**

Connect equipment to the battery and surge protected outlets. These outlets provide battery backup power and surge protection to all connected equipment.

### **Connect AC Power Cord**

Connect the Back-UPS power cord directly into a wall outlet.

### Turn on the Back-UPS

Press the **Power ON** button located on the front of the Back-UPS. **The Power On** LED will illuminate and a single short beep will be audible to indicate that the Back-UPS is providing protection for connected equipment.

The Back-UPS battery charges fully during the first 10 hours while connected to utility power. The Back-UPS battery will charge while the Back-UPS is switched on or off and is connected to utility power. Do not expect full battery run capability during the initial charge time.

# **Transfer Voltage and Sensitivity Settings**

Automatic Voltage Regulation boosts the utility voltage when it drops below safe levels. This allows the equipment that is connected to the unit to operate during low voltage conditions. It will also regulate high voltage down to safer levels.

The Back-UPS will switch to battery power if the input voltage level becomes too low for the Automatic Voltage Regulation feature to compensate, or if the utility power is distorted.

If the Back-UPS switches to battery power too frequently or too infrequently, adjust the transfer voltage and sensitivity settings:

- 1. Turn off the Back-UPS. Plug it into utility power.
- 2. Press and hold ON/OFF until the LED repeatedly flashes. The unit is now in Program Mode.
- 3. Release the button. The LED will flash once, twice, or three times per second, indicating the current setting.
- 4. Press ON/OFF within two seconds to change the setting. Each time the button is pressed, the LED will flash at a different rate: once, twice, or three times per second, indicating the new setting. Continue pressing the button until the desired setting is reached. If the button is not pressed within five seconds, the Back-UPS will exit the Program Mode.

LED Flashing	Transfer Voltage Setting	Input Voltage Range	Usage
Once per second	Low	155 - 280	The Back-UPS will switch to battery power less often. Use with equipment that is not sensitive to low or high level voltage levels or minor voltage waveform distortions.
Twice per second	Medium (factory default)	160 -280	Default, use in normal conditions.
Three times per second	High	165 - 270	The Back-UPS will switch to battery power during any small fluctuation in voltage. Use with equipment that is sensitive to low or high level voltage levels or minor voltage waveform distortions.

### **Status Indicators**

LED	Audible Alarm	Condition
On	Off	<b>Online</b> - Back-UPS is supplying conditioned utility power to the connected equipment
-	Constant Tone	<b>On Line Overload</b> - The power drawn by the connected equipment exceeds the power capacity of the unit
On (Off during 4 beeps)	4 beeps repeated every 30 seconds	<b>On-Battery</b> - Back-UPS is supplying battery power
Flashing	Rapid Beeping (every 1/2 second)	Low Battery Warning - There are 2 minutes of run time remaining
	Constant tone	<b>Bad Battery Detected</b> - Battery needs to be charged, or is at end of life. (See <i>Battery Replacement.</i> )
	Chirp every 2 seconds	<b>Charger Warning</b> -Back-UPS has experienced an internal problem, but continues to power the load. Contact APC Technical Support
Off -	Short beep every 4 seconds	<b>Low Battery Shutdown</b> - During On Battery operation the battery power was almost completely exhausted, and the Back-UPS is waiting for utility power to return to normal
	Constant Tone	<b>On Battery Overload</b> - Connected equipment requires more power than provided by the Back-UPS battery. Unplug devices one at a time to remove overload, if not corrected Contact APC Technical Support
	Constant Tone	<b>Charger Fault</b> - Back-UPS has an internal problem, and is no longer powering the load. Contact APC Technical Support

# Troubleshooting

Problem	Probable Cause	Solution
Back-UPS will not turn on.	Circuit Breaker has tripped.	Reduce the amount of equipment plugged into the "Battery Backup + Surge Protection" outlets. Reset the circuit breaker by pushing it back in.
	Utility power is not available at the wall outlet.	Ensure the fuse or circuit breaker for the wall outlet is okay, and the wall switch controlling the wall outlet (if any) is in the ON position.
Connected equipment loses power.	The Back-UPS is overloaded.	Ensure the equipment plugged into the outlets of the unit are not overloading the capacity of the unit. Try disconnecting some of the equipment one device at a time, and see if the problem continues.
	The Back-UPS has exhausted its available battery power.	The unit 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 10 hours before continuing to use the unit.
	The equipment connected to the Back-UPS does not accept the step- approximated sine waveform from the unit.	The output waveform is designed for computers and computer-related equipment. It is not designed for use with motor-type equipment.
	The Back-UPS may require service	Contact APC Technical Support for further troubleshooting.
The ON/OFF button is lit, and the unit is beeping four times every 30 seconds, or it is emitting a constant tone.	The unit is using battery.	The unit is operating normally and using battery power. Save any current work, turn off all equipment, and turn the unit OFF. Once normal power is restored, turn the unit back ON, and turn on all equipment.
The On/Off button flashes once per second, and the Back-UPS beeps once every ½ second.	Battery capacity is low (there are 2 minutes of run time remaining).	The unit is about to shut down due to a low battery charge condition! When the unit beeps once every ½ second, there are 2 minutes of run time remaining. Immediately turn the computer OFF and turn the UPS OFF. When power returns to normal, the unit will recharge the battery.
Inadequate runtime.	The battery is not fully charged.	Allow the unit to charge by leaving it plugged in, and switched on for 10 hours.
	The battery is near the end of useful life.	As a battery ages, the amount of runtime available will decrease. Batteries also age prematurely if the unit is placed near excessive heat. If the battery will not charge, the Back-UPS is no longer operable.

# **Battery Replacement**

The battery in the Back-UPS 550 is not user-replaceable. Contact APC Sales and Technical Support for a list of authorized service centers near you.

# **Contact Information**

Worldwide	1 888 272 3858
Internet	http://www.apc.com
Technical Support	http://www.apc.com/support

# **Specifications**

Input	Voltage	230 Vac nominal
Input	Voltage	230 Vac nominal
	Frequency	45-65 Hz
	Brownout Transfer	160 ±8% Vac, typical
	Over-voltage Transfer	280 Vac, typical
Output	UPS Capacity (total)	550 VA / 330 W
	Voltage On Battery	230 Vac rms (step-approximated sine wave)
	Frequency - On Battery	50 Hz ±1 Hz
	Transfer Time	50 Hz: 6ms typical, 10ms maximum
Protection and Filter	AC Surge Protection	Full time, 273 joules
	AC Input	Resettable circuit breaker
Battery	Type (maintenance-free)	Maintenance free
	Average Life	2 - 5 years depending on the number of discharge cycles and environmental temperature
	Typical Recharge Time	10 Hours
Physical	Net Weight	5 kg
	Dimensions (H x W x D)	18.55 cm x 11.5 cm x 21.8 cm
	Operating Temperature	0 °C to 40 °C (32 °F to 104 °F)
	Storage Temperature	-15 °C to 45 °C (5 °F to 113 °F)
	Operating Relative Humidity	0 to 95% non-condensing
	Operating Elevation	0 to 3000 m (0 to 10,000 ft)

## Warranty

The standard warranty is 2 years from the date of purchase. The APC standard procedure is to replace the original unit with a factory reconditioned unit. Customers who must have the original unit back due to assigned asset tags and set depreciation schedules must declare such a need at first contact with APC Technical Support. APC will ship the replacement unit once the defective unit is received by the repair department or cross-ship upon the provision of a valid credit card number. The customer pays for shipping to APC, and APC pays ground freight transportation costs back to the customer.

## Service

DO NOT RETURN Back-UPS to the place of purchase under any circumstances.

- 1. Consult the Troubleshooting section to eliminate common problems.
- 2. If you still have problems or questions, please contact APC via the internet or at one of the phone numbers listed below.
- 3. Before contacting APC, please be sure to record the date purchased, UPS model, and serial number (on bottom of unit).
- 4. Be prepared to troubleshoot the problem over the telephone with a Technical Support Representative. If this is not successful, the representative will issue a Return Material Authorization Number (RMA#) and a shipping address.
- 5. Pack the unit in its original packaging. If the original packaging is not available, ask APC Technical Support about obtaining a new set. Pack the unit properly to avoid damage in transit. Never use foam beads for packaging. Damage sustained in transit is not covered under warranty (insuring the package for full value is recommended).

Write the RMA# on the outside of the package.