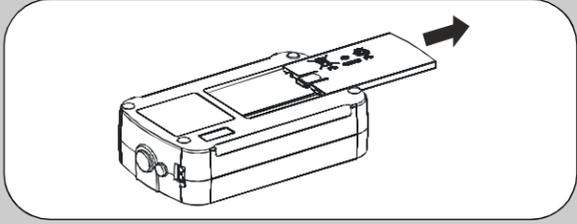


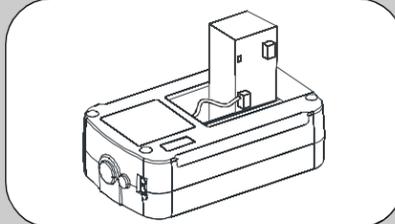
# 1 Connect Battery

For safety, the Back-UPS is shipped with one battery cable disconnected. The UPS will not operate until the cable is connected to the touch-safe battery terminal. **NOTE:** Small sparks may occur during battery connection. This is normal.

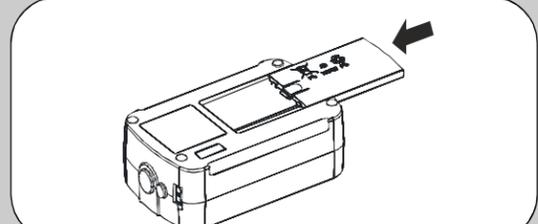
- 1 Turn the Back-UPS over and press in the release tab. Slide the plastic battery cover off of the Back-UPS.



- 2 Connect the battery cable securely to the battery terminal.



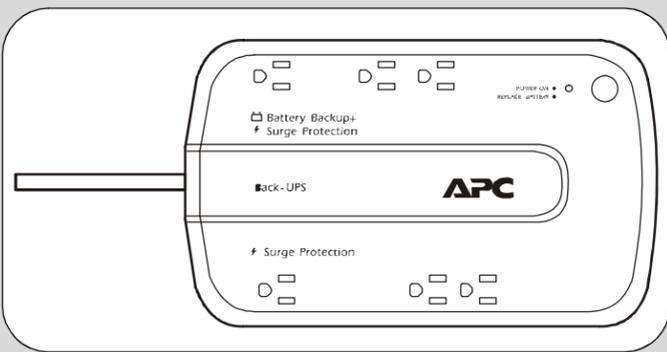
- 3 Insert the battery back into the compartment. Slide the plastic battery cover until the release tab locks into place.



# 2 Connect Equipment

## Battery Back-up + Surge Protection

These outlets are powered whenever the Back-UPS is switched ON. During a power outage or other utility problems (brownouts, over-voltages), these outlets will be powered for a limited time by the Back-UPS. Plug a computer, monitor, and other peripheral devices into these outlets.



## Surge Protection

These outlets provide full-time protection from surges even if the Back-UPS is switched OFF. Plug a printer, fax machine, scanner, or other peripherals that do not need battery power into these outlets.

### Locate the Back-UPS to avoid:

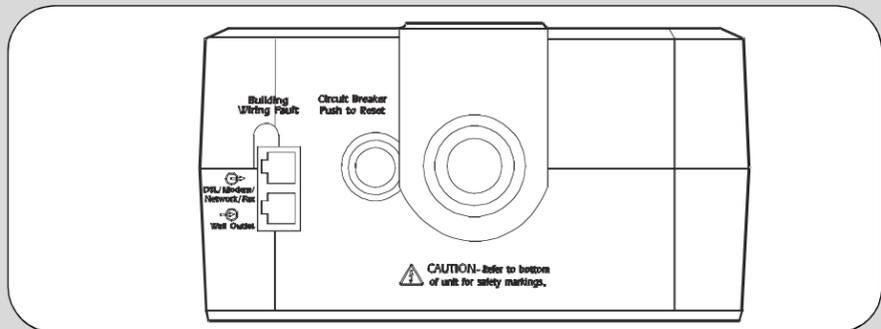
- Direct sunlight
- Excessive heat
- Excessive humidity or contact with fluids



**Plug the Back-UPS power cord directly into a wall outlet; not into a surge protector or power strip.**

### Connect Modem / Phone / DSL / Fax

The Back-UPS protects a single line (2-wire) phone (including Digital Subscriber Line DSL), Home Phone line Networking Association (HPNA) type equipment, modem, or fax machines from surges when connected through the UPS as shown in the drawing below.



# 3 Turn On the Unit

**Press the ON/OFF switch to turn on the unit.**

A single short beep and the green "Power On" indicator confirms the Back-UPS is on and ready to provide protection.

The Back-UPS should charge for at least 16 hours to ensure sufficient runtime. The battery charges whenever the unit is connected to utility power, whether the unit is turned ON or OFF.

If the red Building Wiring Fault indicator (located on the end near the power cord) illuminates, the building wiring presents a shock hazard that should be corrected by a qualified electrician.

# 4 Transfer Voltage and Sensitivity Adjustment (Optional)

In situations where the Back-UPS, or connected equipment, is too sensitive to the input voltage, it may be necessary to adjust the transfer voltage. 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 illuminated).
2. Press and hold the ON/OFF push button for 10 seconds. The Online LED will illuminate 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.
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 Program mode, once sensitivity is set, wait approximately 5 seconds, and all of the LED indicators will be off (not illuminated).

## Status Indicators

The Back-UPS indicates operating status using a combination of visual and audible indicators. Use the following table to identify the status of the Back-UPS.

Status	Visual Indication	Audible Alarm	Alarm Termination
<b>Power On</b> - UPS is supplying conditioned utility power to the load.	Power On push button on (illuminated)	None	Not applicable.
<b>On Battery</b> - UPS is supplying battery power to the load connected to the Battery outlets.	Power On push button on (off during beep)	Beeping 4 times every 30 seconds	UPS transfers back to Power On operation, or when UPS is turned off.
<b>Low Battery Warning</b> - 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.
<b>Replace Battery</b> - The battery is disconnected.	Replace Battery indicator is Flashing	Constant tone	UPS is turned off with the power switch.
The battery is in need of a charge, or is at the end of its life cycle and must be replaced.	Power On and Replace Battery indicators flashing (alternating)	Constant tone	
<b>Overload Shutdown</b> - During On Battery operation a battery power supplied outlet overload was detected.	None	Constant tone	UPS is turned off with the power switch.
<b>Sleep Mode</b> - 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.
<b>Building Wiring Fault</b> - The building wiring presents a shock hazard that should be corrected by a licensed electrician.	Building Wiring Fault LED on (illuminated red)	None	UPS is unplugged, or UPS is plugged into a properly wired outlet.

Indicators Flashing	Sensitivity Setting	Input Voltage Range (For Utility Operation)	When to Use
Green Flashing	LOW	88-142	Input voltage is extremely low or extremely 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
<b>Back-UPS will not turn on.</b>	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 <i>Connect Battery</i> ) and ensure power is available at the wall outlet. If the battery is connected and power is unavailable, use the cold start feature to start on battery operation by holding the power button down until two beeps are heard.
<b>No power available at the Surge Protection outlets.</b>	Surge Protection outlets are overloaded. Utility power not available at the wall outlet.	Remove nonessential 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.
<b>Back-UPS is on, but Replace Battery indicator flashes, and unit emits a constant tone.</b>	Battery is disconnected.	Connect the battery (see <i>Connect Battery</i> diagram).
<b>Connected equipment loses power.</b>	Equipment is connected to the "Surge Protection" outlets. A Back-UPS overload condition exists.  PowerChute Personal Edition software has performed a shutdown due to a power failure. The Back-UPS has exhausted all available battery power.  Connected equipment does not accept the step approximated sine wave form from the Back-UPS. The Back-UPS may require service.	Ensure the equipment that must remain functioning during a power failure is plugged into the "Battery Backup plus Surge Protection" outlets and NOT the "Surge Protection Only" outlets. 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 is operating normally.  The Back-UPS can only operate on battery power for a limited amount of time. The unit will eventually turn off when the battery is fully discharged. Allow the unit to recharge for 16 hours before expecting maximum runtime.  The output wave form is designed for computers and computer-related equipment. It is not designed for use with motor-type equipment.  Contact APC Technical Support for further troubleshooting.
<b>The Power On indicator is lit and the Back-UPS beeps four times every 30 seconds.</b>	The Back-UPS is On Battery.	The Back-UPS is operating normally, and using battery power. Once On Battery, save current work, power down equipment, and turn the unit off. Once normal power is restored, turn the unit on, and switch on connected equipment.
<b>The Power On indicator flashes and simultaneously the Back-UPS beeps twice per second.</b>	Battery capacity is low (about 2 minutes of use remaining).	The Back-UPS 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 the computer and turn the unit OFF. When normal power returns, the unit will recharge the battery.
<b>Building Wiring Fault indicator illuminates.</b>	The building wiring presents a shock hazard. Using the Back-UPS with this condition will void the warranty.	Call a qualified electrician for service.
<b>Inadequate runtime.</b>	The battery is not fully charged. Battery life cycle is near completion.	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. To order a replacement battery contact APC, <a href="http://www.apc.com">www.apc.com</a> . Environmental factors affect battery life.
<b>No phone/fax/DSL signal from the Back-UPS.</b>	Data line from the ISP or wall outlet is connected to the wrong jack on the Back-UPS.	Make sure the data line from the wall outlet is connected to the jack labeled "Wall Outlet".
<b>Internet connection lost during power outage.</b>	Modem lost utility power.	Plug the modem utility power cord into one of the "Battery Back-up Plus Surge Protection outlets".

## Specification

Model BE350D-LM		
Input	Voltage	120 Vrms nominal
	Frequency	60 Hz $\pm$ 3
	Brownout Transfer	92 Vrms, typical
	Over-voltage Transfer	139 Vrms, typical
Output	UPS Capacity (3 outlets)	350 VA; 200 W
	Total Amperage (6 outlets)	8 Amps (including UPS output)
	Voltage - On Battery	115 Vrms $\pm$ 8% (step-approximated sine wave)
	Frequency - On Battery	60 Hz $\pm$ 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	Circuit breaker reset
Battery	Type	Sealed, maintenance-free lead acid
	Average Life	3 - 5 years depending on the number of discharge cycles and environmental temperature
Physical	Net Weight	8.6 lb (3.9 kg)
	Size	10.6 in (H) x 6.3 in (W) x 3.5 in (D) (26.9 cm x 16 cm x 8.8 cm)
	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)
Safety and Regulatory	Safety Approvals	TUV C-US certified; UL 1778 standard per CSA standard C22.2 No. 107.3, FCC part 68 & FCC part 15 Class B, NOM certified
	EMC Compliance	<b>Notice:</b> This device complies with part 68 and 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.  "On the bottom of this equipment is a label that contains, among other information, the FCC registration number and ringer equivalence number (REN) for this equipment. If requested, this information must be provided to the telephone company."

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## Order Battery Replacement

Replace with an APC approved battery. Replacement batteries can be ordered from [www.apc.com](http://www.apc.com) (valid credit card required).

## Warranty

The standard warranty is 2 years from the date of purchase. 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

- If the UPS requires service do not return it to the dealer. Follow these steps:
- Review the problems discussed in *Troubleshooting* in this manual to eliminate common problems.
  - If the problem persists, contact APC Customer Support through the APC Web site, [www.apc.com](http://www.apc.com).
    - If the UPS is under warranty, repairs are free.
    - Procedures for servicing or returning products may vary internationally. Refer to the APC Web site for country specific instructions.
    - Pack the UPS in its original packaging. If this is not available, refer to [www.apc.com](http://www.apc.com) for information about obtaining a new set.
    - Pack the UPS properly to avoid damage in transit. Never use Styrofoam beads for packaging. Damage sustained in transit is not covered under warranty.
    - Always DISCONNECT THE BATTERY before shipping in compliance with U.S. Department of Transportation (DOT) and IATA regulations.** The battery may remain in the UPS.
  - Mark the RMA# on the outside of the package.
- Return the unit by insured, prepaid carrier to the address given to you by Customer Support.

## Contact APC

APC Web site: [www.apc.com](http://www.apc.com)

Telephone support: Toll Free 0-800 555 272; Brazil 11-4689-8600