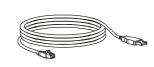


# User Manual Back-UPS<sup>™</sup> BN600G

### Inventory







### **Safety and General Information**



Inspect the package contents upon receipt. Notify the carrier and dealer if there is any damage.

Read the Safety Guide supplied with this unit before installing the UPS.

- This UPS is intended for indoor use only.
- Do not operate this UPS in direct sunlight, in contact with fluids, or where there is excessive dust or humidity.
- Be sure the air vents on the UPS are not blocked. Allow adequate space for proper ventilation
- The battery typically lasts for three to five years. Environmental factors impact battery life. Elevated ambient temperatures, poor quality AC power, and frequent short duration discharges will shorten battery life.
- Connect the UPS power cable directly to a wall outlet. Do not use surge protectors or extension cords.

### **Specifications**

	Voltage	120 Vac Nominal	
Innut	Frequency	47 - 63 Hz	
Input	Brownout Transfers	92 Vac Typical	
	Over-voltage Transfer	139 Vac Typical	
Output	UPS Capacity (4 battery backup outlets)	BN600G: 600 VA, 360 W	
	Total Amperage (all outlets)	12 A (including UPS output)	
	Voltage - On Battery	115 Vac ± 8%	
	Frequency - On Battery	50 / 60 Hz ± 1	
	Transfer Time	6 ms Typical, 10 ms maximum	
Protection and Filtering	AC Surge Protection	Full time, 340 Joules	
	EMI/RFI Filter	Full time	
	AC Input	Resettable circuit breaker	
Battery	Туре	Sealed, maintenance-free, lead acid BN600G: RBC110	
	Typical Recharge Time	24 hours	
	Average Life	3 - 5 years depending on the number of discharge cycles and environmental temperature	
Physical	Net Weight	Replacement battery cartridge BN600G: 12 lb (5.5 kg)	
	Dimensions Length x Width x Height	12 in x 7 in x 3 in 30 cm x 18 cm x 9 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 humidity	
	Operating Elevation	0 to 10,000 ft (0 to 3000 m)	
	This device complies with part 68 and part 15 of the FCC rules.		

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

#### EMC Compliance

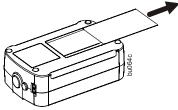
Locate the label on the bottom of this device that contains, among other information, the FCC registration number and ringer equivalence number (REN) for this device. If requested, this information must be provided to the telephone company.

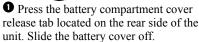
If you experience trouble with this equipment, you disconnect it from the network until the problem has been corrected or until you are sure that the equipment is not malfunctioning.

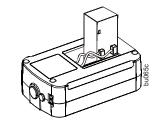
The ringer equivalence number (REN) is used to determine how many devices can be connected to your telephone line. In most areas, the sum of the RENs of all devices on any one line should not exceed five (5.0). If too many devices are attached, they may not ring properly.

### **Connect the Battery**

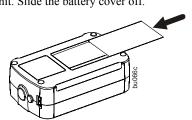
The Back-UPS is shipped with one battery cable disconnected. Remove the "Stop! Connect the Battery" label that covers the outlets. Prior to connecting any equipment to the unit, connect the battery cable to the unused battery terminal. It is normal for small sparks to be seen when the battery cable is connected to the battery terminal.







• Connect the battery cable securely to the battery terminal.



**3** Reinstall the battery compartment cover. Be sure that the release tab locks into place.

#### **Wall Mount Installation**

- Horizontal installation, use 2 screws 7.3" (186.3 mm) apart.
- Vertical installation, use 2 screws 5.4" (137.2 mm) apart.
- Allow 5/16" (8 mm), of the screw to protrude from the wall.

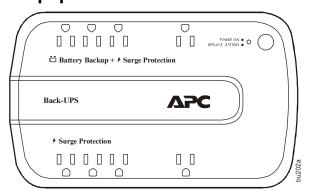
### **Replace Battery**



Deliver the used battery to a recycling facility.

Replace the used battery with an APC by Schneider Electric approved battery. Replacement batteries can be ordered through the APC by Schneider Electric Web site, www.apc.com. Battery replacement part for Back-UPS BN600G is APCRBC110.

### **Connect Equipment**



#### **Battery Backup + Surge Protection Outlets**

Battery backup outlets provide protection to connected equipment when the Back-UPS is turned on and connected to AC power.

Battery backup outlets receive power from the Back-UPS for a limited period of time when a power outage, or brownout condition occurs.

Battery backup outlets provide protection from power surges or spikes.

Connect a computer, monitor and other peripheral devices to the outlets.

#### **Surge Protection Outlets**

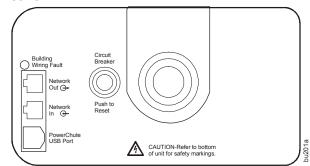
Surge protection outlets provide protection to connected equipment when the Back-UPS is connected to AC power, and is switched on or off.

Surge protection outlets provide protection from power surges or spikes.

Connect a printer, scanner or other peripheral devices that do not need to re-

Connect a printer, scanner or other peripheral devices that do not need to remain on during power outages, or AC problems to the surge protection outlets.

#### **Connect Network**



The Back-UPS protects equipment connected to a 10/100 Base-T ethernet, from power surges when connected through the Back-UPS dataline protection jacks.

## PowerChute<sup>™</sup> Personal Edition Software

### Overview

Use PowerChute Personal Edition software to configure the UPS settings.

Protect your computer and other equipment during a power outage. During a power outage, PowerChute will save any open files on your computer and safely shut it down. When power is restored, it will restart the computer.

Configure the UPS to use features such as power-saving outlets, shutdown configuration, and alarms.

Monitor the UPS for power usage and power events.

Note: PowerChute is only compatible with a Windows operating system. If you are using a Mac OSX, use the native shutdown feature to protect your system. See the documentation provided with your computer.

### Installation

Use a USB cable to connect the Data port on the rear panel of the UPS to the USB port on your computer.

If the Back-UPS came with a PowerChute CD, insert the CD into your computer and follow the on-screen instructions

If the Back-UPS did not come with a PowerChute CD, go to www.apc.com and download the software free of charge.

### Turn On the Back-UPS

Press the POWER ON button located on the top of the Back-UPS. **The Power On/Replace Battery** 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 16 hours while connected to AC power. The Back-UPS battery will charge while the Back-UPS is switched on or off and is connected to AC power. Do not expect full battery run capability during the initial charge time.

If the red **Building Wiring Fault** LED located on the side of the Back-UPS illuminates, do not operate the Back-UPS. Have a qualified electrician correct the building wiring fault.

### Warranty

The standard warranty is three (3) years from the date of purchase. Schneider Electric IT (SEIT) standard procedure is to replace the original unit with a factory reconditioned unit. Customers who must have the original unit back due to the assignment of asset tags and set depreciation schedules must declare such a need at first contact with an Schneider Electric IT (SEIT) Technical Support representative. SEIT will ship the replacement unit once the defective unit has been received by the repair department, or cross ship upon the receipt of a valid credit card number. The customer pays for shipping the unit to SEIT. SEIT pays ground freight transportation costs to ship the replacement unit to the customer.

### **Status Indicators**

Status	LED Indicator	Audible Indicator On	Audible Indicator Terminates
Power On	The green LED illuminates.	None	N/A
The Back-UPS is supplying AC power to connected equipment.			
On Battery	The green LED illuminates. The LED	Back-UPS beeps 4 times	Beeping stops when AC power is restored or the
Back-UPS supplying battery power to battery backup outlets.	is not illuminated during the beeps.	every 30 seconds.	Back-UPS is turned off.
Low Battery warning	The green LED illuminates with rapid	The Back-UPS emits	Beeping stops when AC power is restored or the
The Back-UPS is supplying battery power to the battery backup outlets	green flashes.	rapid beeping, every	Back-UPS is turned off.
and the battery is near a total discharge state.		1/2 second.	
Replace Battery	D. I. D. W. LED G. I	Constant tone	Back-UPS is turned off.
• The battery is disconnected.	• Replace Battery LED flashes.	Constant tone	
The battery needs to be charged, or replaced.	<ul> <li>Replace Battery and Power On LEDs flash alternately.</li> </ul>		
Overload Shutdown	None	Constant tone	Back-UPS is turned off.
While on battery power an overload condition has occurred in one or			
more of the battery backup outlets while the Back-UPS is operating on			
battery power.			
Sleep Mode	None	The Back-UPS beeps	The beeping stops when:
While on battery power the battery is completely discharged. The		once every four	• AC power is restored
Back-UPS will "awaken" once AC power is restored.		seconds.	• If AC power is not restored within 32 seconds
			The Back-UPS is turned off
Building Wiring Fault	Building Wiring Fault LED	None	The Back-UPS is unplugged from the wall outlet
The building wiring presents a shock hazard that must be corrected by a qualified electrical.	illuminates red		or is plugged into an improperly wired outlet.

Troubleshooting					
Problem and Possible Cause	Solution				
The Back-UPS will not turn on	<u> </u>				
The Back-UPS has not been turned on.	Press the POWER ON button.				
The Back-UPS is not connected to AC power, there is no AC power available at the wall outlet, or the AC power is experiencing a brownout or over voltage condition.	Make sure the power cord is securely connected to the wall outlet, and that there is AC power available at the wall outlet. Where applicable, check that the wall outlet is switched on.				
The battery is not connected.	Connect the battery. Refer to "Connect the Battery" on page 1 of this manual.  In the event that the Back-UPS receives no AC power and the battery is connected, a cold-start can be initiated. Press and hold the <b>Power On</b> button until the Back-UPS emits two beeps.				
	ttery LED flashes and the unit emits a constant				
tone The latter is linear and l	In Council of Council of Day 22				
The battery is disconnected.	Refer to the "Connect the Battery" on page 1.				
Connected equipment loses power A Back-UPS overload condition has occurred.	Remove all nonessential equipment connected to the outlets. One at a time reconnect equipment to				
occurred.	the Back-UPS. Charge the battery for 24 hours to make sure it is				
	fully charged. If the overload condition still occurs,				
	replace the battery.				
The Back-UPS battery is completely	Connect the Back-UPS to AC power and allow the				
discharged.	battery to recharge for eight hours.				
PowerChute software has performed a shutdown due to a power failure.	This is normal Back-UPS operation.				
Connected equipment does not accept	The output waveform is intended for computers and				
the step-approximated sine waveform	peripheral devices. It is not intended for use with				
from the Back-UPS.	motor driven equipment.				
The Back-UPS may require service.	Contact SEIT Technical Support for more in depth troubleshooting.				
The Dower On LED is illuminated as	nd the Back-UPS beeps 4 times every 30 seconds				
The Back-UPS is operating on battery	The Back-UPS is operating normally on battery				
power.	power. At this point the user should save all open				
F	files, and shutdown the computer. When AC power				
	is restored the battery will recharge.				
The Power On LED flashes once eve	ry second while the Back-UPS beeps once every				
second					
The Back-UPS battery has	The Back-UPS battery is near a total discharge				
approximately two minutes of	state. At this point the user should save all open				
remaining runtime.	files, and shutdown the computer. When AC power is restored the battery will recharge.				
The Building Wiring Fault LED illu					
The building wiring presents a shock	Do not operate the Back-UPS. Call a qualified				
hazard that must be corrected by a	electrician to correct the building wiring fault.				
qualified electrical.	and the control and building willing fault.				
	The Back-UPS has an inadequate battery runtime				
The battery is not fully charged.	Leave the Back-UPS connected to AC power for 16				
The battery is near the end of useful	hours while the battery charges to full capacity.				
life and should be replaced.	As a battery ages, the runtime capability decreases.				
İ	Contact APC by Schneider Electric at the Web site				

The connection from the Back-UPS to the internet is lost during a power outage

The modem has lost power.

### **Voltage Sensitivity Adjustment (optional)**

The Back-UPS detects and reacts to line voltage distortions by transferring to battery backup power to protect connected equipment. In situations where either the Back-UPS or the connected equipment is too sensitive for the input voltage level it is necessary to adjust the transfer voltage.

- 1. Connect the Back-UPS to a wall outlet. The Back-UPS will be in Standby mode, no indicators will be illuminated.
- 2. Press and hold the **ON/OFF** button for 10 seconds. The **OnLine** LED will illuminate alternately green-amber-red, to indicate that the Back-UPS is in Program mode.
- 3. The Power On/Replace Battery LED will flash either green, amber, or red to indicate the current sensitivity level. Refer to the table for an explanation of the transfer voltage sensitivity levels.
- 4. To select LOW sensitivity, press and hold the ON/OFF button until the LED flashes
- 5. To select MEDIUM sensitivity, press and hold the ON/OFF button until the LED flashes red
- 6. To select HIGH sensitivity, press and hold the ON/OFF button until the LED flashes
- 7. To exit Program mode wait five seconds and all LED indicators will extinguish. **Program** mode is no longer active.

LED Flashes	Sensitivity Setting	Input Voltage Range (AC Operation)	Recommended Use
Green	LOW	88 Vac to 142 Vac	Use this setting with equipment that is less sensitive to fluctuations in voltage or waveform distortions.
Red	MEDIUM	92 Vac to 139 Vac	Factory default setting. Use this setting under normal conditions.
Amber	HIGH	96 Vac to 136 Vac	Use this setting when connected equipment is sensitive to voltage and waveform fluctuations.

### Service

If the unit requires service, do not return it to the dealer. Follow these steps:

- 1. Review the *Troubleshooting* section of the manual to eliminate common problems. 2. If the problem persists, contact Schneider Electric IT (SEIT) Customer Support
- through the APC by Schneider Electric Web site, www.apc.com. a. Note the model number and serial number and the date of purchase. The model
  - and serial numbers are located on the rear panel of the unit and are available through the LCD display on select models.
  - b. Call SEIT Customer Support and a technician will attempt to solve the problem over the phone. If this is not possible, the technician will issue a Returned Material Authorization Number (RMA#).
  - c. If the unit is under warranty, the repairs are free.
  - d. Service procedures and returns may vary internationally. Refer to the APC by Schneider Electric Web site for country specific instructions.
- 3. Pack the unit in the original packaging whenever possible to avoid damage in transit. Never use foam beads for packaging. Damage sustained in transit is not covered under warranty.
- 4. Always DISCONNECT THE UPS BATTERIES before shipping. The United States Department of Transportation (DOT), and the International Air Transport Association (IATA) regulations require that UPS batteries be disconnected before shipping. The internal batteries may remain in the UPS.
- Write the RMA# provided by Customer Support on the outside of the package.
- Return the unit by insured, pre-paid carrier to the address provided by Customer

### **APC by Schneider Electric IT Customer Support** Worldwide

For country specific customer support, go to the APC by Schneider Electric Web site,



Select models are ENERGY STAR® qualified. For more information go to www.apc.com/site/recycle/index.cfm/energy-efficiency/energy-star/.



This UPS is certified to comply with California Battery Charger System regulations. For more information go to www.apc.com/site/recycle/index.cfm/energy-efficiency/cec-battery-charger/.

Contact APC by Schneider Electric at the Web site www.apc.com, to order replacement batteries.

Connect the modem cable into one of the Battery

Backup + Surge Protection outlets