User Manual Back-UPS™ BE900G3 / BE1050G3

Important Safety Instructions

SAVE THESE INSTRUCTIONS - This manual contains important instructions that should be followed during installation and maintenance of the Smart-UPS and batteries.

Read these instructions carefully and look at the equipment to become familiar with the device before trying to install, operate, service or maintain it.

The following special messages may appear throughout this bulletin or on the equipment to warn of potential hazards or to call attention to information that clarifies or simplifies a procedure.

The addition of this symbol either to a “Danger” or “Warning” safety label indicates that an electrical hazard exists which will result in personal injury if the instructions are not followed.

This is the safety alert symbol. It is used to alert you to potential personal injury hazards. Obey all safety messages that follow this symbol to avoid possible injury or death.

⚠ DANGER

DANGER indicates a hazardous situation which, if not avoided, **will result in** death or serious injury.

⚠ WARNING

WARNING indicates a hazardous situation which, if not avoided, **could result in** death or serious injury.

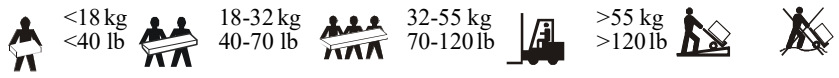
⚠ CAUTION

CAUTION indicates a hazardous situation which, if not avoided, **could result in** minor or moderate injury.

NOTICE

NOTICE is used to address practices not related to physical injury.

Product Handling Guidelines



Safety and General Information

Inspect the package contents upon receipt. Notify the carrier and dealer if there is any damage.
Read Safety Guide supplied with this unit before installing the UPS.

- Adhere to all national and local electrical codes.
- All wiring must be performed by a qualified electrician.
- **Changes and modifications to this unit not expressly approved by APC by Schneider Electric could void the warranty.**
- This UPS 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 UPS are not blocked. Allow adequate space for proper ventilation.
- For a UPS with a factory installed power cord, connect the UPS power cable directly to a wall outlet. Do not use surge protectors or extension cords.
- The equipment is heavy. Always practice safe lifting techniques adequate for the weight of the equipment.

Deenergizing safety

The UPS contains internal batteries and may present a shock hazard even when disconnected from the branch circuit (mains). The AC output connector may be energized by remote or automatic control at any time.

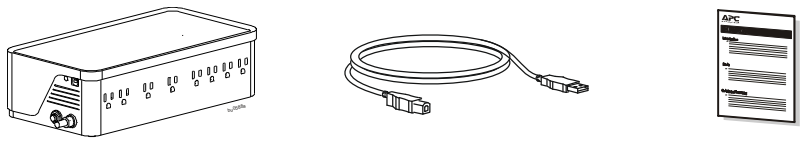
Before installing or servicing the equipment check that the:

- Input circuit breaker is in the **OFF** position.
- Internal UPS the batteries are removed.Input circuit breaker is in the **OFF** position.
- XLBP battery modules are disconnected.

Electrical safety

- Use tools with insulated handles.
- Do not handle any metallic connector before power has been disconnected.
- For models with a hardwired input, the connection to the branch circuit (mains) must be performed by a qualified electrician.
- 230 V models only: In order to maintain compliance with the EMC directive for products sold in Europe, output cords and network cables attached to the UPS must not exceed 10 meters in length.
- The protective earth conductor for the UPS carries the leakage current from the load devices (computer equipment). An insulated ground conductor must be installed as part of the branch circuit that supplies input power to the UPS. The conductor must have the same size and insulation material as the grounded and ungrounded branch circuit supply conductors. The conductor will be green, with or without a yellow stripe.
- Leakage current for a pluggable, Type A UPS may exceed 3.5 mA when a separate ground terminal is used.
- The UPS input ground conductor must be properly bonded to protective earth at the service panel.
- If the UPS input power is supplied by a separately derived system, the ground conductor must be properly bonded at the supply transformer or motor generator set.

Inventory



Connect the Battery

The Back-UPS is shipped with one battery cable disconnected.

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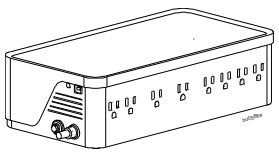

Remove the "Stop! connect the Battery" label that covers the outles.

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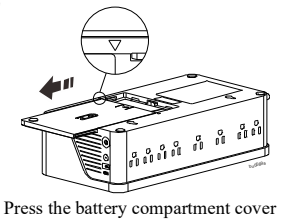

Press the battery compartment cover release tabs located on the underside of the unit. Slide the battery cover off until triangle symbols are aligned with edge of cover.

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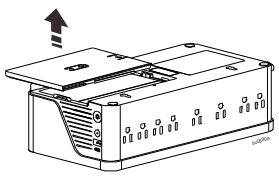

Remove the battery cover-up.

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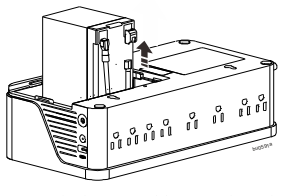

Connect the battery cable securely to the battery terminal. lt is normal for small sparks to be seen when the battery cable is connected to the battery terminal.

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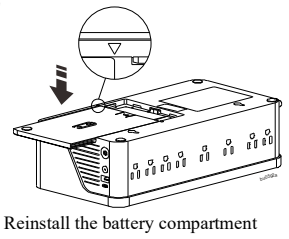

Reinstall the battery compartment cover. Align the triangle symbol with edge of cover.

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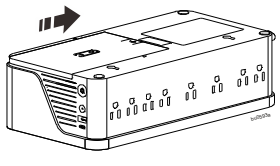
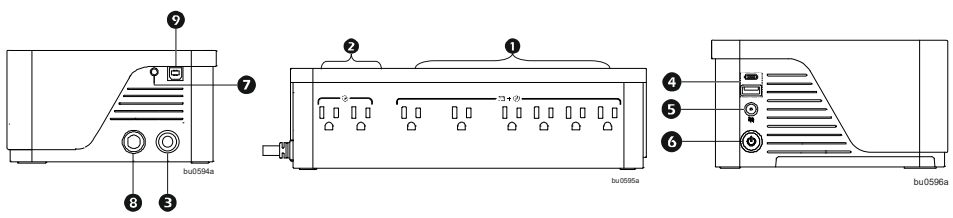


Slide the battery compartment cover. Be sure that the release tabs lock into place.

Specifications

Model		BE900G3 / BE1050G3
Input	Voltage	120 VAC nominal
	Frequency	50/60 Hz ± 3 Hz auto-sensing
	Brownout Transfers	92 Vac Typical
	Over-voltage Transfer	139 Vac Typical
Output (USB Port)	UPS Capacity	900 VA/540 W; 1050 VA/600 W
	No. of Outlets	8
	Battery Backup / Surge Outlets	6 / 2
	Total output current	12 A
	Voltage - On Battery	115 Vac ± 8 %
	USB output	5 Vdc, 3 A, 15 W
	Frequency - On Battery	50 / 60 Hz ± 1 Hz
	Transfer Time	6 ms Typical
Protection and Filtering	EMI/RFI Filter	Full time
	AC Input	Resettable circuit breaker
Battery	Type	Sealed, maintenance-free, lead acid, 12 V
	Average Life	3 - 5 years, the number of discharge cycles, poor quality AC power, environmental temperature and humidity may shorten the battery lifetime
	Charging Time	10 hours
Physical	Net weight	4.1 kg for 900 VA 4.3 kg for 1050 VA
	Dimensions (L x W x D)	12.52 in x 3.54 in x 6.57 in 318 mm x 90 mm x 167 mm
	Operating temperature	32 ºF to 104 ºF (0 ºC to 40 ºC)
	Storage temperature	5 ºF to 113 ºF (–15 ºC to 45 ºC)
	Operating relative humidity	0 to 90 % non-condensing
	Operating Elevation	0 to 10,000 ft (0 to 3000 m)
International Protection Code		IP20

Connect Equipment



❶	Battery Backup + Surge Protection Outlets	❺	MUTE Button
❷	Surge Protection Outlets	❻	POWER Button
❸	AC Power Inlet	❼	Building Wiring Fault
❹	USB Charger	❽	Circuit Breaker
❾	USB Data Port (Power Chute)		

Feature	Function	Suggested Use
Battery Backup + Surge Protection Outlets	Receive power from the battery for a limited period of time when a power outage, or brownout condition occurs. Help to provide protection from power surges or spikes.	Connect a computer, monitor and other essential peripheral devices that need to remain on during power outages or AC problems.
Surge Protection Outlets	Help to provide protection from power surges or spikes.	Connect non-essential peripheral devices (such as printer, scanner, etc.) that do not need to remain on during power outages or AC problems.

Turn On the Back-UPS

Press the POWER button. It will illuminate green and a single short beep indicates that the Back-UPS is on and helping to provide protection for connected equipment. The Back-UPS battery will charge regardless of whether the Back-UPS is switched on or off as long as it is connected to AC power. The UPS will have full runtime capability after the initial 24-hour charging period, connected to AC power. If the Building Wiring Fault indicator (located on the end near the power cord) is illuminated red, your building wiring may present a shock hazard that should be corrected by a qualified electrician.

Turn Off the Back-UPS

Press the POWER button for at least 2 seconds. At the first beep, release the button and the UPS will turn off. A 2 second delay has been added to mitigate unintentional contact with the POWER button.

Mute

The audible alarms of the Back-UPS can be muted. Press the MUTE button to enable or disable the mute function. The Mute status LED illuminates when the mute function is enabled.

PowerChute™ Serial Shutdown

Overview

Use PowerChute™ Serial Shutdown software to configure the UPS settings, protect your computer and other equipment during a utility power outage. During a power outage, PowerChute will save any open files on your computer and shut it down. When utility power is restored, it will restart the computer.

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

Installation

Use the USB cable to connect the Data port on the UPS to the USB port on your computer.
Download PowerChute™ Serial Shutdown Software from www.apc.com/pcss and follow the directions to install the software.

Voltage Sensitivity Adjustment

The Back-UPS detects and reacts to line voltage distortions by transferring to battery backup power to help 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. Turn off the UPS while connected to a wall outlet.
2. Press and hold the POWER button for 10 seconds. The POWER button will illuminate green and red alternately to indicate that the Back-UPS is in **Program** mode.
3. The POWER button 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 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.

Status Indicators

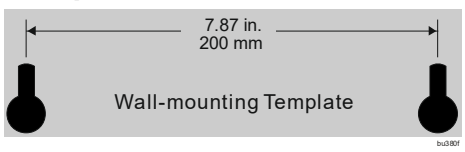
Status	POWER **Button illumination**	**Audible Indicator On**	**Audible Indicator Terminates**
Power On The Back-UPS is supplying AC power to connected equipment.	Solid green	None	N/A
On Battery Back-UPS supplying battery power to battery backup outlets.	Solid green and flashes twice every 2 seconds.	4 beeps every 30 seconds.	• Using Quick Mute • Beeping stops when AC power is restored or the Back-UPS is turned off. Applies only to modes where the on battery alarm is audible.
Low Battery notification The Back-UPS is supplying battery power to the battery backup outlets and the battery is near a total discharge state.	Flashes green in rapid succession.	Rapid beeping (1 beep every 0.5 second)	
Low Battery shutdown The battery has been completely discharged while the Back-UPS is on battery, the UPS will shut down**.**	None	1 beep every 4 seconds	• AC power is restored • AC is not restored within 32 seconds The Back-UPS is turned off.
Sleep Mode The UPS has shut down and will “awaken” once AC power is restored	None	None	N/A
Replace Battery • The battery is disconnected. • The battery needs to be charged, or replaced.	Alternates green-red	Constant tone	• Back-UPS is turned off • If battery is disconnected, unplug the Back-UPS from AC source and then turn it off. Refer to the section *Connect Equipment on page 1*. • If battery needs replacement, refer to the section *Battery Replacement on page 2* for details.
Detected Overload An overload condition has occurred in one or more of the battery backup outlets while operating on battery power.	None	Constant tone	Back-UPS is turned off
MUTE **Status** LED illuminates	None	MUTE function enabled.	N/A
MUTE **Status** LED does not illuminate	None	MUTE function disabled.	N/A

Troubleshooting

Problem and Possible Cause	Solution
The Back-UPS will not turn on.	
The Back-UPS will not turn on 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.	Be sure the power cord is securely connected to the wall outlet, and AC power available at the wall outlet.Where ever applicable, be sure that the wall outlet is switched on.
The Back-UPS is on, the POWER **button illuminates green and red alternately and the unit emits a constant tone**	
• The battery is disconnected. • The battery is near the end of useful life and should be replaced.	• Remove AC power and refer to the section *Connect Equipment on page 1*.
Connected equipment loses power	
A Back-UPS overload condition has occurred.	Remove all nonessential equipment connected to the outlets. Reconnect equipment one at a time to the Back-UPS. Charge the battery for 24 hours to make sure it is fully charged. If the overload condition still persists, replace the battery.
The Back-UPS battery is completely discharged.	Connect the Back-UPS to AC power and allow the battery to recharge for ten hours.
Connected equipment does not accept the step-approximated sine waveform from the Back-UPS.	The output waveform is intended for computers and peripheral devices. It is not intended for use with motor driven equipment.
The Back-UPS may require service.	Contact SEIT Technical Support.
The POWER **button illuminates green and flashes twice every 2 seconds**	
The Back-UPS is operating on battery power.	The Back-UPS is operating normally on battery power. Save all open files, and shutdown the computer. When AC power is restored the battery will recharge.
The POWER **button flashes green in rapid succession**	
The Back-UPS battery has approximately two minutes of remaining runtime.	The battery is near a total discharge state. Save all open files, and shutdown the computer. When AC power is restored the battery will recharge.
The Building Wiring Fault LED illuminates red	
The building wiring presents a shock hazard that must be corrected by a qualified electrical.	Do not operate the Back-UPS. Call a qualified electrician to correct the building wiring fault.
The Back-UPS has an inadequate battery runtime	
• The battery is not fully charged. • The battery is near the end of useful life and should be replaced.	Leave the Back-UPS connected to AC power for ten hours while the battery charges to full capacity. As a battery ages, the runtime capability decreases. See *Battery Replacement on page 2* to order replacement batteries.
The alarm is on with a constant tone; outlets are normal but POWER **button illumination is not bright.**	
The UPS is on AC power but the power of the connected equipment exceeds the rated power of the UPS. If a power disruption occurs the UPS may not be able to power the connected equipment. Power to the outlets will be uninterrupted as long as AC power is present.	Disconnect devices from the UPS until the load is less than the rated output of the UPS.
The alarm is on with a constant tone and the UPS is off	
The UPS was on battery and the connected load exceeded the rated load of the UPS.	Turn off the UPS. Disconnect all devices. Turn on the UPS and reconnect the devices one at a time.

Wall Mount Installation

- Horizontal installation, use 2 screws 7.87” (200 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 BE900G3** is **RBC17** and **BE1050G3** is **APCRBC164**.

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**.
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.
   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.
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.
5. Write the RMA# provided by Customer Support on the outside of the package.
6. Return the unit by insured, pre-paid carrier to the address provided by Customer Support.

Battery Replacement

⚠ CAUTION

RISK OF HYDROGEN SULPHIDE GAS AND EXCESSIVE SMOKE

- Replace the battery at least every 5 years or at the end of its service life, whichever is earlier.
- Replace the battery immediately when the UPS indicates battery replacement is necessary.
- Replace batteries with the same number and type of batteries as originally installed in the equipment.
- Replace the battery immediately when the UPS indicates a battery overtemperature condition, or when there is evidence of electrolyte leakage. Power off the UPS, unplug it from the AC input, and disconnect the batteries. Do not operate the UPS until the batteries have been replaced.

Failure to follow these instructions could result in equipment damage and minor or moderate injury.

- Servicing of batteries should be performed or supervised by personnel knowledgeable about batteries and required precautions.
- CAUTION: Before installing or replacing the batteries, remove conductive jewelry such as chains, wrist watches, and rings. High energy through conductive materials could cause severe burns.
- CAUTION: Do not dispose of batteries in a fire. The batteries may explode.
- CAUTION: Do not open or mutilate batteries. Released material is harmful to the skin and eyes and may be toxic.
- CAUTION: Failed batteries can reach temperatures that exceed the burn thresholds for touchable surfaces. .
- CAUTION: A battery can present a risk of electrical shock and high short-circuit current. The following precautions should be observed when working on batteries:
  – Disconnect the charging source prior to connecting or disconnecting battery terminals.
  – Do not wear any metal objects including watches and rings.
  – Do not lay tools or metal parts on top of batteries.
  – Use tools with insulated handles.
  – Wear rubber gloves and boots.
  – Determine if battery is either intentionally or inadvertently grounded. Contact with any part of a grounded battery can result in electric shock and burns by high short-circuit current. The risk of such hazards can be reduced if grounds are removed during installation and maintenance by a skilled person.

Warranty

Register your product on-line. http://warranty.apc.com

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 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.

APC by Schneider Electric IT Customer Support Worldwide

For country specific customer support, go to the APC by Schneider Electric Web site, www.apc.com.

EMC Compliance

This device complies with 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.

Select models are compliant with California (CEC) Battery Charger regulations. For more information on your specific model visit the APC by Schneider Electric web site, www.apc.com.

Select models are ENERGY STAR® qualified. For more information on your specific model visit the APC by Schneider Electric web site, www.apc.com.

QR Code

Scan the QR code located on the unit to download manual and detailed product information.

BE900G3 **BE1050G3**

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