

APC™

by Schneider Electric

User Manual Easy UPS BV Series 500VA, 650VA, 800VA, 1000VA

Safety and General Information

SAVE THESE INSTRUCTIONS –

This manual contains important instructions that should be followed during installation and maintenance of the UPS and batteries.

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

- This UPS is intended for indoor use only.
- Mains socket outlet that supplies the UPS shall be installed near the UPS and shall be easily accessible.
- UPS must be connected to an earthed mains socket outlet.

CAUTION

HYDROGEN SULPHIDE GAS AND EXCESSIVE SMOKE

- Battery must be replaced when they reach end of service life.
- Batteries must be replaced when the unit indicates battery replacement is necessary.
- When replacing batteries, replace with the same number and type of batteries originally installed in the unit.

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

- Servicing of batteries should be performed or supervised by personnel knowledgeable about batteries and required precautions.
- When replacing battery the UPS must be OFF, and its AC inlet unplugged.
- **CAUTION** Do not dispose of batteries in a fire. The batteries may explode.
- **CAUTION** Risk of explosion if battery is replaced by an incorrect type. Dispose of used batteries according to the instructions.
- Do not open or mutilate batteries. They contain an electrolyte that is toxic and harmful to the skin and eyes.
- **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.
 - a. Remove watches, rings or other metal objects.
 - b. Use tools with insulated handles.
 - c. Wear rubber gloves and boots.
 - d. Do not lay tools or metal parts on top of batteries.
 - e. Disconnect the charging source prior to connecting or disconnecting battery terminals.
 - f. Determine if battery is inadvertently grounded. If inadvertently grounded, remove source from ground. Contact with any part of a grounded battery can result in electrical shock. The likelihood of such shock can be reduced if such grounds are removed during installation and maintenance

Radio Frequency Warning

This is a category C2 UPS product. In a residential environment, this product may cause radio interference, in which case the user may be required to take additional measures.

Place and Power On

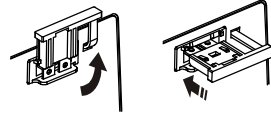
1. Place the Easy UPS to avoid:

- Direct sunlight
- Excessive heat
- Excessive moisture
- Excessive dust/dirt



For operation, please place the unit on the floor.

2. Connect the battery by pulling the battery handle up, and then pushing it into the unit.



3. Connect equipment to the UPS. Avoid using extension cords.




4. Plug the Easy UPS power cord directly into a wall outlet, not into a surge protector or power strip.


5. Press the ON/OFF button to turn on the unit.

The green “Power On” indicator confirms that the Easy UPS is on and ready to provide protection. The Easy UPS should charge for at least 6 hours to ensure sufficient runtime. The unit is being charged whenever it is connected to AC power, whether the unit is turned ON or OFF.


Features

- A** ON/OFF button with indicator
- B** Input power cord
*only for model with Schuko outlet
- C** Battery backup and surge protected outlets
- D** Battery connector
- E** Circuit breaker
*only for model with Schuko outlet
- F** AC power inlet

Model	Output Type and Quantity
BV500I BV650I BV800I BV1000I	 x 6
BV500I-GR BV650I-GR BV800I-GR BV1000I-GR	 x 4
BV500I-MS BV650I-MS BV800I-MS BV1000I-MS	 x 4



NEMA jumper Cable for PC connection
*only for the model with Universal outlet



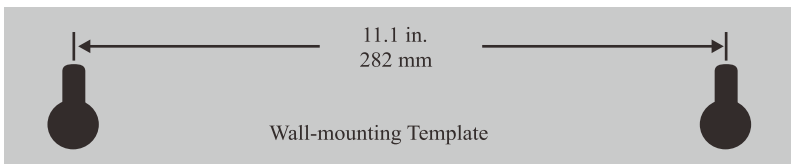
IEC jumper Cable for PC connection
*only for the model with IEC outlet

Specifications

Model		BV500I	BV650I	BV800I	BV1000I
Input	Voltage	230 VAC			
	Frequency	50 Hz or 60 Hz			
	Brownout Transfer	170 VAC, typical			
	Over-voltage Transfer	280 VAC, typical			
Output	UPS Capacity (total)	500VA / 300W	650VA / 375W	800VA / 450W	1000VA / 600W
	Voltage On Battery	230VAC ± 10%			
	Frequency - On Battery	50 Hz / 60 Hz ± 1Hz			
	Transfer Time	6ms typical			
Protection	AC Input Circuit Breaker	5A	5A	7A	7A
Battery	Type (maintenance-free)	12V, 4.5AH lead acid	12V, 7AH lead acid	12V, 7AH lead acid	12V, 9AH lead acid
	Average Life	<p>The battery typically lasts for three to five years. Environmental factors impact battery life. Elevated temperatures, high humidity, poor quality mains power, and frequent, short duration discharges will shorten battery life.</p> <p>The battery in the Easy UPS Series is not user-replaceable. Contact SEIT Technical Support for a list of authorized service centers near you.</p>			
	Typical Recharge Time	6-8 Hours			
Physical	Net Weight	3.9 kg	4.5 kg	5.3 kg	5.7 kg
	Dimensions (Hx Wx D)	9.25 cm x 16.05 cm x 30.5 cm			

Wall Mount Installation

- Horizontal installation, use 2 screws 11.1"(282 mm) apart.
- Allow 5/16" (8 mm), of the screw to protrude from the wall.



Status Indicators

LED	Audible Alarm	Condition
On	Off	On-line - The Easy UPS is supplying AC power to the connected equipment
	Constant Tone	On Line Overload - The power being used by the connected equipment has exceeded the capacity of the unit. Disconnect some equipment.
	Constant beeping (every 1/2 second)	Over-temperature - The unit is overheating and will operate in AVR mode for 5 minutes. The Easy UPS will shut down if the temperature is not lowered. Disconnect some of the connected equipment.
On (Off during 4 beeps)	4 beeps repeated every 30 seconds	On-Battery - The Easy UPS is supplying battery power.
Flashing	Constant beeping (every 1/2 second)	Low Battery - The Easy UPS is supplying battery power and the battery is near a total discharge state.
	Constant tone	Bad Battery Detected - The battery needs to be charged, or is at end of life.
Off	Short beep every 4 seconds	Low Battery Shutdown - During On Battery operation the battery power was almost completely exhausted, and the Easy UPS is waiting for AC power to return to normal.
	Constant Tone	On Battery Overload - The connected equipment requires more power than provided by the Easy UPS battery. Unplug devices one at a time to remove overload. If the problem is not corrected, contact SEIT Technical Support
		Charger Detected Fault - Easy UPS has an internal problem, and is no longer powering the load. Contact SEIT Technical Support
Long beep every 4 seconds	Over-temperature Protected - The Easy UPS has overheated and has shut down. Unplug connected devices one at a time or wait for a few hours for system to cool down.	

Operational Features

Automatic Voltage Regulation (AVR)

Automatic Voltage Regulation boosts/trims the AC voltage when it drops/exceeds levels.

This allows the equipment plugged into the unit to operate during low/high voltage conditions, conserving the battery power in the event of a power cut.

The Easy UPS will switch to battery power if the input voltage level becomes too low/high for the Automatic Voltage Regulation to compensate, or if the AC power is distorted.

Troubleshooting

Problem and Possible Cause	Solution
The Easy UPS will not turn on	
The Easy UPS has not been turned on.	Press the ON/OFF button.
The Easy 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 disconnected.	Refer to the <i>Place and Power On on page 2</i> .
Connected equipment loses power	
A Easy UPS overload condition has occurred.	Remove all nonessential equipment connected to the outlets. One at a time reconnect equipment to the Easy UPS. Charge the battery for 24 hours to make sure it is fully charged. If the overload condition still occurs, replace the battery.
The Easy UPS battery is completely discharged.	Connect the Easy 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 Easy UPS.	The output waveform is intended for computers and peripheral devices. It is not intended for use with motor driven equipment.
The Easy UPS may require service.	Contact Schneider Electric Technical Support for more in depth troubleshooting
The ON/OFF button is green and flashing every 30 seconds. 4 beeps repeated every 30 seconds.	
The Easy UPS is operating on battery power.	The Easy UPS is operating normally on battery power. At this point the user should save all open files, and shutdown the computer. When AC power is restored the battery will recharge.
The ON/OFF button flashes green and constant beeps every 1/2 second.	
The Easy UPS battery has approximately empty and will shutdown	The Easy UPS battery is near a total discharge state. At this point the user should save all open files, and shutdown the computer. When AC power is restored the battery will recharge.
The Easy 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 Easy UPS connected to AC power for ten hours while the battery charges to full capacity. As a battery ages, the runtime capability decreases. Contact APC by Schneider Electric at the website www.apc.com , to order replacement batteries.
The UPS and outlets are off but the UPS keeps beeping once every 4 seconds. The alarm will mute after 32 seconds.	
The UPS have shut down due to low battery, but control power exists.	The UPS will return to normal operation once the AC input voltage has returned to a normal range.

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 website, **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.
 - 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 website 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.
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

Warranty

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

The standard warranty is two (2) years from the date of purchase. 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 website, **www.apc.com**.