CONTENTS

CONNECT TVSS GROUND
The Back-UPS features a transient voltage surge-suppression (TVSS) screw for connecting the ground load on additional surge suppression devices such as network and data line surge protectors.

INSTALL SOFTWARE ON COMPUTER
If Autoplay is not enabled on the computer, proceed as follows:
1. On the computer desktop of the display, double-click on My Computer.
2. Double-click on the CD-ROM drive icon and follow the on-screen instructions.

CONNECT EQUIPMENT / POWER

CONNECT BATTERY CARTRIDGE

CHECK BUILDING WIRING FAULT INDICATOR
If the rear panel Building Wiring Fault (red) indicator is lit, a potential shock hazard exists due to one of the following conditions:
- Open or high resistance ground
- Hot or neutral polarity reversed
- Overloaded neutral circuit
Improper building wiring should be corrected by a qualified electrician. Do not use the Back-UPS until the condition that caused the fault is corrected.
Note: Improper building wiring will not prevent the Back-UPS from operating, but it will limit its protection capability.

CONNECT PHONE/MODEM/FAX

CONNECT INTERFACE CABLE

CONNECT 10/100 Base-T or VOIP

SWITCH ON THE BACK-UPS

STATUS INDICATORS AND ALARMS
There are four status indicators (lights) on the front panel of the Back-UPS (On Line, On Battery, Overload, and Replace Battery).

On Battery (yellow) - is lit whenever the battery of the Back-UPS is powering equipment connected to the Battery Backup outlets.

On Line (green) - is lit whenever utility power is powering the Battery Backup outlets.

Overload (red) - is lit whenever power demand has exceeded the capacity of the Back-UPS.

Replace Battery (red) - is lit whenever the battery is near the end of its useful life, or if the battery is not connected (see above). A battery that is near the end of its useful life has insufficient run-time and should be replaced.

Continuous Tone - this alarm is sounded whenever the Battery Backup outlets are overloaded.

Circuit Breaker - the circuit breaker button located on the rear panel of the Back-UPS will stick out if an overload condition forces the Back-UPS to disconnect itself from utility power. Press the button sticks out, disconnect non-essential equipment. Reset the circuit breaker by pushing the button inward.

Chirps for 1 Minute Every 5 Hours - this alarm is sounded whenever the battery has failed the automatic diagnostic test.

Four Beeps Every 30 Seconds - this alarm is sounded whenever the Back-UPS is running On Battery. Consider saving work in progress.

Continuous Beeping - this alarm is sounded whenever a low battery condition is reached. Battery run-time is very low. Promptly save any work in progress and exit all open applications. Shut down the operating system, computer and the Back-UPS.

Continuous Tone - this alarm is sounded whenever the Battery Backup outlets are overloaded.

Four Beeps Every 30 Seconds - this alarm is sounded whenever the Back-UPS is running On Battery. Consider saving work in progress.

On Line (green) - is lit whenever utility power is powering the Battery Backup outlets.

On Battery (yellow) - is lit whenever the battery of the Back-UPS is powering equipment connected to the Battery Backup outlets.

On Line (green) - is lit whenever utility power is powering the Battery Backup outlets.

On Battery (yellow) - is lit whenever the battery of the Back-UPS is powering equipment connected to the Battery Backup outlets.
**REPLACE BATTERY CARTRIDGE**

The battery cartridge typically lasts 3-6 years, shorter if subjected to frequent outages or elevated temperatures. Order part number RBC32 for 1000 VA models, or RBC33 for 1500 VA models.

<table>
<thead>
<tr>
<th>Problem</th>
<th>Possible Cause</th>
<th>Corrective Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>Back-UPS not powered on.</td>
<td>Back-UPS not connected to AC power source.</td>
<td>Ensure the Back-UPS is securely connected to an AC outlet.</td>
</tr>
<tr>
<td>Back-UPS circuit breaker tripped.</td>
<td>Disconnect non-essential equipment from the Back-UPS. Reset the circuit breaker.</td>
<td>Disconnect the device that caused the breaker to trip.</td>
</tr>
<tr>
<td>Battery input voltage quality is out of range.</td>
<td>Utility input voltage is out of range.</td>
<td>Consider adjusting the transfer voltage and sensitivity. See Transfer Voltage and Sensitivity Adjustment.</td>
</tr>
<tr>
<td>Back-UPS does not power essential equipment during an outage.</td>
<td>Equipment plugged into a Surge Only outlet.</td>
<td>Unplug the equipment from the Surge Only outlet and move to a Battery Backup outlet.</td>
</tr>
<tr>
<td>Back-UPS does not provide expected backup time.</td>
<td>Back-UPS is heavily loaded.</td>
<td>Unplug non-essential equipment (printers, scanners, etc) from the Battery Backup outlet and plug into a Surge Only outlet.</td>
</tr>
<tr>
<td>Red/Overload indicator is on or flashing.</td>
<td>Connected equipment is drawing more power than the Back-UPS can provide.</td>
<td>Move one or more equipment power plugs from Battery Backup outlets to Surge Only outlets.</td>
</tr>
<tr>
<td>Green On Line indicator is on and all other front panel indicators are flashing.</td>
<td>Internal UPS failure.</td>
<td>Contact APC Technical Support (see Contact Information).</td>
</tr>
</tbody>
</table>

**ORDER REPLACEMENT BATTERY CARTRIDGE**

If the Back-UPS arrived damaged, notify the carrier. If the Back-UPS requires service, do not return it to the dealer. The following steps should be taken:
1. Consult the Troubleshooting section to eliminate common problems.
2. If the problem persists, go to http://www.apc.com/support/.
3. If the problem still persists, contact APC Technical Support.

**LIMITED WARRANTY**

The standard warranty is two (2) years from the date of purchase. APC’s 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 serial numbers on the unit. For the replacement unit, APC pays for freight transportation costs to ship the replacement unit to the customer.

**SERVICE**

In situations where the Back-UPS or connected equipment appears too sensitive to utility voltage, it may be necessary to adjust the transfer voltage. This is a simple task requiring use of the front panel pushbutton. To adjust the transfer voltage, proceed as follows:
1. Plug the Back-UPS into the utility power source. The Back-UPS will be in a Standby Mode (no indicators lit).
2. Press the front panel pushbutton fully inward for 10 seconds. All indicators on the Back-UPS will go on.
3. The Back-UPS will then indicate its current Lower Transfer Voltage, as shown in the following table.

**SPECIFICATIONS**

<table>
<thead>
<tr>
<th>Item</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>On-line Input Voltage Range (default settings)</td>
<td>88 - 139 Vac (XS model) 88 - 148 Vac (RS model)</td>
</tr>
<tr>
<td>Automatic Voltage Regulation (AVR)</td>
<td>+12% (XS model) +2% (RS model)</td>
</tr>
<tr>
<td>On-line Frequency Range</td>
<td>47 - 63 Hz (measuring)</td>
</tr>
<tr>
<td>On-battery Waveshape</td>
<td>Stepped Wave</td>
</tr>
<tr>
<td>Maximum Load</td>
<td>1000 VA 160 W 1500 VA 165 W</td>
</tr>
<tr>
<td>Typical Recharge Time</td>
<td>8 Hours</td>
</tr>
<tr>
<td>Operating Temperature</td>
<td>32°F to 104°F (0°C to 40°C)</td>
</tr>
<tr>
<td>Storage Temperature</td>
<td>23°F to 113°F (-5°C to 45°C)</td>
</tr>
<tr>
<td>Size (H x W x D)</td>
<td>14.6 x 3.4 x 13.1 inches 371 x 86 x 333 cm</td>
</tr>
<tr>
<td>Weight</td>
<td>1000 VA 22 lbs (10 kg) 1500 VA 25 lbs (11 kg)</td>
</tr>
<tr>
<td>Shipping Weight</td>
<td>1000 VA 23 lbs (10 kg) 1500 VA 26 lbs (12 kg)</td>
</tr>
<tr>
<td>EMU Classification</td>
<td>FCC / DOC Class B Certified</td>
</tr>
<tr>
<td>On Battery Run-Time</td>
<td>See <a href="http://www.apc.com/products">http://www.apc.com/products</a></td>
</tr>
</tbody>
</table>

**TRANSFER VOLTAGE AND SENSITIVITY ADJUSTMENT**

In situations where the Back-UPS or connected equipment appears too sensitive to utility voltage, it may be necessary to adjust the transfer voltage. This is a simple task requiring use of the front panel pushbutton. To adjust the transfer voltage, proceed as follows:
1. Plug the Back-UPS into the utility power source. The Back-UPS will be in a Standby Mode (no indicators lit).
2. Press the front panel pushbutton fully inward for 10 seconds. All indicators on the Back-UPS will go on.
3. The Back-UPS will then indicate its current Lower Transfer Voltage, as shown in the following table.

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**CONTACT INFORMATION**

**Technical Support**

http://www.apc.com/support

**Internet**

http://www.apc.com

**USA / Canada**

1.800.800.4272

**Mexico**

011-52517-207-155

**Brazil**

080012.72.1

**Worldwide**

+1-401-785-5715