Connect the Battery

In compliance with Department of Transportation (DOT) regulations, the Back-UPS is shipped with the internal red battery wire disconnected. The Back-UPS will not operate until the internal red terminal is connected to the battery. Once connected, allow the Back-UPS to charge for a full eight hours prior to use.

Note: Small sparks may occur during battery connection. This is normal.

Check the Building Wiring Fault Indicator

If the red Building Wiring Fault indicator on the rear panel of the Back-UPS is lit, one of the following conditions exists:

- Open or high resistance ground
- Hot or neutral polarity reversed
- Overloaded neutral circuit

A lit indicator means that a potential shock hazard exists. Improper building wiring should be corrected by a qualified electrician. Do not leave the Back-UPS until the condition that caused the fault is corrected.

Connect Equipment to the Back-UPS

The rear panel of the Back-UPS consists of the following elements:

- Battery Backup Outlets (qty. of 3)
- Line to Surge Protection
- External Drive Scanner
- External Drive
- Fax
- Modem
- Phone
- 10/100 Ethernet
- USB PORT
- RJ-45 to USB CABLE
- USB PORT
- CD-ROM drive
- PowerChute Personal Edition Software CD-ROM
- On/Off
- On Battery
- Overload

The installation program will load automatically. Follow the on-screen instructions to install the software.

Switch On the Back-UPS

Note: Allow the Back-UPS to charge for a full eight hours prior to use.

First, push the button on the front panel of the Back-UPS.

The On Battery indicator lights while the Self-Test is being performed.

When Self-Test has successfully completed, only the green On Line indicator will be lit.

If the internal battery is not connected, the green On Line indicator and red Replace Battery indicator will light. The Back-UPS will also emit a chirping sound.

Connect USB Cable and Install Software (optional)

The installation program will load automatically. Follow the on-screen instructions to install the software.

Upgrade Outlets (qty. of 3). These outlets provide battery backup, surge protection, and Electro-Magnetic Interference (EMI) filtering. In case of power outage, battery power is automatically provided to these outlets. Power (utility or battery) is not supplied to the outlets when the Back-UPS is switched Off/Closed. Connect a computer, monitor, and external CD-ROM drive to these outlets.

Connect the Phone Line to Surge Protection

The telephone port provides lightning surge protection for any device connected to the telephone line (modem, fax, or telephone). The telephone ports are compatible with the Telephone Line Scrambler (TLS) and Digital Subscriber Line (DSL) standards, as well as all modem / DSL standards. Connect an RJ-11 modular plug from the telephone line to the telephone port.

Status Indicators and Alarms

There are four status indicators (lights) on the front panel of the Back-UPS: On Line, 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.

Four Beeps Every 30 Seconds - this alarm is sounded whenever the Back-UPS is running On Battery. Consider setting a non-essential device to manually shut down when this alarm is sounded.

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

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

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 overloaded condition forces the Back-UPS to disconnect from utility power. If the button sticks out, disconnect non-essential equipment. Reset the circuit breaker by pushing the button.

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 runtime and should be replaced.

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

Use the tables below to solve minor Back-UPS installation and operation problems. Consult or call APC On-line Technical Support or call APC Technical Support for assistance with problems that cannot be resolved using this document.

<table>
<thead>
<tr>
<th>Possible Cause</th>
<th>Procedure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Back-UPS not connected to an AC power source.</td>
<td>Check that the Back-UPS power plug is securely connected to the wall outlet.</td>
</tr>
<tr>
<td>Back-UPS circuit breaker “tripped”.</td>
<td>Disconnect non-essential equipment from the Back-UPS. Reset the circuit breaker (located on the rear panel of the Back-UPS) by pushing the circuit breaker button fully inward until it catches. If the circuit breaker resets, switch the Back-UPS on and reconnect the equipment one-at-a-time. If the circuit breaker trips again, it is likely that one of the connected devices is causing the overload.</td>
</tr>
<tr>
<td>Very low or no utility voltage.</td>
<td>Check the wall outlet that supplies power to the Back-UPS using a light bulb. If the lamp bulb is very dim, have the utility voltage checked by a qualified electrician.</td>
</tr>
<tr>
<td>Back-UPS does not power computer/monitor/external drive during an outage</td>
<td>Battery not connected properly. Check the battery connections. Consult “Connect the Battery” under “Installation” on the front page of this document. It shows how to access the battery and connect the wires.</td>
</tr>
<tr>
<td>Back-UPS circuit breaker “tripped”.</td>
<td>Disconnect non-essential equipment from the Back-UPS. Reset the circuit breaker (located on the rear panel of the Back-UPS) by pushing the circuit breaker button fully inward until it catches.</td>
</tr>
<tr>
<td>The wall outlet that the Back-UPS is connected to does not supply utility power to the unit.</td>
<td>Connect the Back-UPS to another wall outlet or have a qualified electrician check the building wiring.</td>
</tr>
<tr>
<td>Back-UPS does not provide expected backup time</td>
<td>Battery is not connected properly. Check the battery connections. Consult “Connect the Battery” under “Installation” on the front page of this document. It shows how to access the battery and connect the wires.</td>
</tr>
<tr>
<td>The Overload indicator is lit if equipment connected to the Battery Backup outlets is drawing more power than the Back-UPS can provide.</td>
<td>Move one or more equipment plugs to the Surge Only outlets.</td>
</tr>
<tr>
<td>Battery requires replacement.</td>
<td>Battery requires replacement. The battery should be replaced within two weeks (see “Order Replacement Battery”). Failure to replace the battery will result in reduced run-time during a power outage.</td>
</tr>
<tr>
<td>Red indicators are flashing</td>
<td>Call APC Technical Support for service.</td>
</tr>
</tbody>
</table>

Replace Battery Indicator light and an alarm sounds when the Back-UPS is turned on | Battery is not connected properly. Check the battery connections. Consult “Connect the Battery” under “Installation” on the front page of this document. It shows how to access the battery and connect the wires. |
| Internal battery not connected | Battery is not connected properly. Check the battery connections. Consult “Connect the Battery” under “Installation” on the front page of this document. It shows how to access the battery and connect the wires. |
| Internal battery not connected | Battery is not connected properly. Check the battery connections. Consult “Connect the Battery” under “Installation” on the front page of this document. It shows how to access the battery and connect the wires. |

Specifications

- **Input Voltage (on line)**: 96 - 132 Vac
- **Frequency Limits (on line)**: 47 - 63 Hz (continuous)
- **On Battery Waveform**: Stepped Waveform
- **Maximum Load**: 350 VA - 210 W
- **Typical Runtime**: 8 Hours
- **Operating Temperature**: 32° to 104°F (0° to 40°C)
- **Storage Temperature**: 25° to 113°F (7° to 45°C)
- **Operating and Storage Relative Humidity**: 5 to 95% non-condensing
- **Size (H x W x D)**: 5.6 x 3.5 x 11.2 inches (16.5 x 9.2 x 28.5 cm)
- **Weight**: 350 VA - 12.5 lb (5.7 kg)
- **Shipping Weight**: 350 VA - 140 lb (6.4 kg)
- **EMI/EMC Classification**: FCC/DOC Class B Certified

Reorder Replacement Battery

The typical battery lifetime is 3-6 years (depending on the number of discharge cycles and operating temperatures). A replacement battery can be ordered over the phone from APC by Schneider Electric or the battery can be ordered on-line from the APC by Schneider Electric Web site (go to http://www.apc.com, a valid credit card is required). When ordering, specify Battery Cartridge RBC2.

Battery Replacement

Battery replacement is a safe procedure. The Back-UPS can be left on with the equipment connected during this procedure. Do not replace the battery when the Back-UPS is on Battery. Refer to the Safety Guide for additional safety information.

Consult the “Connect Battery” diagrams (a through d) on the front page of this document when performing the following procedures:

1. While viewing the Back-UPS from the front, lay the Back-UPS on its left side (diagram a).
2. Slide the battery compartment cover back into the Back-UPS (diagram b).
3. Group the tab attached to the battery and slide the battery partially out of the case. Grab the battery tab and pull it straight out. The battery wires will disconnect as the battery is pulled out (diagram b).
4. Carefully unpack the new battery. Retain the packing carton so that the old battery can be recycled.
5. Insert the new battery halfway into the Back-UPS (diagram d).
6. Connect the wires to the new batteries as follows:
7. Red Wire - to red (positive) terminal
8. Black Wire - to black (negative) terminal
9. Note: Small sparks at the battery terminals are normal during connection.
10. Carefully insert the battery fully into the Back-UPS.
11. Slide the battery compartment cover back into place.
12. The Replace Battery indicator will shut off within the 14-day self-test interval, or when the Back-UPS is switched on.

The old battery must be recycled. Deliver the battery to a proper recycling facility or return it to APC in the packing carton that came with the new battery. Additional recycling information is provided with the new battery.

Order Replacement Battery

- **Battery Life**: 3-6 years (36 months) (depending on the number of discharge cycles and operating temperatures).
- **Battery Installation**: Installation of the Battery Cartridge RBC2 is a safe procedure. The Back-UPS can be left on with the equipment connected during this procedure. Do not replace the battery when the Back-UPS is on Battery. Refer to the following diagram for additional safety information.
- **Wiring Connections**: Refer to the “Connect Battery” diagrams (a through d) on the front page of this document when performing the following procedures:
  1. While viewing the Back-UPS from the front, lay the Back-UPS on its left side (diagram a).
  2. Slide the battery compartment cover back into the Back-UPS (diagram b).
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Service

- **If the Back-UPS arrived damaged, notify the carrier.**
  - Contact the Troubleshooting section (steps 1 through 12) to identify problems.
  - Verify that the circuit breaker is not tripped. A tripped circuit breaker is the most common Back-UPS problem.
  - If the problem persists, consult APC On-line Technical Support or call APC Technical Support (see below).
  - When calling APC Technical Support, have the Back-UPS model number, serial number and date of purchase available. Be prepared to troubleshoot the problem over the phone with an APC Technical Support representative. If this is not successful, APC will issue a Return Merchandise Authorization (RMA) number and a shipping address.
  - **Pack the Back-UPS in its original packaging.** A replacement unit will be shipped at no charge to the customer only if the defective unit has been received by APC. If the equipment is to be returned for repair, the repair department, or cross ship, upon receipt of a valid credit card number. The customer pays for shipping the unit to APC. APC pays ground freight transportation costs to ship the replacement unit to the customer.
  - **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 an APC Technical Support representative.** If the warranty has expired, there is a repair charge.
  - **If you experience trouble with this equipment, you disconnect it from the network until the problem has been corrected.** APC's standard procedure is to replace the equipment unit with a factory reconditioned unit. If the original customer is not available, contact APC Technical Support to obtain a new set. Pack the Back-UPS properly to avoid damage in transit. Never use styrofoam beads for packaging. Damage sustained in transit is not covered under the warranty (insuring the package for full value is recommended).
  - Write the RMA number on the outside of the package.
  - **If the warranty was expired, there is a repair charge.**
  - **Note:** Disconnect the red terminal wire from the Back-UPS battery (see “Connect the Battery” instructions and graphics on the front page of this document). Department of Transportation (DOT) regulations require that the battery wire be disconnected before shipping the Back-UPS to APC.

Warranty

- **The standard warranty is two (2) years from the date of purchase.** APC’s standard procedure is to replace the equipment 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 APC Technical Support representative. If this is not successful, APC will issue a Return Merchandise Authorization (RMA) number and a shipping address.
- **Pack the Back-UPS in its original packaging.** If the original customer is not available, contact APC Technical Support to obtain a new set. Pack the Back-UPS properly to avoid damage in transit. Never use styrofoam beads for packaging. Damage sustained in transit is not covered under the warranty (insuring the package for full value is recommended).
- **Write the RMA number on the outside of the package.**
- **4. Return the Back-UPS to APC by insured, prepaid carrier to the address provided by APC Technical Support.**

Battery Recharge Time

- **Typical Recharge Time**: 8 hours (or until Battery requires replacement).
- **Warranty**: The standard warranty is two (2) years from the date of purchase. APC’s standard procedure is to replace the equipment 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 APC Technical Support representative. If this is not successful, APC will issue a Return Merchandise Authorization (RMA) number and a shipping address. If the warranty was expired, there is a repair charge.
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