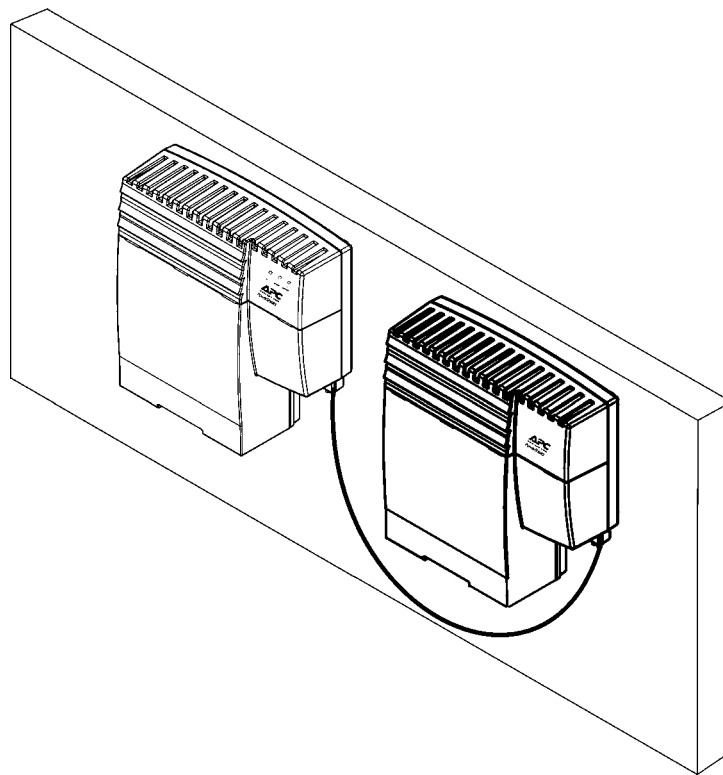


**APC®** Broadband  
www.apc.com

**PowerShield®**  
**External Battery Pack**  
**20 Ah 12 V Battery**

**User Manual**



990-1660 08/2003



## Chapter 1 General Information

The APC PowerShield External Battery Pack connects directly to the APC PowerShield® providing longer runtime for connected applications.

### Safety

This Safety Guide contains important instructions that should be followed during installation and maintenance of the APC equipment and batteries. It is intended for APC customers who setup, install, relocate, or maintain APC equipment.

**Changes and modifications to this unit not expressly approved by APC could void the warranty.**

**Failure to observe these warnings may result in serious injury, death or damage to the equipment.**

#### Electrical

Do not work alone under hazardous conditions.

#### Warnings

Servicing this equipment may require working with protective covers removed and utility power connected. Use extreme caution during these procedures.

Check that the power cord(s), plug(s), and sockets are in good condition.

Replacement of fuses or other parts must be with identical types and ratings.

Substitution of nonidentical parts may cause safety and fire hazards.

#### Battery Safety and Warnings

Use only APC replacement batteries.

This equipment contains potentially hazardous voltages. Do not attempt to disassemble the unit.

The unit contains no user serviceable parts. Repairs are to be performed only by qualified service personnel.

Do not dispose of batteries in a fire. They contain an electrolyte that is toxic and harmful to the skin and eyes.

To avoid personal injury due to energy hazard, remove wristwatches and jewelry such as rings when replacing the batteries. Use tools with insulated handles.

## Specifications

### Model Number

CP20B12BP

### Battery Specifications

12 V 20 Ah Spill-Proof, Maintenance-Free, Sealed Lead Acid

### Environmental Specifications

<i>Operating Temperature</i>	32° F to 113° F (0° C to 45° C)
<i>Operating Humidity</i>	0 to 95% noncondensing within enclosure
<i>Max Operating Elevation</i>	10,000 ft (3,000 m)
<i>Max Storage Elevation</i>	50,000 ft (15,000 m)
<i>Storage Temperature</i>	-5° F to 113° F (-15° C to 45° C)

### Physical Specifications

<i>Characteristic</i>	<i>Specification</i>
<i>Height x Width x Depth</i> <i>UPS</i> <i>UPS carton</i>	11.6 x 11.6 x 3.7 in (28 x 28 x 10 cm) 16.4 x 16.4 x 8.6 in (41.6 x 41.6 x 21.8 cm)
<i>Weight</i> <i>UPS</i> <i>UPS with package materials</i>	17.5 lbs (7.9 kg) 21 lbs (9.5 kg)

## Unpacking

Inspect the unit upon receipt. Notify the shipping carrier or product supplier if there is damage.

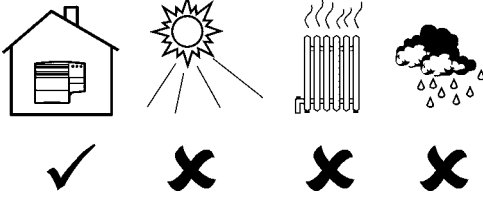
The packaging is recyclable; save it for reuse or dispose of it properly.

Check the package contents. The package contains:

- ✓ the enclosure (cable and connector attached)
- ✓ the battery (installed, not connected)
- ✓ product documentation.

# Chapter 2 Installation

## Enclosure Installation



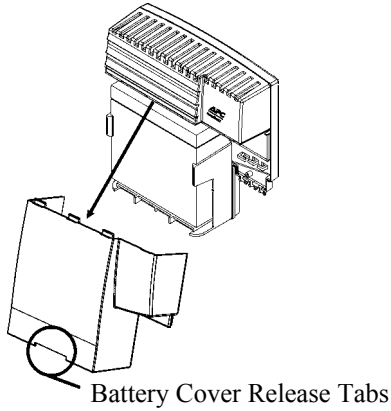
Install the UPS in a protected area that is free of excessive dust and has adequate airflow.

Do not operate the power supply where the temperature and humidity are outside the specified limits. Refer to *Specifications* in this manual.

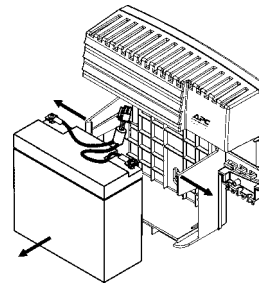
Use screws that are appropriate for the weight of this unit and the mounting surface material.

Mount the PowerShield on a load bearing surface appropriate for the weight of the unit. Refer to *Specifications* in this manual.

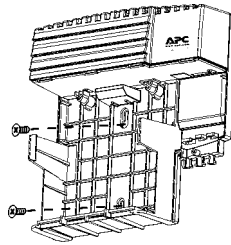
Step 1



Step 2

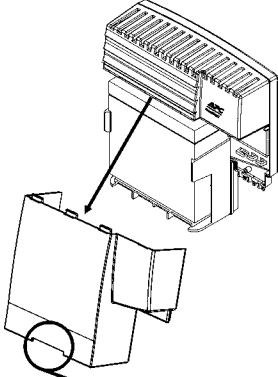


Step 3



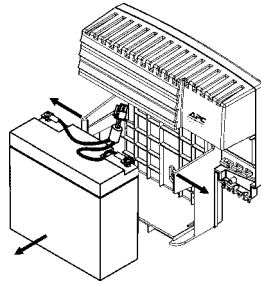
# Battery Installation

Step 1

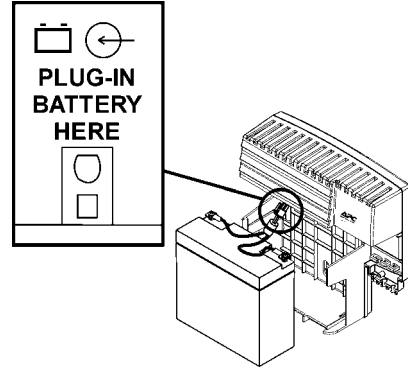


Battery Cover Release Tabs

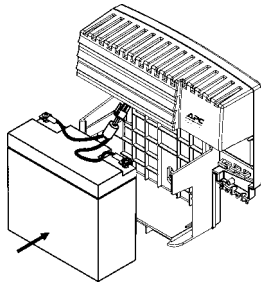
Step 2



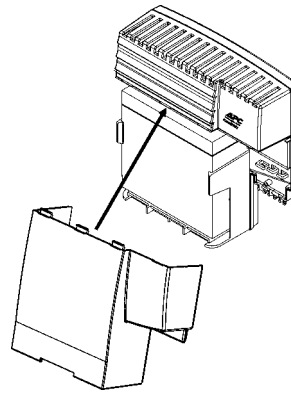
Step 3



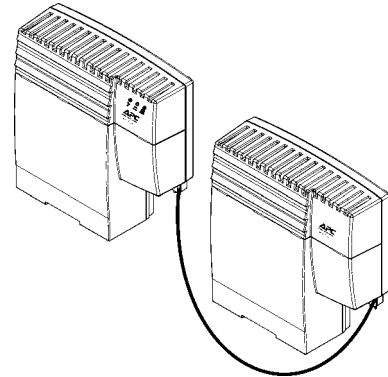
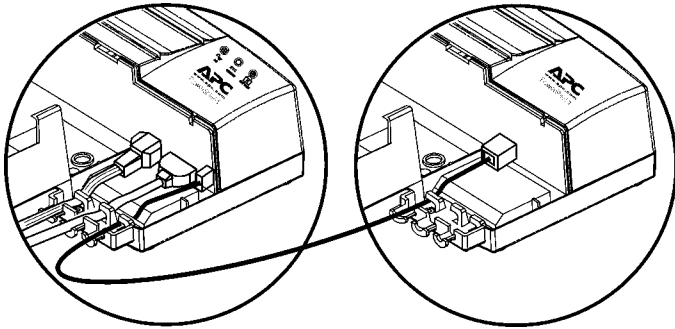
Step 4



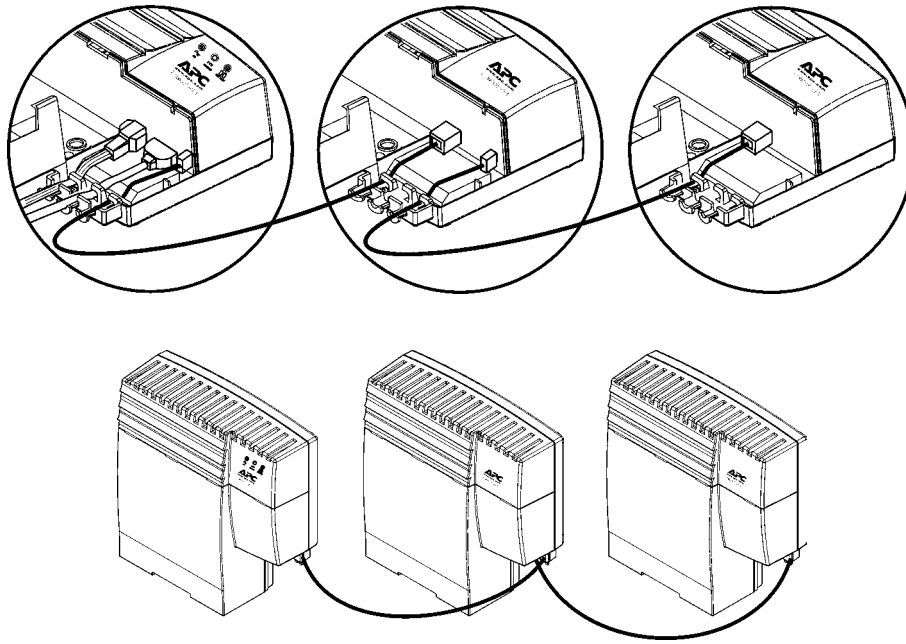
Step 5



# Connecting a Single External Battery Pack



## Connecting Multiple External Battery Packs



## Battery Replacement

This UPS has an easy to replace, hot-swappable battery. Replacement is a safe procedure, isolated from electrical hazards. You may leave the UPS and connected equipment on for this procedure.

Replace the spent battery with replacement battery RBC39. See your dealer or refer to the APC web site, [www.apc.com](http://www.apc.com) for information on replacement battery modules.

To replace the battery module refer to *Battery Installation*, above.



**Once the battery is disconnected, the connected equipment is not protected from power outages.**



**Be sure to deliver spent batteries to a recycling facility or ship to the manufacturer in the replacement battery packing material.**



The UPS battery charges when it is connected to utility power. The battery charges fully during the first eight hours of normal operation.

***Do not*** expect full battery run capability during this initial charge period.

## Chapter 4 Service, Contact and Warranty Information

### Service

APC makes every effort to ensure parts and equipment arrive in working condition. Occasionally, it may be necessary to return parts or equipment that are not in working condition.

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

1. Contact APC Customer Service through the APC web site, [www.apc.com](http://www.apc.com).
  - Note the product model number, the serial number, and the date purchased. If you call APC Customer Service, a technician will ask you to describe the problem and try to solve it over the phone. If this is not possible the technician will issue a Returned Material Authorization Number (RMA#).
  - If the product is under warranty, repairs are free. If not, there is a repair charge.
  - Procedures for servicing or returning products may vary internationally. Refer to the APC web site for country specific instructions.
2. Pack the product in its original packaging.
  - Pack the unit properly to avoid damage in transit. Never use Styrofoam beads for packaging. Damage sustained in transit is not covered under warranty.
3. Mark the RMA# on the outside of the package.
4. Return the unit by insured, prepaid carrier to the address given to you by Customer Service.



**Always DISCONNECT THE BATTERY before shipping in compliance with U.S. Department of Transportation (DOT) regulations.**

### How to Contact APC

In the USA ...	Outside the USA ...
Refer to the APC web site, <a href="http://www.apc.com">www.apc.com</a> .	Refer to the APC web site, <a href="http://www.apc.com">www.apc.com</a> . Select the appropriate country from the country selection field. Select the <i>Support</i> tab at the top of the web page.

## Limited Warranty

American Power Conversion (APC) warrants its products to be free from defects in materials and workmanship for a period of two years from the date of purchase. Its obligation under this warranty is limited to repairing or replacing, at its own sole option, any such defective products. To obtain service under warranty you must obtain a Returned Material Authorization (RMA) number from customer support. Products must be returned with transportation charges prepaid and must be accompanied by a brief description of the problem encountered and proof of date and place of purchase. This warranty does not apply to equipment that has been damaged by accident, negligence, or misapplication or has been altered or modified in any way. This warranty applies only to the original purchaser who must have properly registered the product within 10 days of purchase.

EXCEPT AS PROVIDED HEREIN, AMERICAN POWER CONVERSION MAKES NO WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. Some states do not permit limitation or exclusion of implied warranties; therefore, the aforesaid limitation(s) or exclusion(s) may not apply to the purchaser.

EXCEPT AS PROVIDED ABOVE, IN NO EVENT WILL APC BE LIABLE FOR DIRECT, INDIRECT, SPECIAL, INCIDENTAL, OR CONSEQUENTIAL DAMAGES ARISING OUT OF THE USE OF THIS PRODUCT, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE. Specifically, APC is not liable for any costs, such as lost profits or revenue, loss of equipment, loss of use of equipment, loss of software, loss of data, costs of substitutes, claims by third parties, or otherwise.

## Declaration of Conformity

2003 EN 50191-1-1, EN 50191-2, EN 50191-3-1, EN 50191-3-2, EN 50191-3-3, EN 60950, IEC 60950	
EC Declaration of Conformity	
We, the undersigned, declare under our sole responsibility that the equipment specified below conforms to the following standards and directives:	
<b>Standards to Which Conformity Declared:</b>	EN 50191-1-1, EN 50191-2, EN 50191-3-1, EN 50191-3-2, EN 50191-3-3, EN 60950, IEC 60950
<b>Application of Council Directives:</b>	73/23/EEC, 89/336/EEC, 91/157/EEC, 92/31/EEC
<b>Type of Equipment:</b>	Uninterruptible Power Supply
<b>Model Numbers:</b>	CP220B1ZBP
<b>Manufacturer's Name and Address:</b>	American Power Conversion 132 Fairgrounds Road West Kingston, Rhode Island, 02891, USA -or- American Power Conversion (A. P. C.) s. r. l. Ballymore Business Park Galway, Ireland -or- American Power Conversion 2nd Street PEZA, Cavite Economic Zone Rosario, Cavite Philippines -or- American Power Conversion Lot 10, Block 16, Phase 4 PEZA, Rosario, Cavite Philippines -or- American Power Conversion Lot 3, Block 14, Phase 3 PEZA, Rosario, Cavite Philippines -or- APC (Suzhou) UPS Co., Ltd 139 Sulong Zhong Lu Suzhou Industrial Park Suzhou Jiangsu 215021 P.R. China
<b>Importer's Name and Address:</b>	American Power Conversion (A. P. C.) s. r. l. Ballymore Business Park Galway, Ireland
<b>Place:</b> N. Billerica, MA U.S.A.	Richard J. Everett, Sr. Regulatory Compliance Engineer 5 Jan 03
<b>Place:</b> Galway, Ireland	Ray S. Ballard, Managing Director, Europe 5 Jan 03

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