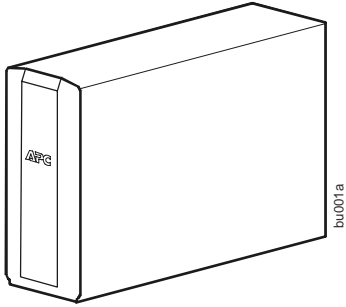
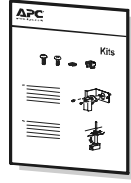


# Back-UPS<sup>®</sup> RS BR400G-JP & 550G-JP

## Inventory



UPS



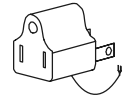
User manual & CD  
warranty registration card



USB cable



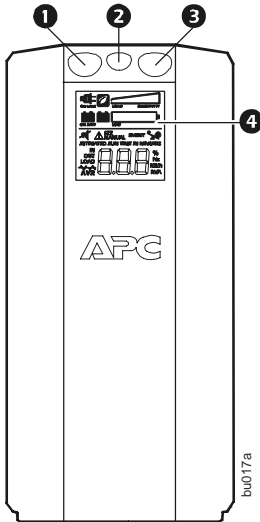
CAT-5 cable



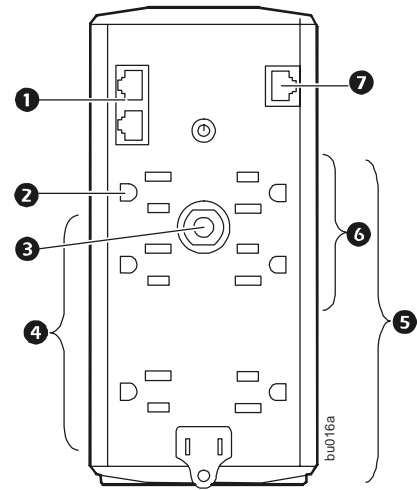
Cable strap hook &  
cable strap

## Overview

- 1 Mute
- 2 Power On/Off
- 3 Display/Menu
- 4 Display interface

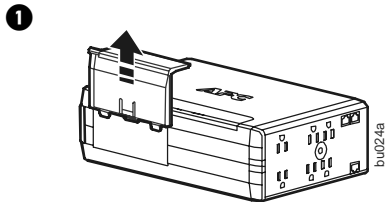


- 1 Modem/Phone/Fax and Wall-Outlet ports
- 2 Master outlet
- 3 Circuit breaker
- 4 Outlets that provide battery back-up only
- 5 Outlets that provides surge protection only
- 6 Controlled outlets
- 7 Data port

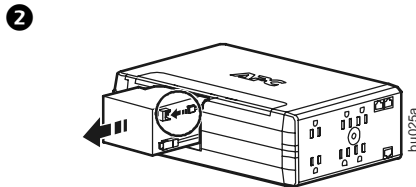


## Installation

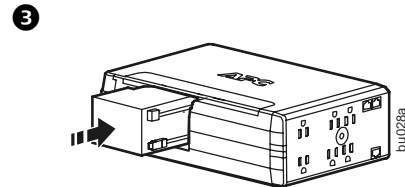
### Connect the battery



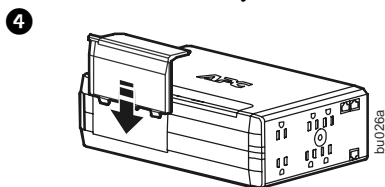
Remove the battery door.



Remove the battery. Connect the wire.



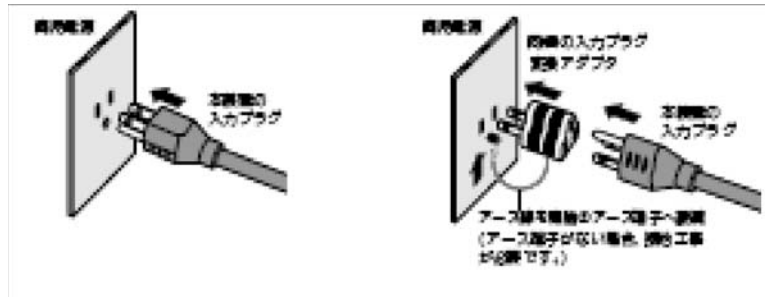
Push the battery into the unit.



Replace the battery door.

## Charge the battery

Charge the battery for at least 12 hours before the unit will provide full battery backup.

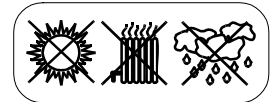


## Connect the equipment

Connect equipment to power outlets.



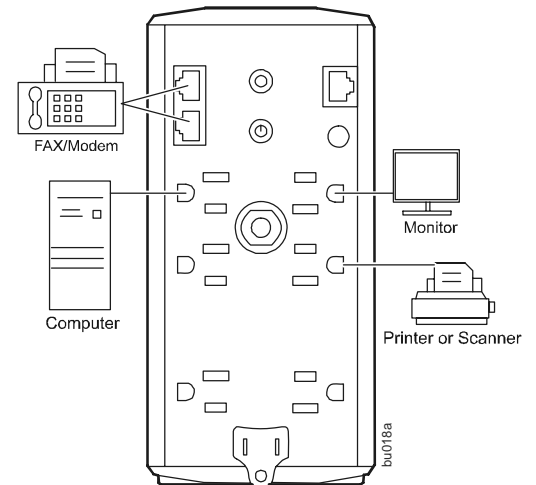
Do not install the UPS in direct sunlight, in excessive heat, humidity, or in contact with fluids.



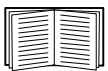
Do not connect a laser printer or hair dryer to the unit.

Ensure that the connected equipment does not exceed the maximum load.

1. Connect equipment to the outlets designated as Battery Backup and Surge Protection outlets. When the Back-UPS is receiving power, these outlets will supply power to connected equipment. During a power outage, or other utility problems, the Battery Backup outlets receive power for a limited time from the unit.
2. Connect the AC power cord.
3. Connect the Back-UPS directly to utility power. Do not plug the Back-UPS into a surge protector or power strip.
4. Connect a modem or phone to the MODEM/PHONE/FAX jack.
5. Connect one end of an RJ-45 cable to the WALL OUTLET jack.
6. Connect master and peripheral equipment. See “Enable power-saving master and peripheral outlets” on page 3.



## Install Software



See the instructions included with Power Chute Personal Edition® for information on how to install the software.

# Apply power to the unit



The unit must charge for 12 hours before it will provide battery back-up to connected equipment. The unit is being charged whenever it is connected to utility power (even if the unit is OFF).

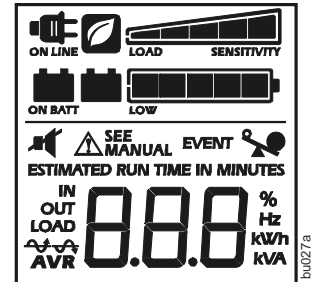
1. Press ON/OFF to apply power to the unit.
2. The unit will emit a single, short beeping sound, and the POWER ON indicator will confirm that the Back-UPS is on and ready to provide protection.

## Operation

### Display Interface

**Description of icons.** The display panel on the front of the unit displays realtime system status messages, systems faults, and warnings of load capacity and battery charge level.

The three buttons on the front of the unit, MUTE, POWER ON/OFF and DISPLAY/MUTE are used to control the unit.



**Online**—The UPS is supplying utility power to connected equipment



**Power-saving**—Master and controlled outlets are enabled, saving power when the master device goes into sleep or standby mode



**On Batt**—The Back-UPS is supplying batter power to connected equipment. The unit is not connected to utility power.



**Replace Battery**—The battery is not connected or is nearing the end of its useful life. Replace the battery.



**Mute**—The audible alarm is turned off.



**Battery Charge**—When all five blocks are filled, the Back-UPS is at full charge. When one block is filled, the Back-UPS is near the end of its battery capacity.

### EVENT

**Event**—If illuminated, an event has occurred and the unit needs attention.



**Overload**—The power demand has exceeded the capacity of the Back-UPS.

### IN OUT LOAD

**In**—Input voltage.  
**Out**—Output voltage.



**Automatic Voltage Regulation**—When illuminated, the unit is compensating for lower input voltage.



**System Faults**—The system has a fault. The fault number will illuminate on the display interface.



**Load Capacity**—When all five blocks are filled, the Back-UPS is at maximum capacity. The Overload symbol will illuminate if the Back-UPS is over capacity.

### Enable power-saving master and peripheral outlets

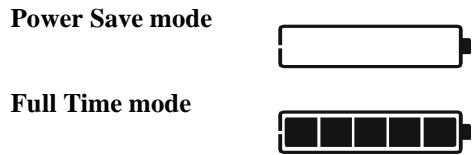
To conserve electricity, configure the unit to recognize a Master device (such as a computer or A/V receiver) and peripheral devices (such as a monitor or DVD player). When the Master device goes into Sleep or Standby mode, or turns Off, the peripheral devices will shut down as well, saving electricity.

**Enable the power-saving feature.** Press and hold the MUTE and DISPLAY buttons simultaneously. The unit will beep to indicate the feature is enabled. The Leaf icon on the display interface will illuminate.

**Disable the power-saving feature.** Press and hold the MUTE and DISPLAY buttons simultaneously until the unit beeps. The leaf icon will darken.

### Configure LCD for full time display

1. Ensure the unit is connected to utility power, but is OFF.
2. Press the DISPLAY button, hold for ten seconds. The BATTERY CAPACITY bar will flash on and off, indicating the the unit is in programming mode.
3. Press the DISPLAY button to rotate through the selections to view the display mode that you want to use. Release the button to select the display mode.

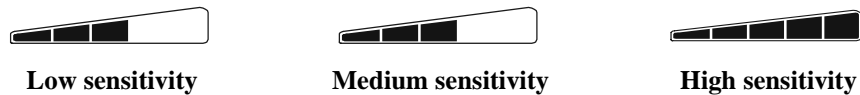


4. Continue with normal operations.

### Configure unit sensitivity

Adjust the sensitivity of the UPS to control when it will switch to battery power; the higher the sensitivity, the more often the unit will switch to battery power.

1. Ensure the unit is connected to utility power, but is OFF.
2. Press and hold the POWER button for 20 seconds. The LOAD CAPACITY bar will flash on and off, indicating that the unit is in programming mode.
3. Press the POWER button again to rotate through the menu options. To save the option that you want, release the button and do not press it for five seconds.



## Modes of operation

### Online Mode

Press the DISPLAY button to rotate through the display screens.

Number of Times the button is pressed	Result
1	The LCD will illuminate. The input voltage default screen is displayed.
2	The Power Event Counter is displayed. To reset the counter, press and hold the DISPLAY/HOLD TO MUTE button, and press the POWER ON/OFF button.
3	The estimated run time in minutes is displayed.
4	The load in Watts is displayed.
5	The load in % is displayed.
6	The ONLINE output voltage is displayed.
7	The ONLINE output frequency is displayed.

## On-Battery Mode

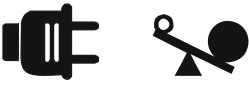


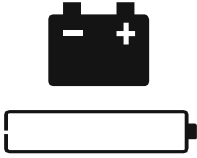
Press the DISPLAY/HOLD TO MUTE button to rotate through the display screens.

Number of Times the button is pressed	Result
1	The LCD will illuminate. The estimated runtime in minutes is displayed.
2	The Power Event Counter is displayed. To reset the counter, press and hold the DISPLAY/HOLD TO MUTE button, and press the POWER ON/OFF button.
3	The ON BATT output voltage is displayed.
4	The ON BATT input voltage is displayed.
5	The load in % is displayed.
6	The ON BATT input load is displayed in Watts.
7	The ON BATT output frequency is displayed.

## Warnings and Faults

### Warnings

Press the DISPLAY button to rotate through the display screens.

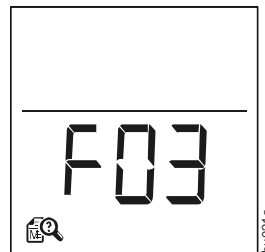
<p><b>Warning 1</b></p> 	<p>ONLINE overload condition, indicated by the illuminated ONLINE icon, and the flashing overload icon.</p>	<p><b>Warning 3</b></p> 	<p>In ONLINE mode, and there is a bad battery, indicated by the flashing icon.</p>
<p><b>Warning 2</b></p> 	<p>Backup battery (ONBATT) overload condition. This is indicated by the flashing overload icon.</p>	<p><b>Warning 4</b></p> 	<p>The battery charge is low, and the Battery Charge indicator bar is flashing.</p>

### System Faults






There are nine system fault messages that the unit can display. Contact APC Technical Support.

- F01 - On-Battery Overload
- F02 - On-Battery Output Short
- F05 - Charge Fault
- F06 - Relay Welding
- F07 - Temperature



## Other status indicators

<p><b>Self-Test</b></p> 	<p>Press the Power button and hold for one second. The On-Line icon will flash on and off during the self-test mode.</p>
<p><b>Mute</b></p> 	<p><b>To disable the audible alarm for a single display or message:</b> Press and hold the Display/Hold to Mute button for one second. Press again to enable.</p> <p><b>To disable for all events:</b> Press and hold the Display/Hold to Mute button for five seconds. Press and hold for five seconds to enable the audible alarm.</p>
<p><b>AVR</b></p> 	<p>The Automatic Voltage Regulation (AVR) feature will compensate for excessively low input voltages, without using battery power. When the AVR symbol is illuminated on the LCD, the unit is in Boost mode, using the AVR feature.</p>

## Troubleshooting

Problem	Possible Cause	Corrective Action
<p><b>Back-UPS will not switch on.</b></p>	<p>The unit is not connect to utility power.</p>	<p>Ensure that hte unit is securely connected to an AC outlet.</p>
	<p>The circuit broken has been tripped.</p>	<p>Disconnect non-essential equipment from the unit. Reset the circuit breaker. Re-connect equipment one item at a time. If the circuit breaker is tripped again, disconnect the device that caused the trip.</p>
	<p>The internal battery is not connected.</p>	<p>Connect the battery.</p>
	<p>The utility input voltage is out of range.</p>	<p>Adjust the transfer voltage and sensitivity range.</p>
<p><b>The unit does not provide power during a utility power outage.</b></p>	<p>Ensure that essential equipment is <b>not</b> plugged into a SURGE ONLY outlet.</p>	<p>Disconnect equipment from the SURGE ONLY outlet and re-connect to a BATTERY BACKUP outlet.</p>
<p><b>The unit is operating on battery power, while connected to utility power.</b></p>	<p>The plug has partially pulled out of the wall outlet, the wall outlet is no longer receiving utility power, or the circuit breaker has been tripped.</p>	<p>Ensure that the plug is fully inserted into the wall outlet. Ensure that the wall outlet is receiving utility power by checking it with another device.</p>
	<p>The unit is performing an automatic self test.</p>	<p>No action is necessary.</p>
	<p>The utility input voltage is out of range, the frequency is out of range, or the waveform is distorted.</p>	<p>Adjust the transfer voltage and sensitivity range.</p>
<p><b>The unit does not provide the expected amount of backup time.</b></p>	<p>The unit is overloaded.</p>	<p>Disconnect non-essnetial equipment from the BATTERY BACKUP outlets and connect the equipment to SURGE ONLY outlets.</p>
	<p>The battery was recently discharged due to a power outage and has not fully recharged.</p>	<p>Charge the battery cartride for 16 hours.</p>
	<p>The battery has reached the end of its useful life.</p>	<p>Replace the battery.</p>
<p><b>The REPLACE BATTERY indicator is illuminated.</b></p>	<p>The battery has reached the end of its useful life.</p>	<p>Replace the battery.</p>
<p><b>The OVERLOAD indicator is illuminated.</b></p>	<p>The equipment connected to the unit is drawing more power than the unit can provide.</p>	<p>Disconnect non-essnetial equipment from the BATTERY BACKUP outlets and connect the equipment to SURGE ONLY outlets.</p>

Problem	Possible Cause	Corrective Action
<b>The SYSTEM FAULT indicator is illuminated, all the front panel indicators are flashing.</b>	There is an internal fault.	Determine which internal fault message is displayed by matching the number displayed on the LCD with the corresponding Fault Message and contact APC Technical Support: F01 - On-Battery Overload F02 - On-Battery Output Short F03- On-Battery XCap Overload F04 - ClampShort F05 - Charge Fault F06 - Relay Welding F07 - Temperature F08 - Fan Fault F09 - Internal Fault

## Specifications

General	
Topology	Line-Interactive
Input	
Rated input voltage	100 Vac
Phase	Single phase 2+ ground
Frequency	50/60 Hz (autosensing)
Input voltage range ( $\pm 30$ ) (on AVR operation)	Default setting: 82 V-123 V Lower Limit Voltage Range: 79 V-85 V Upper Limit Voltage Range: 120 V-126V
Power cable length	1800 mm
Input plug type	NEMA5-15P
Output	
Output plug type	NEMA5-15R
Output outlet	Back-up outlet (3) Surge outlet (3)
Maximum load	400 Va/240 W (BR400G-JP) 550Va/330W (BR550G-JP)
Output voltage	100 V $\pm 8\%$
Frequency	50/60 Hz $\pm 1$
On-battery waveform	Stepped sine wave
Transfer time	Maximum 10ms
Surge Protection/Noise	
Surge protection	Yes
Noise filter	Yes
Data line protection	ADSL, ISDN, 10Base-T, 100Base-T
Interface	
Interface	USB v1.1

## Service

If the Back-UPS arrived damaged, notify the carrier.

If the Back-UPS requires service, do not return it to the dealer.

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.

Have the Back-UPS model number, serial number and date of purchase available. Be prepared to troubleshoot the problem with an APC Technical Support representative. If this is not successful, APC will issue a Return Merchandise Authorization (RMA) number and a shipping address.

## Warranty

The standard warranty is three (3) years from the date of purchase, valid in European Community. For all other regions, the standard warranty is two (2) years from 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 set depreciation schedules must declare such a need at first contact with an APC Technical Support representative. APC 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 APC. APC pays ground freight transportation costs to ship the replacement unit to the customer.

## APC Worldwide Customer Support

Customer support for this or any other APC product is available at no charge in any of the following ways:

- Visit the APC Web site to access documents in the APC Knowledge Base and to submit customer support requests.
  - **www.apc.com** (Corporate Headquarters)  
Connect to localized APC Web sites for specific countries, each of which provides customer support information.
  - **www.apc.com/support/**  
Global support searching APC Knowledge Base and using e-support.
- Contact the APC Customer Support Center by telephone or e-mail.
  - Local, country-specific centers: go to **www.apc.com/support/contact** for contact information.

For information on how to obtain local customer support, contact the APC representative or other distributors from whom you purchased your APC product.

