[Back-UPS RS](#)
Back-UPS RS 1500VA

APC Back-UPS RS, 865 Watts / 1500 VA,Input 120V / Output 120V, Interface Port USB, Extended runtime model, Rack Height 2 U

Includes: CD with software, Cord management straps, Free trial of anti-virus : firewall : email privacy : system recovery and online backup software, USB cable, User Manual

Standard Lead Time: Usually in Stock

BR1500 Features

Battery failure notification	Provides early-warning fault analysis on batteries enabling timely preventive maintenance
Battery-protected and surge-only outlets	Reserves power capacity and run time for connected equipment that require battery back-up while providing surge only protection for less critical equipment
Cold-start capable	Provides temporary battery power when the utility power is out.
Serial Connectivity	Use any Home Automation network to monitor and control the S20 through its RS-232 serial port. For information on how to communicate with the S20, see APC's Application Note #102. Crestron and AMX installers should visit their respective websites for information on how to integrate the S20 into those networks.
Hot-swappable batteries	Ensures clean, uninterrupted power to protected equipment while batteries are being replaced
Disconnected battery notification	Warns when a battery is not available to provide backup power.
Dataline Surge Protection	Provides protection of connected equipment from power surges on the data lines.
Automatic self-test	Periodic battery self-test ensures early detection of a battery that needs to be replaced.
Adjustable voltage-transfer points	Maximizes useful battery life by widening the input voltage window or tightening the output voltage regulation.
Adjustable voltage sensitivity	Provides the ability to adapt the UPS for optimal performance in specific power environments or generator applications.
Audible Alarms	Provides notification of changing utility power and UPS conditions.
User-replaceable batteries	Increases availability by allowing a trained user to perform upgrades and replacements of the batteries reducing Mean Time to Repair (MTTR)
USB Connectivity	Provides management of the UPS via a USB port (not available on all models).
Serial Connectivity	Provides management of the UPS via a serial port.
Transformer-block spaced outlets	Protect equipment with input transformer blocks without blocking access to other receptacles.
Boost and Trim Automatic Voltage Regulation (AVR)	Gives higher application availability by correcting low and high voltage conditions without using the battery.
Intelligent Battery Management	Maximizes battery performance, life, and reliability through intelligent, precision charging.
Safety-agency approved	Ensures the product has been tested and approved to work safely with the connected service provider equipment and within the specified environment. UL, FCC, CE, C-Tick approvals.
Lifetime data recovery warranty	Provides peace of mind by providing professional data recovery services in the event data is lost due to the failure of the unit.
Adjustable voltage sensitivity	Provides the ability to adapt the Power Conditioner for optimal performance in specific power environments or generator applications.
Battery replacement without tools	Allows quick, easy battery replacement.
LED status indicators	Quickly understand unit and power status with visual indicators.

Back-UPS RS Features & Benefits

Protection

Battery-protected and surge-only outlets	Reserves power capacity and run time for connected equipment that require battery back-up while providing surge only protection for less critical equipment
Boost and Trim Automatic Voltage Regulation (AVR)	Gives higher application availability by correcting low and high voltage conditions without using the battery.
Data line surge protection	Provides protection of connected equipment from power surges on the data lines.
Safety-agency approved	Ensures the product has been tested and approved to work safely with the connected service provider equipment and within the specified environment. UL, FCC, CE, C-Tick approvals.
Power conditioning	Protects connected loads from surges, spikes, lightning, and other power disturbances.

Convenience

Audible Alarms	Provides notification of changing utility power and UPS conditions.
Automatic restart of loads after UPS shutdown	Automatically starts up the connected equipment upon the return of utility power.
Automatic self-test	Periodic battery self-test ensures early detection of a battery that needs to be replaced.
Battery replacement without tools	Allows quick, easy battery replacement.
LED status indicators	Quickly understand unit and power status with visual indicators.
Cold-start capable	Provides temporary battery power when the utility power is out.
Hot-swappable batteries	Ensures clean, uninterrupted power to protected equipment while batteries are being replaced
Resettable circuit breakers	Enables a quick recovery from overload events.
Transformer-block spaced outlets	Protect equipment with input transformer blocks without blocking access to other receptacles.
User-replaceable batteries	Increases availability by allowing a trained user to perform upgrades and replacements of the batteries reducing Mean Time to Repair (MTTR)

Manageability

Adjustable voltage sensitivity	Provides the ability to adapt the UPS for optimal performance in specific power environments or generator applications.
Adjustable voltage-transfer points	Maximizes useful battery life by widening the input voltage window or tightening the output voltage regulation.
Serial Connectivity	Provides management of the UPS via a serial port.
USB Connectivity	Provides management of the UPS via a USB port (not available on all models).
Multiple mounting methods	Allows for standardization on one product for use in different environments.
Intelligent Battery Management	Micro-processor controlled battery charging and diagnostic testing ensures maximum battery life.

Output

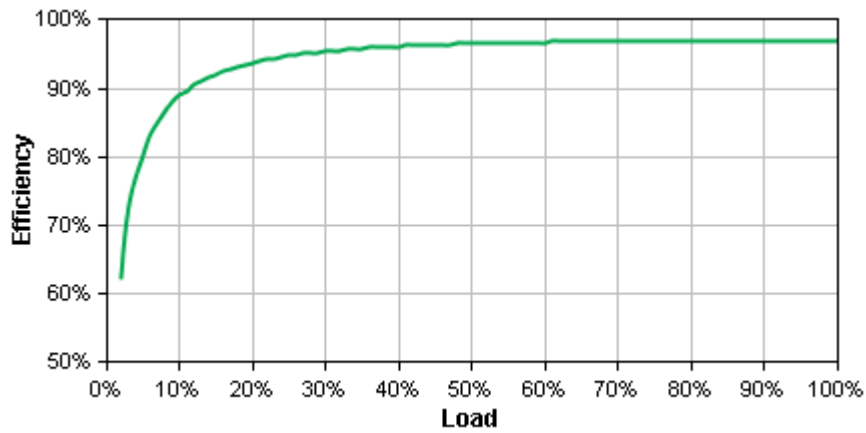|	
Output Power Capacity	865 Watts / 1500 VA
Max Configurable Power	865 Watts / 1500 VA
Nominal Output Voltage	120V
Output Connections	(2) NEMA 5-15R (Surge Protection) (6) NEMA 5-15R (Battery Backup)

Input

Nominal Input Voltage	120V
Input Frequency	47 - 63 Hz
Input Connections	NEMA 5-15P
Cord Length	1.83 meters
Input voltage range for main operations	88 - 148V
Input voltage adjustable range for mains operation	78 - 152V

Batteries & Runtime

Battery Type	Maintenance-free sealed Lead-Acid battery with suspended electrolyte : leakproof
Included Battery Modules	1
Typical recharge time	8 hour(s)
Replacement Battery	RBC33
RBC™ Quantity	1
Typical Backup Time at Half Load	13.9 minutes (432.5 Watts)
Typical Backup Time at Full Load	4.2 minutes (865 Watts)
Runtime Chart	Back-UPS RS
Extended Run Options	Back-UPS RS 1500VA

Energy Use/Efficiency

Curve fit to measured efficiency data. All measurements taken in
normal operating mode, at typical environmental conditions, with
nominal electrical input and resistive load output.

Communications & Management

Interface Port(s)	USB
Control panel	LED status display with On Line : On Battery : Replace Battery and Overload indicators
Audible Alarm	Alarm when on battery : distinctive low battery alarm : configurable delays

Surge Protection and Filtering

Surge energy rating	420 Joules
Filtering	Full time multi-pole noise filtering : 5% IEEE surge let-through : zero clamping response time : meets UL 1449
Data Line Protection	RJ-11 Modem/Fax/DSL protection (two wire single line),RJ45 10 Base-T Ethernet protection

Physical

Maximum Height	371.00 mm
Maximum Width	86.00 mm
Maximum Depth	333.00 mm
Rack Height	2U
Net Weight	11.36 KG
Shipping Weight	11.82 KG
Shipping Height	455.00 mm
Shipping Width	203.00 mm
Shipping Depth	417.00 mm

Color	Beige
SCC Codes	1073130419314 9
Units per Pallet	36.00

Environmental

Operating Environment	0 - 40 °C
Operating Relative Humidity	0%
Operating Elevation	0-3000 meters
Storage Temperature	-5 - 45 °C
Storage Relative Humidity	0%
Storage Elevation	0-15000 meters
Audible noise at 1 meter from surface of unit	45.00 dBA
Online Thermal Dissipation	180.00 BTU/hr

Conformance

| Regulatory Approvals | cUL Listed,FCC Part 15 Class B,FCC Part 68,UL 1449,UL 1778,UL Listed |
| Standard Warranty | 3 years repair or replace |

**The time to recharge to 90% of full battery capacity following a discharge to shutdown using a load rated for 1/2 the full load rating of the UPS.

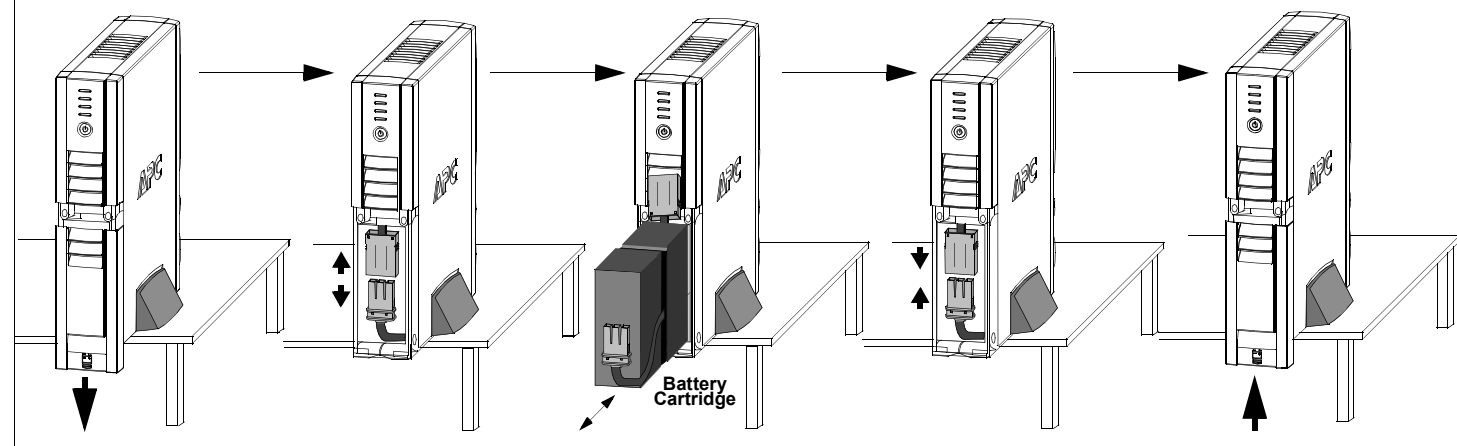| Problem	Possible Cause	Corrective Action
Back-UPS will not switch on.	Back-UPS not connected to AC power source.	Ensure the Back-UPS is securely connected to an AC outlet.
	Back-UPS circuit breaker "tripped".	Disconnect non-essential equipment from the Back-UPS. Reset (push in) the rear panel circuit breaker. Switch on the Back-UPS and plug in devices one at a time. If the circuit breaker trips again, disconnect the device that caused the breaker to trip.
	Utility input voltage quality is out of range.	Consider adjusting the transfer voltage and sensitivity. See *Transfer Voltage and Sensitivity Adjustment*.
Back-UPS does not power essential equipment during an outage.	Equipment plugged into a Surge Only outlet.	Unplug device from 'Surge Only' outlet and move to a 'Battery Backup' outlet.
Back-UPS operates on battery although utility power exists.	Back-UPS circuit breaker "tripped".	Disconnect non-essential equipment from the Back-UPS. Reset (push in) the rear panel circuit breaker. Switch the Back-UPS on and plug equipment in one-at-a-time. If the circuit breaker trips again, disconnect the device that caused the breaker to trip.
	Utility input voltage quality is out of range.	Consider adjusting the transfer voltage and sensitivity. See *Transfer Voltage and Sensitivity Adjustment*.
Back-UPS does not provide expected backup time.	Back-UPS is heavily loaded.	Unplug non-essential equipment (printers, scanners, etc) from the Battery Backup outlets and plug into 'Surge Only' outlets.
	Back-UPS battery cartridge is discharged due to recent power outage and has not had time to recharge.	Charge the battery cartridge for 8 hours. Back-UPS runtime is reduced until the battery cartridge is fully charged.
	Battery has reached the end of its life.	Replace battery cartridge (see *Order Replacement Battery Cartridge*).
Red Replace Battery indicator is flashing. Green On Line indicator is on.	Internal battery cartridge is not connected.	Connect battery cartridge (see *Connect Battery Cartridge*).
Red Replace Battery indicator is on.	Battery has reached the end of its life.	Replace the battery cartridge (see *Order Replacement Battery Cartridge*).
Red Overload indicator is on or flashing.	Connected equipment is drawing more power than the Back-UPS can provide.	Move one or more equipment power plugs from Battery Backup outlets to Surge Only outlets.
Green On Line indicator is on and all other front panel indicators are flashing.	Internal UPS fault.	Contact APC Technical Support (see *Contact Information*).

ORDER REPLACEMENT 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.

REPLACE BATTERY CARTRIDGE

Battery
Cartridge

SPECIFICATIONS

Item	Specification
On-line Input Voltage Range (default settings)	88 - 147 Vac (RS model)
	88 - 139 Vac (XS model)
Automatic Voltage Regulation (AVR)	+12% (XS model) ±12% (RS model)
On-line Frequency Range	47 - 63 Hz (autosensing)
On-battery Waveshape	Stepped Sine Wave
Maximum Load	1000 VA - 600 W 1500 VA - 865 W
Typical Recharge Time	8 Hours
Operating Temperature	32° to 104°F
	0° to 40°C
Storage Temperature	23° to 113°F
	-5° to 45°C
Operating / Storage Relative Humidity	0 to 95% non-condensing
Size (H x W x D)	14.6 x 3.4 x 13.1 inch
	37.1 x 8.6 x 33.3 cm
Weight	1000 VA 22 lbs (10 kg)
	1500 VA 25 lbs (11 kg)
Shipping Weight	1000 VA 23 lbs (10 kg)
	1500 VA 26 lbs (12 kg)
EMI Classification	FCC / DOC Class B Certified
On Battery Run-Time	Se

TRANSFER VOLTAGE AND SENSITIVITY ADJUSTMENT

In situations where the Back-UPS or connected equipment appears too sensitive to input 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 flash to acknowledge going into Programming Mode.
3. The Back-UPS will then indicate its current Sensitivity Setting, as shown in the following table.

Indicators Flashing	Sensitivity Setting	Input Voltage Range (for utility operation) RS Models	Input Voltage Range (for utility operation) XS Models	Use When
1 (yellow)	Low	78 - 150 Vac	78 - 142 Vac	Input voltage is extremely low or high. Not recommended for computer loads.
2 (yellow, and red)	Medium (factory default)	83 - 147 Vac	83 - 139 Vac	Back-UPS frequently goes On Battery.
3 (yellow, red, and red)	High	88 - 144 Vac	88 - 136 Vac	Connected equipment is sensitive to voltage fluctuations .

4. To select the Low Sensitivity setting, press the pushbutton until the yellow indicator is flashing.
5. To select the Medium Sensitivity setting, press the pushbutton until the yellow and red indicators (second and third from the top) are flashing.
6. To select the High Sensitivity setting, press the pushbutton until yellow and both red indicators (bottom three) are flashing.
7. To exit without changing the Sensitivity Setting, press the pushbutton until the green indicator is flashing.
8. Once in Programming Mode, if the pushbutton is not pressed within 5 seconds, the Back-UPS will exit Programming Mode; all indicators will extinguish.

SERVICE

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.
   - 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.

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 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.