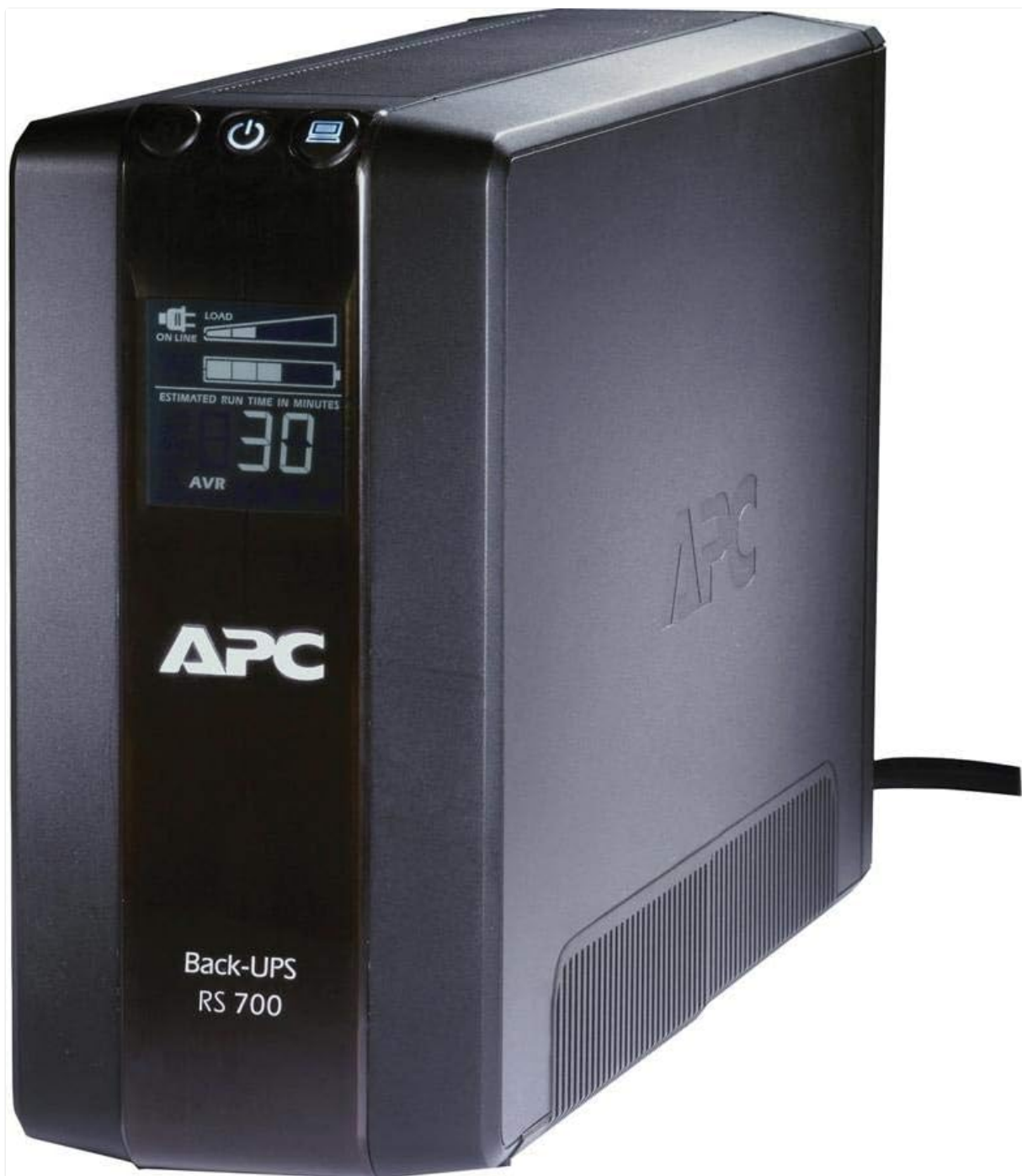## APC BR700G

APC Back-UPS RS 700 VA Tower UPS (Model BR700G) User Manual

Model: BR700G | Brand: APC

1. INTRODUCTION

The APC Back-UPS RS 700 VA Tower UPS (Uninterruptible Power Supply) provides reliable battery backup and surge protection for your electronic devices. Designed to safeguard your equipment from power outages, surges, and spikes, this unit ensures continuous operation and protects against data loss. It features a 700VA/450W capacity, offering approximately 3 minutes of full load runtime.

Figure 1: Front view of the APC Back-UPS RS 700 VA Tower UPS. The display shows current load, online status, estimated run time in minutes (e.g., 30 minutes), and AVR (Automatic Voltage Regulation) status. Power and display control buttons are located at the top.

Key Features:

- **Green Mode:** Patented operating mode that bypasses unused electrical components in good power conditions to achieve very high operating efficiency without sacrificing any protection.

- **Battery Failure Notification:** Provides early-warning fault analysis on batteries enabling timely preventive maintenance.

- **Power-Saving Outlets:** Automatically cuts power to idle equipment to conserve electricity.

- **Resettable Circuit Breaker:** Easy recovery from overloads; no need to replace a fuse.

- **Battery-Protected and Surge-Only Outlets:** Protects connected equipment from power surges and spikes, while providing battery backup power during outages to critical devices.

- **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.

- **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 it to regulate output voltage.
- **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 power conditions.
- **User-Replaceable Batteries:** Increases availability by allowing a trained user to perform upgrades and replacements of batteries reducing Mean Time to Repair (MTTR).
- **USB Connectivity:** Provides management of the UPS via a USB port.
- **Serial Connectivity:** Provides management of the UPS via a serial port.
- **Transformer-Block Spaced Outlets:** Protects equipment with input transformer blocks without blocking access to other receptacles.
- **Boost and Trim Automatic Voltage Regulation (AVR):** Corrects low and high voltages without using the battery, extending battery life.
- **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.
- **Building Wiring Fault Indicator:** This LED informs users of potentially dangerous wiring problems in the wall circuit.
- **Battery Replacement Without Tools:** Enables quick, easy battery replacement.
- **LCD Graphics Display:** Provides clear, concise information with text and mimic diagrams that display modes of operation, system parameters, and alarms.

2. SETUP

2.1 Unpacking and Placement

Carefully unpack the UPS and inspect it for any shipping damage. Place the UPS in a location that is clean, dry, and away from direct sunlight or excessive heat. Ensure adequate ventilation around the unit. The tower form factor allows for vertical placement.

2.2 Connecting to Power

1. Connect the UPS power cord to a grounded 3-prong outlet. The power cord is approximately 5 feet long, providing flexibility for placement.
2. Allow the UPS to charge for at least 24 hours before connecting critical equipment to ensure full battery capacity.
3. Observe the Building Wiring Fault Indicator. If this LED illuminates, it indicates a potential wiring problem in the wall circuit that should be addressed by a qualified electrician.

2.3 Connecting Equipment

The UPS features both battery-protected and surge-only outlets.

- **Battery-Protected Outlets (NEMA 5-15R):** Connect critical equipment such as computers, monitors, and network devices (modems, routers) to these outlets. These outlets provide power during outages and protection against surges.
- **Surge-Only Outlets (NEMA 5-15R):** Connect non-critical equipment like printers, scanners, or desk lamps to these outlets. These outlets provide surge protection but do not offer battery backup during a power failure.

2.4 Data Line Protection

Connect your telephone, network, or coaxial cables through the designated ports on the UPS to protect against surges traveling through these lines.

2.5 USB and Serial Connectivity

For advanced management and monitoring, connect the UPS to your computer using the provided USB or serial cable. Install the appropriate power management software (available from APC's website) to configure settings, monitor power conditions, and perform graceful shutdowns.

2.6 Wall Mounting

The unit can be wall-mounted using the keyhole slots on the back. Ensure the mounting surface is sturdy enough to support the weight of the UPS and that proper fasteners are used.

3. OPERATION

3.1 Powering On/Off

- To power on the UPS, press the power button located on the front panel.
- To power off the UPS, press and hold the power button until the unit shuts down.

3.2 LCD Graphics Display

The LCD display provides real-time information about the UPS status, including:

- **Load Level:** Indicates the percentage of the UPS's capacity being used by connected equipment.
- **Online Status:** Shows when the UPS is operating on utility power.
- **Estimated Run Time:** Displays the approximate remaining battery runtime in minutes during a power outage.
- **AVR Status:** Indicates when Automatic Voltage Regulation is actively correcting input voltage without using battery power.
- **System Parameters:** Provides details on input/output voltage, frequency, and battery charge level.
- **Alarms:** Notifies of critical events or warnings.

3.3 Automatic Voltage Regulation (AVR)

The Boost and Trim AVR feature automatically corrects minor voltage fluctuations (sags and surges) in incoming utility power without switching to battery power. This preserves battery life and ensures a stable power supply to your connected devices.

3.4 Power Outage Response

During a power outage, the UPS automatically switches to battery power, providing uninterrupted power to devices connected to the battery-protected outlets. Audible alarms will sound to notify you of the power event. The estimated run time will be displayed on the LCD.

3.5 Green Mode and Power-Saving Outlets

The Green Mode optimizes efficiency by bypassing internal components when utility power is stable. Power-saving outlets can be configured to automatically turn off connected devices when the master device (e.g., your computer) is turned off or goes into standby, reducing energy consumption.

4. Maintenance

4.1 Battery Care and Replacement

The UPS features user-replaceable and hot-swappable batteries, allowing for replacement without powering down connected equipment.

- **Automatic Self-Test:** The UPS performs periodic self-tests to assess battery health.
- **Battery Failure Notification:** The UPS will provide an early warning if the battery needs replacement.
- **Disconnected Battery Notification:** An alarm will sound if the battery is not properly connected.
- **Replacement Procedure:** Batteries can be replaced without tools. Refer to the specific battery replacement instructions provided with your replacement battery or on the APC support website. Always use genuine APC replacement batteries.

4.2 Resettable Circuit Breaker

In case of an overload, the UPS's resettable circuit breaker may trip. Disconnect non-essential equipment, then press the circuit breaker button to reset it.

4.3 Cleaning

Keep the UPS clean and free of dust. Use a dry cloth to wipe the exterior. Do not use liquid cleaners or solvents. Ensure ventilation openings are not obstructed.

5. Troubleshooting

This section provides solutions to common issues you might encounter with your APC Back-UPS RS 700 VA.

Problem	Possible Cause	Solution
UPS does not turn on.	Not connected to utility power; battery not charged; internal fault.	Ensure power cord is securely plugged into a live outlet. Allow 24 hours for initial battery charge. If still unresponsive, contact support.
Audible alarm sounds frequently.	Overload; battery low/faulty; utility power issues.	Reduce connected load. Check LCD for specific alarm codes. Ensure proper ventilation. Perform a self-test.
Building Wiring Fault Indicator is lit.	Wiring problem in the wall outlet (e.g., missing ground, reversed polarity).	Do not use the outlet. Consult a qualified electrician to inspect and correct the wiring.
Short battery run time.	Battery not fully charged; battery nearing end of life; excessive load.	Ensure battery is fully charged. Reduce connected load. Consider replacing the battery if it's old or fails self-test.

Problem	Possible Cause	Solution
UPS not providing power during outage.	Devices connected to surge-only outlets; battery disconnected or faulty.	Verify critical devices are connected to battery-protected outlets. Check for disconnected battery notification. Replace battery if faulty.

6. SPECIFICATIONS

- **Model:** BR700G
- **Capacity:** 700 VA / 450 W
- **Input Voltage:** 120V AC (Nominal)
- **Output Voltage:** 120V AC (Nominal)
- **Output Connections:** 3 x NEMA 5-15R (Battery Backup & Surge Protection), 3 x NEMA 5-15R (Surge Protection Only)
- **Form Factor:** Tower
- **Weight:** Approximately 0.01 ounces *(Note: This weight is as per provided data. Actual weight for a UPS of this capacity is typically much higher.)*
- **Amperage:** 3 Amps
- **Color:** Green *(Note: The product image shows a black/dark grey unit, but specifications list 'Green'.)*
- **Date First Available:** September 12, 2012
- **Manufacturer:** APC

7. WARRANTY

The APC Back-UPS RS 700 VA Tower UPS (Model BR700G) comes with a **1-Year Manufacturer's Warranty**. This warranty covers defects in materials and workmanship under normal use. For specific terms, conditions, and to initiate a warranty claim, please refer to the official APC warranty documentation or contact APC customer support.

8. SUPPORT

For technical assistance, product information, or to purchase replacement parts and accessories, please contact APC customer support or visit their official website.

- **APC Official Website:** www.apc.com
- **Customer Service:** Refer to the APC website for regional contact information.