

Replace Battery Cartridge(RBC) Addendum

This addendum does not apply to Back-UPS Pro 1000/1400 and Smart-UPS V/S 1000/1400.

I. Installation

Follow the installation illustration on the accompanying sheet.

Note: Small sparks at the battery connectors are normal during connection.

II. Post-Installation

Once installed, allow the unit to charge for five hours. If the unit is an XL model, allow it to charge for 24 hours.

Note: The Smart-UPS will charge whether it is on or off, and will charge whether there is a load present or not. In situations where the power quality is poor, it is recommended that the unit be shutdown during this charging period. A Smart-UPS that is powered on may switch to battery operation which would prolong the time needed to fully recharge the battery.

III. Clearing the Replace Battery LED

- A. In order for the replace battery LED to be cleared, it is necessary to run a *valid* self test. For a self test to be considered valid, the following conditions must be satisfied:

- battery capacity must be greater than 75% (minimum of four battery bar graph LEDs illuminated)
or
- Smart-UPS must have been charging for at least 8 hours from the last low battery condition.
(Low battery condition refers to a state when the Smart-UPS battery has fully discharged).

- B. Ways to initiate a self test

A self test can be initiated in any one of five ways:

- Start up of the UPS
- Smart-UPS front panel test button
- Powerchute PLUS software
- SmartSlot Accessory
- Automatic timer- every two weeks from turn on (see APC owners manuals for details)

IV. Verifying Operation

- A. What happens during a self test?

When a self test is initiated, the unit supports the load while operating on battery for approximately 8-10 seconds. During this period, the Smart-UPS determines the health of the battery.

- B. When should the self test be performed?

After the unit has charged for five hours, a self test can be performed.

SURM2U Replacement Battery Cartridge installation Guide

This UPS has an easy to replace hot-swappable battery tray. Battery replacement is a safe procedure, isolated from electrical hazards. You may leave the UPS and the protected equipment on for the following procedure. See your dealer or www.apcc.com for more information.

Smart-UPS Model	Replacement Battery Cartridge
SU700RM2U	RBC22
SU1000RM2U	RBC23
SU1400RM2U	RBC24
SU1400RMJ2U	RBC24J



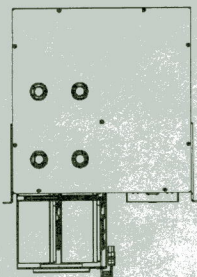
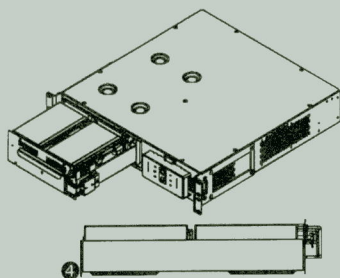
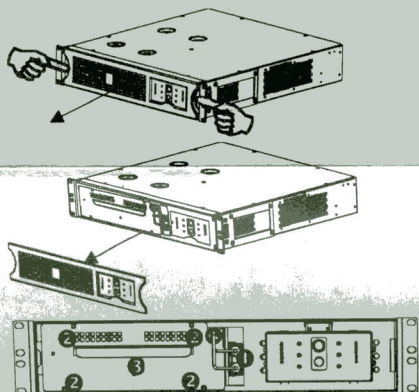
Please read before replacing the battery tray:

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

Battery Replacement Procedure



1. The battery tray is accessible from the front of the UPS.
2. Be careful removing the battery tray – it is heavy.
3. This procedure requires a Phillips head screwdriver.
4. Small sparks at the battery connectors are normal during re-connection.



1. Face the front of the UPS and, using both hands, insert each index finger behind the lip of the curved section of the front panel bezel and pull towards you. The front panel bezel will unsnap.
2. Set the bezel aside.
3. Take out the white cord, which is tucked into the space above the battery connector ❶. Grasp the cord and pull firmly towards you to disconnect the battery.
4. Use a Phillips head screwdriver to remove the four (4) screws ❷ that secure the battery tray. Set the screws aside.
5. Use the battery tray handle ❸ to slide the tray out halfway. Then hold the tray from the sides and slide it out to the maximum extended position. A stop tab ❹ on the bottom of the tray will prevent the tray from coming out completely.
6. Carefully lift the tray up so that the stop tab ❹ clears the ledge on the unit.
7. Return the battery tray to APC using the package in which your replacement tray shipped.
The battery replacement kit includes a new battery tray.
8. Hold the new tray on the sides and align it with the opening.
9. Raise the back of the tray up slightly to position the stop tab on the inside of the opening. Then level the tray and push it in completely.
10. Remove the tape on the new battery tray connector to expose the cable connector.
11. Locate the UPS battery connector ❶ which is to the right of the battery tray and recessed. Connect the battery cable connector to the UPS connector. Press firmly to ensure that the connection is tight. You will hear a “snap” when the connector is properly seated.
12. Replace the four (4) screws removed in step 4.
13. Tuck the white battery cable cord neatly into the space above the UPS connector.
14. Hold the front panel bezel with the cutout section on the right. Align the tabs on the side of the bezel with the slots on the front of the UPS ❸ and firmly snap it into place.

C. What happens when the replace battery LED does not clear?

If the self test fails:

- If the battery capacity is greater than 75%, turn the unit off and restart it. When you turn a Smart-UPS on, it will initiate a self-test. After the test completes, the LED should clear.
- If the unit fails the self-test again, contact APC Customer Support (email: support.apcc.com or phone: 800-800-4APC).

V. **Increasing 'Runtime Remaining' of the Smart-UPS as viewed through Powerchute PLUS or SmartSlot Accessory and prevent premature Low Battery Signal**

Discharging and recharging a Smart-UPS resets the microprocessor to properly read battery voltage. An accurate measurement is important when calculating the runtime remaining value appearing in Powerchute PLUS or SmartSlot Accessory.

A. Initiating a runtime calibration

The runtime calibration option is accessible using Powerchute PLUS software or an APC SmartSlot Accessory. Once the battery capacity reaches 100%, select this option. The unit will run on battery until battery capacity is 25%. At that point, the unit will return to utility power and begin recharging itself. If the runtime as seen through Powerchute PLUS or SmartSlot Accessory does not increase, then follow the instructions in the next section.

Note: APC recommends that a runtime calibration be initiated once every six months at a maximum.

B. Disconnect from utility

*By disconnecting the UPS from utility, a premature low battery signal can be prevented. It is recommended that the power to the circuit be turned off at the distribution panel. Unplugging the Smart-UPS from the outlet is **not** recommended.*

Note: The Smart-UPS will run on battery until it discharges completely, *turning off the load*. It is *not* necessary to discharge completely. Power can be restored to the unit once it reaches low battery condition (see owner's manual for details on how to identify low battery condition).

If experiencing low runtime or premature low battery signal issues, contact APC Customer Support (email: support.apcc.com or phone: 800-800-4APC).