

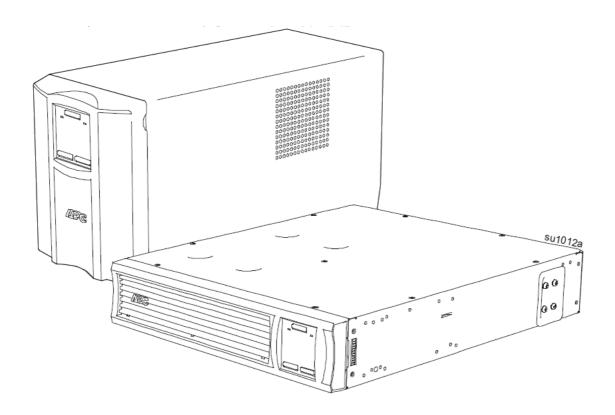
# **APC Smart-UPS C Uninterruptible Power Supply Instruction Manual**

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Operation Manual Smart-UPS™ C Uninterruptible Power Supply

> 1000/1500 VA Tower / Rack-Mount 2U 120 Vac/230 Vac



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# **Important Safety Messages**

**SAVE THESE INSTRUCTIONS** – This manual contains important instructions that should be followed during the installation and maintenance of the UPS and batteries.

Read these instructions carefully and look at the equipment to become familiar with the device before trying to install, operate, service or maintain it. The following special messages may appear throughout this document or on the equipment to warn of potential hazards or to call attention to information that clarifies or simplifies a procedure.



The addition of this symbol to either a "Danger" or "Warning" safety label indicates that an electrical hazard exists which will result in personal injury if the instructions are not followed.



This is the safety alert symbol. It is used to alert you to potential personal injury hazards. Obey all safety messages that follow this symbol to avoid possible injury or death.



DANGER indicates a hazardous situation which, if not avoided, will result in death or serious injury.



WARNING indicates a hazardous situation which, if not avoided, could result in death or serious injury.



CAUTION indicates a hazardous situation which, if not avoided, could result in minor or moderate injury.

NOTICE is used to address practices not related to physical injury.

#### **Product Handling Guidelines**



<18 kg <40 lb



18-32 kg 40-70 lb



32-55 kg 70-120 lb



>55 kg >120 lb





# **Safety and General Information**

Inspect the package contents upon receipt. Notify the carrier and dealer if there is any damage.

- Adhere to all national and local electrical codes.
- All wiring must be performed by a qualified electrician.
- Changes and modifications to this unit not expressly approved by APC by Schneider Electric could void the warranty.
- This UPS is intended for indoor use only.
- Do not operate this unit in direct sunlight, in contact with fluids, or where there is excessive dust or humidity.
- Be sure the air vents on the UPS are not blocked. Allow adequate space for proper ventilation.
- For a UPS with a factory-installed power cord, connect the UPS power cable directly to a wall outlet. Do not use surge protectors or extension cords.
- The equipment is heavy. Always practice safe lifting techniques adequate for the weight of the equipment.

#### Deenergizing safety

The UPS contains internal batteries and may present a shock hazard even when disconnected from the branch circuit (mains). Before installing or servicing the equipment check the:

- · Input circuit breaker is in the OFF position.
- Internal UPS batteries are removed.

#### **Electrical safety**

- · Use tools with insulated handles.
- Do not handle any metallic connector before power has been disconnected.
- For models with a hardwired input, the connection to the branch circuit (mains) must be performed by a qualified electrician.
- 230 V models only: In order to maintain compliance with the EMC directive for products sold in Europe, output cords attached to the UPS must not exceed 10 meters in length.
- The protective earth conductor for the UPS carries the leakage current from the load devices (computer
  equipment). An insulated ground conductor is to be installed as part of the branch circuit that supplies the UPS.
  The conductor must have the same size and insulation material as the grounded and ungrounded branch
  circuit supply conductors. The conductor will typically be green, with or without a yellow stripe.
- Leakage current for a pluggable, Type A UPS may exceed 3.5 mA when a separate ground terminal is used.
- The UPS input ground conductor must be properly bonded to protective earth at the service panel.
- If the UPS input power is supplied by a separately derived system, the ground conductor must be properly bonded at the supply transformer or motor-generator set.

#### Hardwire safety

- Check that all branch circuit (mains) and low voltage (control) circuits are de-energized, and locked out before installing cables or making connections, whether in the junction box or to the UPS.
- Wiring by a qualified electrician is required.
- · Check national and local codes before wiring.
- Strain relief is required for all hard wiring (supplied with select products). Snap-in type strain reliefs are recommended.
- All openings that allow access to UPS hardwire terminals must be covered. Failure to do so may result in personal injury or equipment damage.
- Select wire size and connectors according to national and local codes.

#### **Battery safety**

- Servicing of user-replaceable batteries should to be performed or supervised by personnel knowledgeable about batteries and required precautions.
- The batteries typically last for two to five years. Environmental factors impact battery life. Elevated ambient temperatures, poor quality utility power, and frequent short-duration discharges will shorten battery life.
- APC by Schneider Electric uses sealed lead-acid batteries. Under normal use and handling, there is no contact
  with the internal components of the battery. Overcharging, overheating or other misuses of batteries can result
  in a discharge of battery electrolyte. Released electrolyte is toxic and may be harmful to the skin and eyes.
- CAUTION: Before installing or replacing the batteries, remove jewelry such as wristwatches and rings. High short circuit current through conductive materials could cause severe burns.
- CAUTION: Do not dispose of batteries in a fire. The batteries may explode.
- CAUTION: Do not open or mutilate batteries. Released material is harmful to the skin and eyes and may be toxic.

#### **General information**

- The model and serial numbers are located on a small, rear panel label. For some models, an additional label is located on the chassis under the front bezel.
- · Always recycle used batteries.
- Recycle the package materials or save them for reuse.

#### Radio Frequency warning

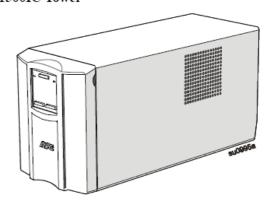
WARNING: This is a category C2 UPS product. In a residential environment, this product may cause radio interference, in which case the user may be required to take additional measures.

**Note:** This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are intended to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

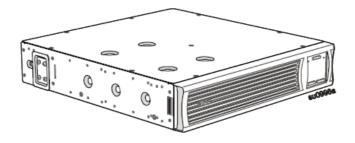
SMC1000-2UC and SMC1000I-2UC Rack-Mount



SMC1000C, SMC1000IC, SMC1500C and SMC1500IC Tower



SMC1500-2UC and SMC1500I-2UC Rack-Mount



## **Specifications**

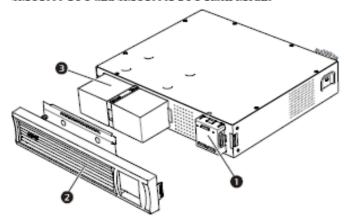
For additional specifications, refer to the APC Web site at <a href="https://www.apc.com">www.apc.com</a>. Environmental specifications

	Operating – 0° to 40° C (32° to 104° F)	
Temperature	Storage – -15° to 45° C (5° to 113° F) charge UPS battery every six mon ths	
IP rating IP20		
	<b>Operating-</b> 3,000 m (10,000 ft)	
Maximum Elevation	<b>Storage</b> – 15,000 m (50,000 ft)	
Humidity	0% to 95% relative humidity, non-condensing	

# **Product Overview**

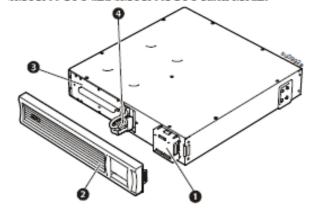
# Front panel features

#### SMC1000-2UC and SMC1000I-2UC Rack-Mount

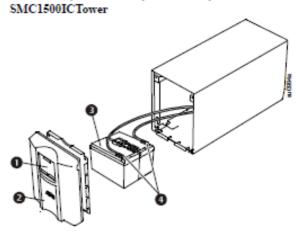


- Display (more information below)
- Bezel
- Battery
- Internal battery connector

SMC1500-2UC and SMC1500I-2UC Rack-Mount

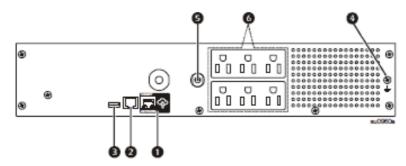


SMC1000C, SMC1000IC, SMC1500C, and

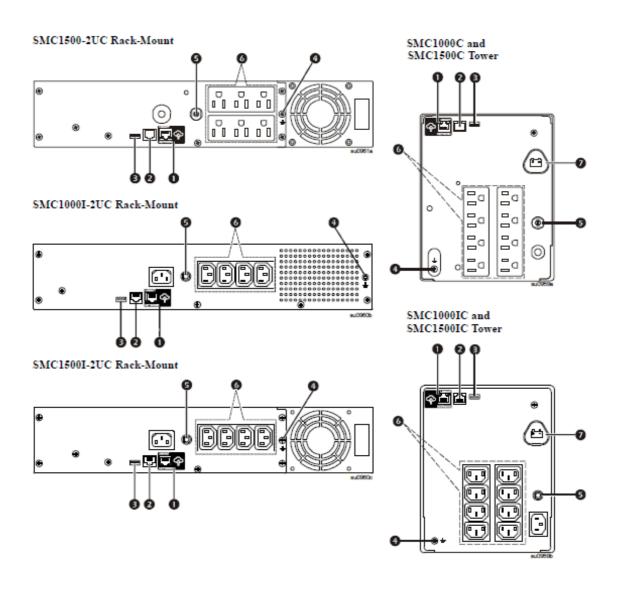


# Rear panel features

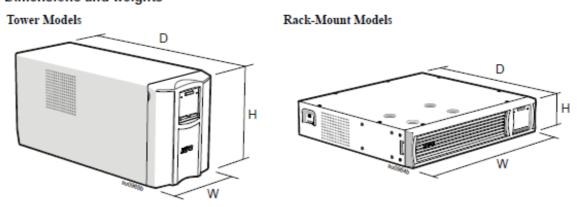
# SMC1000-2UC Rack-Mount



- APC<sup>™</sup> SmartConnect port
- Serial port
- USB port
- Chassis ground screw
- Circuit breaker/overload protection
- Outlets
- Battery connector



# Dimensions and weights



Model	Dimensions (in/mm) H x W x D	Weight (lb / kg)
SMC1000C, SMC1000IC	8.6 x 6.7 x 17.3 in (219 x 171 x 439 mm)	37.5 / 17
SMC1500C, SMC1500IC	0.0 x 0.7 x 17.3 iii (219 x 171 x 439 iiiiii)	44.3 / 20.1
SMC1000-2UC, SMC1000I-2UC	3.4 x 17 x 16 in (86 x 432 x 409 mm)	39.3 / 17.8
SMC1500-2UC, SMC1500I-2UC	3.4 x 17 x 18.8 in (86 x 432 x 477 mm)	55.8 / 25.3

# Installation

For UPS installation information, refer to the Installation Guide included with the UPS. The Installation Guide is also available on the Documentation CD included with the UPS and on the APC by Schneider Electric Web site, <a href="https://www.apc.com">www.apc.com</a>.

#### **Placement**

The UPS is intended for IT environments. Avoid placement where there is excessive dust, temperature and humidity. Note that temperature in excess 25oC may have an adverse effect on battery and UPS life. All vents on the side or rear of the UPS should be free of obstructions.

The UPS is heavy. For rack-mount units it is suggested that the batteries be removed to facilitate easier installation. The UPS should be placed near the bottom of the rack.

#### Connect to equipment and utilities

Note: The UPS will charge to 90% capacity in the first three hours of normal operation.

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

# **⚠** CAUTION

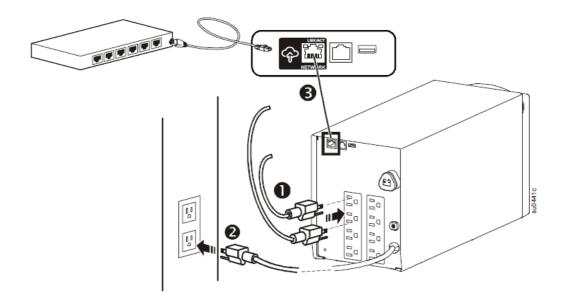
#### RISK OF DAMAGE TO EQUIPMENT OR PERSONNEL

- · Adhere to all local and national electrical codes.
- Wiring should be performed by qualified electrician.
- Always connect the UPS to a grounded outlet.

## Failure to follow these instructions can result in injury.

Smart-UPS C 1000/1500 VA 120/230 Vac Tower / Rack-Mount 2U

- 1. Connect equipment to the outlets in the rear of the UPS.
- 2. Connect the APC Smart Connect port to government your nearest network switch using the cable provided.
- 3. Connect the UPS input to AC power.
- 4. Press the main power button  $\bigcirc$  on the UPS display to turn on the UPS output.
  - Note: The On-line LED will light green when the output is on.
- Log onto <u>www.smartconnect.apc.com</u> or scan the QR code to launch the registration process. The website
  includes instructions to setup your online account, activate your warranty and begin managing your UPS
  remotely.

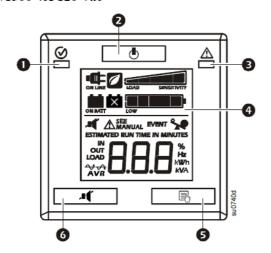


**Note:** By connecting this product to the Internet using the APC SmartConnect port, you are agreeing to APC SmartConnect Terms of Use, as found at <a href="mailto:smartconnect.apc.com">smartconnect.apc.com</a>. Schneider Electric Data Privacy Policy can also be found at <a href="mailto:smartconnect.apc.com">smartconnect.apc.com</a>.

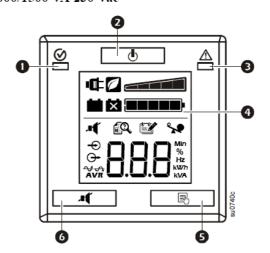
# **Status Indicators**

# Display panel features

# 1000/1500 VA 120 Vac



## 1000/1500 VA 230 Vac



- 1. On-Line/On Battery LED
- 2. POWER ON/OFF button
- 3. Site Wiring Fault/System Alert LED
- 4. Display interface
- 5. MENU button
- 6. MUTE/ENTER button

**Note**: Refer to "Display Menu" section on page 11 in this manual for a detailed description of the front panel buttons and icons.

Status	us LED		Audible Indicator Terminates
Power On The UPS is supplying AC pow er to connected equipment.	The On Line/On B attery LED illumina tes green.	None	N/A
On Battery The UPS is supplying battery power from the internal battery.	The On Line/On B attery LED illumina tes amber.	The UPS beeps 4 ti mes every 30 secon ds.	The beeping stops when AC pow er is restored or the MUTE butto n is pressed for two seconds.
System Alert The UPS detects an internal system error. Refer to "System Errors and Message Codes".	System Error LED illuminates red.	Constant tone (for severe errors only)	The alarm stops when the POW ER ON/OFF button is pressed fo r two seconds. This creates a <b>Sy stem Error Reset</b> .

# Display icons

120 Vac	230 Vac	Description
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ON LINE		On-Line: The UPS is supplying conditioned AC power to connected equi pment.		
		<b>Green mode</b> : The UPS is operating at the most efficient level by bypassi ng unused AVR components while acceptable AC voltage is present. The UPS will enter and exit Green mode automatically and will not compromise power protection.		
		<b>Load Capacity:</b> The load capacity percentage is indicated by the numbe r of load bar sections illuminated. Each bar represents 20% of the load c apacity.		
ESTIMATED RUN TIME IN MINUTES Min		Estimated Run Time / Min: This indicates the battery runtime minutes t hat remain if the UPS switches to battery power.		
		<b>Battery Charge:</b> The battery charge level is indicated by the number of bar sections illuminated. When all five blocks are illuminated, the battery is fully charged. Each bar represents 20% of the battery charge capacity.		
<b>%</b>		<b>Overload:</b> The equipment connected to the UPS is drawing more power than the UPS rating allows.		
Event		<b>Event:</b> The event counter indicates the number of events that occurred t o cause the UPS to switch to battery operation.		
IN OUT LOAD	$\phi$	In: Input voltage. Out: Output voltage. Load: Output power.		
<b>SEE</b> MANUAL		System Error Detected: An internal system error has occurred. The err or number will illuminate on the display. Refer to "System Errors and Me ssage Codes" section on page 15.		
AVR		Automatic Voltage Regulation (AVR): The UPS has an AVR boost feat ure that automatically compensates for low or high levels of input voltage without using battery power.  When illuminated, the UPS is compensating for low input voltage.  When illuminated, the UPS is compensating for high input voltage.		

×	<b>Mute:</b> An illuminated line through the icon indicates that the audible alar m is disabled.
X	Battery Error Detected: The icon will flash to indicate that the battery is disconnected.  When the icon remains continuously illuminated the UPS did not pass a Self-Test or the battery is near the end of its service life and must be repl aced. Refer to "System Errors and Message Codes" section on page 15.
	On Battery: The UPS is supplying battery backup power to the connected equipment.

# LCD status indicators

Status	LCD Icon	Audible Alarms	Audible Alarm Terminates
On Battery The UPS is supplying batt ery power to the connecte d equipment.		Beeps 4 times every 30 seconds	The beeping stops when AC powe r is restored or the UPS is turned off.
AC Power Overload  An overload condition has occurred while the UPS is operating on AC power.		Constant tone	The alarm stops when nonessenti al equipment is disconnected from the outlets or the UPS is turned of f
An overload condition has occurred while the UPS is operating on battery power		Constant tone	The alarm stops when nonessenti al equipment is disconnected from the outlets or the UPS is turned of f.
Low Battery  The UPS is supplying batt ery power to the connecte d equipment and the batte ry is near a total discharge state.		Continuous beeping	The beeping stops when AC powe r is restored or the UPS is turned off.
The UPS is operating on AC power. The battery do es not provide expected backup.	X	The UPS will beep twice to indicate the battery is disconnected. The UPS will beep continuously for one minute every five hours to indicate that the battery must be replaced.	Verify that the battery is securely c onnected.  The battery is nearing the end of it s service life and must be replace d.
System Error Detected  The UPS has experienced an internal er ror.	120 Vac models  SEE MANUAL  230 Vac models	N/A	Identify the error message on the display and refer to the table of co des under "System Errors and Me ssage Codes" section on page 15.

# **Display Menu**

The main part of the display will show different parameters of the UPS. Pressing the menu button will toggle through the various menus programmed for Output Voltage, Runtime, Input Voltage, Smart Connect Status, etc.

# **Feature Reference Guide**

#### Normal mode

Function	Button	Timing (seconds)	UPS State	Description
Power				
Power On	(1)	0.2	Off	Press the POWER ON/OFF button to turn the UPS output on. The UPS will oper ate on AC power.  If AC power is not available the UPS will operate on battery power.
Power Off		<b>5</b> On	<b>5</b> On	Press the POWER ON/OFF button to turn the output off using shutdown delays. To turn the output off immediately press and hold the POWER ON/OFF button for 5 seconds.
Display				
Menu Button		<b>0.2</b> On	<b>0.2</b> On	The Menu button will advance the displa y to the next data item. If the display is d arkened to save energy, pressing the M enu button will illuminate the display.
Mute				
Enable/Disab le	Ø	<b>2</b> On	<b>2</b> On	Enable or disable the audible alarms. The <b>Mute</b> icon will illuminate and the UPS will beep once.
Error Reset	(1)	2 Error	2 Error	After an error has been identified, press the POWER ON/OFF button to remove t he visual indication and return to standb y status.

# Configuration mode

Configuration mode provides the ability to adjust UPS parameters and initiate control actions. To enter configuration mode hold the MUTE and MENU buttons together for 2 seconds until the system emits a short beep and the display will flash to indicate the UPS has entered Configuration Mode.

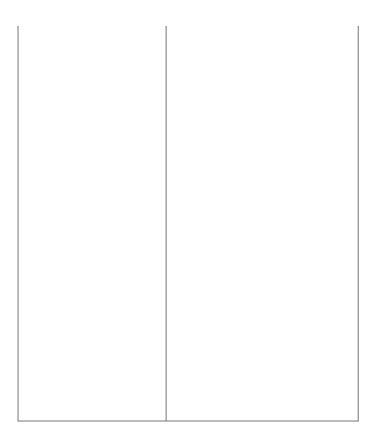
When in Configuration Mode, the MENU button cycles the display through the available options. The MUTE button toggles the configuration settings for that option.

**Note:** When the UPS detects 20 seconds of no activity in Configuration Mode, or when the MUTE and MENU buttons are pressed together for 2 seconds until the system emits a short beep, the UPS returns to Normal mode.

	l l

Function	Options	Description	

Firmware Upgrade	• UP.0 UP.0 = firmware valid and different from current running firmware	



• UP.1

UP. I

UP.1 = confirm the firmware update UPd = firmware update in progress

This mode only appears when firmware is stored in memory, and different from the current firmware running.

UP.0 indicates new firmware is available and different from current firmware, but will not install until instructed by user.

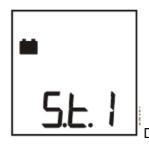
Pressing MUTE instructs the UPS to install new firmware, and changes the display to UP.1.

UP.1 indicates system is ready for firmware installation.

Press MENU to install the firmware and exit Configuration Mode; or press MUTE to revert to UP.0 (canceling firmware installation). Self-Test• 0: Default Setting



• 1: Begin Self-Test



Default setting St.0, indicates that a Self Test has not been requested

Pressing MUTE requests a Self Test and changes display to St.1.

Press MENU to begin Self Test and exit Configuration

Mode, or MUTE to revert to St.0 (canceling Self test).

Note: Self tests operate only when the output is on. Power QualityGood

- Fair
- Poor



• Fai



Poor



Select the Sensitivity range depending on the desired quality of output AC power:

- Pq.3: (Default) Good If selected, the unit will go on battery power more often to provide the cleanest power supply to the connected equipment. Use this setting when the input power is normally good as it provides the cleanest power supply to the connected load.
- Pq.2 Fair should be selected if the unit is operating on battery too often on the high setting. It makes the unit less sensitive to disturbances in input power. Use this setting when the line input has frequent variations.
- Pq.1 If Poor is selected, the UPS will tolerate more fluctuations in power and will go on battery power less often.

The unit ships from the factory at the Good setting.

Output Voltage Setting• for 120V models: 110 -> 120 -> 127

• for 230V models: 220 -> 230 -> 240



Select the output voltage (not available on some models)LCD Energy Save Mode• dP.0 = disable

• dP.1 = enable



dP.1 – Enabled (Default) – When enabled the LCD will automatically dim after 60 seconds of no activity dP.0 – Disabled – The display will stay illuminated indefinitely. Communication Protocol• cP.1 = enable



 ${\bf Enables/disables\ the\ Modbus\ communication\ protocol.}$ 

cP.1 (enabled) is the default.Green Mode Enable

#### 0: Disable



Enable



When Green Mode is enabled the UPS is operating at the most efficient level by bypassing unused AVR components while acceptable AC voltage is present. The UPS will enter and exit Green mode automatically while Enabled. Enabled is the default. Smart Connect remote commands• rc.0: remote control disable • rc.1: remote control enable



When enabled, it allows SmartConnect to send commands and configuration to the UPS. rc.0, disabled, is the default.Battery Replaced• rb.0: No battery replacement



rb.1: Battery replaced



rb.0 – Did not replace battery (default)

rb.1 – Battery has been replaced

Select rb.1 to indicate that the battery has been replaced, this will reset the constants for the battery runtime calibration to the default for a new battery.

**Smart Connect** 

**Product Key** 



Displays the 14-character SmartConnect Product Key in 4 parts each time Mute is pressed. To see the characters, press MENU to toggle through the groups. The groups are displayed with decimal point movement to ease knowing which part of the code is being displayed.

# Troubleshooting

Problem and Possible Cause	Solution		
The UPS will not turn on or there is no output.			
The unit has not been turned on.	Press the ON button once to turn on the UPS.		
The UPS is not connected to AC power.	Be sure the power cable is securely connected to the unit a nd to the AC power supply.		
The input circuit breaker has tripped.	Reduce the load on the UPS. Disconnect nonessential equi pment and reset the circuit breaker.		
The unit shows very low or no input AC voltage.	Check the AC power supply to the UPS by plugging in a table lamp. If the light is very dim, check the AC voltage.		
The battery connector plug is not securely connected.	Be sure that all battery connections are secure.		
There is an internal UPS error.	Do not attempt to use the UPS. Contact the Customer Care Center immediately.		
The UPS is operating on battery, while connect	ted to input AC power.		
The input circuit breaker has tripped.	Reduce the load on the UPS. Disconnect nonessential equi pment and reset the circuit breaker.		
There is very high, very low, or distorted input lin e voltage.	Move the UPS to a different outlet on a different circuit. Test the input voltage with the AC voltage display. If acceptable t o the connected equipment, reduce the UPS sensitivity.		
UPS is emitting intermittent beeps.			
The UPS is operating normally.	None. The UPS is protecting the connected equipment.		
UPS does not provide expected backup time.			
The UPS battery is weak due to a recent power o utage or is near the end of its service life.	Charge the battery. Batteries require recharging after extended outages and wear out faster when put into service often or when operated at elevated temperatures. If the batt ery is near the end of its service life, consider replacing the battery even if the replace battery indicator has not illuminat ed.		
The UPS is experiencing an overload condition.	Check the UPS load display. Unplug unnecessary equipme nt, such as printers.		
Display interface LEDs flash sequentially.			
The UPS has been shut down remotely through software or an optional accessory card.	None. The UPS will restart automatically when AC power is restored.		
The Error LED is illuminated. The UPS displays an error message and emits a constant beeping soun			

Internal UPS error detected.	Do not attempt to use the UPS. Contact the Customer Care Center immediately.		
The Replace Battery icon is illuminated and the UPS beeps for one minute every five hours.			
The battery has a weak charge.	Allow the battery to recharge for at least four hours. Then, p erform a self-test. If the problem persists after recharging, r eplace the battery.		
The Replace Battery icon is flashing and the UPS beeps for once every 2 seconds.			
The replacement battery is not properly connecte d.	Be sure that the battery connector is securely connected.		

The UPS displays a site wiring error message (Error code G.00).		
Wiring errors detected include missing Ground, Hot- Neutral polarity reversal, and overloaded Neutral.	System Error LED will flash on 2 seconds and flash off 1 second to indicate site wiring fault. If the UPS indicates a sit e wiring error, have a qualified electrician inspect the buildin g wiring. (Applicable for 120 V units only.)	
Battery lifetime status (Error code L.01/L.02)	If the LCD indicates battery LifeTime NearEnd or Exceeded, press the MUTE button for 0.2 second to acknowledge the alarm.	

# **System Errors and Message Codes**

P.00	Output Overload	b.00	Battery Disconnected
P.01	Output Short Circuit	b.01	Battery Over Voltage
P.02	Output Over Voltage	b.02	Battery Need Replacement
P.03	TransformerDCImbalance	b.03	Battery OvertemperatureCritical
P.04	Unit Over Temperature	b.04	Battery Charger
P.05	BackFeedRelay Error	b.05	Battery Temperature Sensor
P.06	AVR Relay Error	b.07	Battery Overtemperature Indicator
P.08	Output Relay Error	b.12	Battery VoltageSensorError
P.13	Inverter Error		
	•		

	P.17	Green Relay Error		
	G.0 0	SiteWiring	G.0 7	EPOActive (reserved for 2200 VA and 3000 VA models only)
	G.0 1	EEPROM	G.0 8	FirmwareMismatch
20 Vac	G.0 2	ADConverter	G.0 9	Oscillator
6 P.U I	G.0 3	LogicPowerSupply	G.1 0	MeasurementMismatch
	G.0 4	InternalCommunication	G.11	Subsystem
	G.0 5	UIButton		
	G.0 6	NeedsFactorySetup		
	L.01	LifeTimeNearEnd	L.02	LifeTimeExceeded
	The See Manual display icon will not appear when the communication states:			encounters the following SmartConnect
	Sc.0 SmartConnect No Ethernet Sc.5		Sc.5	SmartConnect Securing (Transport La yer Security "TLS" being established)
	Sc.1	SmartConnect Service Connect ed	Sc.6	SmartConnect Connecting (application link being est ablished with cloud)
	Sc.2	SmartConnect Addressing (obtaining local add ress DHCP)	Sc.7	SmartConnect Disabled (for Embedde d systems when a wombat card is ins erted or a configuration has disabled t he LCE)
	Sc.3	SmartConnect Resolving (addressing completed resolving DNS)	Sc.8	SmartConnect Prohibited unit is in fact ory mode or hardware prevents opera tion (EEPROM, MAC or PHY failure d etected)

120 Vac

	Sc.4	SmartConnect Contracting (no DNS detection)		
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For more information on System Errors, contact customer support at the APC by Schneider Electric Web site, <a href="https://www.apc.com/support">www.apc.com/support</a>.

#### **SmartConnect**

**APC** SmartConnect allows you to monitor the health and status of your UPS from any device connected to the Internet. Visit www.smartconnect.apc.com to learn more.

## **Battery Replacement**



RISK OF HYDROGEN SULPHIDE GAS AND EXCESSIVE SMOKE

- Replace the battery at least every 5 years.
- Replace the battery immediately when the UPS indicates battery replacement is necessary.
- Replace battery at the end of its service life.
- Replace batteries with the same number and type of batteries as originally installed in the equipment.
- Replace the battery immediately when the UPS indicates a battery over-temperature condition, or UPS internal
  over-temperature, or when there is evidence of electrolyte leakage. Power off the UPS, unplug it from the AC
  input, and disconnect the batteries. Do not operate the UPS until the batteries have been replaced.
- \*Replace all battery modules (including the modules in External Battery Packs) which are older than one year, when installing additional battery packs or replacing the battery module(s).

## Failure to follow these instructions can result in minor or moderate injury and equipment damage.

\* Contact Schneider Electric Worldwide Customer Support to determine the age of the installed battery modules.





Always recycle used batteries.

For information on recycling a used battery, refer to the Battery Disposal Information sheet included with the replacement battery.

Battery life is highly dependent on temperature and use. To identify when to replace batteries, the Smart-UPS models have a predictive battery replacement date indicator and automatic (and configurable) self-tests. Proactively replace batteries to maintain the highest availability. To ensure protection and high performance, use only genuine APC replacement battery cartridges (RBC<sup>TM</sup>). The APC RBC contains instructions for battery replacement and disposal. To order a replacement battery go to the APC by Schneider Electric Web site, www.apc.com.

UPS Model	Replacement Battery	Battery Module	
SMC1000C, SMC1000IC	APCRBC142		
SMC1500C, SMC1500IC	RBC6	Lead-acid, 1 module	
SMC1000-2UC, SMC1000I-2UC	APCRBC124		
SMC1500-2UC, SMC1500I-2UC	APCRBC157		

## **Transport**

- 1. Shut down and disconnect all connected equipment.
- 2. Disconnect the unit from utility power.
- 3. Disconnect all internal and external batteries (if applicable).
- 4. Follow the shipping instructions outlined in the Service section of this manual.

#### **Service**

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

- 1. Review the Troubleshooting section of the manual to eliminate common problems.
- 2. If the problem persists, contact APC by Schneider Electric Customer Support through the APC Web site, <a href="https://www.apc.com">www.apc.com</a>.
- a. Note the model number and serial number and the date of purchase. The model and serial numbers are located on the rear panel of the unit.
- b. Call APC Customer Support and a technician will attempt to solve the problem over the phone. If this is not possible, the technician will issue a Returned Material Authorization Number (RMA#).
- c. If the unit is under warranty, the repairs are free.
- d. Service procedures and returns may vary internationally. Refer to the APC Web site for country specific instructions.
- 3. Pack the unit properly to avoid damage in transit. Never use foam beads for packaging. Damage sustained in transit is not covered under warranty.
- a. Always DISCONNECT THE UPS BATTERIES before shipping in compliance with U.S.

Department of Transportation (DOT) and IATA regulations. The internal batteries may remain in the UPS.

- 4. Write the RMA# provided by Customer Support on the outside of the package.
- 5. Return the unit by insured, prepaid carrier to the address provided by Customer Support.

## **Limited Factory Warranty**

Schneider Electric IT Corporation (SEIT), warrants its products to be free from defects in materials and workmanship for a period of two (2) years from the date of purchase. The SEIT obligation under this warranty is limited to repairing or replacing, at its own sole option, any such defective products. Repair or replacement of a defective product or parts thereof does not extend the original warranty period.

This warranty applies only to the original purchaser who must have properly registered the product within 10 days of purchase. Products may be registered online at <u>warranty.apc.com</u>.

SEIT shall not be liable under the warranty if its testing and examination disclose that the alleged defect in the product does not exist or was caused by end user's or any third person's misuse, negligence, improper installation, testing, operation or use of the product contrary to SEIT's recommendations or specifications. Further, SEIT shall not be liable for defects resulting from: 1) unauthorized attempts to repair or modify the product, 2) incorrect or inadequate electrical voltage or connection, 3) inappropriate on site operation conditions, 4) Acts of God, 5) exposure to the elements, or 6) theft. In no event shall SEIT have any liability under this warranty for any product where the serial number has been altered, defaced, or removed.

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To obtain service under warranty you must obtain a Returned Material Authorization (RMA) number from customer support. Customers with warranty claims issues may access the SEIT worldwide customer support network through the SEIT Web site: <a href="www.apc.com">www.apc.com</a>. Select your country from the country selection drop-down menu. Open the Support tab at the top of the web page to obtain information for customer support in your region. 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.

# APC by Schneider Electric Worldwide Customer Support

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

- Visit the APC by Schneider Electric website to access documents in the APC by Schneider Electric Knowledge Base and to submit customer support requests.
  - www.apc.com (Corporate Headquarters)

Connect to localized APC by Schneider Electric websites for specific countries, each of which provides customer support information.

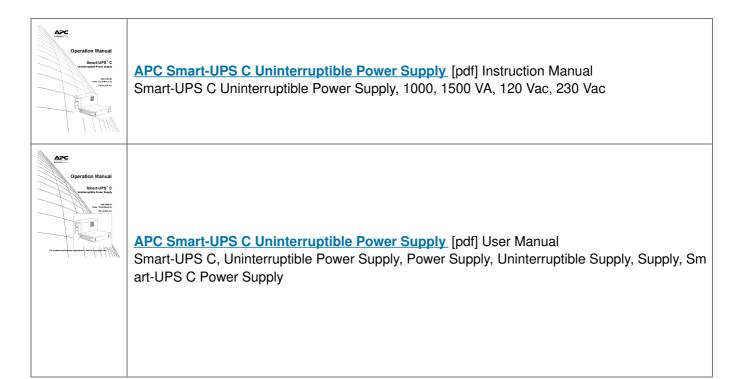
- www.apc.com/support/
- Global support searching APC by Schneider Electric Knowledge Base and using e-support.
- Contact the APC by Schneider Electric Customer Support Center by telephone or e-mail.
  - Local, country-specific centers: go to www.apc.com/support/contact for contact information.
  - For information on how to obtain local customer support, contact the APC by Schneider Electric
     representative or other distributors from whom you purchased your APC by Schneider Electric product.



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#### EN 990-5444C

#### **Documents / Resources**



#### References

- Smart-UPS™ Welcome
- O APC, a flagship brand of Schneider Electric APC USA
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- APC, a flagship brand of Schneider Electric APC USA
- APC, a flagship brand of Schneider Electric APC USA
- **Smart-UPS™ Welcome**

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