

User Manual Smart-UPS™ On-Line SRC1KI, SRC2KI, SRC1KI-AR, SRC2KI-AR

Important Safety Information

Read the 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 a Danger or Warning product safety label indicates that an electrical hazard exists that 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

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

WARNING

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

CAUTION

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

NOTICE

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

Safety and General Information

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

- This UPS is for indoor use only.
- Do not operate this UPS in direct sunlight, in contact with fluids, or where there is excessive dust or high humidity.
- Do not operate the UPS near open windows or doors.
- Be sure the air vents on the UPS are not blocked. Allow adequate space for proper ventilation.

Note: Allow a minimum of 20 cm clearance on all four sides of the UPS.

- Environmental factors impact battery life. Elevated ambient temperatures, poor quality utility power, and frequent discharges will shorten battery life. Follow the battery manufacturer recommendations.

Electrical safety

- Connection to the branch circuit (mains) must be performed by a qualified electrician.
- 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 be green and with or without a yellow stripe.
- The grounding conductor is to be grounded to earth at the service equipment, or if supplied by a separately derived system, at the supply transformer or motor generator set.
- Ensure that a recommended utility circuit breaker is installed at the UPS input.

SRC1KI/SRC1KI-AR	SRC2KI/SRC2KI-AR
8 A	13 A

Battery safety

- Do not dispose of batteries in a fire. The batteries may explode.
- Do not open or mutilate batteries. Released electrolyte is harmful to the skin and eyes, and may be toxic.
- Schneider Electric uses Maintenance-Free sealed Lead Acid batteries. Under normal use and handling, there is no contact with the internal components of the battery. Over charging, over heating or other misuse 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.

Radio Frequency Warning

This product has been tested and found to be category C2 device. 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 is likely to cause radio interference with some communication devices like TV, mobiles, audio equipments, radio receivers, etc. Generally this issue can be corrected by moving the equipment a little away from the UPS, however sometimes additional measures may have to be taken at user's expense.

Product Description

The APC by Schneider Electric Smart-UPS™ is a high performance uninterruptible power supply (UPS). The UPS helps to protect the connected electronic equipment from utility power blackouts, brownouts, sags, surges, small utility power fluctuations and large disturbances. The UPS also provides battery backup power for connected equipment until utility power returns to normal levels or the batteries are discharged.

This user manual is available on the APC by Schneider Electric Web site, www.apc.com.

Package Contents

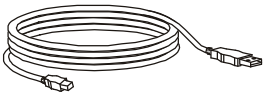
Read the **Safety Guide** before installing the UPS.

The packaging is recyclable; save it for reuse or dispose of it properly.

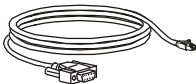
- UPS
- Literature kit containing:
 - Product documentation
 - Safety information

All Models

USB cable: Used to connect UPS to computer/laptop for PCBE monitoring

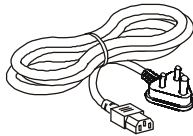


RS232 cable

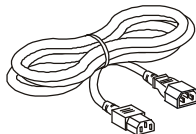


SRC1KI / SRC2KI

Utility power cable

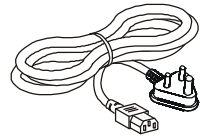


Output cable (2x)



SRC1KI-AR / SRC2KI-AR

Utility power cable (3x)



NOTE: The model and serial numbers are located on a small, rear panel label.

Optional Accessories

Refer to the APC by Schneider Electric Web site, www.apc.com, for available accessories.

Specifications

Environmental specifications

NOTICE



RISK OF EQUIPMENT DAMAGE

- UPS must be used indoors only.
- The installation location should be sturdy to withstand the weight of the UPS.
- Do not operate UPS where there is excessive dust or where the temperature or humidity are outside specified limits.

Failure to follow these instructions can result in equipment damage.

Temperature	Operating	0° to 40°C at rated load 40° to 50°C linearly derated to 80% of maximum load capacity	<p>This unit is intended for indoor use only. Select a location sturdy enough to handle the weight.</p> <p>Do not operate UPS where there is excessive dust or where the temperature or humidity are outside specified limits.</p> <p>Note: Charge the battery modules every six months during storage.</p>
	Storage	-20° to 50°C	
Elevation	Operating	0 - 1,000 m: normal operation 1,000 - 3,000 m: The load reduces @ 1% at an increased height of every 100 m > 3,000 m: UPS will not work	
	Storage	0 - 15,000 m	
Humidity		0 to 95% relative humidity, non-condensing	

Physical specifications

The UPS is heavy. Follow lifting guidelines.	< 18 kg (< 40 lb) 	18 - 32 kg (40 - 70lb) 
UPS model	SRC1KI / SRC1KI-AR	SRC2KI / SRC2KI-AR
Dimensions with packaging Width x Height x Depth	230 mm (9.05 in) x 355 mm (14 in) x 510 mm (20.1 in)	230 mm (9.05 in) x 355 mm (14 in) x 590 mm (23.2 in)
Dimensions without packaging Width x Height x Depth	220 mm (8.66 in) x 145 mm (5.7 in) x 400 mm (15.75 in)	220 mm (8.66 in) x 145 mm (5.7 in) x 504 mm (19.8 in)
Weight with packaging	12.4 kg	19.8 kg
Weight without packaging	10.7 kg	18 kg

Input specifications

UPS model	SRC1KI / SRC1KI-AR	SRC2KI / SRC2KI-AR
Nominal input voltage	230 Vac	
Input frequency	40 - 70 Hz	
Input cable	10 A, 1.5 m	
Input voltage range (100% load)	190 Vac - 295 Vac	
Input voltage range (50% load)	140 Vac - 295 Vac	
Input power factor (100% resistive load)	≥ 0.99 in Green mode ≥ 0.93 in Normal mode	
Input protection	Thermal circuit breaker	

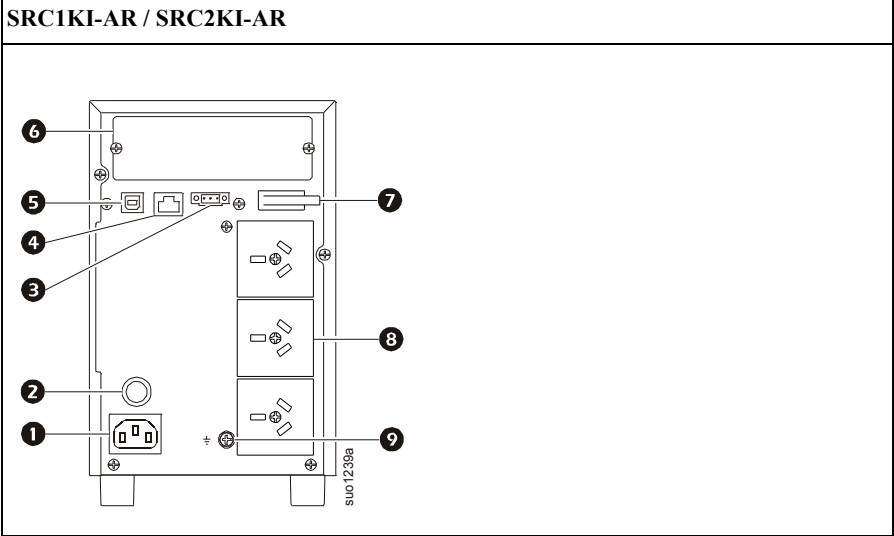
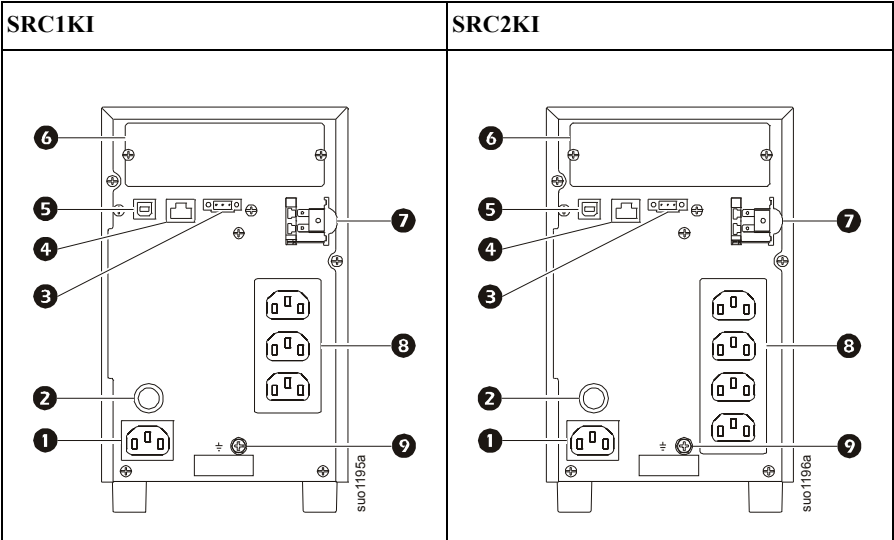
Output specifications

UPS model	SRC1KI / SRC1KI-AR	SRC2KI / SRC2KI-AR
Output power capacity max.	1000 VA / 800 W	2000 VA / 1600 W
Nominal output voltage	230 Vac	
Other programmable voltages	220 Vac, 230 Vac and 240 Vac	
Efficiency at rated load	88% max.	
Output voltage regulation	± 1% static	
Output voltage distortion	<ul style="list-style-type: none"> • 3% max. for full linear load, • 6% max. for full RCD load (100% VA, 0.8 PF) • 15% for the last 60 seconds of the backup time (with full load only for the internal battery) 	
Output frequency battery mode	50/60 Hz ± 0.5%	
Output frequency AC mode	50/60 Hz ± 3 Hz	
Crest factor	3:1	
Waveform	Sinewave	
Bypass	Internal bypass	

Battery

UPS model	SRC1KI / SRC1KI-AR	SRC2KI / SRC2KI-AR
Configuration	Internal battery	
Type	Sealed maintenance free (SMF) 12 V, 9 Ah	
Battery bank voltage	24 V	48 V

Rear Panel Features

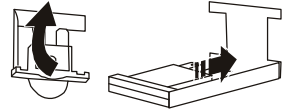


1	Utility power cable connector	5	USB port
2	Input thermal circuit breaker reset button	6	SmartSlot for management accessories
3	Emergency Power Off (EPO)	7	Battery connector
4	Serial com connector	8	Battery backup plus surge arrest outlets
9	Ground screw	9	Ground screw

Start Up

Connect the battery

Pull the battery connector handle up, and then push it into the unit.



Connect equipment and input power to the UPS

CAUTION

HAZARD OF ELECTRIC SHOCK

- All electrical work must be performed by a qualified electrician.
- Turn off all power to this equipment before working on the equipment. Practice lockout/tagout procedures.
- Do not wear jewelry when working with electrical equipment.

Failure to follow these instructions can result in minor or moderate injury.

1. Connect equipment to UPS. Avoid using extension cords.
2. Connect input utility power to the UPS.
3. Switch the utility input power on. The display panel will illuminate when utility power is available.

Start the UPS

Press the POWER ON/OFF button located on the front panel of UPS.

Cold start the UPS

Use cold start feature to supply power to connected equipment from the UPS batteries.

Press the POWER ON/OFF button. The display panel will illuminate.

Press the POWER ON/OFF button again to supply battery power to the connected equipment.

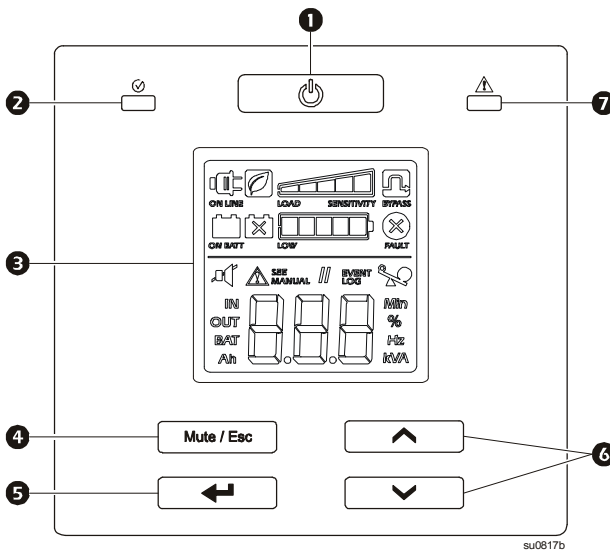
Install PowerChute™ Software

To install PowerChute Business Edition (PCBE) software, connect the supplied serial cable to the serial port on the UPS and the other end to a computer with access to the Web.

On the computer, go to www.apc.com/tools/download. Select “Software Upgrades - PowerChute Business Edition” in the “Filter by Software/Firmware” drop down menu. Select the appropriate operating system. Follow directions to download the software.

Operation




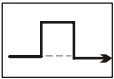





Front display panel features






<p>1</p>	<p>UPS POWER ON/OFF button</p>	<p>Press the POWER ON/OFF button to turn the UPS on. Press and hold the POWER ON/OFF button until a beep is heard to turn the UPS off. Press the POWER ON/OFF button to reset alerts.</p>
<p>2</p>	<p>Status LED</p>	<p>The Status LED illuminates green when the power is on. The LED indicates two different states of output power:</p> <ul style="list-style-type: none"> • Output off: LED blinks on and off. Press POWER ON/OFF button to turn the output power on. • Output on: LED illuminates green continuously.
<p>3</p>	<p>LCD Display</p>	<p>The display interface options are visible on this LCD screen. Press UP/DOWN ARROW button to activate LCD, if the display is not illuminated.</p>

④	MUTE/ESC button	Press the MUTE/ESC button: <ul style="list-style-type: none"> • To acknowledge audible alerts and suppress them temporarily. • To exit a sub menu and return to the main menu.
⑤	ENTER button	Press the ENTER button to enter the menu or to select a menu item/ value during navigation.
⑥	UP/DOWN ARROW button	Press the UP/DOWN ARROW button to scroll through the main menu options and display screens.
⑦	Alert LED	The Alert LED illuminates red when the UPS detects an error and blinks red for UPS notifications. See “Alerts and Notifications” on page 20 in this manual.

Front display icons

	On Line: The UPS is drawing utility power and performing double conversion to supply power to the connected equipment.
	On Battery: The UPS is supplying battery backup power to the connected equipment.
	Replace Battery: The battery is not connected securely or the battery is nearing the end of its service life and should be replaced.
	Bypass: The UPS is in bypass mode, sending utility power directly to connected equipment. Bypass mode operation is the result of an internal UPS event or an overload condition. Battery operation is not available while the UPS is in bypass mode. See “Alerts and Notifications” on page 20 in this manual. This icon in combination with Green Mode icon, indicates that the UPS is in green mode operation.
	System Alerts: An internal fault is detected. See “Alerts and Notifications” on page 20 in this manual.
	Overload: The equipment connected to the UPS is drawing more power than rated.
	Battery Charge: 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 approximately 20% of the battery charge capacity.
	Load Level: The load percentage is indicated by the number of load bar sections illuminated. Each bar represents approximately 20% of the maximum load capacity.
	Mute: An illuminated line through the icon indicates that the audible alert is disabled.

	Green Mode: An illuminated icon indicates that the unit is working in Green mode. The connected equipment is receiving the utility input directly as long as the input voltage and frequency are within the configured limits.
	Alert or notification: The UPS has detected an error or the UPS is in configuration mode. See “Alerts and Notifications” on page 20 in this manual.
	Event: The icon is illuminated when the user is viewing the event log.

Status Indicators

Audible Alert	Condition
Continuous beeps, every half second	Low Battery State - The battery is nearing its complete discharge state. The UPS is about to shutdown.
	Overload condition - The equipment connected to the UPS is drawing more power than rated.
4 beeps every 30 sec (first beep starts after 4 sec on battery)	On Battery State - The UPS is supplying battery backup power to the connected equipment.
Beeper continuously on	Alert State - UPS has detected an error. See “Alerts and Notifications” on page 20 in this manual.
Short beep every 2.5 sec	Battery disconnected
Continuous short beeps for every half second for 1 minute, repeats every 5 hours	Bad battery (replace)
Two short beeps every 5 sec	Event Bypass State - UPS has detected an error. Connected equipment receives utility input power through the bypass relay.

UPS Display Parameters

Operational data displayed in the display panel is given in the table. Navigate using the UP/DOWN ARROW buttons.

Parameter	Units	Indicator Icons
Output voltage	Vac	OUT, V
Output frequency	Hz	OUT, Hz
Input voltage	Vac	IN, V

Parameter	Units	Indicator Icons
Input frequency	Hz	IN, Hz
Battery voltage	V DC	BAT, V
Ambient temperature	° C	NUMBER, C
State of battery charge	%	BAT, %
Load level in percentage (Maximum of Watts or VA)	%	OUT, %
Load level in kVA	kVA	OUT, kVA
Total Ah capacity of connected battery	Ah	BAT, Ah
Remaining On Battery runtime	Minutes	BAT, Min

Configuration

UPS settings


Configure UPS settings using the display interface. See “Configure UPS parameters” on page 16 to edit the parameters.











Function	Factory Default	User Selectable Options	Description
Output voltage	230 Vac	220, 230, 240 Vac	Allows the user to select output voltage while the UPS is operating online.
Audible alert	Enable	Enable; disable	UPS will mute audible alerts when set to disable or when the display panel MUTE button is pressed.
Bypass voltage - Lower limit	160 V	156 V, 160 V, 164 V, 168 V, 172 V, 176 V, 180 V, 184 V, 188 V,	Allows the user to select voltage below which unit will not transfer to bypass, instead it will drop the load by turning output off. If unit is already in bypass, it will disconnect the bypass and drop the load.
Bypass voltage - Upper limit	265 V	253 V, 257 V, 261 V, 265 V	Allows the user to select voltage above which the UPS will not transfer to bypass, instead it will drop the load by turning output off. If unit is already in bypass, it will disconnect the bypass and drop the load.

Function	Factory Default	User Selectable Options	Description
Green mode/ high efficiency mode	Disabled	Enable/Disable	When this mode is enabled, connected equipment receives utility input power through the bypass relay as long as input voltage is within the range of ± 24 V of configured output voltage and ± 3 Hz of configured output frequency. Inverter is turned off during this mode. If utility power input goes out of range, inverter is turned on. The load is transferred to online mode. The power to the connected equipment may be interrupted up to 10 milliseconds.
Minimum battery capacity to restart setting	0%	0%, 15%, 30%, 45%, 60%, 75%, 90%,	UPS output will not be turned on until the battery is charged to a level such that it can provide the runtime configured by this setting. If configured to 0%, UPS output is turned on immediately after utility power returns.
Low battery state indication setting	2 min	2 min, 5 min, 8 min, 11 min, 14 min, 17 min, 20 min, 23 min.	The UPS will emit audible alarm when the actual run time reaches the limit set by the end user. The audible alarm will emit only when the UPS is working in battery mode.

Advance display navigation

The UPS display has five main menu and two sub-menu options. Press the ENTER button from the Home Screen to access these menu options. Use the UP/DOWN ARROW buttons to navigate between the menu options.

Menu option	Description
	<p>Show Event Log Use this menu option to see the UPS event log. The UPS records the last 10 events and displays the codes in this log. Press the ENTER button to see the log. Use the UP/DOWN ARROW buttons to see the logged events. The UP ARROW button navigates towards old events and the DOWN ARROW button navigates to new events. Every log entry has a numeric and textual event code. At the end of the log, the word “End” will be displayed. Press the ESC button to return to the Home Screen.</p>

Menu option	Description
	<p>Configure the UPS Use this menu option to configure the UPS parameters. Press the ENTER button to see the configuration options. See “Configure UPS parameters” on page 16 for details. Press the ESC button to return to the Home Screen.</p>
	<p>Show UPS information Use this menu option to see the UPS information. Press the ENTER button to see the rating of the UPS. Press the UP ARROW button to see the UPS firmware version. Press the ESC button to return to the Home Screen.</p>
	<p>User Command to bypass Use this menu option to switch the UPS to bypass mode or bring the UPS to online mode from bypass mode. Press ENTER button:</p> <p> Put: Use to switch the UPS to bypass mode of operation. Note: Power to the connected equipment will drop, if the mains voltage is not within the threshold limits.</p> <p> Out: Bring the UPS out of bypass and restore clean power to the connected equipment.</p>
	<p>Execute Battery Self Test Use this menu option to conduct a self test and determine the battery status. Press the ENTER button to initiate the test. If the test command is accepted, the UPS will initiate a self test and will start a count down on the display. Display messages are shown at the end of the test.</p> <p> Test refused. The output is off or battery is not charged.</p> <p> Test not passed</p> <p> Test passed</p> <p> Test is aborted due to internal reasons</p> <p>Press the ESC button to return to the Home Screen.</p>

Configure UPS parameters

Follow the steps to configure parameters in the UPS:

1. Press the ENTER button.
2. Press the UP/DOWN ARROW buttons to navigate to “Set”.
3. Press the ENTER button.
4. Navigate through the parameters using the UP/DOWN ARROW buttons.
5. Press the ENTER button to edit a parameter. Icons start flashing to indicate the editing.
6. Press the UP/DOWN ARROW buttons to navigate between the options available for the selected parameter.
7. Press the ENTER button to select the option or MUTE/ESC button to abort the editing of current parameter. Flashing of icons stops after this.
8. Press the UP/DOWN ARROW buttons to navigate between parameters.
9. Press the MUTE/ESC button to exit menu navigation.

Emergency Power Off

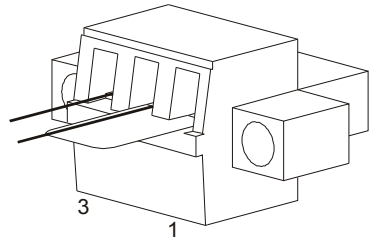
The Emergency Power Off (EPO) option is a feature that will immediately remove power to all connected equipment. When EPO button is pushed, all connected equipment will immediately turn off and will not switch to battery power.

Adhere to all national and local electrical codes. Wiring must be performed by a qualified electrician.

The EPO switch is internally powered by the UPS for use with non-powered switches or potential free contacts.

Normally open (N/O) contacts

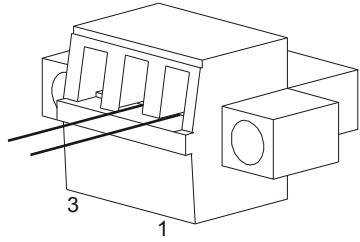
1. Retain the metal link between pins 1 and 2.
2. Remove the EPO connector screws beneath pins 2 and 3.
3. Connect N/O relay contacts between pins 2 and 3 of the EPO terminal block.
Use 0.5 to 1 mm² wire.
4. Secure the EPO connector screws beneath pins 2 and 3.



If the N/O is closed, the UPS will turn off and power will be removed from the load.

Normally closed (N/C) contacts

1. Remove the EPO connector screws beneath pins 1 and 2.
2. Remove the metal link between pins 1 and 2.
3. Connect N/C relay contacts between pins 1 and 2 of the EPO terminal block.
Use 0.5 to 1 mm² wire.



4. Secure the EPO connector screws beneath pins 1 and 2.
5. Connect all pin 3 of all the EPO units together to:
 - apply EPO function of multiple units
 - turn off multiple units at the same time, using the EPO function

If the N/C is open, the UPS will turn off and power will be removed from the load.

NOTICE

EQUIPMENT DAMAGE

Do not connect the EPO interface to any circuit other than a unused circuit.

Failure to follow these instructions can result in equipment damage.

The EPO interface is a Safety Extra Low Voltage (SELV) circuit. Connect it only to other SELV circuits. The EPO interface monitors circuits that have no determined voltage potential. Such closure circuits may be provided by a switch or relay properly isolated from the utility. To avoid damage to the UPS, do not connect the EPO interface to any circuit other than a unused circuit.

Use one of the following cable types to connect the UPS to the EPO switch.

- CL2: Class 2 cable for general use.
- CL2P: Plenum cable for use in ducts, plenums, and other spaces used for environmental air.
- CL2R: Riser cable for use in a vertical run in a floor-to-floor shaft.
- CLEX: Limited use cable for use in dwellings and for use in raceways.

Troubleshooting

See “Rear Panel Features” on page 8 and “Front display panel features” on page 10 for the locations and graphical representations of the buttons and LEDs referred to in this table.

Problem and/or Possible Cause	Solution
UPS will not turn on when utility input is available or there is no power output	
The UPS is not turned on.	Press the POWER button to turn on the UPS.
The UPS is not connected to utility power supply.	Check that the power cable from the UPS to the utility power supply is securely connected at both ends. See “Start Up” on page 9 in this manual.
Input thermal circuit breaker on the UPS is tripped.	Press the input thermal circuit breaker reset button in the rear panel.
The UPS is operating on battery, while connected to the input utility power	
There is high, low, or distorted input voltage or frequency.	Connect the UPS to a different outlet on a different circuit. Test the utility input power to ensure the unit is receiving input power. If display is on, navigate and check the input voltage and frequency.
UPS, when connected to battery, is not supplying power to the connected equipment	
The UPS is not turned on.	If the UPS has shutdown (the display is not on), follow the procedure “Cold start the UPS” on page 9.
The battery is not connected.	Connect battery to the UPS. See “Start Up” on page 9 in this manual.
Low battery cut off. UPS may have discharged the battery due to utility power outage and turned the output off due to low battery condition.	Wait for the utility power to return and charge the battery. To turn on the output power after utility power returns, press POWER ON button.
UPS emits an audible beeping sound at long intervals	
The UPS is operating normally when running on battery.	UPS has detected an error. See “Alerts and Notifications” on page 20 in this manual.
Alert LED is illuminated. The UPS displays an alert message and emits a constant beeping sound	
The UPS has detected an error.	See “Alerts and Notifications” on page 20 in this manual.

Problem and/or Possible Cause	Solution
No audible sounds from UPS even when the Alert LED is illuminated	
Audible alert is disabled.	Change the UPS configuration to enable audible alerts.
UPS is not providing expected backup time	
The UPS battery is discharged due to a recent power outage.	The batteries require recharging after extended outages. Batteries can wear faster when put into service without proper recharging or when operated at elevated temperatures.
The battery is near the end of its service life.	If the battery is near the end of its service life, consider replacing the battery, even if the replace battery indicator is not illuminated. See “Start Up” on page 9 in this manual.
UPS is not turning off	
POWER OFF button not pressed properly.	Press and hold the POWER OFF button until the beep is heard to power off the UPS.
Utility input power is available.	UPS logic power can not be turned off if utility input power is available. To turn off the UPS, turn off utility input power and press POWER OFF button. Release when a beep is heard.
UPS is in Bypass mode and the LED is illuminated red	
The UPS has experienced an overload condition and transferred to bypass.	Connected equipment exceeds the “maximum load” as defined in specifications on the APC Web site, www.apc.com . The alerts remain on until the overload condition is corrected. Disconnect nonessential equipment from the UPS to eliminate the overload condition. The UPS continues to supply power as long as it is in bypass mode and the circuit breaker does not trip. The UPS will not provide battery power in the event of a utility voltage interruption.
UPS detected an error and transferred to bypass.	See “Alerts and Notifications” on page 20 in this manual.

Problem and/or Possible Cause	Solution
UPS is in Bypass mode and the LED is not illuminated red	
UPS is in green mode	Disable green mode if not desired.
UPS is configured to stay in the bypass mode.	Change the configuration to exit bypass mode.
UPS is in bypass mode even after over temperature alert is cleared.	Reduce the connected load to <90% to bring the UPS to online mode.


Alerts and Notifications

UPS displays a text code and a numeric code on the display when it detects an error.

Alerts

Display code	Description	Solution
SC	UPS has experienced a short circuit at the output.	Check if there is any short circuit at the UPS output. Press POWER ON/OFF button to start the UPS. Note: The power supplied to the connected equipment is dropped when the UPS is in this condition.
OL	UPS is experiencing an overload condition.	Disconnect nonessential equipment from the UPS to eliminate the overload condition.
DLH	The UPS has detected a DC voltage error. Unit will try to auto-recover from this condition.	If the UPS does not recover automatically, contact APC by Schneider Electric.
Hot	Temperature of the unit is rising above the set limits.	Disconnect nonessential equipment from the UPS to reduce the UPS load. Ensure that ambient temperature is within limits. Ensure that adequate clearance is maintained.
EPO	UPS has recovered from an EPO shutdown.	Press the POWER ON/OFF button to clear the EPO message.
CHS	UPS has detected a charger error.	Verify if there is any short circuit at the UPS battery terminal. Press POWER ON/OFF button to start the UPS.
Contact APC by Schneider Electric for all other alert codes.		

Notifications

Display code	Description	Solution
	Battery is not connected.	Connect battery to the UPS. See “Start Up” on page 9 in this manual.

Transport

1. Shut down and disconnect all connected equipment.
2. Disconnect the unit from mains 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 by Schneider Electric web site, **www.apc.com**.
 - 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 and are available through the LCD display on select models.
 - b. Call Customer Support. 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. For country specific instructions refer to the APC by Schneider Electric web site, **www.apc.com**.
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.
Note: Before shipping, always disconnect battery modules in a UPS or external battery pack.
The disconnected internal batteries may remain inside the UPS or external battery pack.
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 part 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 warranty.apc.com.

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 or any third person misuse, negligence, improper installation, testing, operation or use of the product contrary to SEIT recommendations of 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 APC by Schneider Electric web site: www.apc.com. 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 web site 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 web sites 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 distributor from whom you purchased your APC by Schneider Electric product.