APC SRTL3000RMXLI SMART-UPS™ ON-LINE SRT



APC SRTL3000RMXLI On-Line SRT Smart-UPS Installation Guide

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APC SRTL3000RMXLI On-Line SRT Smart-UPS



Installation Guide Smart-UPS™On-Line SRT3000/SRT2200 UXI-LI/UXI-NCLI

Important Safety Messages

SAVE THESE INSTRUCTIONS – This manual contains important instructions that should be followed during installation and maintenance of the Smart-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 bulletin or on the equipment to warn of potential hazards or to call attention to information that clarifies or simplifies a procedure.

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- DANGER indicates a hazardous situation that, 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 that, if not avoided, could result in minor or moderate injury.
- NOTICE is used to address practices not related to physical injury.

Product Handling Guidelines



Safety and General Information

- · 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 could void the warranty.
- · This UPS is intended for indoor use only.
- Do not operate this UPS 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.
- The equipment is heavy. Always practice safe lifting techniques adequate for the weight of the equipment.
- 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.
- Replace the battery immediately when the UPS indicates battery replacement is necessary.
- Always install XLBPs at the bottom in rack-mount configurations. The UPS must be installed above the XLBPs.

- Always install peripheral equipment above the UPS in rack-mount configurations.
- Additional safety information can be found in the Safety Guide supplied with this unit.

Deenergizing safety

Battery packs connected to the UPS may present a shock hazard even when disconnected from the branch circuit (mains). Before installing or servicing the equipment verify the following.

- A main circuit breaker is in the OFF position. The UPS is disconnected from the main or wall outlet.
- Battery packs are disconnected.

Electrical safety

- For models with a hardwired input, the connection to the branch circuit (mains) must be performed by a
 qualified electrician.
- To maintain compliance with the EMC directive for products sold in Europe, output cords and network cables 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 and with or without a yellow stripe.
- The UPS input ground conductor must be properly bonded to the 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.

Battery Safety

WARNING

RISK OF CHEMICAL HAZARD AND EXCESSIVE SMOKE

- Replace the battery at least every 10 years or at the end of its service life, whichever is earlier.
- Replace the battery immediately when the UPS indicates battery replacement is necessary.
- Replace batteries with the same type of batteries as originally installed in the equipment.

Failure to follow these instructions can result in death or serious injury.

- Servicing of batteries should be performed or supervised by personnel knowledgeable about batteries and the required precautions. Keep unauthorized personnel away from batteries.
- Schneider Electric uses Lithium-ion batteries. Under normal use and handling, there is no contact with the internal components of the battery.
- The battery typically lasts for eight to ten years. Environmental factors impact battery life. Elevated ambient temperatures and poor quality mains power causing frequent short-duration discharges will shorten battery life.
- CAUTION: Before installing or replacing the batteries, remove conductive jewelry such as chains, wristwatches, and rings. High energy through conductive materials could cause severe burns.

- CAUTION: Do not place or use the battery pack near heat or fire.
- Do not crush, and do not dispose of a battery pack in a fire. The batteries may explode.
- CAUTION: Do not open the battery pack enclosure. Doing so will expose the cell terminals which pose an
 energy hazard.
- CAUTION: Do not open or mutilate the battery or batteries. Released electrolyte is harmful to the skin and eyes. It may be toxic.
- CAUTION: A battery can present a risk of electric shock and burns by high short-circuit current. The following precautions should be observed when working on batteries:
 - Disconnect the charging source before connecting or disconnecting battery terminals.
 - Do not wear any metal objects including watches and rings.
 - Do not lay tools or metal parts on top of batteries.
 - · Use tools with insulated handles.
 - Wear rubber gloves and boots.
 - Determine if the battery is either intentionally or inadvertently grounded. Contact with any part of a
 grounded battery can result in electric shock and burns by high short-circuit current. The risk of such
 hazards can be reduced if grounds are removed during installation and maintenance by a skilled person.
- CAUTION: Failed batteries can reach temperatures that exceed the burn thresholds for touchable surfaces.
- Do not use a dropped, damaged, or deformed battery pack.
- · Do not short-circuit the battery pack.
- Do not drive nails into the battery pack.
- · Do not strike the battery pack with a hammer.

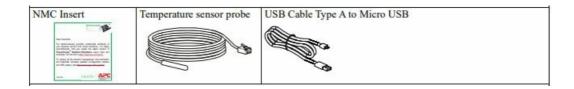
General information

- Refer to "Specifications" on page 5 for information on the maximum number of battery packs supported by your UPS model.
 - **Note:** For each battery pack added, increased recharge time will be required.
- 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.

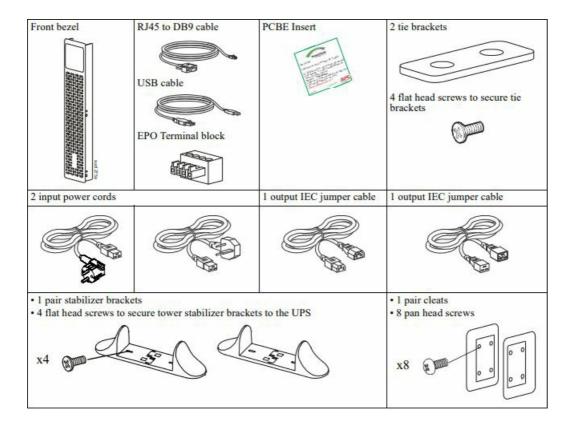
Package Contents

Inspect the contents upon receipt. Notify the carrier and dealer if the unit is damaged.

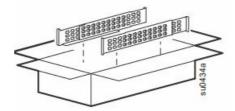
SRT3000/SRT2200 UXI-NCLI models only



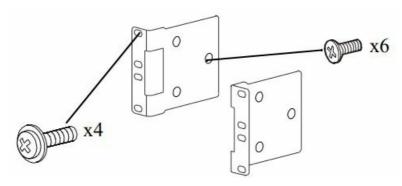
All models



Rail Kit with instructions and hardware for installing rails in a rack.



- 1 pair rack-mount brackets
- 6 flat head screws to secure rack-mount brackets to the UPS
- · 4 ornamental screws to secure rack-mount brackets to the rails



Specifications

UPS	Power Module	Battery Pack
SRTL2200RMXLI	SRT2200UXI-LI	
SRTL2200RMXLI-NC	SRT2200UXI-NCLI	XBP48RM1U2-LI
SRTL3000RMXLI	SRT3000UXI-LI	ABP46RIVITUZ-LI
SRTL3000RMXLI-NC	SRT3000UXI-NCLI	
SRTL2200RM4UXLI	SRT2200UXI-LI	
SRTL2200RM4UXLI-NC	SRT2200UXI-NCLI	XBP48RM2U-LI
SRTL3000RM4UXLI	SRT3000UXI-LI	- ADF 40 NIVIZO-LI
SRTL3000RM4UXLI-NC	SRT3000UXI-NCLI	

For additional specifications refer to the APC by Schneider Electric website, <u>www.apc.com</u>.

Environmental

Temperature	Operating	0 to 40 °C (32 to 104 °F)
remperature	Storage	-15 to 45 °C (5 to 113 °F)
Elevation	Operating	0 – 3,000 m (0 – 10,000 ft)
Lievation	Storage	0 – 15,000 m (50,000 ft)
Humidity		0% to 95% relative humidity, non-condensing
International Protection Code		IP20
Pollution Degree		2

Physical

The UPS is heavy. Follow all lifting guidelines.	
Unit weight with packaging	25 kg (55 lb)
Unit weight without packaging	17.5 kg (38.5 lb)
Unit dimensions without packaging Height x Width x Depth	85 (2U) mm x 432 mm x 611mm3.35 (2 U) in x 17 in x 24 in
Unit dimensions with packaging Height x Width x Depth	245 mm x 600 mm x 810 mm9.7 in x 23 .6 in x 34.3 in
The model and serial numbers are on a small label located on the rear panel.	

The model and serial numbers are on a small label located on the rear panel.

Battery

External Battery Pack	XBP48RM1U2-LI	XBP48RM2U-LI
Battery type	Lithium-ion	
Typical energy capacity	600 watt-hours	2400 watt-hours
Maximum continuous discharge power	3 kW	
Maximum charge rate	12 A	
Battery capacity – Typical	12 Ah	50 Ah
Battery nominal voltage	48 VDC	
Compatible Power Modules	SRT2200UXI-NCLI, SRT3000UXI-NCLI,SRT220 0UXI-LI, SRT3000UXI-LI	
Maximum number of XLBPs supported by UPS	10	3
Battery power cable length	600 mm (23.6 in)	
Battery communication cable length	300 mm (11.8 in)	

NOTES:

- The UPS does not support any other type/make of battery packs.
- Refer to the appropriate replacement battery user manual for installation instructions.
- Charge the XLBPs immediately upon receipt / first installation and at least once in six months during storage or when not in use.
- Contact your dealer or go to the APC by Schneider Electric website, www.apc.com for information on replacement battery packs.

Electrical

Overvoltage Category	II
Applicable power grid power distribution system	TN Power System
Applicable standard	IEC 62040-1

CAUTION*: To reduce the risk of fire, connect the UPS only to a circuit provided with the recommended maximum branch circuit overcurrent protection

Models	Rating	Building Circuit Breaker (CB) Curr ent Rating
SRT3000 models	3000 VA / 2700 W	20 A
SRT2200 models	2200 VA / 1980 W	16 A

Output	
Output Frequency	50 Hz / 60 Hz
Nominal Output Voltage	220 V, 230 V, 240 V
Input	
Input Frequency	40 Hz – 70 Hz
Nominal Input Voltage	220 V, 230 V, 240 V
Input current rating	SRT3000 models: 16 A SRT2200 models : 13 A

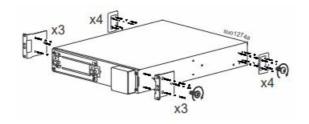
Rack-Mount Installation

Refer to the Rail Kit Installation Guide for instructions on rail installation.

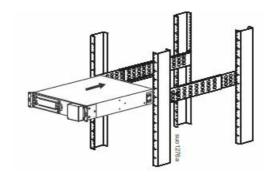
CAUTION

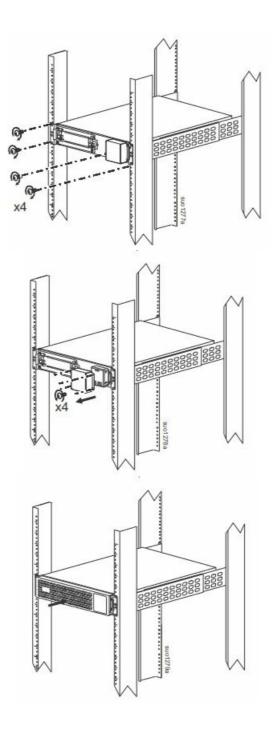
RISK OF FALLING EQUIPMENT

- The equipment is heavy. Always practice safe lifting techniques adequate for the weight of the equipment.
- Always use the recommended number of screws to secure brackets to the UPS.
- Always use the recommended number of screws to secure the UPS to the rack.
- Always install the UPS at the bottom of the rack.
- Always install the XLBP below the UPS in the rack.



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



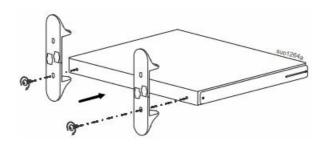


Tower Installation

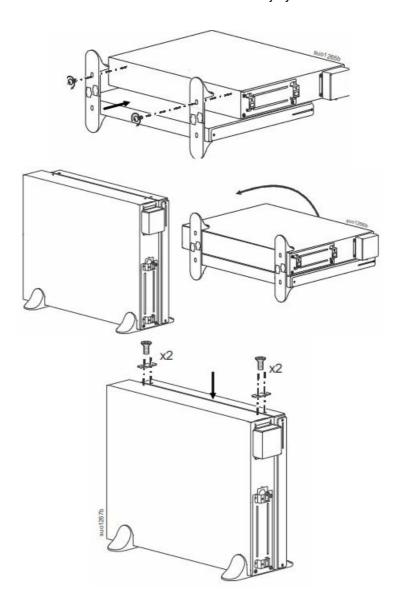
CAUTION

RISK OF FALLING EQUIPMENT

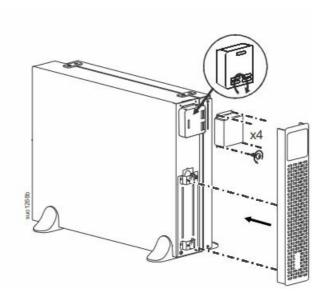
- The equipment is heavy.
- Always practice safe lifting techniques adequate for the weight of the equipment.



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



- Remove the display cover.
- Rotate the display panel clockwise, one quarter turn, if required.
- · Install front bezel



NOTES:

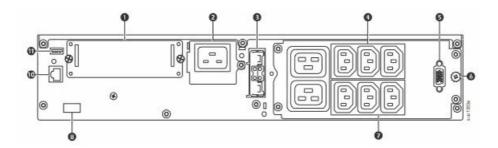
- Refer to the appropriate XLBP installation manual for connections between the UPS and XLBP.
- If multiple battery packs are to be connected in tower configuration, contact APC by Schneider Electric

Customer Support for obtaining the additional accessories required.

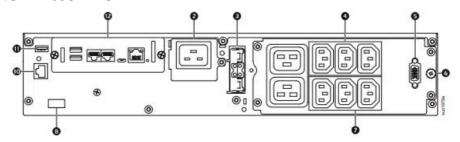
Rear Panel Features

Note: Refer to the table "Key to identify rear panel features" on page 9, that provides a key to the callout numbers for the rear panel graphics depicted in this manual.

SRT3000UXI-LI/SRT2200UXI-LI



SRT3000UXI-NCLI/SRT2200UXI-NCLI



Key to identifying rear panel features

The SmartSlot can be used to connect optional management accessories.
Connect the UPS to the utility power supply
Use the external battery cable on the XLBP to connect the UPS and XLBP.XL BPs provide extended runtime during power outages. The UPS will automatic ally recognize up to 10 external battery packs.
Connect electronic devices to these outlets.
Connect the battery connection cable from the XLBP. This enables the communication between the XLBP and the UPS.
The UPS and XLBPs have ground screws for connecting the ground leads. Be fore connecting a ground lead, disconnect the UPS from the mains power.
Connect electronic devices to these outlets.
The Emergency Power Off (EPO) terminal allows the user to connect the UPS to a central EPO system.
The Serial Com port is used to communicate with the UPS. Use only interface kits supplied or approved by APC by Schneider Electric. Any other serial interface cable will be incompatible with the UPS connector.
The USB port is used to connect either a server for native operating system c ommunications or for software to communicate with the UPS.
Refer to the User Manual of the pre-installed NMC3 card for details of the port s.

UPS Configuration

Connect Emergency Power Off feature

For instructions on how to connect the Emergency Power Off (EPO) switch, refer to the Operation and Maintenance manual. To download the Operation and Maintenance manual scan the QR Code behind the front bezel, refer to "Location of QR Code for User Document" on page 12 for details, or

- 1. go to https://www.apc.com/us/en/country-selector,
- 2. select your location,
- 3. type "Operation and Maintenance Manual < Model Name>" in the search bar.

Configure controllable outlet groups

The outlets on the UPS are grouped. To configure the controlled outlet features, use the Advanced menus on the display interface and navigate to: Main Menu > Configuration > Outlets > Outlet Group.

UPS Display Interface

Battery status icons	
Controllable outlet group status ico	
UP/DOWN buttons	
OK button	
ESCAPE button	OK V 9
Operation mode icons	G ESC A O
UPS status information	⊙ On-Line 1⊕ 2⊕ 9
Load iconDisable/mute the audible alarm icon	Output 230.0 v
-Red illumination, the UPS is on and t he output power is off	
-White illumination, the UPS, and the output power are on	
-No illumination, the UPS and the output power are off	
POWER ON/OFF button Button illumi nation indications:	

UPS Display Interface operation

Use the UP/DOWN buttons to scroll through the options. Press the OK button to accept the selected option. Press the ESC button to return to the previous menu.

The icons on the LCD models.	interface screen may vary depending on the installed firmware versions and specific UPS
LOAD 0 0 0	Load icon: The approximate load capacity percentage is indicated by the number of lo ad bar sections illuminated. Each bar represents 16% of the load capacity.
(N)	Mute icon: Indicates the audible alarm is disabled/mute.

UPS Status InformationThe status information field provides key information on the status of the UPS.

The **Standard** menu will allow the user to select one of the five screens listed below. Use the UP/DOWN button s to scroll through the screens.

The **Advanced** menu will scroll through the five screens automatically.

- Input Voltage
- Output Voltage
- Output Frequency
- Load
- Runtime

In the case of a UPS event, status updates will be displayed defining the event or condition that has occurred.

The display screen illuminates amber to indicate a Message and red to indicate an Alert depending on the severity of the event or condition.

Operation Mode Ico	ons
\sim	On-Line mode: The UPS is supplying conditioned mains power to connected equipment.
\rightarrow	Bypass mode: The UPS is in Bypass mode and the connected equipment will receive m ains power as long as the input voltage and frequency are within the configured limits.
	Green mode : When in Green mode mains power is sent directly to the load. In the event of a mains power outage, there will be an interruption in power to the load of up to 10 ms while the UPS switches to On-Line or Battery mode.
9)	When enabling Green mode consideration should be given to devices that may be sensitive to power fluctuations.
UPS Status Icon	
$\overline{}$	Battery mode: The UPS is supplying battery power to connected equipment.
<u>!</u>	The UPS has detected an internal fault with the battery. Follow the instructions on the scr een.
(x)	The UPS has detected a critical fault with the battery. The battery is at the end of its life a nd has to be replaced.
5/	Indicates a UPS alert that requires attention.
Controllable Outlet	Group Icons
	Controllable Outlet Group Power Available: The number next to the icon identifies the specific outlet groups that have available power. The flashing icon indicates the outlet group is turning from OFF to ON with delay.
	Controllable Outlet Group Power Not Available: The number next to the icon identifies specific outlet groups that do not have available power. The flashing icon indicates the outlet group is turning from ON to OFF with delay.
Battery Status Icons	
	Battery Charge Status: Indicates the battery charge status.
4	Battery Charge In Progress: Indicates the battery is charging.

Menu overview

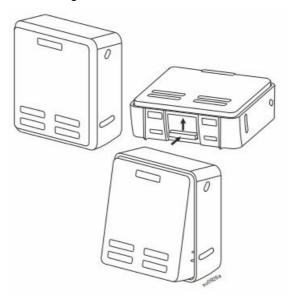
The display interface has Standard and Advanced menu screens. The preference for Standard or Advanced menu selections is made during initial installation and can be changed at any time through the Configuration menu.

- The Standard menus include the most commonly used options.
- The Advanced menus provide additional options.
 - Note: Actual menu screens may differ by model and firmware version.
- Refer to the UPS Operation Manual for menu configuration details.

LCD display interface angle adjustment

The angle of the LCD display interface can be adjusted for ease in viewing the displayed messages.

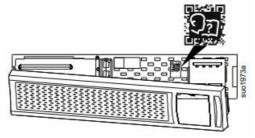
- Remove the front bezel.
- Locate the button on the bottom of the display interface panel.
- Press the button and slide the bottom of the LCD display interface screen out. An audible click will be heard when the screen reaches the maximum angle.



Location of QR Code for User Document

The QR Code for downloading the user documents is located behind the front bezel.

- · Open the front bezel.
- · Scan the QR Code.
- · Click on "Documentation".
- · Click on "Asset Lifecycle Documents".
- Click on the desired document.



- Customer support and warranty information are available on the APC by Schneider Electric website,
 www.apc.com
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- 12/2022

Frequently Asked Questions

Does the UPS support Modbus communication, and how do I enable it?

The UPS supports Modbus communication, and you can enable or disable it through the UPS settings.

What are the different operation modes of the UPS, and how do they function?

The UPS has different operation modes, including On-Line mode, Bypass mode, and Green mode, each with its specific functions.

What is the significance of the Site Wiring Fault setting, and how does it affect the UPS operation?

The Site Wiring Fault setting allows you to configure how the UPS responds to site wiring fault alerts, which can occur due to incorrect input AC mains connections. You can choose to disable it, enable it, or allow user acknowledgment of such faults.

What is the Energy Meter, and how can I reset it to zero kWh?

The Energy Meter stores information about the UPS's output energy usage. You can reset it to zero kWh through the UPS settings. This can be useful for tracking power consumption.

What is the purpose of the Load Shedding feature, and how can I configure it?

Load Shedding is a feature that helps conserve battery power by disconnecting power from controllable outlet groups not in use. You can configure the Load Shedding settings, including delay times and conditions for turning off outlet groups.

What is the function of the PDU Model setting, and how do I select the appropriate PDU model?

The PDU Model setting allows you to specify the PDU model installed in the UPS, ensuring proper operation. Select the PDU model that matches the actual PDU used with the UPS.

Can I update the firmware of the UPS, and how should I go about it?

The UPS may offer firmware updates. You can install firmware updates through the UPS settings. Be sure to follow the provided instructions and consider the impact on connected loads during the update process.

How can I mute the audible alarm on the UPS?

You can enable or disable the audible alarm through the UPS settings. Muting the alarm can be helpful when you need silence in your environment.

What languages are supported for the display interface, and how can I change the language setting?

The UPS display interface supports multiple languages. You can change the language setting to your preference through the UPS settings.

How do I adjust the angle of the LCD interface for better visibility?

You can adjust the angle of the LCD interface for better visibility. Refer to the user manual for instructions on how to do this.

What is the purpose of the Modbus feature, and how can I enable or disable it?

The Modbus feature allows for communication with the UPS. You can enable or disable Modbus functionality through the UPS settings.

How can I set the date and time for the UPS?

You can set the date and time for the UPS through the UPS settings. This is important for accurate time-stamping of events and alarms.

Download The PDF link: APC SRTL3000RMXLI On-Line SRT Smart-UPS Installation Guide

References

• User Manual

Manuals+, Privacy Policy