

User Manual Easy UPS On-Line Lithium-ion SRVSL Series Rack/Tower Convertible 1000VA, 2000VA, 3000VA

Important Safety Instructions

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

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 either to 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

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.

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 damages.

- 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 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.

Electrical Safety

- When grounding cannot be verified, disconnect the equipment from the utility power outlet before installing or connecting to other equipment. Reconnect the power cord only after all connections are made.
- 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.
- The length of the output cable should not exceed 10m.
- 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.

Battery Safety

WARNING

RISK OF CHEMICAL HAZARD AND EXCESSIVE HEAT

- Replace the battery module at least every 10 years or at the end of its service life, whichever is earlier.
- Replace the battery module immediately when the UPS indicates battery replacement is necessary.
- Replace battery module 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 battery modules should be performed or supervised by personnel knowledgeable about batteries and required precautions
- The battery typically lasts for eight to ten years. Environmental factors impact battery life. Elevated ambient temperatures, poor quality utility power, and frequent short duration discharges will shorten battery life.
- For longest battery performance, the ambient temperature should be maintained between 68 and 77 °F (20 and 25 °C).
- Schneider Electric uses Maintenance-free Lithium-Ion batteries. Under normal use and handling, there is no contact with the internal components of the battery.
- Do not drive nails into the battery pack.
- Do not strike the battery pack with a hammer.
- Do not stand on the battery pack.
- Do not short circuit battery pack.
- Do not place or use the battery pack near heat or fire.
- Do not use a dropped, damaged or deformed battery pack.
- Do not use the battery pack to power other equipment.
- 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 tamper with the battery enclosure. Doing so will expose the cell terminals which poses an energy hazard.
- CAUTION: Do not open or mutilate batteries. Released material is harmful to the skin and eyes and may be toxic.
- CAUTION: Failed batteries can reach temperatures that exceed the burn thresholds for touchable surfaces.

- **CAUTION:** A battery can present a risk of electrical shock and high short-circuit current. Contact with any part of a grounded battery can result in electrical shock. The following precautions should be observed when working on batteries:
 - Disconnect the charging source prior to 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 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:** Turn off UPS before replacing battery.

FCC Radio Frequency Warning

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 designed 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.

Product Description

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

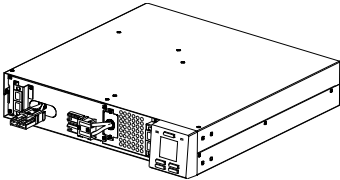
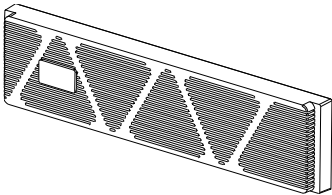
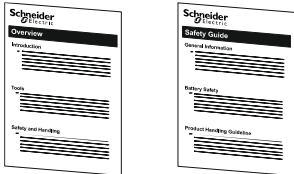

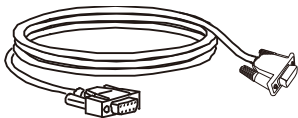
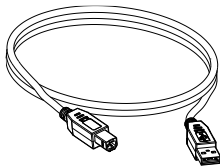
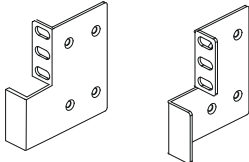

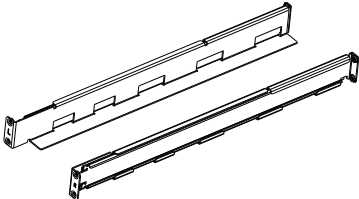



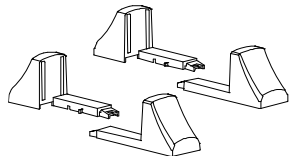

This user manual is available in the package and on the Schneider Electric website, www.se.com.

Package Contents

Read the Safety Guide before installing the UPS.

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

Note: The model and serial numbers in a small label located on product label.

<div>Easy UPS</div> <div></div>	<div>Front bezel</div> <div></div>	
<div>User manual & Safety guide</div> <div></div>	<div>PowerChute management software</div> <div></div>	
<div>RS232 cable</div> <div></div>	<div>USB cable</div> <div></div>	
<div>Rack-mount brackets</div> <div></div> <div>Flat head screws x 8</div> <div></div>	<div>Rackmount slider</div> <div></div> <div>Round head screws x 8</div> <div></div> <div>Flat head screws x 4</div> <div></div> <div>Clip nuts x 6</div> <div></div>	<div>Stabilizer brackets</div> <div></div> <div>Pan head screws x 4</div> <div></div>

Optional Accessories

For optional accessories, refer to the Schneider Electric Website at www.se.com.

Specifications

Environment Specifications

NOTICE

RISK OF EQUIPMENT DAMAGE

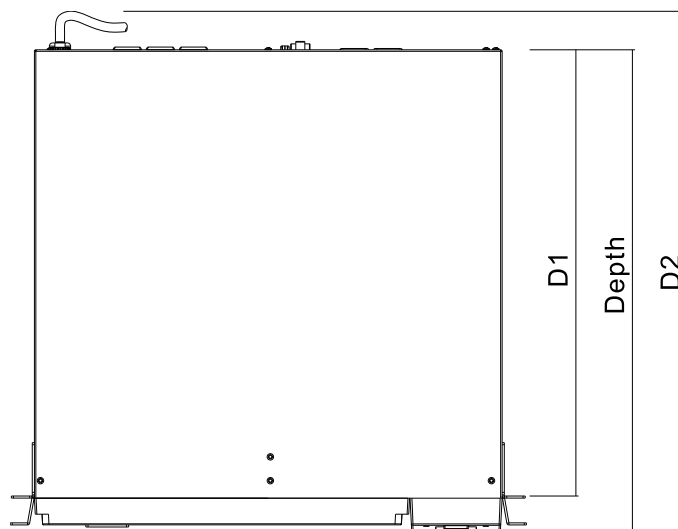
- UPS must be used indoors only.
- The installation location should be sturdy to withstand the weight of the UPS.
- Do not operate UPS where there is excessive dust or where the temperature or humidity are outside specified limits.

Failure to follow these instructions can result in equipment damage.

		SRVSL1KRARK	SRVSL2KRARK	SRVSL3KRARK
Temperature	Operating	0 to 40 °C at rated load. 40 to 50 °C derated to 80% of maximum load capacity.		
	Storage	-20 to 50 °C During storage, charge the battery every 3 months.		
Elevation	Operating	0 - 2,000 m: normal operation 2,000 m – 3,000 m: The load capacity reduces @1% for every 100 m increase in elevation. > 3,000 m: UPS will not work		
	Storage	0 - 15,000 m		
Humidity		0 to 95% relative humidity, non-condensing		
International Protection Code		IP20		

Physical Specifications

	SRVSL1KRARK	SRVSL2KRARK	SRVSL3KRARK
Dimensions with Package Height x Width x Depth	240 x 550 x 580 mm (9.45 x 21.65 x 22.83 in)	240 x 580 x 650 mm (9.45 x 22.83 x 25.59 in)	240 x 600 x 800 mm (9.45 x 23.62 x 31.49in)
Dimensions without Package Height x Width x Depth	86 x 438 x 452 mm (3.39 x 17.24 x 17.79 in) *D1=418mm, D2=492mm	86 x 438 x 502 mm (3.39 x 17.24 x 19.76 in) *D1=468mm, D2=542mm	86 x 438 x 632 mm (3.39 x 17.24 x 24.88 in) *D1=598mm, D2=712mm
Weight with Package and Rail Kit	18.3 kg (40.3 lb)	22.7 kg (50.0 lb)	29.1 kg (64.2 lb)
Net Weight	13.0 kg (28.7 lb)	16.6 kg (36.6 lb)	22.1 kg (48.7 lb)



Input Specifications

	SRVSL1KRARK	SRVSL2KRARK	SRVSL3KRARK
Nominal Input Voltage	120 Vac		
Input Frequency	40 – 70 Hz		
Input Voltage Range (100% load)	80 Vac – 150 Vac		
Input Voltage Range (60% Load)	55 Vac – 150Vac		
Input Power Factor (100% Resistive Load)	≥ 0.95		
Input Connection	NEMA 5-15P	NEMA 5-20P	NEMA L5-30P
Input Protection	Input circuit breaker		N/A*

* 3kVA UPS is with Output circuit breaker.

⚠ CAUTION

RISK OF FIRE, RISK OF SHOCK

To reduce the risk of fire, connect only to a circuit provided with 30A maximum branch circuit overcurrent protection in accordance with the National Electrical Code, ANSI/NFPA 70 and the Canadian Electrical Code, Part I, C22.1.

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

Output Specifications

	SRVSL1KRARK	SRVSL2KRARK	SRVSL3KRARK
Capacity	1000 VA / 900W @ 120 Vac 1000 VA / 900W @ 115 Vac 1000 VA / 900W @ 110 Vac	2000 VA / 1800W @ 120 Vac 1840 VA / 1740W @ 115 Vac 1760 VA / 1640W @ 110 Vac	3000 VA / 2700W @ 120 Vac 2760 VA / 2650W @ 115 Vac 2640 VA / 2500W @ 110 Vac
Topology	Double conversion online		
Power Factor	0.9		
Nominal Output Voltage	120 Vac		
Other Programmable Voltage	110 Vac, 115 Vac		
Efficiency at Rated Load in Online Mode*	90.69%	90%	90%
Efficiency at Rated Load in ECO Mode*	95%	96%	96%
Output Voltage Regulation	± 1% static		
Overload – Online Mode	100%~105%: alarm only, 105%~125%: transfer to bypass after 2 min, 125%~140%: transfer to bypass after 30 secs, >140% : shut down immediately		
Overload – Battery Mode	100%~105%: alarm only, 105%~120%: alert and shut down after 1min, >120%: shut down immediately		
Charger Voltage	42.0 V	52.5 V	52.5 V
Charge Current	5 A	**10 A	**10 A
Typical Recharge Time, Recover to 90%	1.5 hrs		
Output Voltage Distortion – Online Mode & Battery Mode	<ul style="list-style-type: none"> 3% max. for full linear load, 6% max. for full RCD load (100% VA, 0.9 PF) 		
Frequency – Online Mode	50 ± 3 Hz or 60 ± 3 Hz		
Frequency – Battery Mode	50 ± 0.1 Hz or 60 ± 0.1Hz		
Crest Factor	3:1		
Transfer Time (Online Mode ↔ Battery Mode)	0 ms		
Waveform	Sine wave		
Output Connection	(6) NEMA 5-15R	(6) NEMA 5-20R	(6) NEMA 5-20R (1) NEMA L5-30R
Surge Energy Rating	220 J		
Noise Level***	< 50dBA @ 1 Meter		
Bypass	Internal bypass		
Runtime 100% Load****	10 min		
Runtime 50% Load****	20 min		

	SRVSL1KRARK	SRVSL2KRARK	SRVSL3KRARK
Communication Port	USB port, RS232 serial port, Intelligent card slot		
Management	Windows family and Linux		

*Efficiency is the maximum.

** 2K VA: If load is within 70% and 80%, charging current will be derated to 8A. If load is within 80% and 90%, charging current will be derated to 4A. If load is within 90% and 95%, charging current will be derated to 2A. If load is higher than 95%, charging current will be derated to 1.5A.

3K VA: If load is within 80% and 90%, charging current will be derated to 5A. If load is within 90% and 95%, charging current will be derated to 2A. If load is higher than 95%, charging current will be derated to 1.5A.

***100% load with battery fully charged at 25 °C.

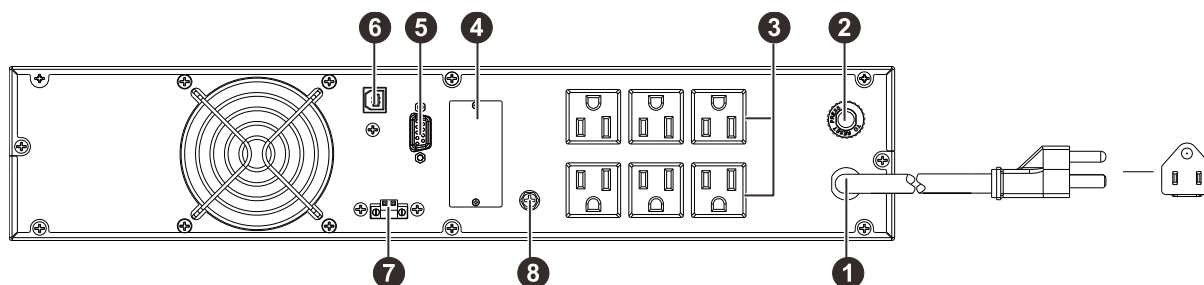
**** Run time only as reference data at temperature of 25 °C.

Battery Support

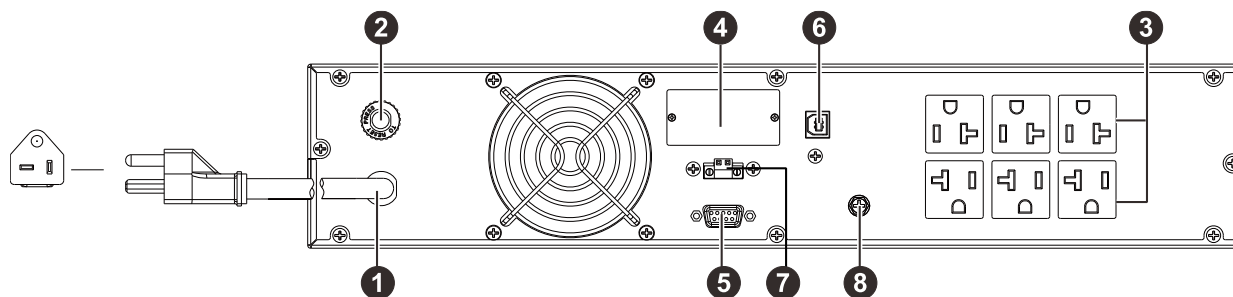
UPS Model	SRVSL1KRARK	SRVSL2KRARK	SRVSL3KRARK
Battery Pack Model	RBCV181-LI	RBCV182-LI	RBCV183-LI
Configuration	Internal battery		
Type	Lithium Ion		
Typical Capacity	230.4 Wh	432 Wh	576 Wh
Nominal Voltage	38.4 V	48 V	48 V
Recommended Charge Voltage	42.0 V	52.5 V	52.5 V
Battery Pack Dimensions Height x Width x Depth	76 x 200 x 250 mm (2.99 x 7.87 x 9.84 in)	76 x 200 x 380 mm (2.99 x 7.87 x 14.96 in)	76 x 200 x 455 mm (2.99 x 7.87 x 17.91 in)
Battery Pack Net Weight	4.4 kg (9.7 lb)	7.1 kg (15.7 lb)	9.3 kg (20.5 lb)

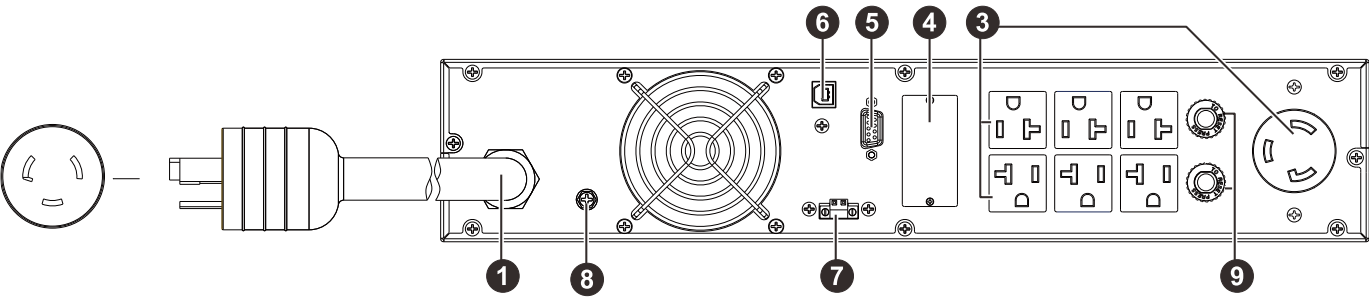
Rear Panel Features

SRVSL1KRARK



SRVSL2KRARK



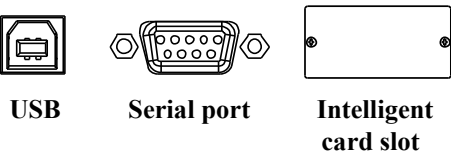


❶	AC input cable	❸	Outlets
❷	Input circuit breaker	❹	Intelligent card slot
❺	RS232 serial port	❻	USB port
		❼	EPO port (Emergency power off connector)
		❽	Ground screw (tightening torque: 12 kgf.cm)
		❾	Output circuit breaker

NOTE 1: Actual UPS may differ in appearance from illustration.

NOTE 2: 1000 VA and 2000 VA UPS with Input circuit breaker. 3000 VA UPS with Output circuit breaker.

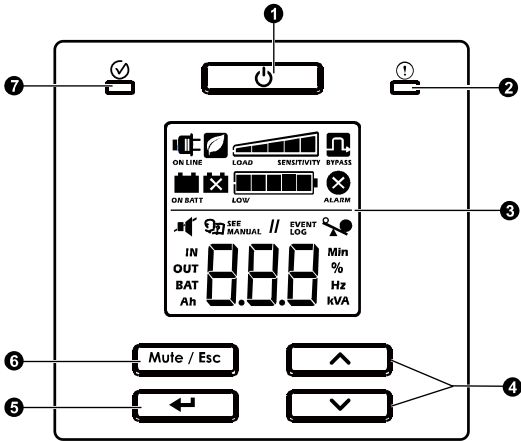
Basic Connectors










Power management software and interface kits can be used with the UPS.
Use only interface kits supplied or approved by Schneider Electric.

Front Panel Display Features












These Easy UPS models are equipped with an intuitive and configurable LCD display. This display complements the software interface as both convey similar information and either may be used to configure the Easy UPS settings.



❶	POWER ON/OFF button	<ul style="list-style-type: none">Press this button to turn on the UPS.Press and hold this button until a beep is heard to turn off the UPS.Press this button to reset alarms.
❷	Alarm LED	This Alarm LED illuminates red when the UPS detects an internal error and blinks red for UPS notifications. See “Alarms and System Events” on page 17 in this manual.

③	LCD Display	The display interface options are visible on this LCD screen. Press the  or  button to activate LCD, if the display is not illuminated.
④	UP / DOWN button  	Press these two buttons to scroll through the main menu options and display screens.
⑤	ENTER button 	Press this button to enter the menu or to select a menu item/ value during navigation.
⑥	MUTE/ESC button 	<ul style="list-style-type: none"> To acknowledge audible alarms and suppress them temporarily. If alarm is not mute, check “Audible Alarm” on page 18 for the details in this manual. To exit a sub menu and return to the main menu.
⑦	Status LED 	<p>The Status LED illuminates green when the power is on. This LED indicates two different states of output power:</p> <ul style="list-style-type: none"> Output off: LED blinks. Press POWER ON/OFF button to turn the output power on. Output on: LED illuminates green continuously.

LCD display icons

 ON LINE	On Line: The UPS is drawing utility power and performing double conversion to supply power to the connected equipment.
 ON BATT	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	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 “Alarms and System Events” on page 17 in this manual.
	Green Mode: This icon in combination with Bypass icon, indicates that the UPS 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.
 ALARM	System Alarms: An internal error is detected. See “Alarms and System Events” on page 17 in this manual.
	Overload: The equipment connected to the UPS is drawing more power than rated.
 LOW	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 SENSITIVITY	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 alarm is disabled.
 SEE MANUAL	Alarm or notification: The UPS has detected an internal error or the UPS is in configuration mode. See “Alarms and System Events” on page 17 in this manual.
EVENT LOG	Event: The icon is illuminated when the user is viewing the event log.

Tower Installation

⚠ CAUTION

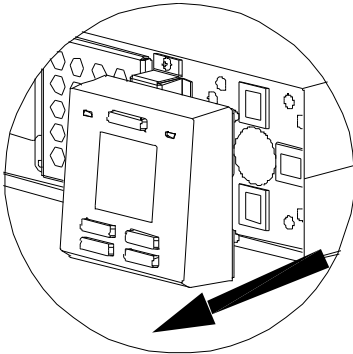
RISK OF FALLING EQUIPMENT

- The Easy UPS is heavy.
- Always practice safe lifting techniques adequate for the weight of the equipment.
- Do not lift the Easy UPS by holding the front panel display.
- Be sure that the stabilizer brackets are installed along with the Easy UPS in tower orientation.

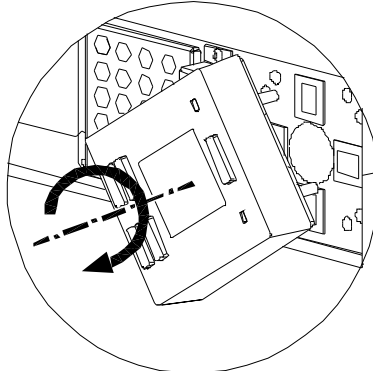
Failure to follow these instructions could result in equipment damage and minor or moderate injury.

Front panel display rotation

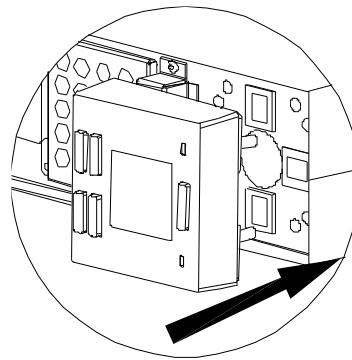
- 1** Pull out the LCD display on the UPS.



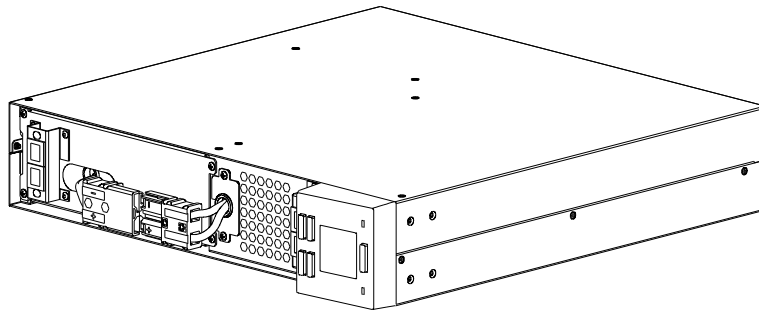
- 2** Rotate 90 degrees to the right.



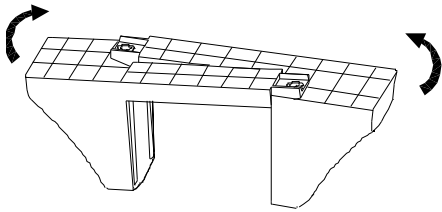
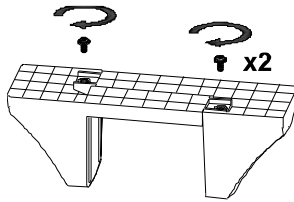
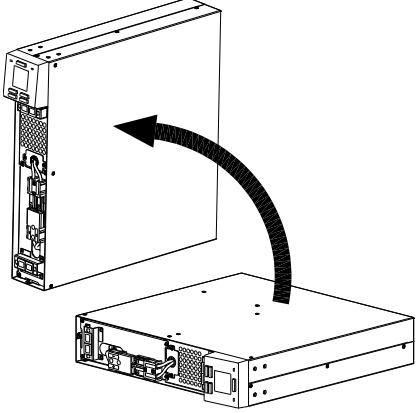
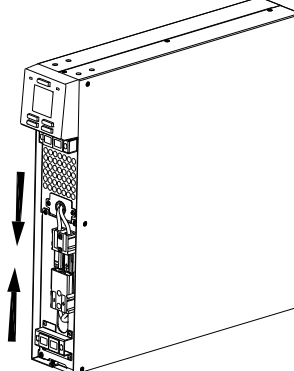
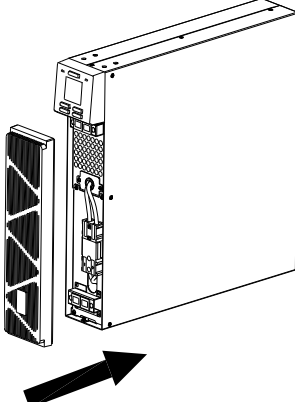
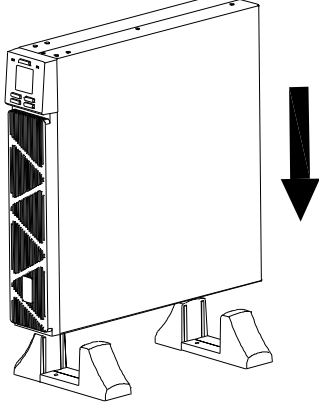
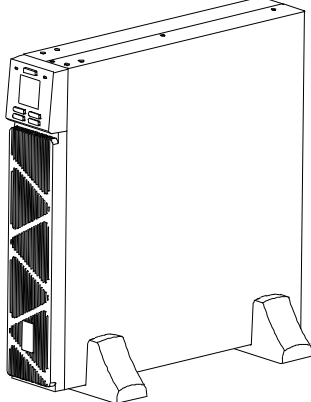
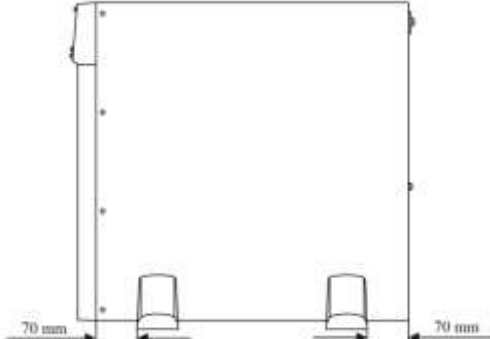
- 3** Plug back in the LCD display on the UPS.



4



Installing stabilizer brackets

<p>①</p>		<p>②</p> <p>NOTE: Use Pan head screws for assembling.</p> 
<p>③</p>		<p>④</p> <p>Connect the battery connector.</p> 
<p>⑤</p> <p>Install the front bezel.</p>		<p>⑥</p> 
<p>⑦</p>		<p>NOTE: Maintain approximately 70 mm distance from the edge of the unit, when installing the stabilizer brackets to the Easy UPS.</p> 

Rack-Mount Installation

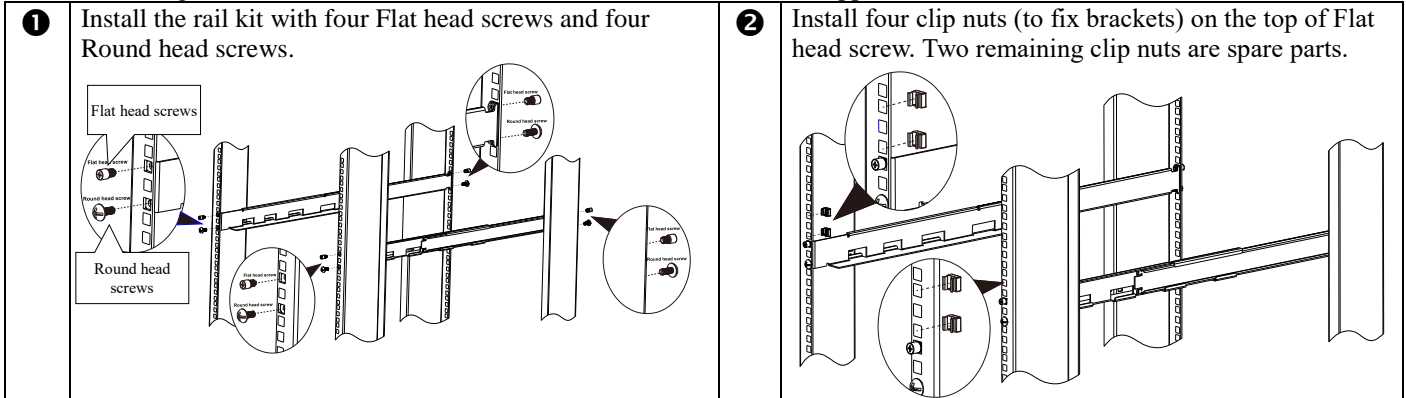
⚠ CAUTION

RISK OF FALLING EQUIPMENT

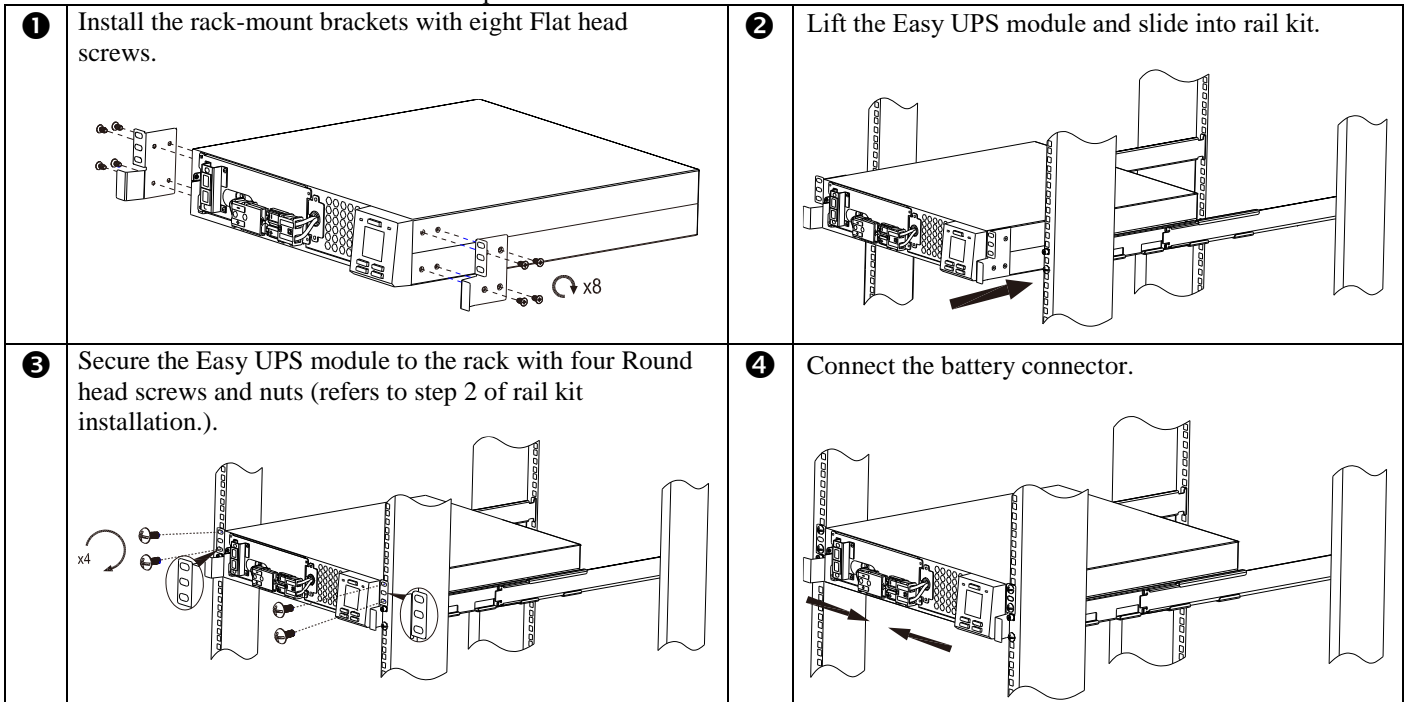
- The equipment is heavy.
- Always practice safe lifting techniques adequate for the weight of the equipment.
- Always use the recommended number of screws to secure brackets to the UPS.
- Always use the recommended number of screws to secure the UPS to the rack.
- Always install the UPS at the bottom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

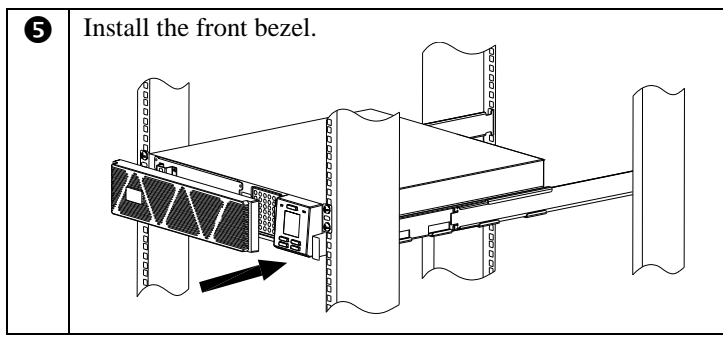
Failure to follow these instructions could result in equipment damage and minor or moderate injury.

Before installing the UPS into the 19 inch rack enclosure, be sure to install supplied rail kit.



Follow the instructions below to secure and position UPS into the 19 inch rack enclosure.





Start up

⚠ CAUTION

RISK 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.

Connect power and equipment to the UPS

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

Note: If no charging/discharging battery over 20 days, it is required to have the utility input to activate the unit.

Start the UPS

Press ON/OFF button for one second. Release the button when a beep is heard. Then, the UPS will start up.

- The battery charges to 90% capacity during the first two hours of operation.
- **Do not** expect full battery runtime during this initial charge period.

Cold start the UPS

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


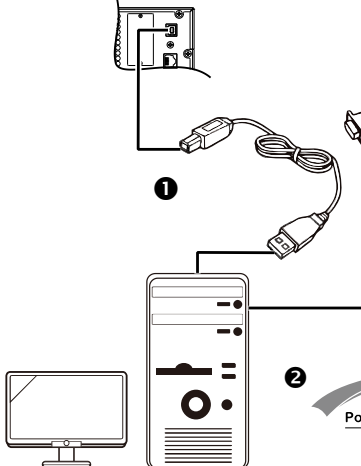

Press ON/OFF button. Then, the display panel will illuminate. Press ON/OFF button again to supply battery power to the connected equipment.

Turn off the UPS

Press ON/OFF button for one second. Release the button when a beep is heard. Then, the UPS will power off and LCD display will be turned off in 2 minutes. Make sure that the LCD display is completely off before restarting the UPS.



Connect and install management software

Easy UPS On-Line is provided with PowerChute management software for unattended operating system shutdown, UPS monitoring, UPS control and energy reporting. The following diagram is a representation of a typical server installation.

1. Connect the USB cable from the rear of the UPS  to the protected device such as a server.
Note: A USB driver is required to communicate with PowerChute over USB. For more information, refer to Knowledge Base article FAQ000223363 on the Schneider Electric website (<https://www.se.com/ww/en/faqs/home/>).

2. For a server or other device with an operating system, download and install latest version of the PowerChute Business Edition from <https://www.se.com/ww/en/product-range/61932-powerchute-business-edition/>. PowerChute provides for graceful shutdown in the event of an extended power outage and is a powerful management interface on the local network.
Note: PowerChute is a 64-bit only application and cannot be installed on a 32-bit operating system
3. A built-in serial port  is also available for additional communication options with serial cable.
Note: RS232 and USB cannot be used at the same time.
4. Even more communication options are available via the built-in intelligent card slot. Refer to www.se.com for more information.

Operation











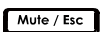


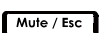
UPS Display Parameters

Navigate using the  or  button of display, so you can see data show on LCD display given in the table.

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

Configure UPS parameters

Follow the steps to configure parameters in the UPS:




1. Press the  button. Press the  or  button to navigate to “Set”.
2. Press the  button. Navigate through the parameters using the  or  button.
3. Press the  button to edit a parameter. Icons start flashing to indicate the editing.
Press the  or  button to navigate between the options available for the selected parameter.
4. Press the  button to select the option or  button to abort the editing of current parameter. Flashing of icons stops after this. Press the  or  button to navigate between parameters.
5. Press the  button to exit menu navigation.

























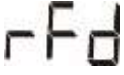
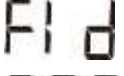
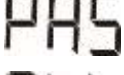


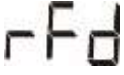
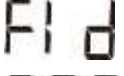
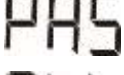

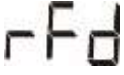
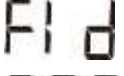
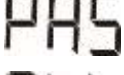

UPS settings

Configure UPS settings using the display interface. See “Configure UPS parameters” section to edit the parameters.

Function	Factory Default	User Selectable Options	Description
Output voltage	120 Vac	110, 115, 120 Vac	Allows the user to select output voltage while the UPS is operating online.
Audible alarm	Enable	Enable, disable	When audible alarm occur, select disable to mute the UPS. Then, enable setting again after detected fault/problem is solved to restart audible alarm notification.
Low battery state indication setting	2 min	2 min, 5 min, 7min, 10min	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.
Bypass voltage low setting	96 V	110 V Output: 94 V, 88 V, 83 V, 77 V 115 V Output: 98 V, 92 V, 87 V, 81 V 120V Output: 102 V, 96 V, 90 V, 84 V	The lower voltage value at which the UPS changes over from Bypass mode to On-line mode.
Bypass voltage high setting	138 V	110 V Output: 116 V, 121 V, 127 V, 132 V 115 V Output: 121 V, 127 V, 133 V, 138 V 120V Output: 126 V, 132 V, 138 V, 144 V	The upper voltage limit at which the UPS changes over from Bypass mode to On-line mode.
Green mode/ high efficiency mode	Disabled	Enable/Disable	<p>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 $\pm 5\%$ of configured output voltage and ± 3 Hz of configured output frequency. Inverter is turned off during this mode.</p> <p>If utility power input goes out of range, inverter is turned on. The load is transferred to online mode or battery mode. The power to the connected equipment may be interrupted up to 10 milliseconds.</p>
Charge current setting	1000 VA: 5 A 2000/3000 VA: 10A	1000 VA: 2 A, 3 A, 4 A, 5 A 2000/3000 VA: 2 A, 3 A, 4 A, 5 A, 6 A, 8 A, 10 A	Set the charging current.
Minimum battery capacity to restart setting	0%	0%, 15%, 50%, 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.
EOL alert setting	Unblock	CLO (Block)/NUL (Unblock)	The UPS will block EOL alerting for one week when it is set to “Block”. If the battery is still not replaced in one week, the alert will sound again.

Advance display navigation



There are five options in main menu and two sub-menu options in UPS display. Press the  button from the Home Screen to access these menu options. Use the  or  button to navigate between the menu options.

Menu Option	Description								
	<p>Show Event Log</p> <p>Use this menu option to see the UPS event log. The UPS records the last 10 events and displays the codes in this log.</p> <p>Press the  button to see the log. Use the  or  button to see the logged events. The  button navigates towards old events and the  button navigates to new events.</p> <p>Every log entry has a numeric and textual event code. At the end of the log, the word “End” will be displayed. Press the  button to return to the Home Screen.</p>								
	<p>Configure the UPS</p> <p>Use this menu option to configure the UPS parameters.</p> <p>Press the  button to see the configuration options. See “Configure UPS parameters” on page 15 for details. Press the  button to return to the Home Screen.</p>								
	<p>Show UPS information</p> <p>Use this menu option to see the UPS information.</p> <p>Press the  button to see the rating of the UPS. Press the  button to see the UPS firmware version. Press the  button to return to the Home Screen.</p>								
	<p>User Command to bypass</p> <p>Use this menu option to switch the UPS to bypass mode or bring the UPS to online mode from bypass mode.</p> <p>Press  button:</p> <table> <tr> <td></td><td>Put: Use to switch the UPS to bypass mode of operation.</td></tr> <tr> <td></td><td>Note: Power to the connected equipment will drop, if the mains voltage is not within the threshold limits.</td></tr> <tr> <td></td><td>Out: Bring the UPS out of bypass and restore clean power to the connected equipment.</td></tr> </table>		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.		Out: Bring the UPS out of bypass and restore clean power to the connected equipment.		
	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.								
	Out: Bring the UPS out of bypass and restore clean power to the connected equipment.								
	<p>Execute Battery Self-Test</p> <p>Use this menu option to conduct a self-test and determine the battery status.</p> <p>Press the  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.</p> <p>Display messages are shown at the end of the test.</p> <table> <tr> <td></td><td>Test refused. The output is off or battery is not charged.</td></tr> <tr> <td></td><td>Test not passed</td></tr> <tr> <td></td><td>Test passed</td></tr> <tr> <td></td><td>Test is aborted due to internal reasons</td></tr> </table> <p>Press the  button to return to the Home Screen</p>		Test refused. The output is off or battery is not charged.		Test not passed		Test passed		Test is aborted due to internal reasons
	Test refused. The output is off or battery is not charged.								
	Test not passed								
	Test passed								
	Test is aborted due to internal reasons								

Alarms and System Events

Audible Alarm

Continuous beeps, every half second	Low Battery State - The battery is nearing its complete discharge state. The UPS is about to shut down. Overload condition - The equipment connected to the UPS is drawing more power than rated.
4 beeps every 30 sec	On Battery State - The UPS is supplying battery backup power to the connected equipment.
Short beep every 2 min	On Bypass State – The mains power is sent directly to the connected equipment.
Beeper continuously on	Event Alarm - UPS has detected an event. See “Alarms and System Events” 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).
2 short beeps every 5 sec	Event Bypass State - UPS has detected an internal event. Connected equipment receives utility input power through the bypass relay.

Display code	Description	Solution
SC	UPS has experienced a short circuit at the output. Unit will try to auto-recover from this condition.	Check if there is any short circuit at the UPS output. Remove the short circuit and wait for the unit auto-recover or Press  button to start the UPS.
OL	UPS is experiencing an overload condition.	Disconnect nonessential equipment from the UPS to eliminate the overload condition.
dCH	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 Schneider Electric customer support.
Hot	Temperature of the unit is rising above the set limits.	Disconnect nonessential equipment from the UPS to reduce the UPS load. Be sure that ambient temperature is within limits. Be sure that adequate clearance around the UPS is maintained.
CH9	UPS has detected a charger error.	Be sure that there is no short circuit at the battery terminals. Press  button to start the UPS.
bdc	Battery is not connected.	See “Connect the battery ” on page 13 for details. Then, proactively "execute battery self-test" on page 16 for details.
EOL	The battery is nearing its complete life.	If any of conditions stated below occurs, UPS will display “EOL”. Replace the battery pack. <ul style="list-style-type: none"> ● The number of battery charge and discharge cycle reaches 2000 times. ● The battery has installed over 10 years. After replacing with new battery, it is required to reset the battery installation date through PowerChute management software. Charge the battery to its 100% capacity and discharge it with a connected load (>40% is expected) till low battery shutdown comes to calibrate battery health status.

Display code	Description	Solution
EPO	EPO alerting occurred.	Be sure that the EPO terminal is connected securely.
dCF	A low DC voltage error is detected. The UPS will try to auto-recover from this condition.	If the UPS does not recover automatically, contact Schneider Electric customer support.
Inf	Inverter soft start error is detected.	If the UPS does not recover automatically, contact Schneider Electric customer support.
OvF	Inverter voltage is too high or too low.	If the UPS does not recover automatically, contact Schneider Electric customer support.

Contact Schneider Electric for all other alarm codes.

Emergency Power Off

NOTICE

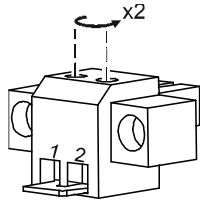
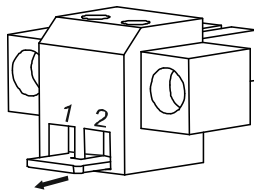
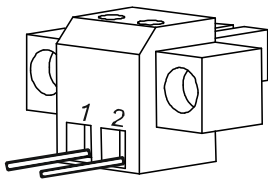
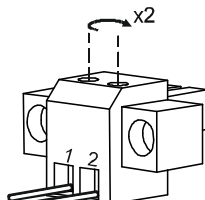
RISK OF EQUIPMENT DAMAGE

- Adhere to all national and local electric codes.
- All electrical work must be performed by a qualified electrician.
- Do not connect the EPO interface to any circuit other than an unused circuit.

Failure to follow these instructions can result in equipment damage.

The Emergency Power Off (EPO) function is a feature that will immediately remove power to all connected equipment. The EPO switch is internally powered by the UPS for use with non-powered switches or potential free contacts.

Normally closed (N/C) contacts

1 Loosen the screws of terminals 1 and 2 in the EPO connector.	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 mm ² wire.	4 Secure the terminal screws in the EPO connector (Torque: 3 kgf.cm)
	

NOTE: If the N/C is open, the UPS will turn off and the connected load will not receive power from the UPS.

Use Class 2 cable (CL2) to connect the Easy UPS to the EPO switch.

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 an unused circuit.

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

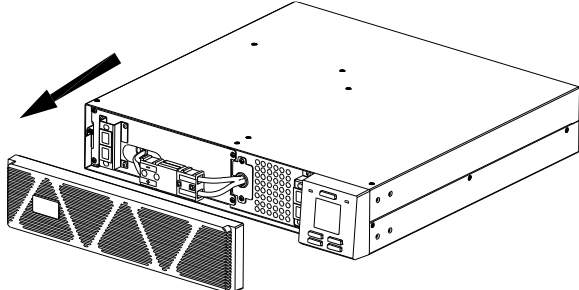
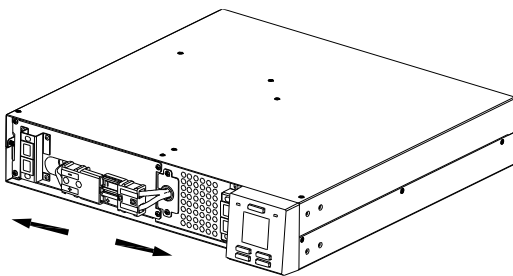
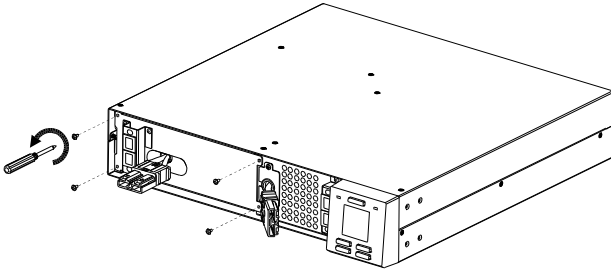
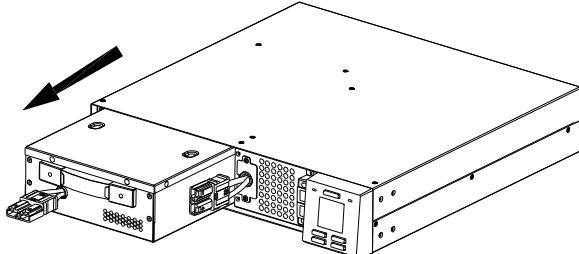
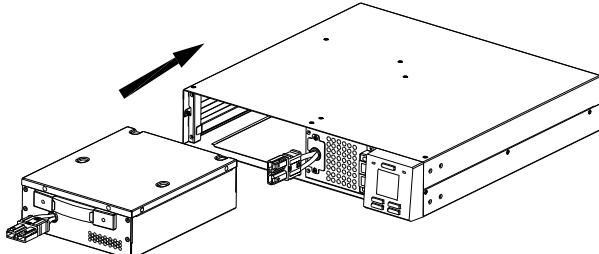
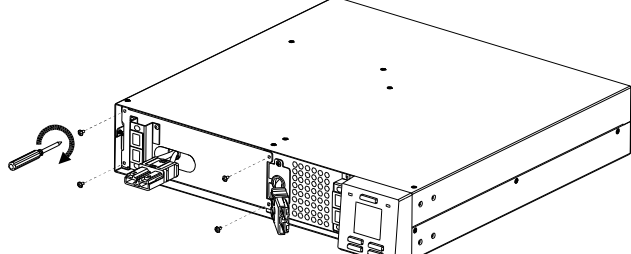
- CL2: Class 2 cable for general use.
- CL2P: Plenum cable for use in ducts, plenums, and other spaces used for environmental air.
- CL2R: Riser cable for use in a vertical run in a floor-to-floor shaft.
- CLEX: Limited use cable for use in dwellings and for use in raceways.

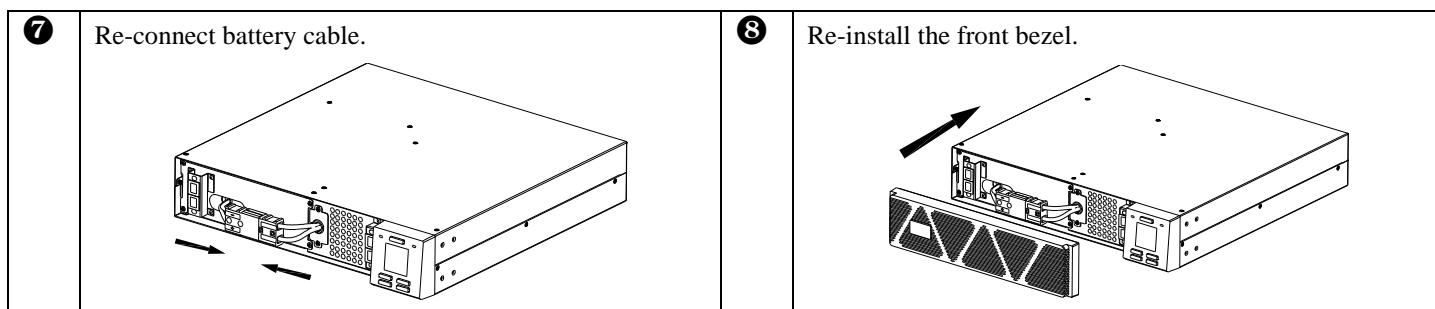
Replace Battery Module

Before replacing internal battery, be sure the UPS is turned off.

After replacing with new battery, it is required to reset the battery installation date through PowerChute management software.


Charge the battery to its 100% capacity and discharge it with a connected load (>40% is expected) till low battery shutdown comes to calibrate battery health status.

1	<p>Remove front bezel.</p> 	2	<p>Disconnect the battery connector.</p> 
3	<p>Loosen four screws and remove battery compartment door.</p> 	4	<p>Remove battery module. NOTE 1: DO NOT use this handle for lifting or carrying the battery pack. NOTE 2: Be aware of the danger of falling when pulling out the battery pack.</p> 
5	<p>Replace with new battery module.</p> 	6	<p>Re-install battery compartment door by fixing four screws.</p> 



Troubleshooting

Use the table below to solve minor installation and operation problems. Refer to the Schneider Electric website, www.se.com for assistance with complex UPS problems.

Problem and/or Possible Cause	Solution
UPS is not turning on.	
POWER ON/OFF button not pressed properly.	Press the POWER ON/OFF button for one second. Release the button when the UPS emits a single beep. Then, the UPS will start up.
The UPS is not connected to utility power supply.	Be sure that the power cord from the UPS to the utility power supply is securely connected at both ends.
Input thermal circuit breaker on the UPS is tripped.	Press the input thermal circuit breaker reset button in the rear panel.
The battery has no output because the battery BMS has been turned off	BMS can be activated by charging the battery. Usually, the battery can be activated by connecting the UPS to the utility power. However, if the battery cell voltage is too low and the battery cannot output, the UPS will display a battery disconnect warning, and it will return to normal after charging for more than one hour.
UPS is not turning off.	
POWER OFF button not pressed properly	Press POWER ON/OFF button for one second. Release the button immediately when the UPS emits a single beep. Then, the UPS will power off and LCD display will be turned off in 2 minutes. Be sure that the LCD display is complete off before restart 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  button. Release when a beep is heard.
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 be sure the unit is receiving input power. If display is on, navigate and check the input voltage and frequency.
No audible sounds from UPS even when the Alert LED is illuminated.	
Audible alarm is disabled.	Change the UPS configuration to enable audible alarms.

Problem and/or Possible Cause	Solution
UPS is not supplying power to the connected equipment when connected to battery.	
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 13.
The battery is not connected.	Refer to “Connect the battery” on page 13 for details. Run Battery self test. Refer to "Execute Battery Self Test" on page 16 for details.
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.
UPS is not providing expected charging time.	
Battery temperature is too high to charging.	The batteries require time to cool down. Once battery temperature is cool down, charging circuit will return to work.
Charging current is set too high.	Re-set charging current as default value.
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 being fully charged 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. Refer “Start up” on page 13 for details.
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 alarm is cleared.	Reduce the connected load to <90% to bring the UPS to online mode.
The UPS has experienced an overload condition and transferred to bypass.	Connected equipment exceeds the “maximum load” as defined in specifications on the Schneider Electric Website, www.se.com . The UPS continues to supply power as long as it is in bypass mode and the circuit breaker does not trip. Disconnect nonessential equipment from the UPS to eliminate the overload condition.
UPS has detected an internal error and transferred to bypass.	Refer “Alarms and System Events” on page 17 for details.
UPS emits an audible beeping sound at long intervals.	
The UPS is operating normally when running on battery.	UPS has detected an internal error. Refer “Alarms and System Events” on page 17 for details.
Alarm LED is illuminated. The UPS displays an alarm message and emits a constant beeping sound.	
The UPS has detected an internal error.	Refer “Alarms and System Events” on page 17 for details.

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 Schneider Electric Customer Support through the Schneider Electric website, **www.se.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.
 - 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 Schneider Electric website, **www.se.com**.
3. Shipping of Lithium Ion Battery is highly regulated and the regulation is evolving. Always contact Customer Support to get the latest guidance on shipment of Lithium ion battery and UPS.
4. Pack the unit properly to avoid damage in transit. Never use foam beads for packaging. Damage sustained in transit is not covered under warranty.
5. Write the RMA# provided by Customer Support on the outside of the package.
6. 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 three (3) 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.schneider-electric.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 Schneider Electric website: www.se.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.

Schneider Electric Worldwide Customer Support

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

- Visit the Schneider Electric website to access documents in the Schneider Electric Knowledge Base and to submit customer support requests.
 - **www.se.com** (Corporate Headquarters)
Connect to localized Schneider Electric websites for specific countries, each of which provides customer support information.
 - **www.se.com/support/**
Global support searching Schneider Electric Knowledge Base and using e-support.
- Contact the Schneider Electric Customer Support Center by telephone or e-mail.
 - Local, country specific centers: go to **www.se.com** ->Support ->Contact Support around the world for contact information.

For information on how to obtain local customer support, contact the Schneider Electric representative or other distributor from whom you purchased your Schneider Electric product.