

Installation Guide APC™ Smart-UPS™ Ultra Step-Down Transformer SRTL5KRMTF

Important Safety Instructions

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



Read the instructions carefully to become familiar with the equipment before attempting to install, operate, service or maintain the transformer.

The following special messages may appear throughout this manual 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		
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Safety 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 Schneider Electric could void the warranty.
- This transformer is intended for indoor use only.
- Do not operate this transformer in direct sunlight, in contact with fluids, or where there is excessive dust or humidity.
- Be sure the air vents on the transformer are not blocked. Allow adequate space for proper ventilation.
- For a transformer with a factory installed power cord, connect the transformer power cable directly to an output receptacle of the UPS. Do not use surge protectors or extension cords.
- The equipment is heavy. Always practice safe lifting techniques adequate for the weight of the equipment.
- Always install the transformer directly above the UPS in the rack-mount configurations. The UPS must be installed below the transformer.
- 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.

Electrical safety

- The protective earth conductor for the transformer 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 input power to the transformer. 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 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.
- Be sure that all the covers and panels are installed before operating the transformer.
- Do not insert any metal object through the ventilation openings.
- Be sure to turn off the input to the transformer and check the voltage at the output terminals is zero before attempting to service or maintain the transformer.

General information

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

FCC Class A radio frequency warning

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

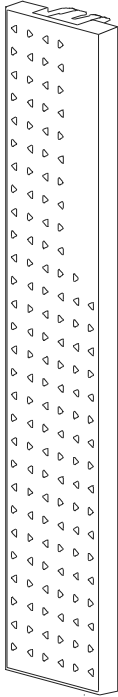
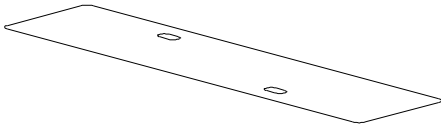
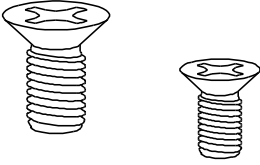
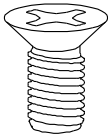
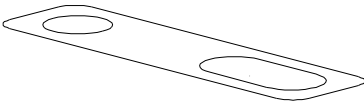
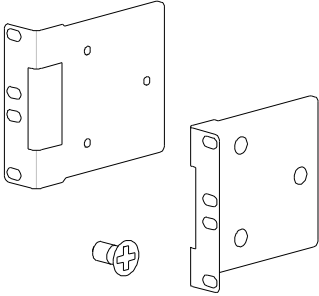
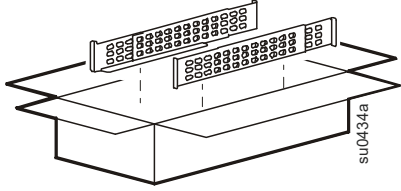
Product Information

The APC™ Smart-UPS™ Ultra transformer is intended for use as an isolation transformer as well as a step down transformer.

The transformer can be installed as a tower or in a standard 19-inch rack. For rack mount configuration use the supplied rail kit.

Package Contents

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

<p>Front bezel</p> 	<ul style="list-style-type: none"> Stabilizer foot 1 pair 	<ul style="list-style-type: none"> Screw for securing transformer tie bracket Screw for securing on UPS mount of tie bracket 
	<ul style="list-style-type: none"> Stabilizer foot to the transformer - 4x 	<ul style="list-style-type: none"> Tie bracket to secure the UPS to the transformer 
	<ul style="list-style-type: none"> 1 pair rack-mount brackets Flat head screws to secure rack-mount brackets - 6x 	<p>Rail kit</p> 

Specifications

For additional specifications refer to our web site, www.apc.com.

Environmental

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

Physical

Unit weight, without packaging	39.6 kg (87.3 lbs)
Unit weight, with packaging	46 kg (101.41 lbs)
Unit dimensions without packaging Height x Width x Depth	87 x 432 x 612 mm (3.4 x 17.01 x 24.09 in)
Unit dimensions with packaging Height x Width x Depth	212 x 592 x 780 mm (8.35 x 23.3 x 30.7 in)
The model and serial numbers are on a small label located on the rear panel.	

Electrical

NOTE:

- Operations above the input voltage range may cause equipment damage.
- Operations below the input voltage range may cause overload or automatic shutdown.
- When connecting directly to the branch circuit, be sure that the line voltage is within specifications.

Nominal Input Voltage	208 VAC
Nominal Output Voltage	120 VAC
Input Voltage Range*	187 - 230 VAC
Input Current Rating	24 A
Line Frequency	60 Hz (±3Hz)
Efficiency	90-95%
Maximum Input Power	5000 VA
Maximum Output Power	4500 VA
*For continuous operation with input voltage below 205 VAC, the connected load must be reduced to limit the maximum input current to the value specified above. Continuous operation above the specified input current may cause the unit to overheat and shut down. Contact customer care for additional information.	

Input Power Distribution	3 ft cord with L6-30P
Output Power Distribution	2 groups each with 4 numbers of 5-20R sockets with a common 15 A thermal circuit breaker and 2 groups each with 2 numbers of 5-20R sockets with a common 15 A thermal circuit breaker. 5-20R sockets accepts both 5-15P and 5-20P plugs.

Rack Installation

Install rails

Refer to the installation guide supplied with the rail kit for installation instructions.

Install transformer

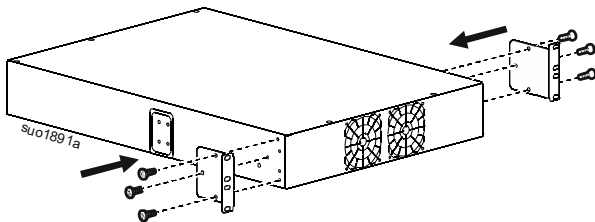
⚠ CAUTION

RISK OF ELECTRIC SHOCK

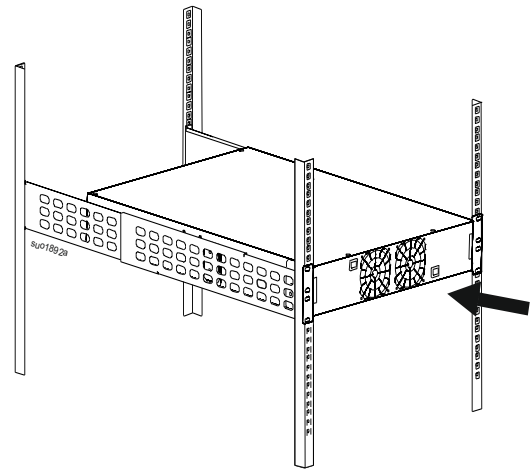
- The equipment is heavy. Always practice safe lifting techniques adequate for the weight of the equipment.
- Always use the recommended number of screws to secure brackets to the UPS and transformer.
- Always install the transformer above the UPS in the rack.

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

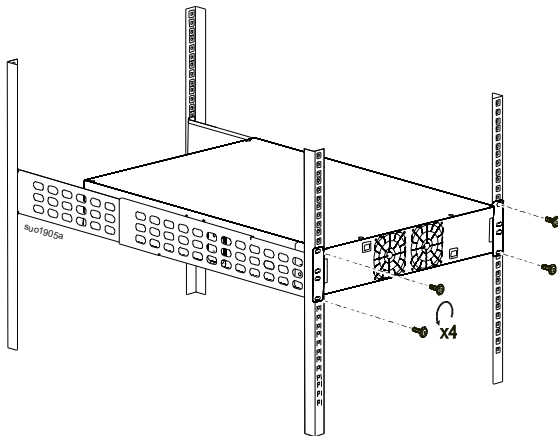
- ❶ Secure the brackets and cleats to the transformer using the screws supplied.



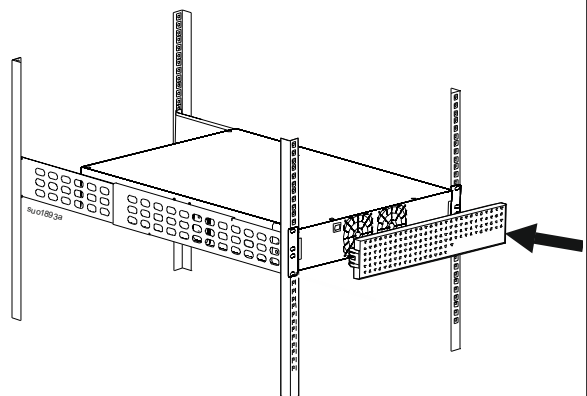
- ❷ Slide the transformer into the rack closure.



- ❸ Secure the transformer to the rack.



- ❹ Install the front bezel



Tower Installation

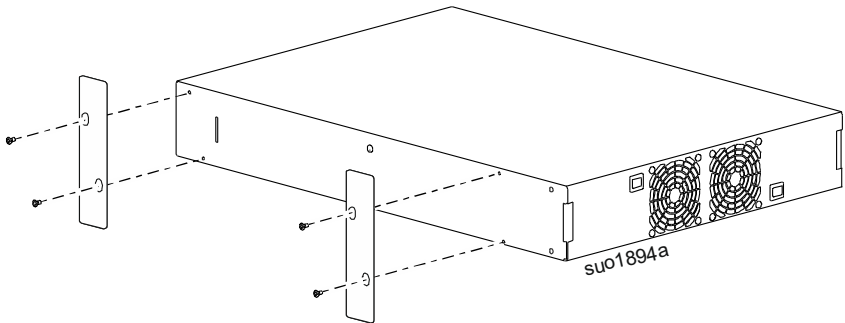
CAUTION

RISK OF FALLING EQUIPMENT

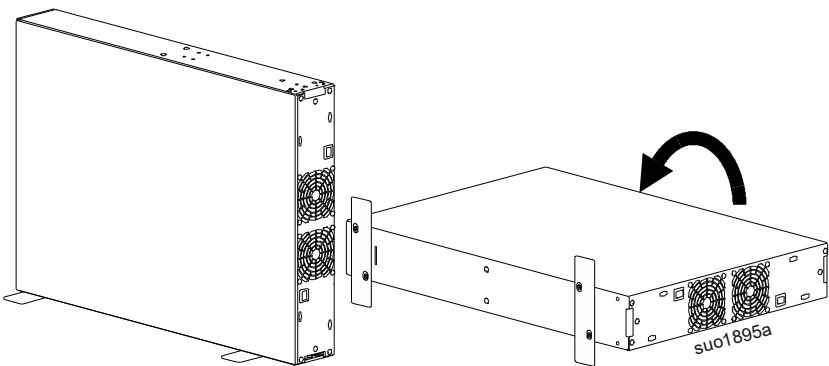
- The equipment is heavy. Always practice safe lifting techniques adequate for the weight of the equipment.

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

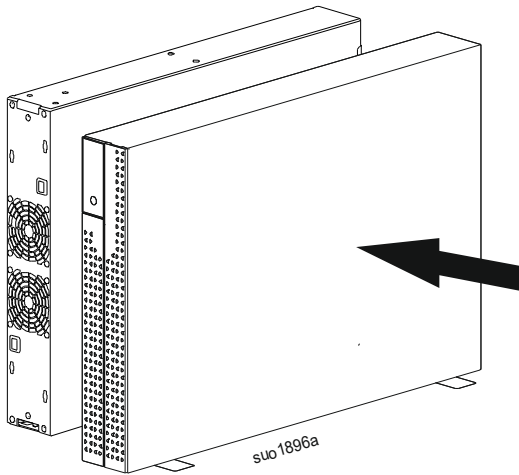
1 Install the stabilizer brackets using the screws supplied



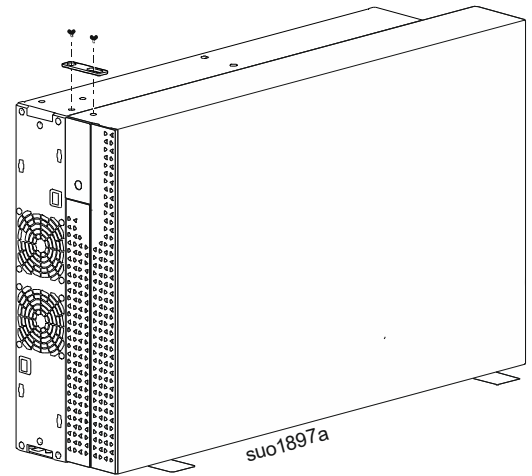
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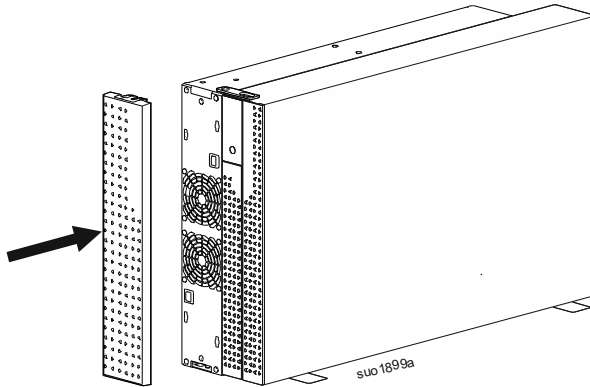
3 Place the transformer beside the UPS.



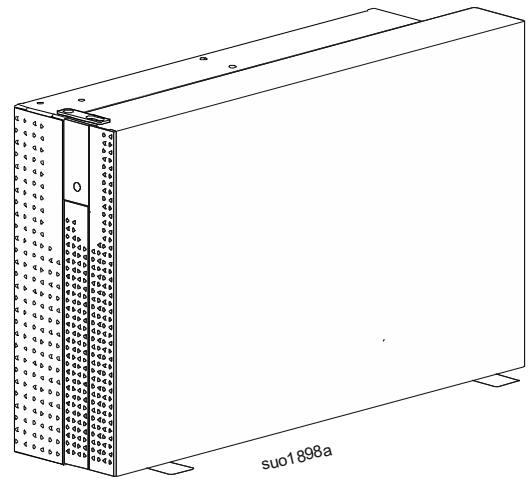
4 Install the tie bracket to secure the UPS and the transformer.



5 Install the front bezel on the transformer.

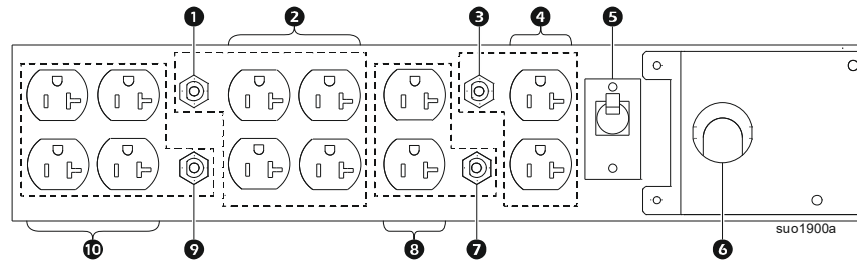


6 Finished assembly



Connecting Equipment and Power to the Transformer

Rear panel



1	Thermal circuit breaker for Group 2 output sockets	6	Input power cord
2	Group 2 output sockets (5-20R)	7	Thermal circuit breaker for Group 3 output sockets
3	Thermal circuit breaker for Group 4 output sockets	8	Group 3 output sockets (5-20R)
4	Group 4 output sockets (5-20R)	9	Thermal circuit breaker for Group 1 output sockets
5	Input circuit breaker	10	Group 1 output sockets (5-20R)

Connection of Equipment and Startup instructions

CAUTION

RISK OF DAMAGE TO EQUIPMENT OR PERSONNEL

- Disconnect the mains input circuit breaker before installing or servicing the UPS or transformer or connected equipment.
- The UPS contains internal and external batteries that may present a shock hazard even when disconnected from the mains.
- UPS and transformer pluggable outlets may be energized by remote or automatic control at any time.
- Disconnect equipment from the UPS and transformer before servicing any equipment.
- Do not use the UPS as a safety disconnect.
- Only one of the cooling fans operate when the transformer temperature is less than 100 °F. The other fan operates when the transformer temperature exceeds 100 °F.

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

1. Be sure that the UPS output is turned off.
2. Connect the input power cord of the transformer to a L6-30R socket on the UPS output.
3. Connect the load equipment to the transformer output sockets.
Note: Each output group is protected by a thermal circuit breaker. A colored label identifies each circuit and the corresponding breaker.
4. Turn on the connected equipments.
5. Turn on the transformer input circuit breaker.
6. Turn on the UPS output.

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 Customer Support through our 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.
 - b. Call Customer Support and a technician will attempt to solve the problem over the phone. If this is not possible, the technician will issue a Returned Material Authorization Number (RMA#).
 - c. If the unit is under warranty, the repairs are free.
 - d. Service procedures and returns may vary internationally. Refer to our web site for country specific instructions.
3. Pack the unit properly to avoid damage in transit.
4. Never use foam beads for packaging.
5. Damage sustained in transit is not covered under warranty.
6. Write the RMA# provided by Customer Support on the outside of the package.
7. 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 five (5) 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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NOTHING IN THIS LIMITED WARRANTY SHALL SEEK TO EXCLUDE OR LIMIT SEIT LIABILITY FOR DEATH OR PERSONAL INJURY RESULTING FROM ITS NEGLIGENCE OR ITS FRAUDULENT MISREPRESENTATION OF TO THE EXTENT THAT IT CANNOT BE EXCLUDED OR LIMITED BY APPLICABLE LAW.

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 our 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.

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 our web site, www.apc.com to access documents in the APC Knowledge Base and to submit customer support requests.
 - **www.apc.com** (Corporate Headquarters)
Connect to localized Schneider Electric web site for specific countries, each of which provides customer support information.
 - **www.apc.com/support/**
Global support searching APC Knowledge Base and using e-support.
- Contact the 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 Schneider Electric representative or the distributor from whom you purchased this product.

