

Installation Guide

Smart-UPS[™] C 1000/1500 VA 120/230 Vac 2000/3000 VA 230 Vac Rack-Mount 2U

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 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 damage.

Read the Safety Guide supplied with this unit before installing the UPS.

- Adhere to all local and national 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 equipment is intended for indoor use only.
- Do not operate this unit in direct sunlight, in contact with fluids, or where there is excessive dust or humidity.
- Be sure the air vents on the UPS are not blocked. Allow adequate space for proper ventilation.
- Connect the UPS power cable directly to a wall outlet. Do not use surge protectors or extension cords.
- For a UPS with a factory installed power cord, connect the UPS power cable directly to a wall outlet. Do not use surge protectors or extension cords.
- The equipment is heavy. Always practice safe lifting techniques adequate for the weight of the equipment.

Battery safety

CAUTION

RISK OF HYDROGEN SULPHIDE GAS AND EXCESSIVE SMOKE

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

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

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

- Servicing of user replaceable batteries should be performed or supervised by personnel knowledgeable about batteries and required precautions. Keep unauthorized personnel away from batteries.
- Batteries typically last for two to five years. Environmental factors impact battery life. Elevated ambient temperatures, poor quality utility power, and frequent short duration discharges will shorten battery life. Batteries should be replaced before end of life.
- Schneider Electric uses Maintenance-Free sealed Lead Acid batteries. Under normal use and handling, there is no contact with the internal components of the battery. Over charging, over heating or other misuse of batteries can result in a discharge of battery electrolyte. Released electrolyte is toxic and may be harmful to the skin and eyes.

- **CAUTION:** Before installing or replacing the batteries, remove jewelry such as wristwatches and rings. High short circuit current through conductive materials could cause severe burns.
- **CAUTION:** Do not dispose of batteries in a fire. The batteries may explode.
- **CAUTION:** Do not open or mutilate batteries. Released material is harmful to the skin and eyes and may be toxic.
- **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. 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.

Deenergizing safety

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

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

Electrical safety

- Do not handle any metallic connector before power has been disconnected.
- For models with a hardwired input, the connection to the branch circuit (mains) must be performed by a qualified electrician.
- 230 V models only: In order to maintain compliance with the EMC regulations, 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, with or without a yellow stripe.
- Leakage current for a pluggable, Type A UPS may exceed 3.5 mA when a separate ground terminal is used.
- The UPS input ground conductor must be properly bonded to protective earth at the service panel.
- If provided, connect the ground cable between the external battery pack(s) and the UPS.
- 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.

Radio Frequency Warning

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

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

Inventory

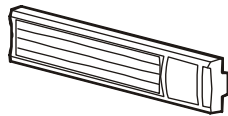
All models



(1)
PowerChute™ software
download guide



(1)



(1)



(2)

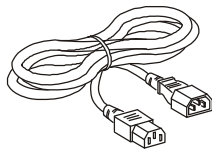


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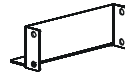
(1)
Installation Guide

1000/1500/2000/3000 VA 230 Vac models



(2)

1000VA 120/230 Vac models



(2)



(4)



(2)

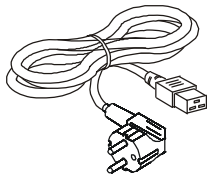


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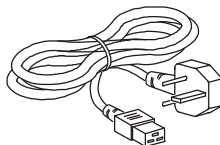


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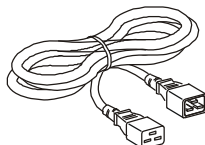
2000/3000 VA 230 Vac models



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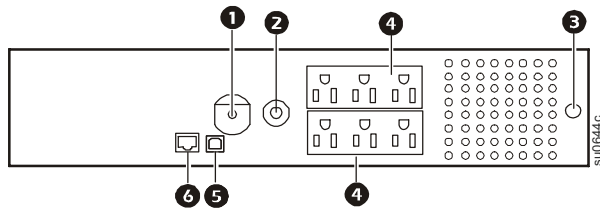


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Product Overview

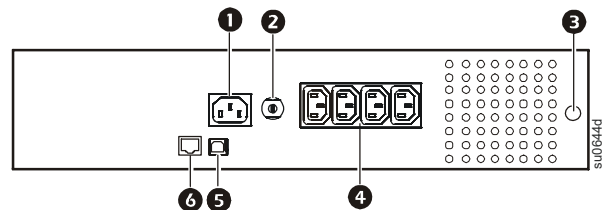
Rear Panel features

1000 VA 120 Vac



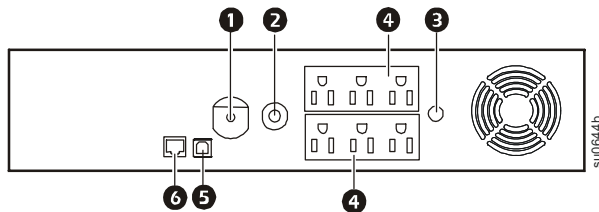
- ❶ UPS input
- ❷ Circuit breaker/Overload protection
- ❸ Chassis ground screw
- ❹ Outlets

1000 VA 230 Vac

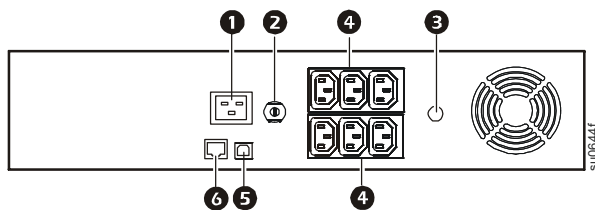


- ❷ USB port - Use this port to connect to a computer for monitoring or gracefully shutting down the UPS using PowerChute software. Refer to the Operation Manual for details.
- ❸ Serial port - Use this serial port for monitoring the UPS. Refer to the Operation Manual for details.

1500 VA 120 Vac

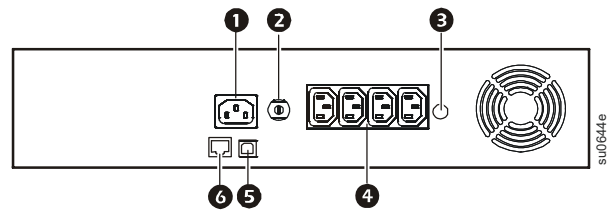


2000 VA 230 Vac

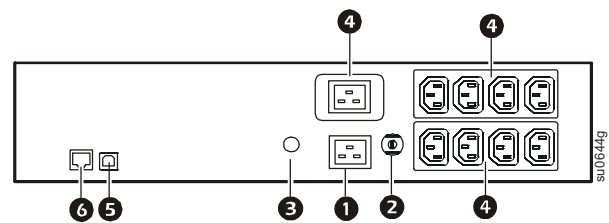


- ❶ UPS input
- ❷ Circuit breaker/Overload protection
- ❸ Chassis ground screw
- ❹ Outlets

1500 VA 230 Vac

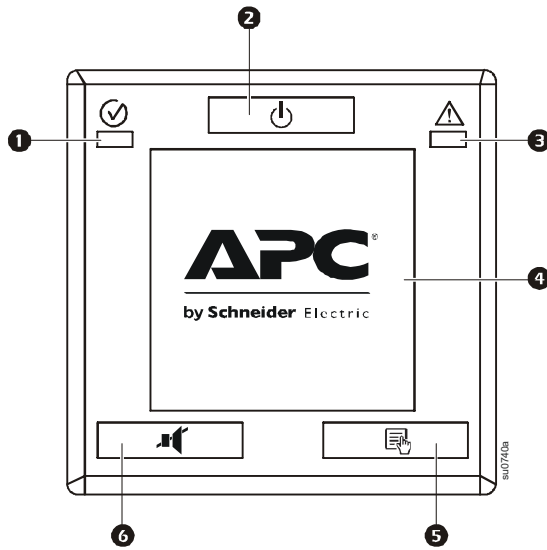


3000 VA 230 Vac



- ❷ USB port - Use this port to connect to a computer for monitoring or gracefully shutting down the UPS using PowerChute software. Refer to the Operation Manual for details.
- ❸ Serial port - Use this serial port for monitoring the UPS. Refer to the Operation Manual for details.

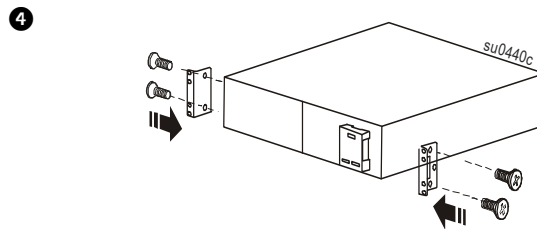
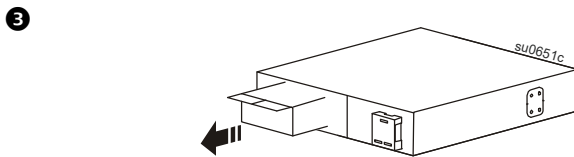
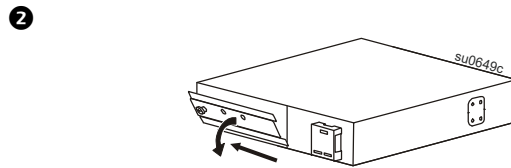
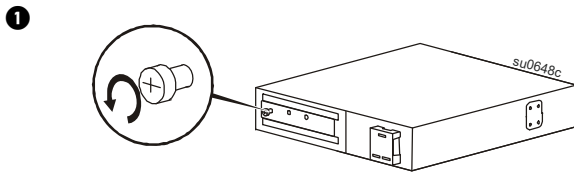
Front panel features



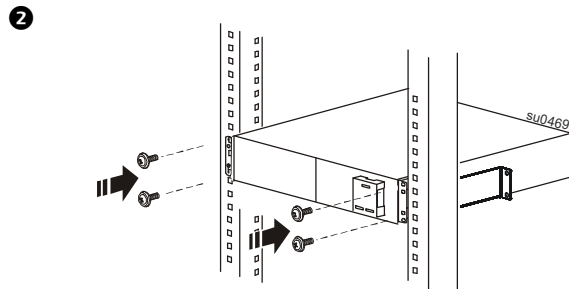
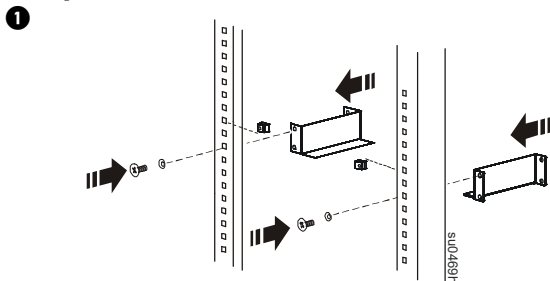
- ❶ Online/On Battery LED
- ❷ POWER ON/OFF button
- ❸ *120 Vac models only:* Site Wiring Fault/Alert LED
- ❹ Display interface
- ❺ DISPLAY button
- ❻ MUTE button

Installation

1000 VA 120/230 Vac Models

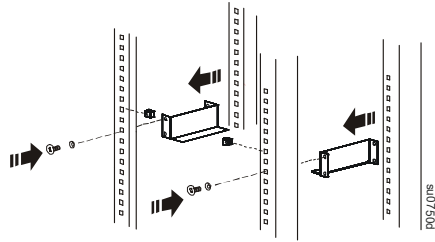


Two post rack installation

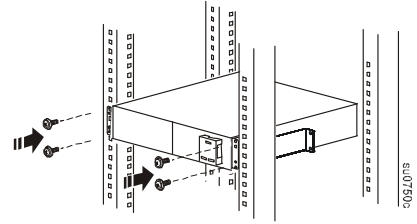


Four post rack installation

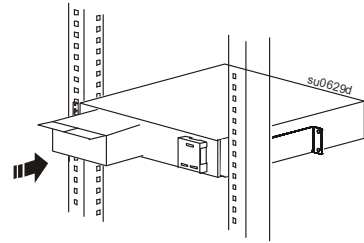
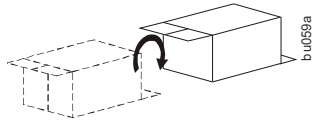
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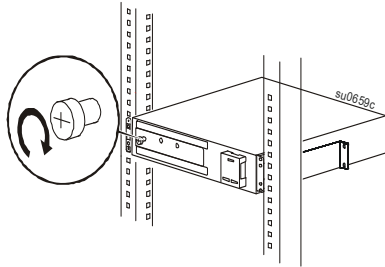
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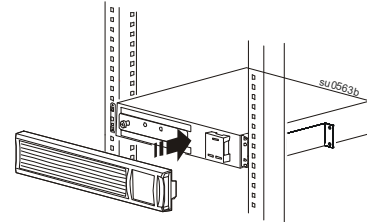
Install the battery



Secure the battery compartment door

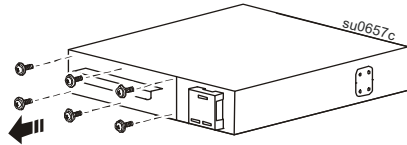


Install the bezel

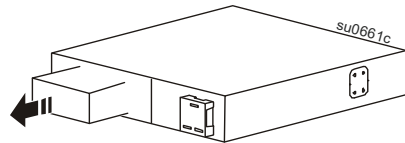


1500 VA 120/230 Vac and 2000 VA 230 Vac Models

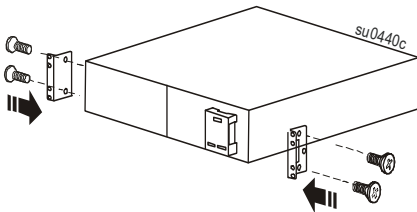
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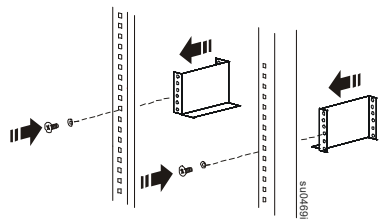


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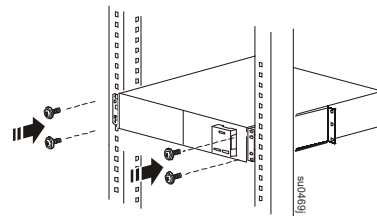


Two post rack installation

1

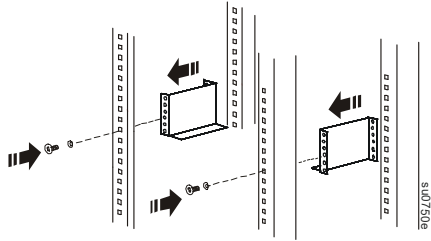


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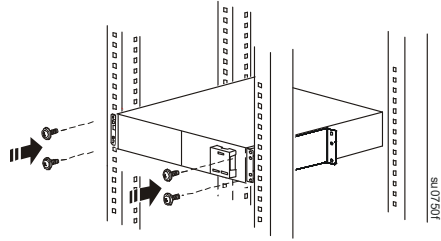


Four post rack installation

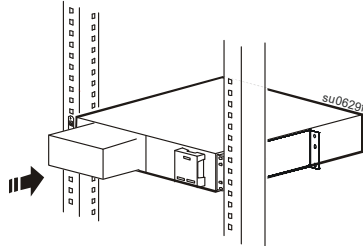
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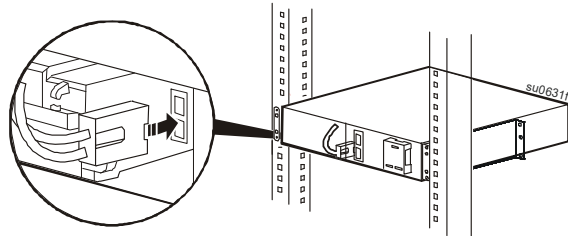
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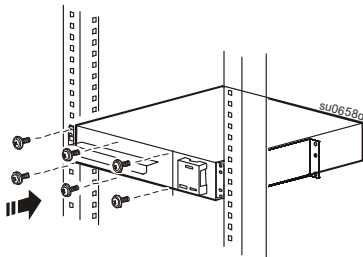
Install the battery



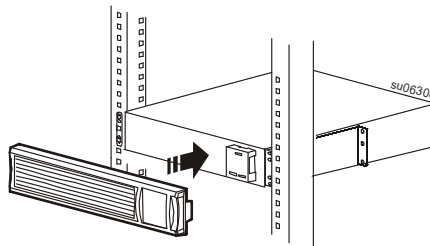
Connect the battery



Secure the battery compartment door



Install the bezel



Connect equipment to the UPS and connect the UPS to AC power

⚠ CAUTION

RISK OF ELECTRIC SHOCK

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

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

