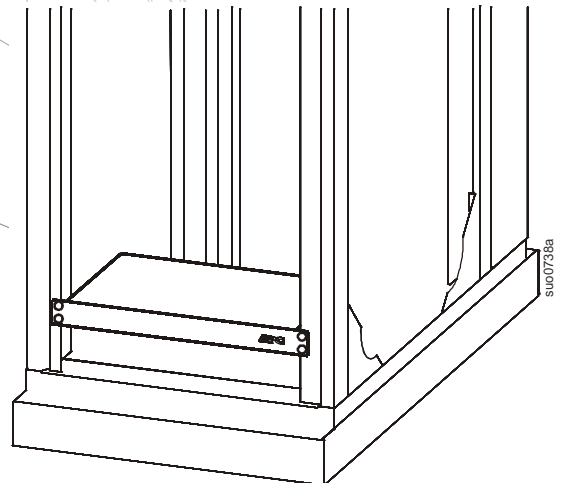


# Installation Guide

## Marine Filter

**SURT023M**  
**SURT024M**





# Product Description

The APC® by Schneider Electric® Marine Application Filter reduces the EMI (electro magnetic interference), produced by a connected UPS that may adversely affect other connected electrical equipment.



Inspect the filter upon receipt. Notify the carrier and dealer if there is damage.



Recycle the packaging

# Specifications

## Operating Conditions

This unit is intended for indoor use only. Select a location that is sturdy enough to support the weight of the UPS and the Marine Filter.

Do not operate this unit where there is excessive dust or the temperature or humidity are outside the specified limits.

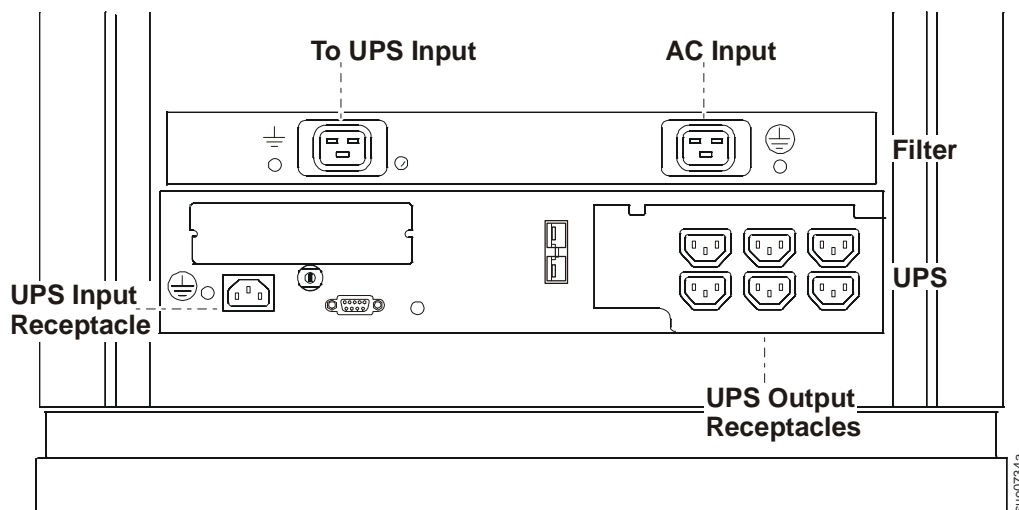
## Environmental Specifications

For additional specifications go to the APC Web site, [www.apc.com](http://www.apc.com).

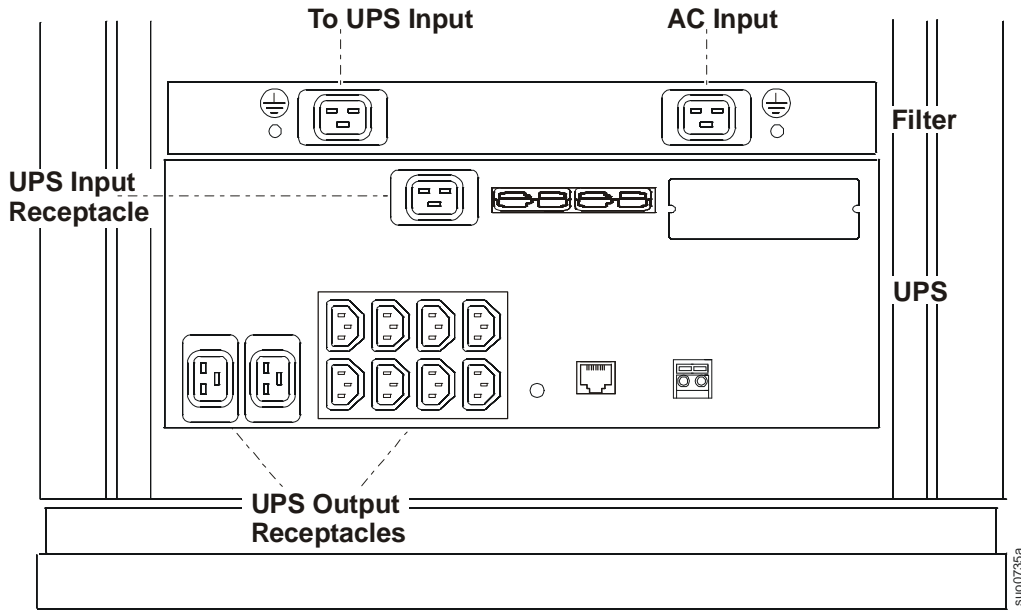
Temperature	Operating	0° C to 55° C (32° F to 131° F)
	Storage	-25° C to 85° C (-13° F to 185° F)
Maximum Elevation	Operating	3,000 m (10,000 ft)
	Storage	15,000 m (50,000 ft)
Humidity	0 to 95% relative humidity, non-condensing	

# Product Rear Panels

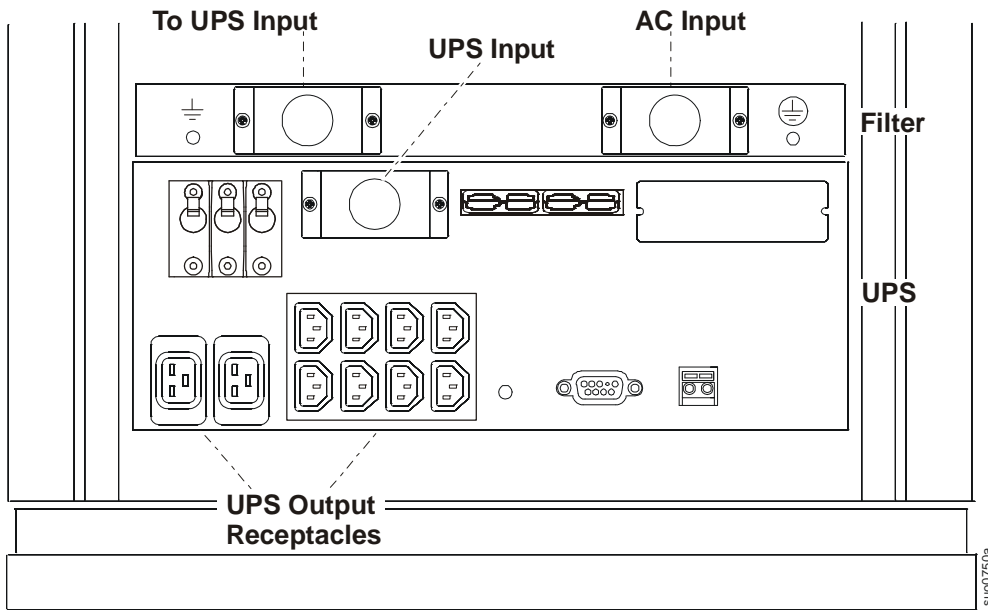
SURT1000XLIM



**SURTD2200XLIM/SURTD3000XLIM**



**SURT6000XLIM**

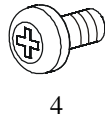


# Installation

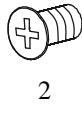


Install the marine filter, the UPS, and the optional external battery pack (XLBP) at or near the bottom of the rack. Place the marine filter above the UPS. Place the marine filter, and the UPS above the XLBP(s).

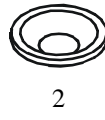
## Rack-Mount Hardware



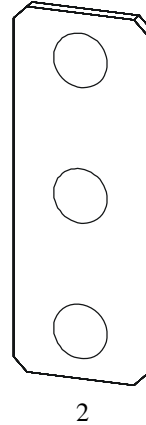
4



2



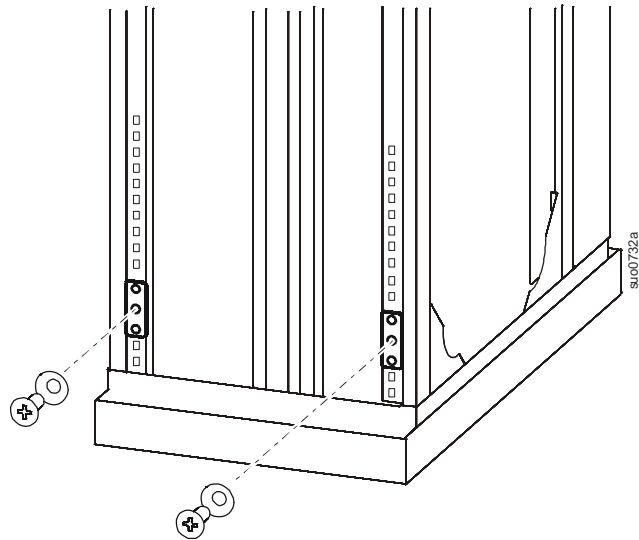
2



2

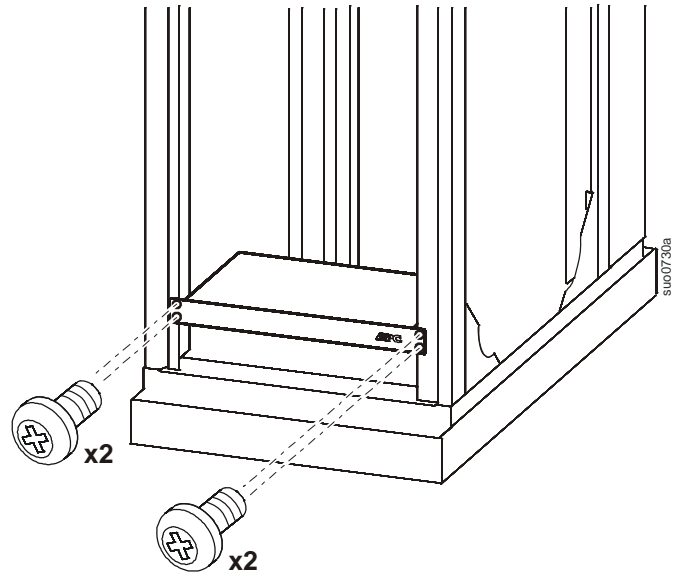
## Install Nut Bars

One nut bar must be installed on each of the front rails. Secure each nut bar to a rail with one flat head screw and one conical washer (supplied).



# Install Filter in Rack

Slide the filter into the rack. Secure the filter to the rack with four ornamental screws (supplied).



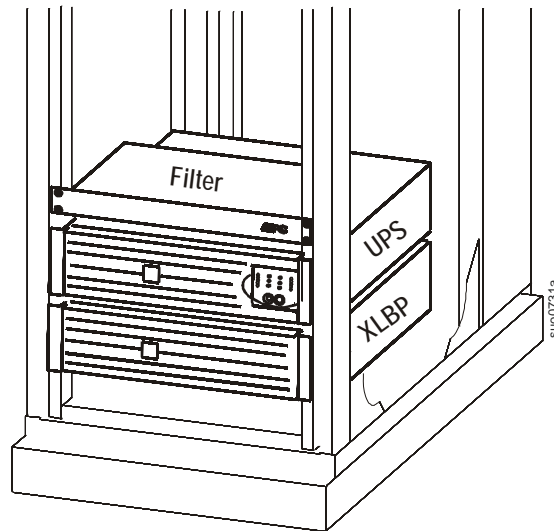
# Install UPS and XLBP in Rack



Refer to the SURT/SURTD XLIM addendum for UPS installation instructions.

Refer to the XLBP user manual for installation instructions in applications where an XLBP is being used.

The UPS model depicted in the graphic below may vary in appearance from your UPS model.

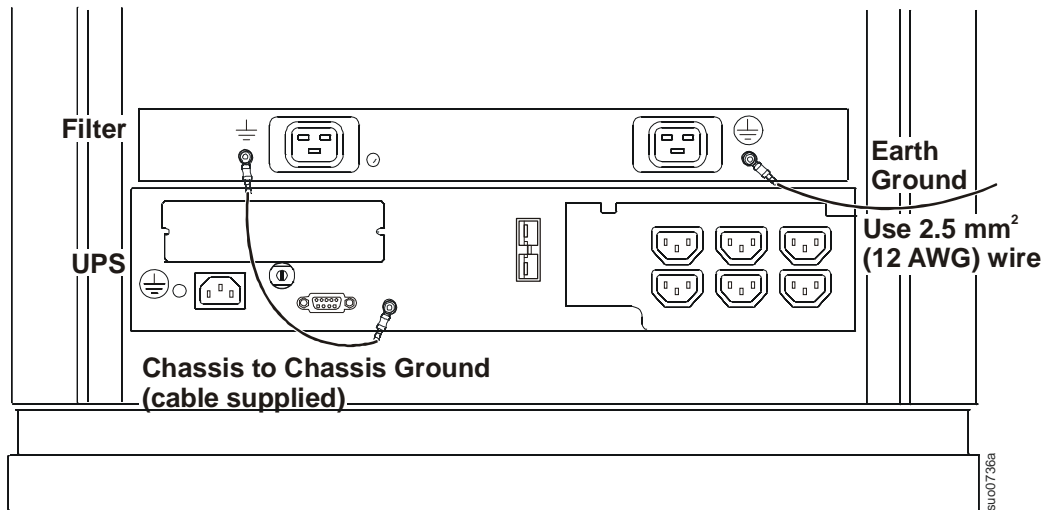


# Connect Ground Cable

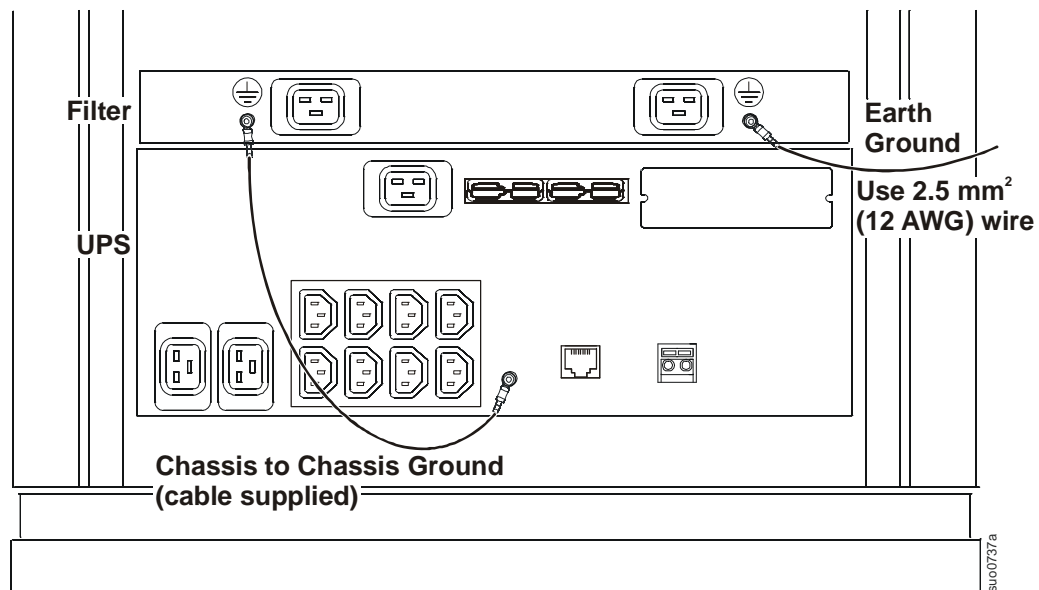


Due to high leakage current it is essential to connect the earth ground before connecting electrical devices to the UPS. Refer to the diagrams below for required earth and chassis to chassis ground connections.

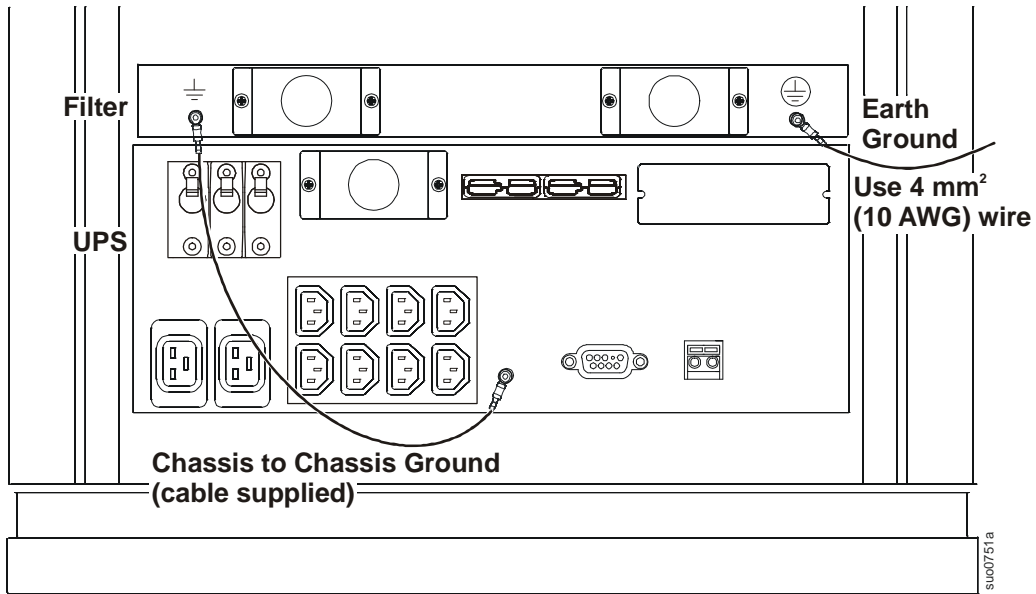
## SURT1000XLIM



## SURTD2200XLIM / SURTD3000XLIM



**SURT6000XLIM**

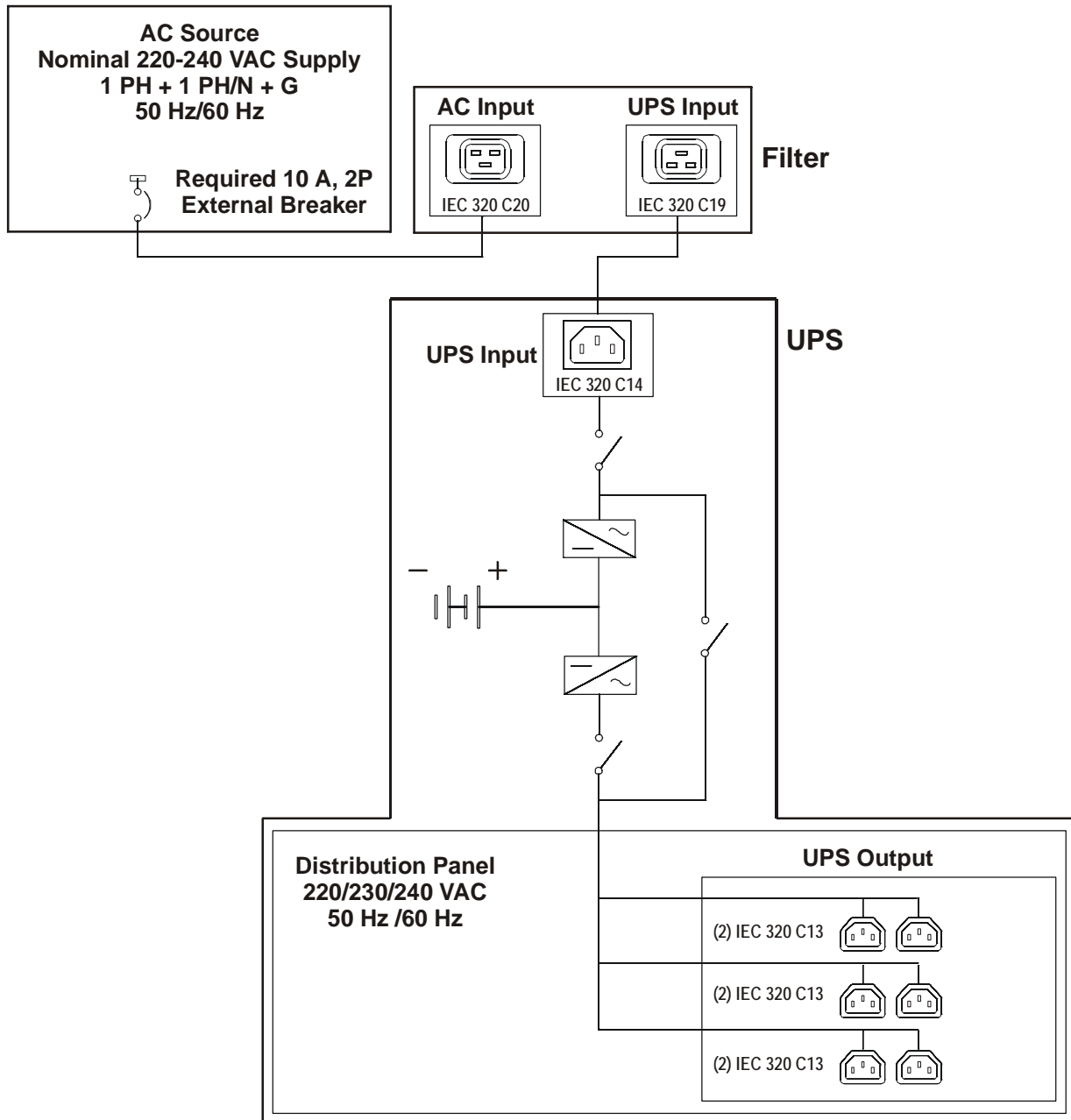




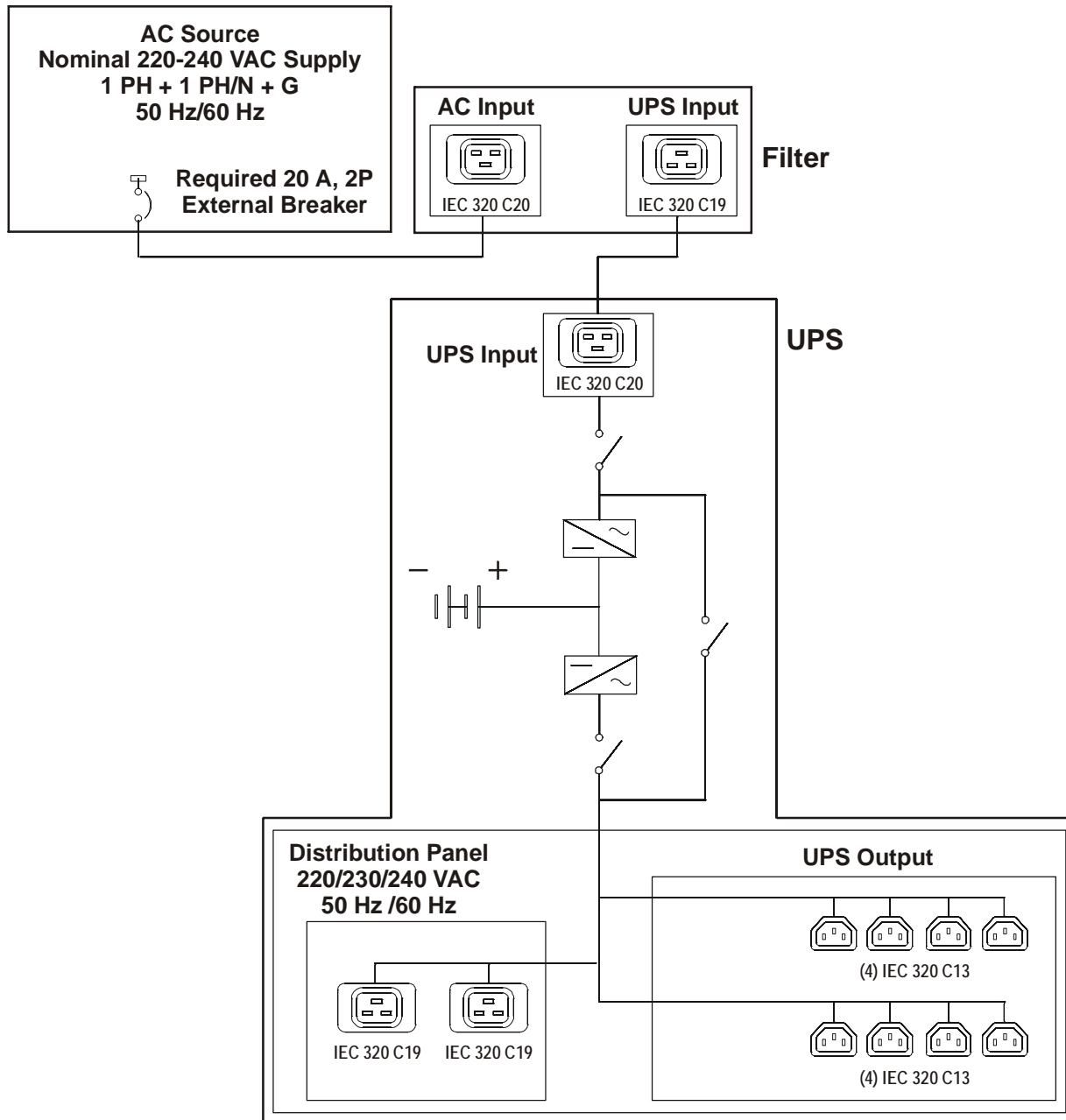
# Connect Input and Output Cables

Refer to the schematic drawings below.

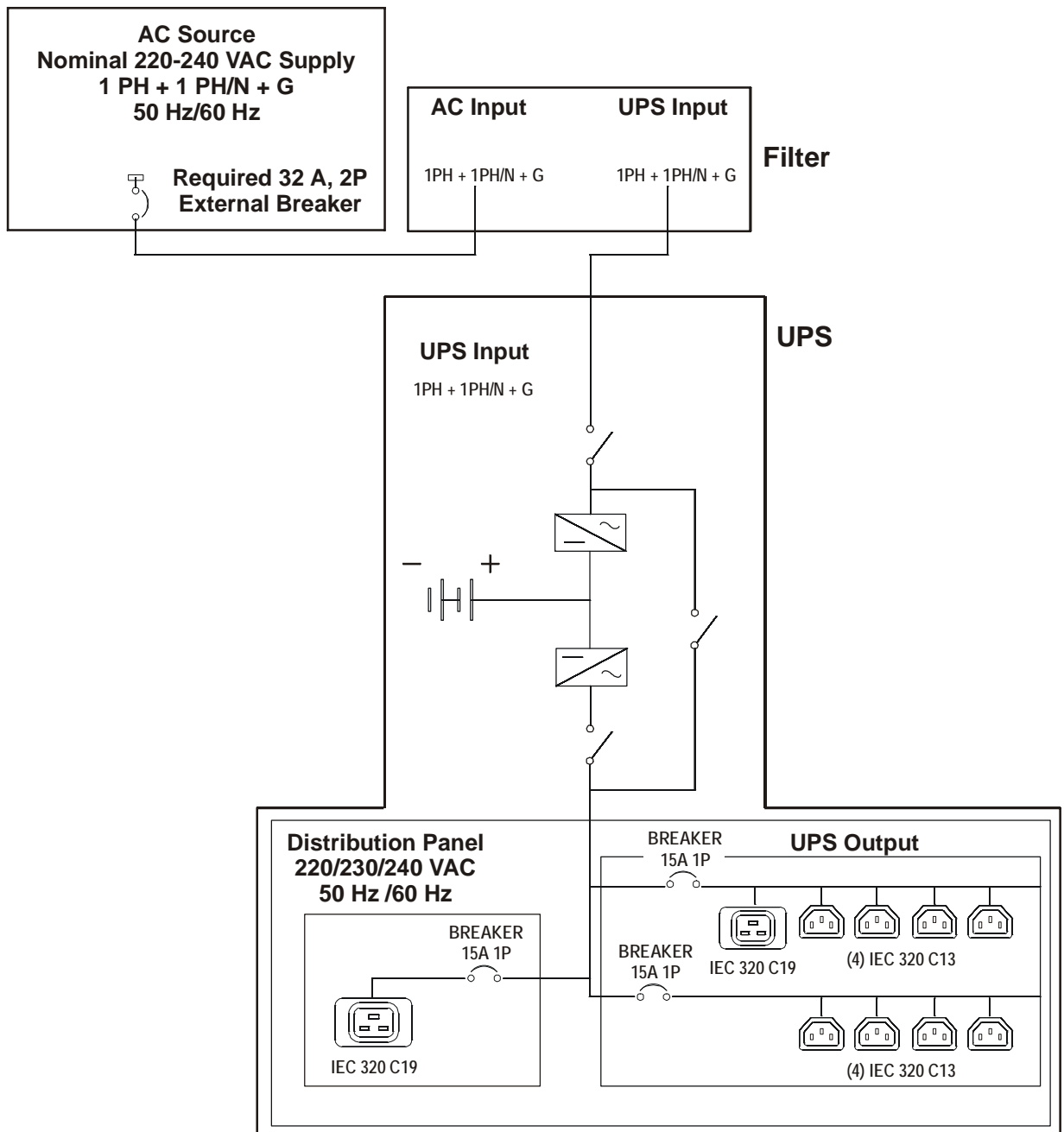
## SURT1000XLIM SURT023M



**SURTD2200/3000XLIM  
SURT023M**



# SURT6000XLIM SURT024M



slu0752a

# Hardwire the SURT6000XLIM

Wiring must be performed by a qualified electrician.

Install a high magnetic 32 Amp AC source circuit breaker.

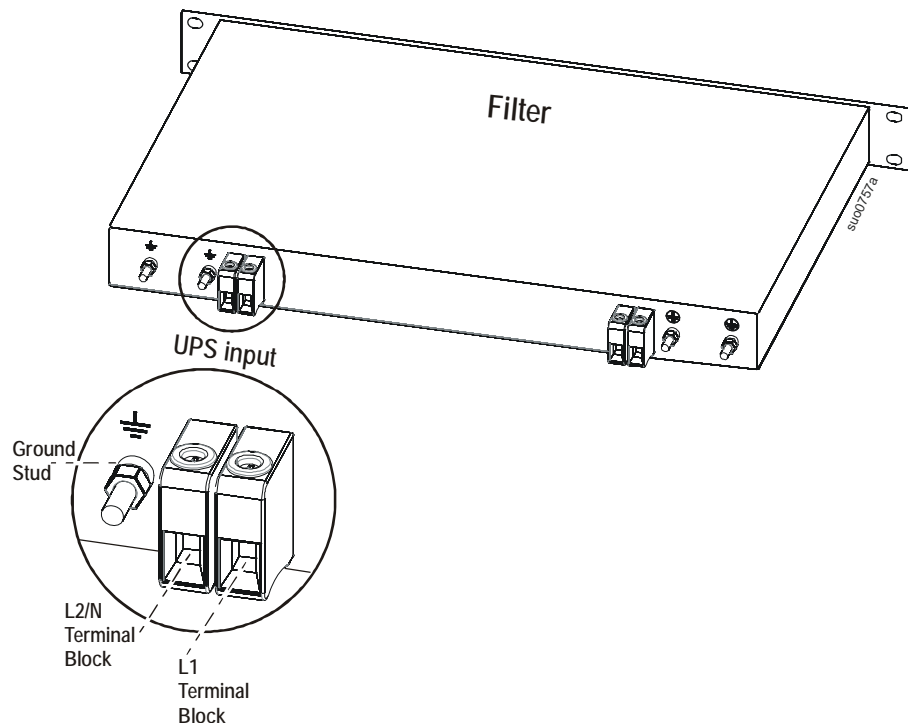
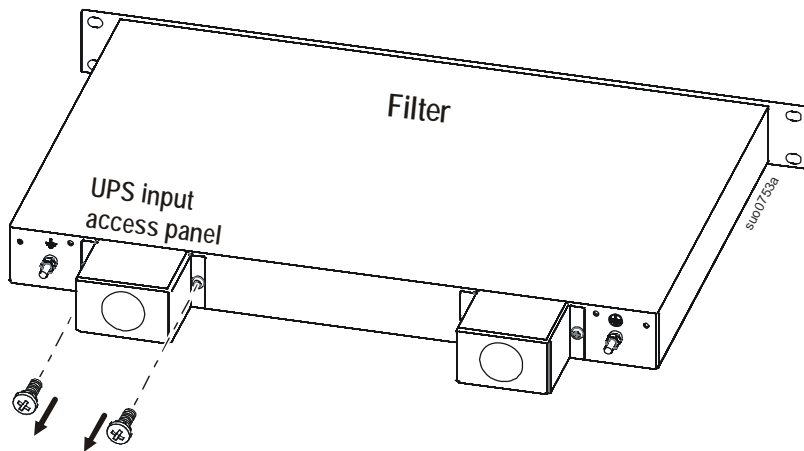
Adhere to all national and local electrical codes.

Use 4 mm<sup>2</sup> (#10 AWG) wire.

## Hardwire the filter UPS input

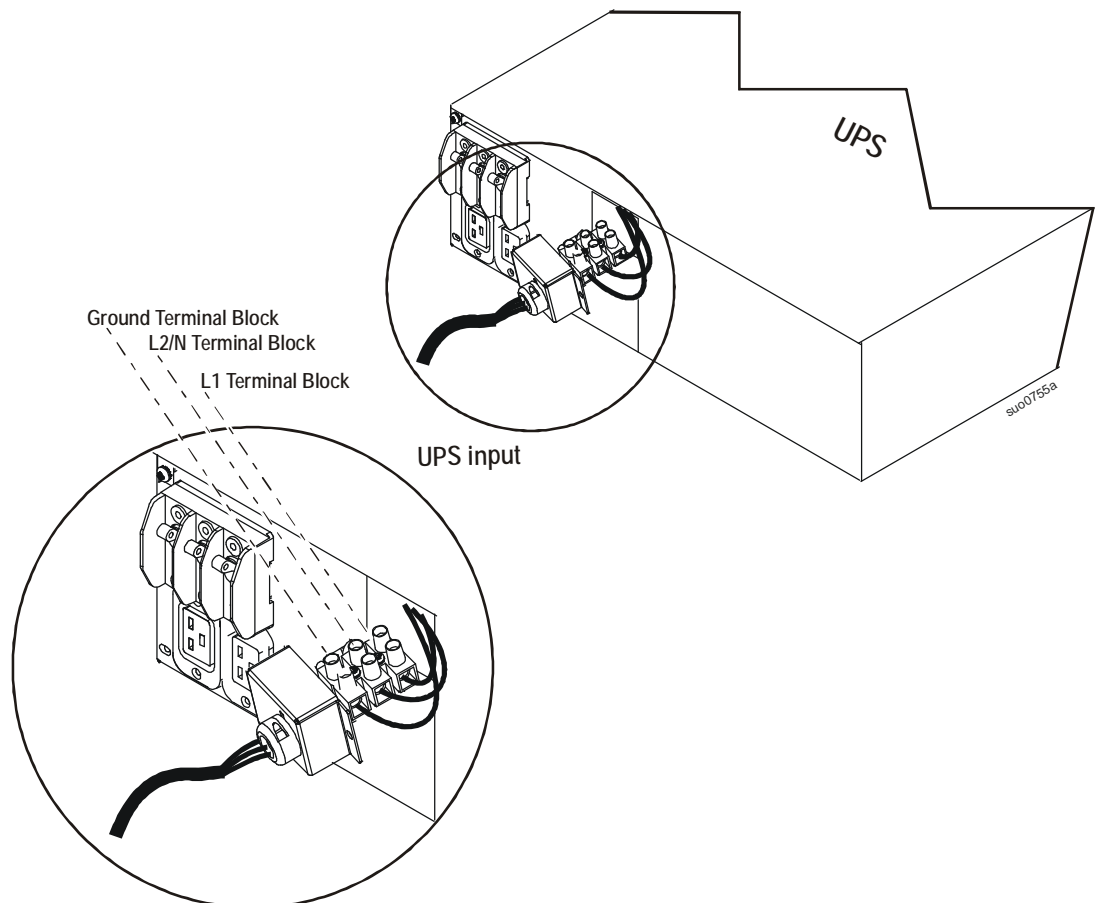
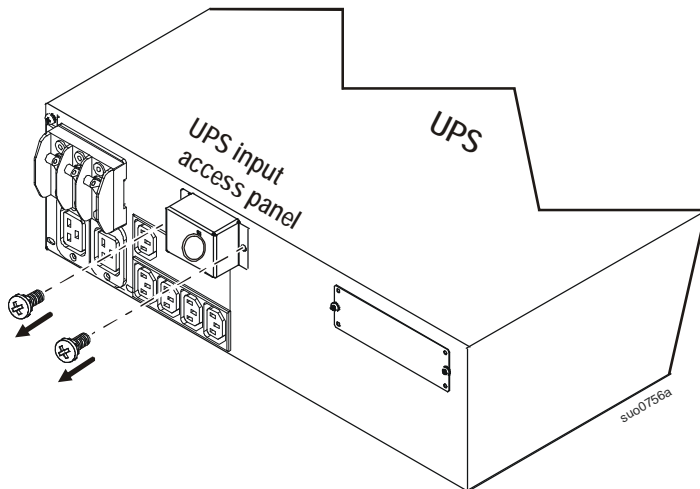
Switch the AC source circuit breaker off.

1. Remove the screws that secure the UPS input access panel to the filter.
2. Install an appropriate strain relief (not supplied). Insert the wires through the strain relief and connect the L1 and L2/N wires to the appropriate terminal block and secure the green wire to the ground stud. Torque the terminal block screw to 2.2 Nm (19.5 lb in). Refer to the diagrams below.



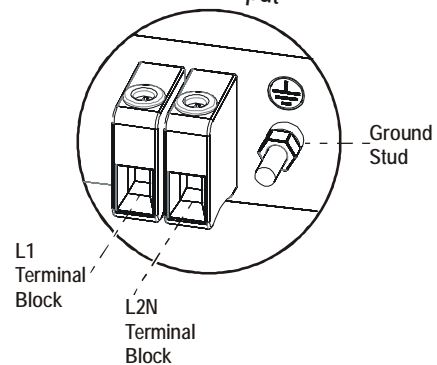
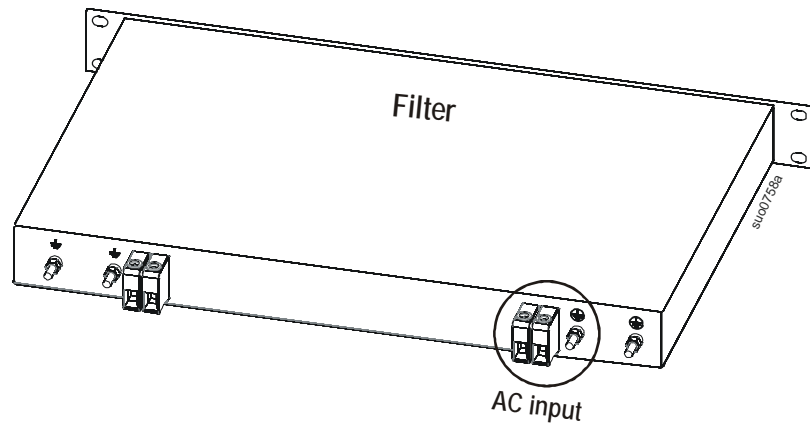
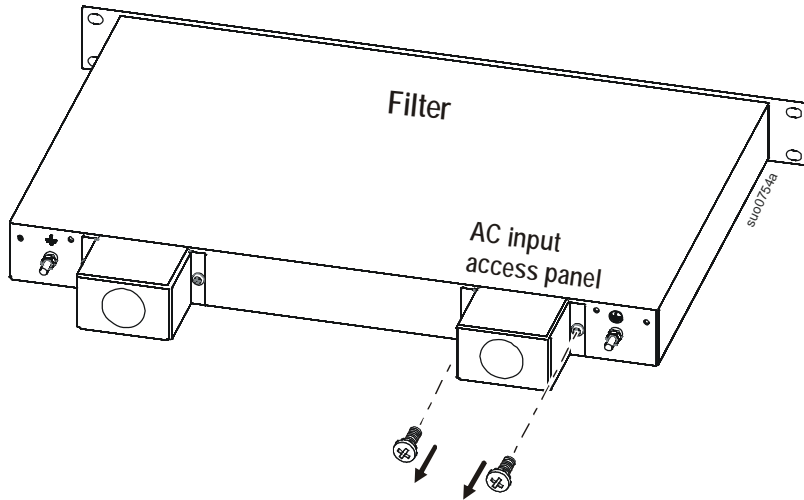
## Hardwire the UPS input

1. Remove the screws that secure the access panel on the UPS.
2. Remove the circular knockout.
3. Install an appropriate strain relief (not supplied). Insert the wires through the strain relief and connect the L1, L2/N, and ground wires to the appropriate terminal block. Torque the terminal block screw to 1.8 Nm (16 lb in). Refer to the diagrams below.



## Hardwire the AC input

1. Remove the screws that secure the AC input access panel on the filter.
2. Install an appropriate strain relief (not supplied). Insert the wires through the strain relief and connect the L1 and L2/N wires to the appropriate terminal block and secure the green wire to the ground stud. Torque the terminal block screw to 2.2 Nm (19.5 lb in). Refer to the diagrams below.



**Switch the AC source circuit breaker on.**

**Check the line voltages.**

**Replace the access panels.**

# Service and Transport

If the unit requires service, do not return it to the dealer. Follow these steps:

1. Review the *Troubleshooting* section of the manual to eliminate common problems.
2. If the problem persists, contact APC Customer Support through the APC Web site, **www.apc.com**.
  - a. Note the model number and serial number and the date of purchase. The model and serial numbers are located on the rear panel of the unit and are available through the LCD display on select models.
  - b. Call APC 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 the APC Web site for country specific instructions.
3. Pack the unit properly to avoid damage in transit. Never use foam beads for packaging. Damage sustained in transit is not covered under warranty.
  - a. **Always DISCONNECT THE UPS BATTERY before shipping in compliance with U.S. Department of Transportation (DOT) and IATA regulations.** The battery may remain in the unit.
  - b. Internal batteries may remain connected in the XLBP during shipment, if applicable, not all units have XLBP).
4. Write the RMA# provided by Customer Support on the outside of the package.
5. Return the unit by insured, pre-paid carrier to the address provided by Customer Support.

## Transport the unit

1. Shut down and disconnect all connected equipment.
2. Disconnect the unit from utility power.
3. Disconnect all internal and external batteries (if applicable).
4. Follow the shipping instructions outlined in the *Service* section of this manual.

## APC Worldwide Customer Support

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

- Visit the APC Web site to access documents in the APC Knowledge Base and to submit customer support requests.
  - **www.apc.com** (Corporate Headquarters)  
Connect to localized APC Web sites 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 APC Customer Support Center by telephone or e-mail.
  - Local, country-specific centers: go to **www.apc.com/support/contact** for contact information.

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

# Two-Year Factory Warranty

This warranty applies only to the products you purchase for your use in accordance with this manual.

## Terms of warranty

APC warrants its products to be free from defects in materials and workmanship for a period of two years from the date of purchase. APC will repair or replace defective products covered by this warranty. This warranty does not apply to equipment that has been damaged by accident, negligence or misapplication or has been altered or modified in any way. Repair or replacement of a defective product or part thereof does not extend the original warranty period. Any parts furnished under this warranty may be new or factory-remanufactured.

## Non-transferable warranty

This warranty extends only to the original purchaser who must have properly registered the product. The product may be registered at the APC Web site, [www.apc.com](http://www.apc.com).

## Exclusions

APC 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's or any third person's misuse, negligence, improper installation or testing. Further, APC shall not be liable under the warranty for unauthorized attempts to repair or modify wrong or inadequate electrical voltage or connection, inappropriate on-site operation conditions, corrosive atmosphere, repair, installation, exposure to the elements, Acts of God, fire, theft, or installation contrary to APC recommendations or specifications or in any event if the APC serial number has been altered, defaced, or removed, or any other cause beyond the range of the intended use.

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## Warranty claims

Customers with warranty claims issues may access the APC customer support network through the Support page of the APC Web site, [www.apc.com/support](http://www.apc.com/support). Select your country from the country selection pull-down menu at the top of the Web page. Select the Support tab to obtain contact information for customer support in your region.





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