

# Installation Guide Marine Filter SRT6M

## Important Safety Messages

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

Read the instructions carefully. 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 to a Danger or Warning product safety label indicates that an electrical hazard exists that 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.**

- 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 unit 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.
- Allow adequate space for proper ventilation.
- The equipment is heavy. Always practice safe lifting techniques adequate for the weight of the equipment.
- In rack-mount configurations, always install filters above the uninterruptible power supply (UPS).
- 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 filter input ground conductor must be properly bonded to protective earth at the service panel.
- If the filter input power is supplied by a separately derived system, the ground conductor must be properly bonded at the supply transformer or motor generator set.
- The attachment plug receptacles near the unit or subsystem must all be of a grounding type, and the grounding conductors serving these receptacles must be connected to earth ground at the service equipment.
- The model and serial numbers are located on a small, rear panel label.
- Recycle the package materials or save them for reuse.

## Product Overview

The APC™ by Schneider Electric Marine Application Filters connect to Marine Smart-UPS models SRT5KRMXLIM/SRT6KRMXLIM. Together, an uninterruptible power supply (UPS), and a filter meet DNV Type Approval, Class B EMI requirements.

This user manual is available on the APC web site, [www.apc.com](http://www.apc.com).

# Specifications

## Environmental

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	

## Installation

### Tower Configuration

#### CAUTION

##### RISK OF ELECTRIC SHOCK

- Adhere to all national and local electrical codes.
- Wiring must be performed by a qualified electrician.
- The equipment is heavy. Practice correct lifting techniques adequate for the weight of the equipment. The external protective earth conductor must be installed before the unit is turned on.
- The input ground conductor must be connected to the protective earth screw located on the front panel of the chassis.
- Do not use the UPS as a safety disconnect.

**Failure to follow these instructions could result in minor or moderate injury.**

### Rack-Mount Configuration

#### CAUTION

##### RISK OF ELECTRIC SHOCK

- Adhere to all national and local electrical codes.
- Wiring must be performed by a qualified electrician.
- The equipment is heavy. Practice correct lifting techniques adequate for the weight of the equipment. The external protective earth conductor must be installed before the unit is turned on.
- Install optional external battery packs at or near the bottom of the rack.
- Install the UPS above the external battery packs.
- Install the marine filter above the UPS using a rack mount installation or by placing the filter directly on top of the UPS.
- Install peripheral equipment above the UPS and the marine filter.
- The input ground conductor must be connected to the protective earth screw located on the front panel of the chassis.
- Do not use the UPS as a safety disconnect.

**Failure to follow these instructions could result in minor or moderate injury.**

# Install Filter in Rack

Use the supplied Rail Kit SRTRK1.

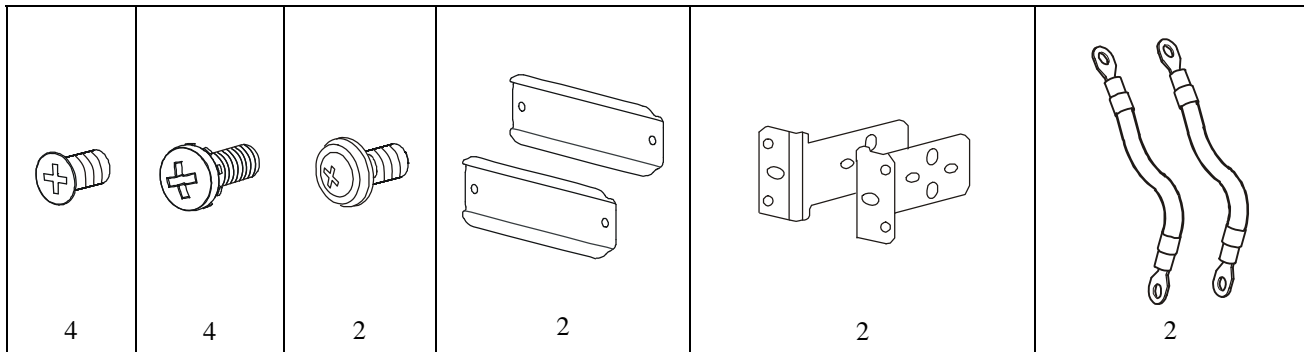
## NOTICE

### RISK OF DROPPED OR FALLING EQUIPMENT

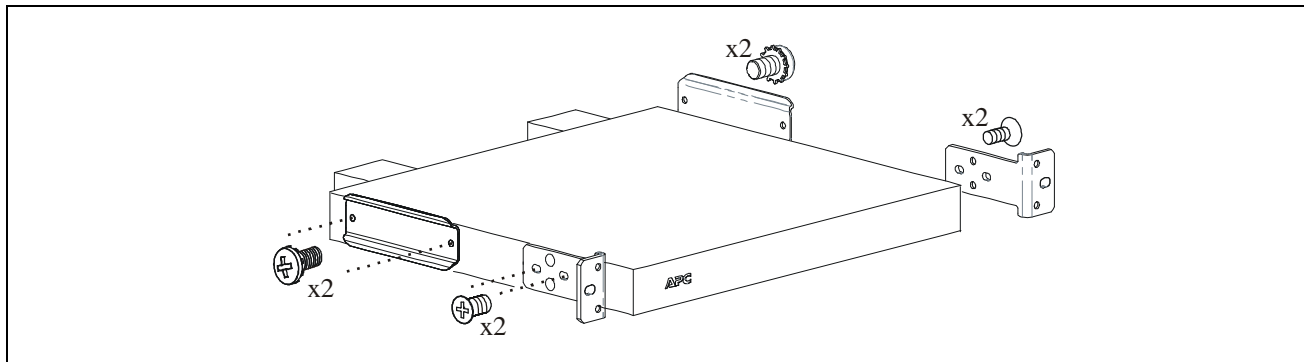
- Practice correct lifting techniques adequate for the weight of the equipment.
- Secure the rack-mount brackets to the unit using all of the screws supplied for this purpose.
- Secure the unit in the rack using all of the screws supplied for this purpose.

Failure to follow these instructions could result in equipment damage.

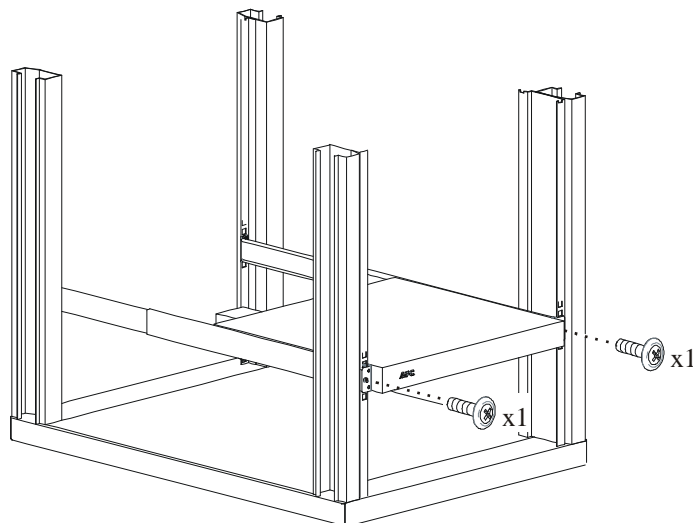
### Rack-Mount Hardware



Attach the rail cleats and the rack-mount brackets to the filter.



Secure the filter in the rack.



# Connect Ground Cables

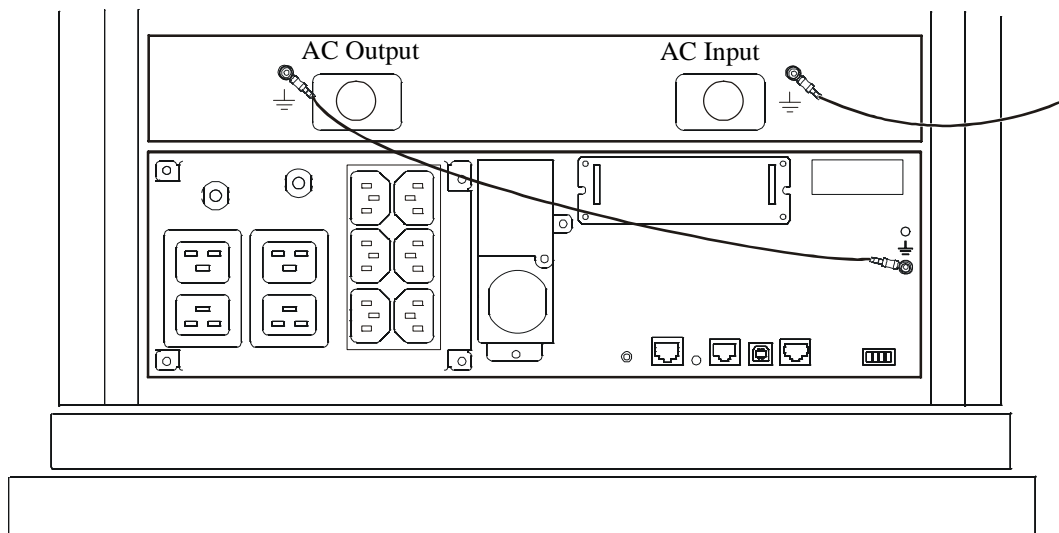
## ⚠ CAUTION

### RISK OF ELECTRIC SHOCK

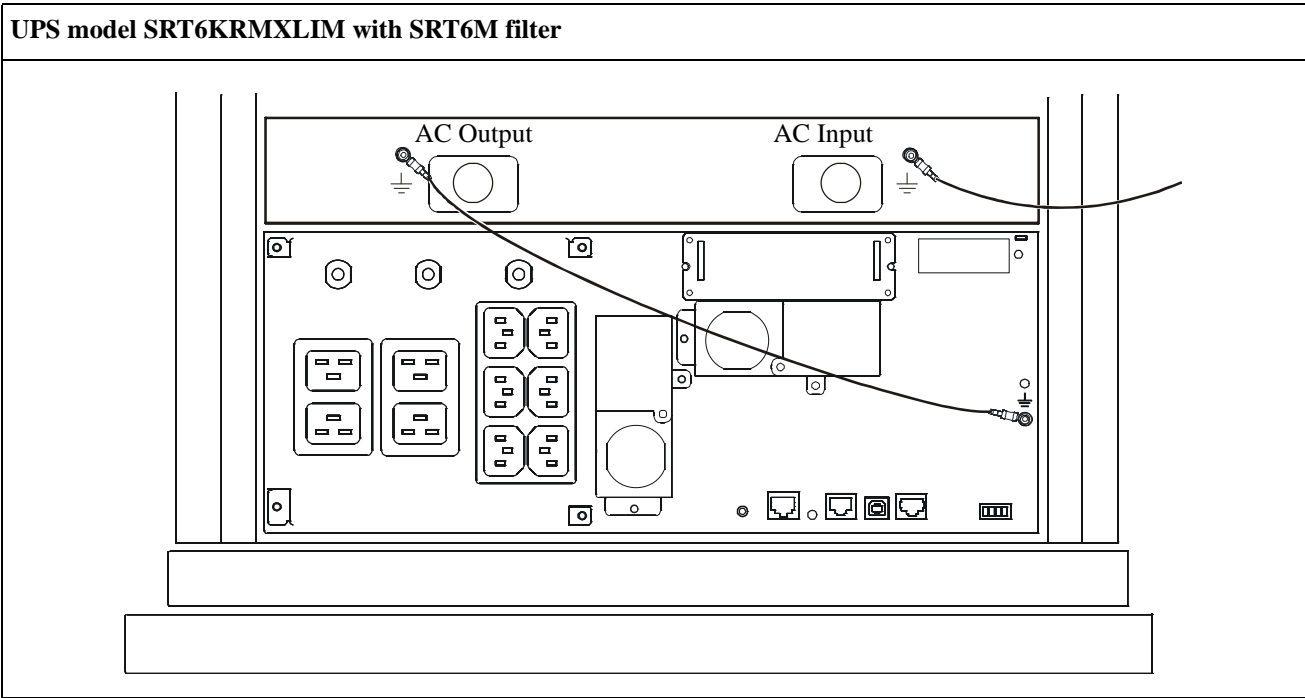
- Adhere to all national and local electrical codes.
- Wiring must be performed by a qualified electrician.
- The input ground conductor must be connected to the protective earth screw located on the rear panel of the chassis.
- Due to high leakage current it is essential to connect the earth ground before connecting electrical devices to the unit.
- Do not use the UPS as a safety disconnect.
- Refer to the diagrams below for required earth and chassis to chassis ground connections.
- Use the supplied cables for all chassis to chassis ground connections.
- The diagrams below apply to both rack-mount and tower configuration ground cable connections.

**Failure to follow these instructions could result in minor or moderate injury.**

### UPS model SRT5KRMXLIM with SRT6M filter



# Connect Ground Cables continued



## Hardwire UPS and Filter

### ⚠ CAUTION

#### RISK OF DAMAGE TO EQUIPMENT OR PERSONNEL

- Adhere to all national and local electrical codes.
- Wiring must be performed by a qualified electrician.
- Install a high magnetic 32 AMP AC source circuit breaker.
- Switch the AC source circuit breaker off.
- Use recommended wire size. Refer to the table below.
- Use strain reliefs where appropriate. Snap in type strain reliefs recommended.

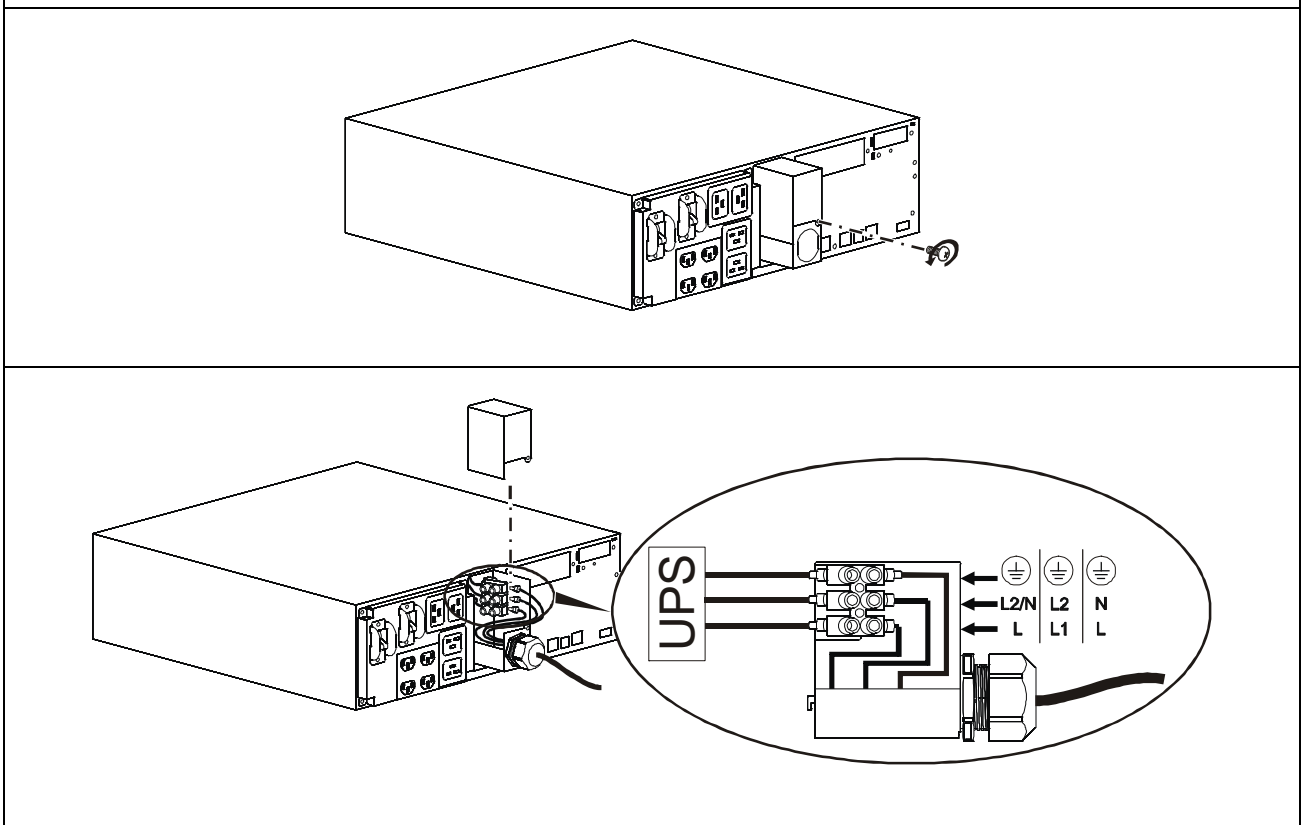
**Failure to follow these instructions could result in equipment damage and minor or moderate injury.**

UPS and Filter Models	Wire Size
SRT5KRMXLIM with SRT6M	6 mm <sup>2</sup> (8 AWG)
SRT6KRMXLIM with SRT6M	6 mm <sup>2</sup> (8 AWG)

## Hardwire UPS Input

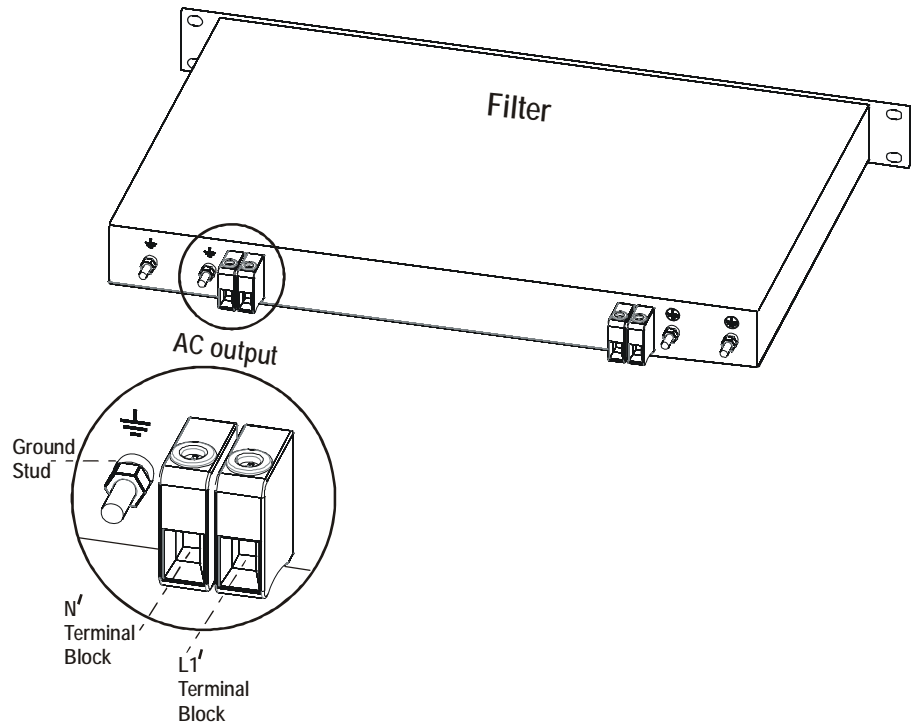
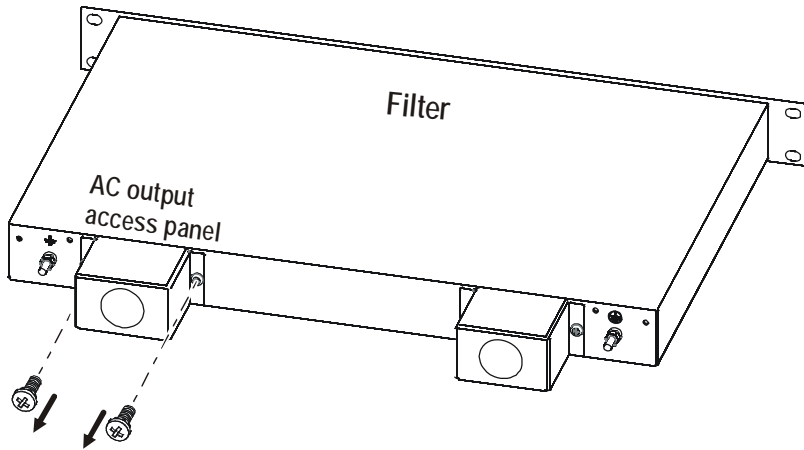
1. Switch the AC circuit breaker off.
2. Remove the screws that secure the input access panel to the UPS.  
Set the screws aside for reuse when attaching the input access panel to the UPS.
3. Remove the circular knockout on the input access panel.
4. Select the appropriate size wire. Refer to the table on page 8.
5. Install appropriate strain relief (not supplied). Insert the wires through the strain relief and connect the L1 and L2/N wires and ground wires to the appropriate terminal block and secure the green wire to the ground stud.
6. Torque the terminal block screw to 1.8 Nm (16 lb in). Refer to the diagrams below.
7. Secure the input terminal access panel to the UPS using the screws removed in step one.

### UPS models SRT5KRMXLIM/SRT6KRMXLIM



## Hardwire UPS to filter AC output

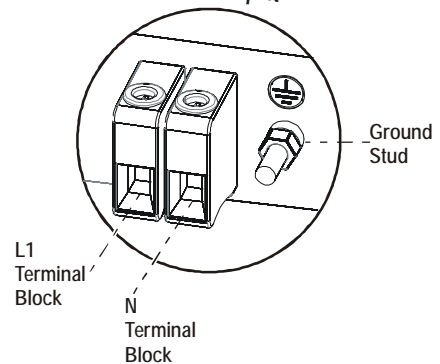
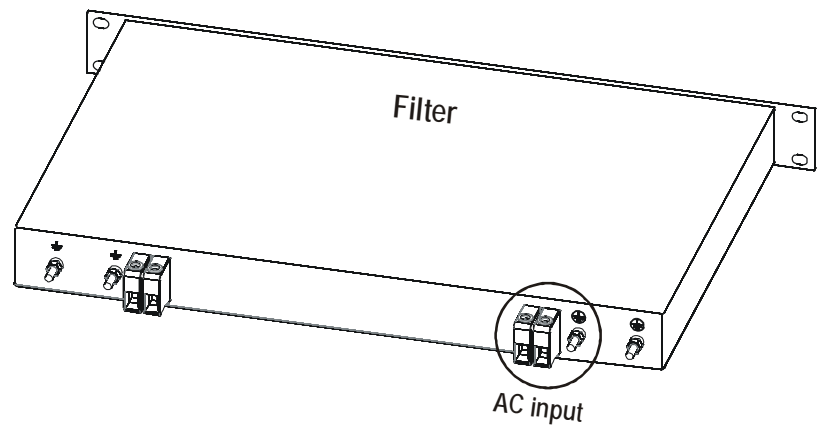
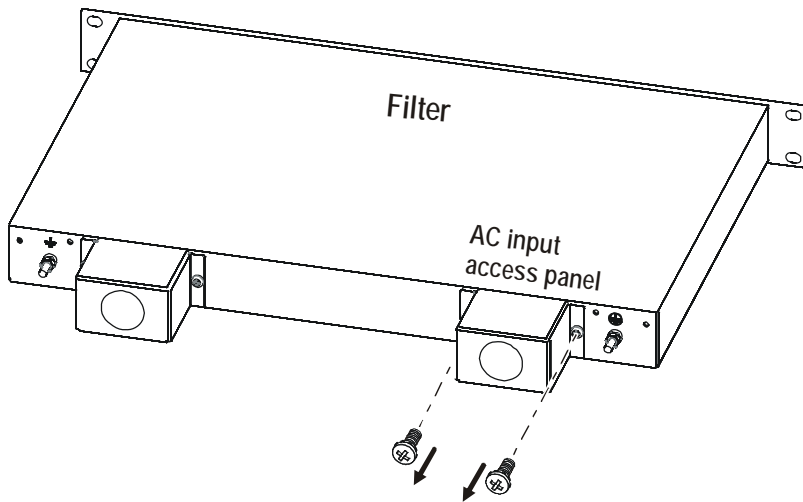
1. Switch the AC circuit breaker off.
2. Remove the screws that secure the AC output access panel to the filter.  
Set the screws aside for reuse when attaching the UPS input panel to the filter.
3. Select the appropriate size wire. Refer to the table above.
4. Install appropriate strain relief (not supplied). Insert the wires through the strain relief and connect the L1' and N' wires to the appropriate terminal block and secure the green wire to the ground stud.
5. Torque the terminal block screw to 2.2 Nm (19.5 lb in). Refer to the diagrams below.
6. Secure the AC output access panel to the filter using the screws removed in step one.





## Hardwire filter AC input to mains AC

1. Switch the AC circuit breaker off.
2. Remove the screws that secure the AC input access panel to the filter.  
Set the screws aside for reuse when attaching the UPS input panel to the filter.
3. Select the appropriate size wire. Refer to the table above.
4. Install appropriate strain relief (not supplied). Insert the wires through the strain relief and connect the L1 and N wires to the appropriate terminal block and secure the green wire to the ground stud.
5. Torque the terminal block screw to 2.2 Nm (19.5 lb in). Refer to the diagrams below.
6. Secure the UPS input access panel to the filter using the screws removed in step one.



# 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.

## 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 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 interface on select models.
  - b. Call APC 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, it will be repaired or replaced at no cost.
  - 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.
4. **Before shipping, always disconnect all battery modules in a UPS or external battery pack.**
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 two (2) years. 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](http://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 OR 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 APC web site: [www.apc.com](http://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.

# APC™ by Schneider Electric Worldwide Customer Support

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

- Visit the APC by Schneider Electric web site, [www.apc.com](http://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 APC by 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 APC by Schneider Electric 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 by Schneider Electric representative or other distributor from whom you purchased your APC by Schneider Electric product.

Customer support and warranty information are available on the APC web site, [www.apc.com](http://www.apc.com).

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**990-5621A**  
**12/2016**