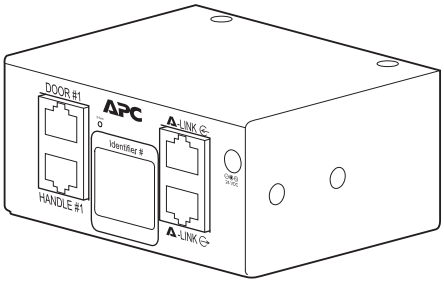
Installation and Quick Configuration Manual

NetBotz® Rack Access Pod 175

NBPD0125
NBPD1356

990-4231A-001
Publication Date: 4/2020



by Schneider Electric

APC by Schneider Electric Legal Disclaimer

The information presented in this manual is not warranted by the APC by Schneider Electric to be authoritative, error free, or complete. This publication is not meant to be a substitute for a detailed operational and site specific development plan. Therefore, APC by Schneider Electric assumes no liability for damages, violations of codes, improper installation, system failures, or any other problems that could arise based on the use of this Publication.

The information contained in this Publication is provided as is and has been prepared solely for the purpose of evaluating data center design and construction. This Publication has been compiled in good faith by APC by Schneider Electric. However, no representation is made or warranty given, either express or implied, as to the completeness or accuracy of the information this Publication contains.

IN NO EVENT SHALL APC BY SCHNEIDER ELECTRIC, OR ANY PARENT, AFFILIATE OR SUBSIDIARY COMPANY OF APC BY SCHNEIDER ELECTRIC OR THEIR RESPECTIVE OFFICERS, DIRECTORS, OR EMPLOYEES BE LIABLE FOR ANY DIRECT, INDIRECT, CONSEQUENTIAL, PUNITIVE, SPECIAL, OR INCIDENTAL DAMAGES (INCLUDING, WITHOUT LIMITATION, DAMAGES FOR LOSS OF BUSINESS, CONTRACT, REVENUE, DATA, INFORMATION, OR BUSINESS INTERRUPTION) RESULTING FROM, ARISING OUT, OR IN CONNECTION WITH THE USE OF, OR INABILITY TO USE THIS PUBLICATION OR THE CONTENT, EVEN IF APC BY SCHNEIDER ELECTRIC HAS BEEN EXPRESSLY ADVISED OF THE POSSIBILITY OF SUCH DAMAGES. APC BY SCHNEIDER ELECTRIC RESERVES THE RIGHT TO MAKE CHANGES OR UPDATES WITH RESPECT TO OR IN THE CONTENT OF THE PUBLICATION OR THE FORMAT THEREOF AT ANY TIME WITHOUT NOTICE.

Contents

Safety

Read the instructions carefully to become familiar with the equipment before trying to assemble, operate, service, or maintain it. 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 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

Indicates an imminently hazardous situation which, if not avoided, will result in death or serious injury.

⚠ WARNING

Indicates a potentially hazardous situation which, if not avoided, can result in death or serious injury.

⚠ CAUTION

Indicates a potentially hazardous situation which, if not avoided, can result in moderate injury.

NOTICE

Addresses practices not related to physical injury including certain environmental hazards, potential damage or loss of data.

Safety Information for the Rack Access Pod 175

⚠ ⚠ DANGER

HAZARD OF ELECTRIC SHOCK, EXPLOSION, OR ARC FLASH

- No user serviceable parts inside. Refer servicing to qualified personnel.
- Use indoors in a dry location.

Failure to follow these instructions will result in death or serious injury.

NOTICE

EQUIPMENT DAMAGE RISK

- Connect A-Link terminators **ONLY** to A-Link ports.
- Do not connect A-Link cables or ports to the **Door** and **Handle** ports on the Rack Access Pod.
- Only connect approved devices to ports on the Rack Access Pod as directed in this manual.

Failure to follow these instructions will result in equipment damage.

Introduction

The APC by Schneider Electric® NetBotz® Rack Access Pod 175 (NBPD0175) allows you to control access to a rack in your data center. You can connect the Rack Access Pod to one of the following NetBotz host appliances with firmware v5.2.3 or later:

- NetBotz Room Monitor 755 (NBWL0755)
- NetBotz Rack Monitor 750 (NBRK0750)

The Rack Access Pod includes two sets of sensor ports for APC by Schneider Electric Door Switch Sensors and handles. Each set of sensors and ports allows control of a single rack door. You can cascade multiple Rack Access Pods together to monitor more than two (2) doors. The number of Rack Access Pods you can cascade use depends on which host appliance they are connected to.

The *NetBotz Rack Access Pod 175 Installation and Quick Configuration Manual* describes how to install the Rack Access Pod. Specific instructions on installing Door Switch Sensors and handles are contained in the installation instructions for each component.

Updates and Additional documentation

You can find updates to this document and other documentation for your NetBotz appliances on the applicable product page of **www.apc.com**.

To find a product page on **www.apc.com**, enter the product name or part number in the Search field.

Additional options

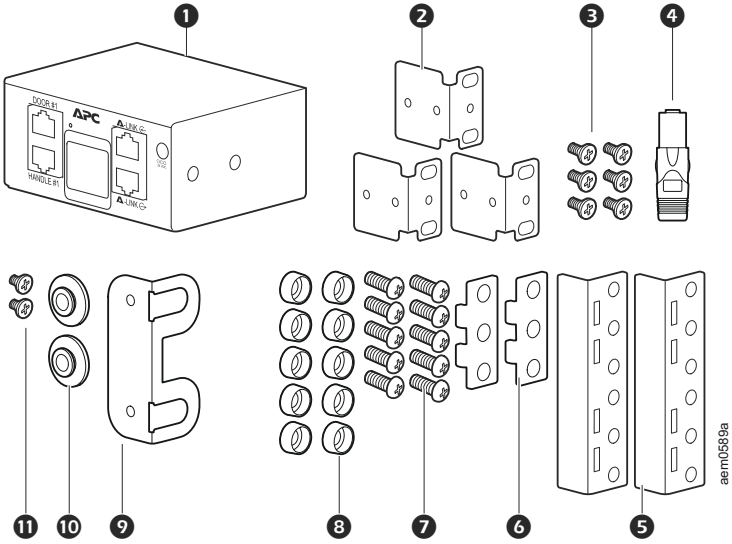
The following products are compatible with the Rack Access Pod.

- NetBotz Door Switch Sensor for APC by Schneider Electric Racks (NBES0303)
- NetBotz Door Switch Sensor for Rooms or Third Party Racks (NBES0302)
- Power Supply 100-240 VAC/24 VDC (AP9505I)

Inventory

Inspect the contents of the package to ensure that the parts included match those shown below. Report missing or damaged contents to APC by Schneider Electric or your reseller. If damage was due to shipping, immediately report the damage to the shipping agent.

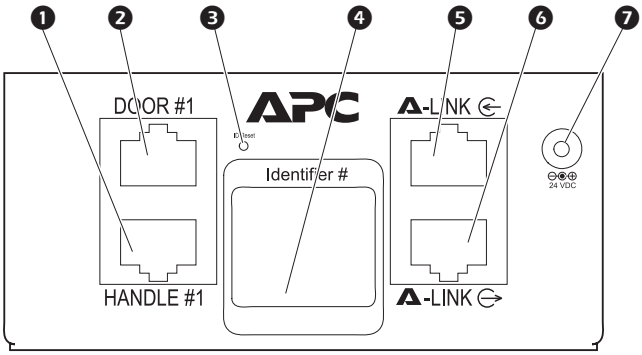
The shipping and packaging materials are recyclable. Please save them for later use or dispose of them appropriately



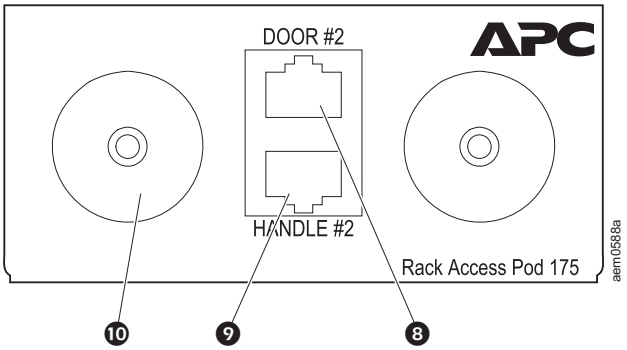
Item	Description	Item	Description
❶	Rack Access Pod 175 (NBPD0175) (1)	Toolless-mounting bracket kit	
❷	Brackets for a standard 19 in rack (3)	❾	Toolless-mounting bracket (1)
❸	8-32 x 1/4 in Phillips-head screws (6)	❿	Toolless-mounting pegs (2)
❹	A-Link terminator (1)	⓫	8-32 x 3/8 in Phillips-head screws (2)
Base-mount hardware kit		Not shown: • Door switch sensors (NBES0303) • 125 kHz Handle kit (NBHN125) Included with NBPD0125 only. • 13.56 MHz Handle kit (NBHN1356) Included with NBPD1356 only.	
❺	Rail extenders (2)		
❻	Spacers for rail extender (2)		
❼	M6 x 16 Phillips-head screws (10)		
❽	M6 washers (10)		

Physical Description

Front



Rear



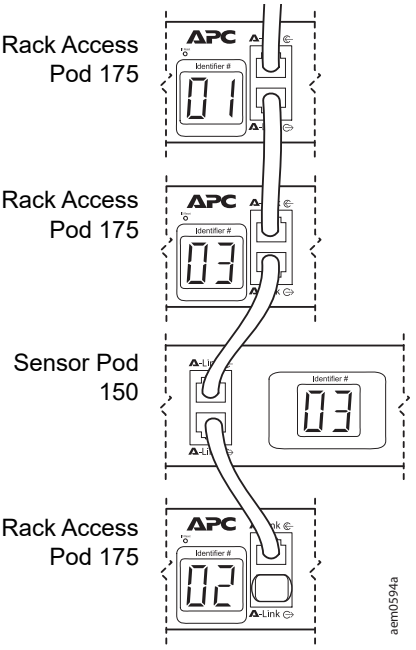
Item		Description
❶	Handle #1 Port	Port for the Handle (NBHN125 or NBHN1356) on Door #1.
❷	Door #1 Port	Port for a Door Switch sensor (NBES0302 or NBES0303) on Door #1.
❸	ID Reset button	Press for at least three (3) seconds to reset the LED Identifier number. See “The LED Identifier” on page 8.
❹	LED Identifier #	Displays a unique number to identify the Rack Access Pods in an A-Link cascade. Blinks when an alert occurs on the Rack Access Pod. See “The LED Identifier” on page 8.
❺	A-Link port (in)	Used for connecting the Rack Access Pod to a compatible appliance. Use standard CAT-5 cabling with straight-through wiring.
❻	A-Link port (out)	Used to cascade Rack Access Pods on an A-Link bus. Use standard CAT-5 cabling with straight-through wiring.
❼	24 VDC Power input	Connects to an external 24 V power supply (AP9505I). See your appliance documentation for specific power supply requirements.
❽	Door #2 Port	Port for a Door Switch sensor (NBES0302 or NBES0303) on Door #2.
❾	Handle #2 Port	Port for the Handle (NBHN125 or NBHN1356) on Door #2.
❿	Mounting pegs	Fixtures for toolless peg mounting (see “Toolless peg-mount installation” on page 13).

The LED Identifier

The ID is automatically assigned based on the next available number in the A-Link cascade. Available numbers are determined by other Rack Access Pods in the cascade. The Rack Access Pod does not take other sensors (such as Sensor Pod 150 units) into account when configuring the ID.

For example, if you add an unconfigured Rack Access pod to an A-Link Cascade with Rack Access Pods numbered 1 and 3, the unconfigured Rack Access Pod will be assigned an ID of 2.

NOTE: The Rack Monitor 750 has an internal Rack Access Pod with an ID of 1. All external Rack access Pods connected to a Rack Monitor 750 will have IDs of 2 and higher.



Reset the ID

Press the ID Reset button for at least three (3) seconds. The ID is reset to default, then the Rack Access Pod restarts and assigns a new ID based on the first available ID in the A-Link cascade.

Install the Rack Access Pod

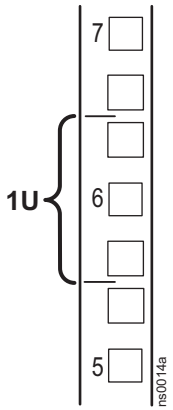
NOTICE
• Do not create a hazardous condition due to uneven mechanical loading. For example, do not use the Rack Access Pod as a shelf. • Use only the provided hardware when installing the brackets. • Install the Rack Access Pod in an environment compatible with the environmental specifications on page 16.

You can mount the Rack Access Pod on the mounting rails with a Sensor Pod 150, or on the cable channel of an APC by Schneider Electric Rack using Toolless peg-mount installation.

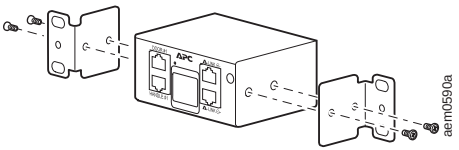
Rack-mount installation (with Sensor Pod 150)

The Rack Access Pod can be mounted in the same U-space as an existing Sensor Pod 150.

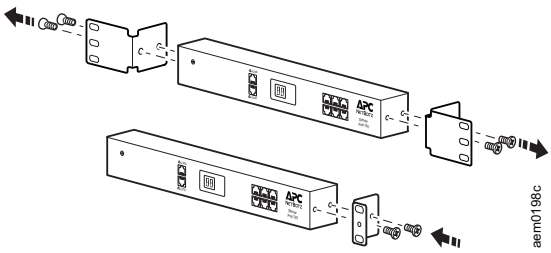
1. Choose a location for the Rack Access Pod. The Rack Access Pod occupies one U-space. A notched hole or a number on the vertical rail of the rack denotes the middle of a U-space.



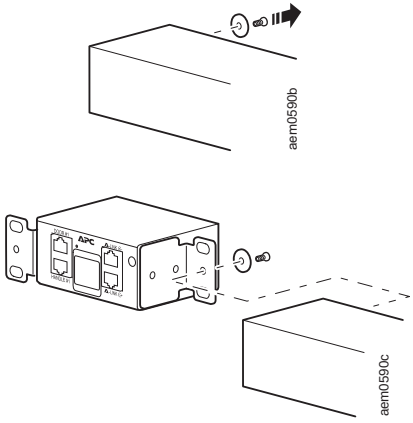
2. Install the provided brackets on each end of the Rack Access Pod.



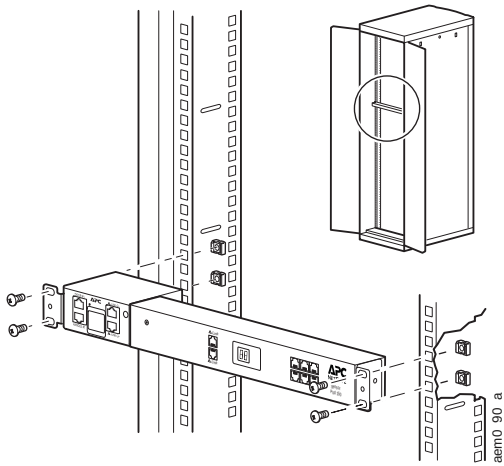
3. Remove the existing brackets from the Sensor Pod 150. Install the third mounting bracket (provided).



4. Remove one peg and screw from the Sensor Pod 150. Then use the peg and screw to secure the Rack Access Pod to the Sensor Pod 150.

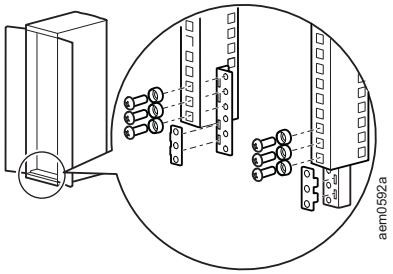


5. Secure the coupled Rack Access Pod and Sensor Pod to the rack using cage nuts and screws (not provided).

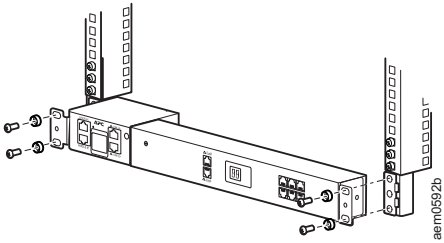


Base-mount installation

1. Follow steps 1–4 of “Rack-mount installation (with Sensor Pod 150)” on page 9.
2. Use the provided M6 screws and washers to install the base-mount hardware kit on your rack.



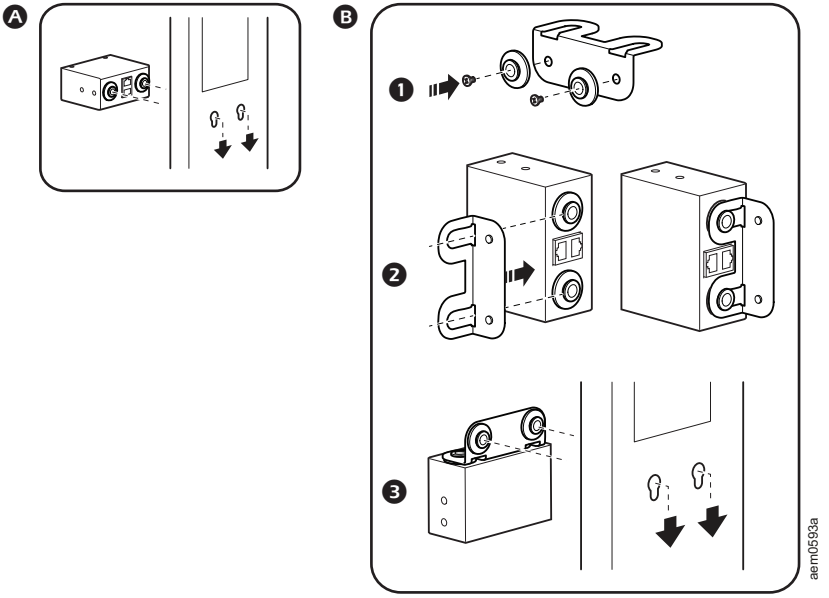
3. Use the provided M6 screws and washers to secure the coupled Rack access pod and sensor pod to the rail extender.



Toolless peg-mount installation

The toolless mounting pegs are compatible with accessory channels included in NetShelter SX and VX racks.

You can install the Rack Access Pod in directly in an accessory channel (Ⓐ), or use the toolless peg-mount bracket kit (Ⓑ) to leave the rear ports open.



Connect Sensors

NOTICE
EQUIPMENT DAMAGE RISK • Connect A-Link terminators **ONLY** to A-Link ports. • Do not connect A-Link cables or ports to the **Door** and **Handle** ports on the Rack Access Pod. • Only connect approved devices to ports on the Rack Access Pod as directed in this manual. **Failure to follow these instructions will result in equipment damage.**

Door Switch Sensors and Handles

Each Rack Access Pod can monitor and control two sets of Door Switch Sensors and handles. Each set corresponds to a single rack door. Connect handles to the **Handle #1** and **Handle #2** ports. Connect Door Switch Sensors to the **Door #1** and **Door #2** ports.

Use only handles included with a Rack Access Pod 175 (NBHN125 or NBHN1356). The Rack Access Pod 175 does not support handles for the Rack Access Pod 170 (NBHN0171).

A-Link Cascades

You can cascade additional sensors from the Rack Access Pod on an A-Link bus. See your appliance *Installation and Quick Configuration Manual* for compatible sensors and instructions to create an A-Link cascade.

You may need to attach one or more power supplies (AP9505l) to the Rack Access Pod. The number of power supplies needed depends on your host appliance and the number of Rack Access Pods in the cascade. See your appliance documentation for the number of power supplies needed.

Monitor Sensors

Once your system is installed and receiving power, configure the sensors and begin monitoring your system using the software interface of the appliance.

See your appliance documentation for instructions to connect to the appliance and access its software interface.

Firmware Upgrades

Firmware upgrades for Rack Access Pods are included with firmware upgrades for compatible NetBotz appliances. See the appliance documentation for more information.

NOTE: The Rack Access Pod Identifier # LED shows **88** during a firmware upgrade. During the upgrade, data from sensors connected to the Rack Access Pod will be invalid.

Clean the Rack Access Pod

To clean the device, gently wipe surfaces with a clean, dry cloth.

Specifications

Electrical	
Input voltage, nominal	24 VDC; 100-230 mA
Maximum total current draw	230 mA
Physical	
Dimensions (H x W x D)	44.2 x 95.5 x 74.7 mm (1.7 x 3.8 x 2.9 in)
Shipping dimensions (H x W x D)	81.0 x 237.5 x 144.5 mm (3.2 x 9.3 x 5.6)
Weight	0.4 kg (0.9 lb)
Shipping weight	0.7 kg (1.5 lb)
Environmental	
Elevation (above MSL)	
Operating	0 to 3000 m (0 to 10,000 ft)
Storage	0 to 15 000 m (0 to 50,000 ft)
Temperature	
Operating	0 to 45°C (32 to 113°F)
Storage	–15 to 65°C (5 to 149°F)
Humidity	
Operating	0 to 95%, non-condensing
Storage	0 to 95%, non-condensing
Compliance	
EMC verification	CE (EN55032, EN55035, EN55024), FCC, ICES-003

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 by Schneider Electric warrants its products to be free from defects in materials and workmanship for a period of two years from the date of purchase. APC by Schneider Electric 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 by Schneider Electric website, **www.apc.com**.

Exclusions

APC by Schneider Electric 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 by Schneider Electric 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 by Schneider Electric recommendations or specifications or in any event if the APC by Schneider Electric serial number has been altered, defaced, or removed, or any other cause beyond the range of the intended use.

THERE ARE NO WARRANTIES, EXPRESS OR IMPLIED, BY OPERATION OF LAW OR OTHERWISE, OF PRODUCTS SOLD, SERVICED OR FURNISHED UNDER THIS AGREEMENT OR IN CONNECTION HEREWITH. APC BY SCHNEIDER ELECTRIC DISCLAIMS ALL IMPLIED WARRANTIES OF MERCHANTABILITY, SATISFACTION AND FITNESS FOR A PARTICULAR PURPOSE. APC BY SCHNEIDER ELECTRIC EXPRESS WARRANTIES WILL NOT BE ENLARGED, DIMINISHED, OR AFFECTED BY AND NO OBLIGATION OR LIABILITY WILL ARISE OUT OF, APC BY SCHNEIDER ELECTRIC RENDERING OF TECHNICAL OR OTHER ADVICE OR SERVICE IN CONNECTION WITH THE PRODUCTS. THE FOREGOING WARRANTIES AND REMEDIES ARE EXCLUSIVE AND IN LIEU OF ALL OTHER WARRANTIES AND REMEDIES. THE WARRANTIES SET FORTH ABOVE CONSTITUTE APC BY SCHNEIDER ELECTRIC'S SOLE LIABILITY AND PURCHASER'S EXCLUSIVE REMEDY FOR ANY BREACH OF SUCH WARRANTIES. APC BY SCHNEIDER ELECTRIC WARRANTIES EXTEND ONLY TO PURCHASER AND ARE NOT EXTENDED TO ANY THIRD PARTIES.

IN NO EVENT SHALL APC BY SCHNEIDER ELECTRIC, ITS OFFICERS, DIRECTORS, AFFILIATES OR EMPLOYEES BE LIABLE FOR ANY FORM OF INDIRECT, SPECIAL, CONSEQUENTIAL OR PUNITIVE DAMAGES, ARISING OUT OF THE USE, SERVICE OR INSTALLATION, OF THE PRODUCTS, WHETHER SUCH DAMAGES ARISE IN CONTRACT OR TORT, IRRESPECTIVE OF FAULT, NEGLIGENCE OR STRICT LIABILITY OR WHETHER APC BY SCHNEIDER ELECTRIC HAS BEEN ADVISED IN ADVANCE OF THE POSSIBILITY OF SUCH DAMAGES. SPECIFICALLY, APC BY SCHNEIDER ELECTRIC IS NOT LIABLE FOR ANY COSTS, SUCH AS LOST PROFITS OR REVENUE, LOSS OF EQUIPMENT, LOSS OF USE OF EQUIPMENT, LOSS OF SOFTWARE, LOSS OF DATA, COSTS OF SUBSTITUENTS, CLAIMS BY THIRD PARTIES, OR OTHERWISE.

NO SALESMAN, EMPLOYEE OR AGENT OF APC BY SCHNEIDER ELECTRIC IS AUTHORIZED TO ADD TO OR VARY THE TERMS OF THIS WARRANTY. WARRANTY TERMS MAY BE MODIFIED, IF AT ALL, ONLY IN WRITING SIGNED BY AN APC BY SCHNEIDER ELECTRIC OFFICER AND LEGAL DEPARTMENT.

Warranty claims

Customers with warranty claims issues may access the APC by Schneider Electric customer support network through the Support page of the APC by Schneider Electric website, **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.

Radio Frequency Interference

Changes or modifications to this unit not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.

USA—FCC

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 this user manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference. The user will bear sole responsibility for correcting such interference.

Canada—ICES

This Class A digital apparatus complies with Canadian ICES-003.

Cet appareil numérique de la classe A est conforme à la norme NMB-003 du Canada.

Australia and New Zealand

Attention: This is a Class A product. In a domestic environment this product may cause radio interference in which case the user may be required to take adequate measures.

European Union

This product is in conformity with the protection requirements of EU Council Directive 2014/30/EU on the approximation of the laws of the Member States relating to electromagnetic compatibility. APC by Schneider Electric cannot accept responsibility for any failure to satisfy the protection requirements resulting from an unapproved modification of the product.

This product has been tested and found to comply with the limits for Class A Information Technology Equipment according to CISPR 32/European Standard EN 55032. The limits for Class A equipment were derived for commercial and industrial environments to provide a reasonable protection against interference with licensed communication equipment.

Attention: This is a Class A product. In a domestic environment this product may cause radio interference in which case the user may be required to take adequate measures.

Worldwide Customer Support

Customer support for this product is available at **www.apc.com/support**.

990-4231A-001 **4/2020**