

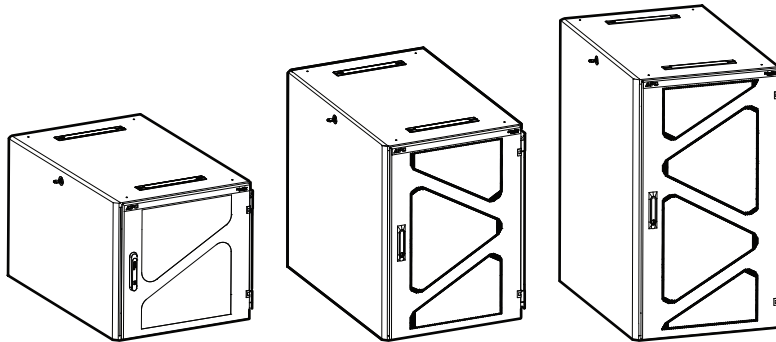
NetShelter™ UPS Depth Wall-Mount Enclosure

Installation and Customization

AR112SM, AR118SM, AR124SM



Release date: 3/2024



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Introduction

The APC NetShelter™ UPS Depth Wall-Mount Enclosures are high-quality enclosures for storage of industry-standard (EIA-310), 19 in. rack-mount hardware, which includes servers and voice, data, networking, internetworking, and power protection equipment.

This manual covers the following NetShelter UPS-Depth Wall-Mount Enclosures:

Model	U Space	Enclosure Height	Enclosure Width	Width with Bracket	Enclosure Depth
AR112SM	12 U	622 mm (24.5 in)	643 mm (25.3 in)	664 mm (26.1 in)	1,037 mm (40.8 in)
AR118SM	18 U	889 mm (35.0 in)	643 mm (25.3 in)	664 mm (26.1 in)	1,037 mm (40.8 in)
AR124SM	24 U	1,156 mm (45.5 in)	643 mm (25.3 in)	664 mm (26.1 in)	1,037 mm (40.8 in)

1U= 44.45 mm (1.75 in.)

Safety

Read the instructions carefully to become familiar with the device before trying to install, operate, service or maintain it. The following 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

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

WARNING

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

CAUTION

CAUTION indicates a potentially hazardous situation which, if not avoided, **can result in minor or moderate injury**.

CAUTION

CAUTION, used without the safety alert symbol, indicates a potentially hazardous situation which, if not avoided, **can result in equipment damage**.

NOTICE

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

Qualified Personnel

Electrical equipment should only be installed, operated, serviced, and maintained by qualified personnel. No responsibility is assumed by APC for any consequences arising out of the use of this material.


A qualified person is one who has skills and knowledge related to the construction, installation and operation of electrical equipment and has received safety training to recognize and avoid the hazards involved.

Always abide strictly by local laws and regulations in force in the place of installation.

Wall-Mount Enclosure Safety

This manual contains important instructions that must be followed during the installation and customization of the enclosure.

 DANGER
HAZARD OF ELECTRIC SHOCK, EXPLOSION, OR ARC FLASH <ul style="list-style-type: none">• The enclosure must be connected to the building Common Bonding Network (CBN).• Ensure all ground wires are connected. Failure to follow these instructions will result in death or serious injury.

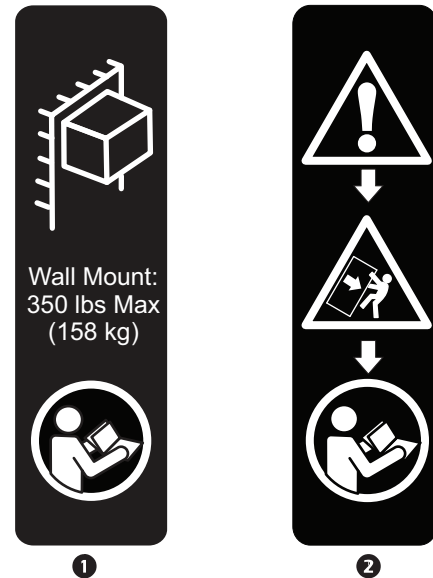
 WARNING
TIP/HEAVY EQUIPMENT HAZARD <ul style="list-style-type: none">• This enclosure is easily tipped. Use extreme caution when unpacking or moving.• At least two people are required to unpack and move the enclosure.• At least two people are required to install the enclosure.• The installation surface and mounting hardware must be able to support the fully-loaded enclosure. Failure to follow these instructions can result in death or serious injury.

Labels


The following labels can be found on the enclosure, and serve to communicate the following information:

Label ❶: Maximum Load is 350 lbs. (158 kg). Read the Manual.

Label ❷: Attention. Tip Hazard. Read the Manual.



The enclosure must be secured to the mounting bracket with the four (4) T30 bolts provided.

WARNING	
	UNSECURED EQUIPMENT FALLING HAZARD <ul style="list-style-type: none">• Enclosure wall mount requires reinstallation of all four (4) T30 bolts.• Enclosure is designed to support loads only with all four (4) mounting bolts installed. Failure to follow these instructions can result in death or serious injury.
<small>885-91817</small>	

Unpack the Enclosure

Disclaimer

APC and Schneider Electric are not responsible for damage sustained during reshipment of this product.

Inspection

Inspect the packaging and contents for shipping damage. Make sure that all parts are accounted for. Report any damage immediately to the shipping agent. Report missing contents, damage, or other problems immediately to APC, Schneider Electric, or your reseller.

Please Recycle

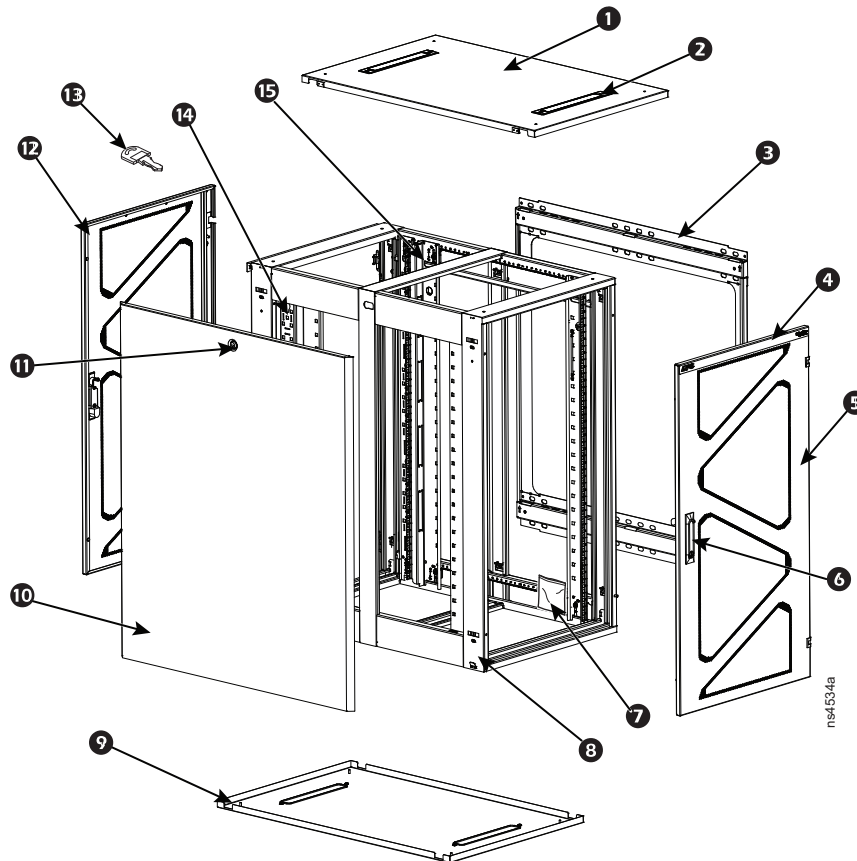


The shipping materials are recyclable. Save them for later use, or dispose of them appropriately.

Component Identification

Inventory

Enclosure



- | | | | |
|---|------------------------------|----|------------------------------|
| 1 | Top Cover | 9 | Bottom Cover |
| 2 | Removable Cable Access Plate | 10 | Side Panel |
| 3 | Wall-Mount Bracket | 11 | Side Panel Lock |
| 4 | Nameplate | 12 | Door |
| 5 | Door | 13 | Key for doors and side panel |
| 6 | Locking Door Handle | 14 | Accessory Panel |
| 7 | Hardware Bag | 15 | Vertical Mounting Flanges |
| 8 | Enclosure Frame | | |

Hardware Bag

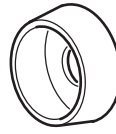
Hardware (provided)



M6 x 16 Phillips slot screw (40)



Cage nut (40)



M6 Plastic Cup Washer (40)

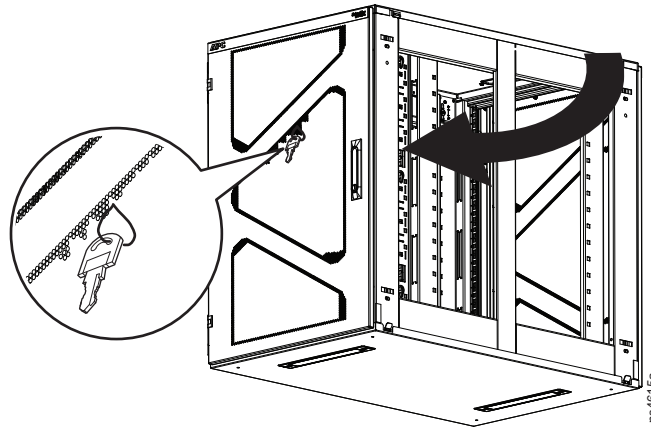
Tools (provided)



Cage nut tool (1)

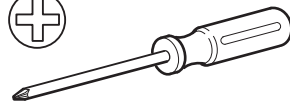
Key Location

The key is attached to the front door. Reach into the enclosure from the mounting side to remove the key. Maintain the key in a secure location when not in use.

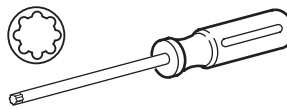


Tools Required (not provided)

NOTE: Tools required for mounting the enclosure are **NOT** noted here and are entirely dependent upon the mounting surface material.



Phillips screwdriver



Torx T30 driver

Wall-Mount Enclosure Installation

⚠ WARNING

TIP/HEAVY EQUIPMENT HAZARD

- This enclosure is easily tipped. Use extreme caution when unpacking or moving.
- At least two people are required to unpack and move the enclosure.
- The installation surface and mounting hardware must be able to support the fully-loaded enclosure.

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

Mounting Bracket

Remove the Mounting Bracket from the Wall-Mount Enclosure

⚠ CAUTION

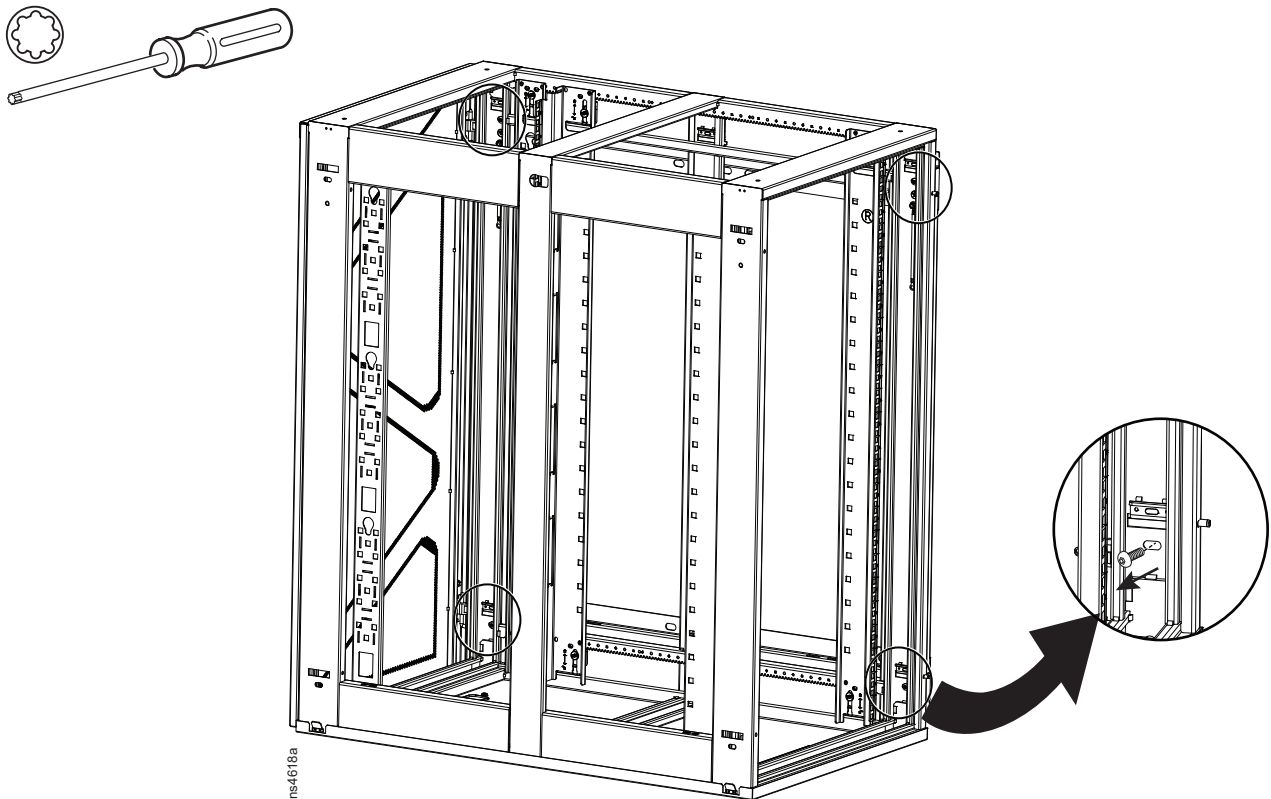
HEAVY EQUIPMENT HAZARD

At least two (2) people are required to perform this task.

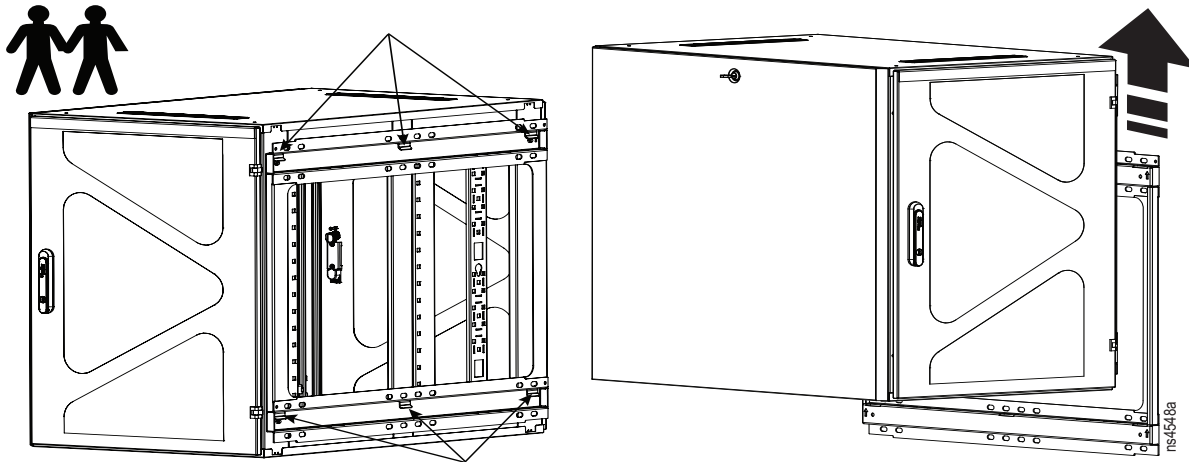
Failure to follow these instructions can result in serious injury or equipment damage.

Use a T-30 Torx driver to remove the four (4) M6 x 12 Pan head T-30 bolts securing the Wall-Mount Enclosure to the mounting bracket. Save the bolts to reinstall later.

The illustration below shows the enclosure with side panel and door removed for clarity.



There are three (3) tabs on the top and three (3) tabs on the bottom of the enclosure securing it to the bracket. Ensure the tabs in the enclosure leave the slots in the mounting bracket while lifting the enclosure from the mounting bracket.



Install the Mounting Bracket

⚠ WARNING

HEAVY/FALLING EQUIPMENT

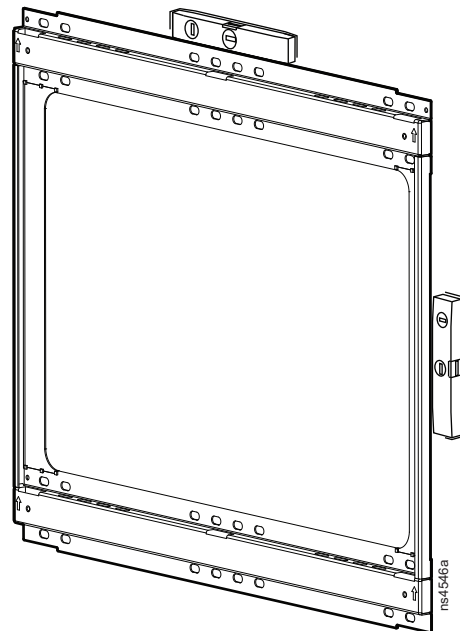
- Ensure mounting hardware is appropriately rated to support the full loaded weight of the cabinet. Consult with a qualified building or structural engineer for proper mounting.
- At least two (2) people are required to perform this task.

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

Mount the bracket to the intended wall or supporting surface using hardware appropriate for the materials of the supporting structure.



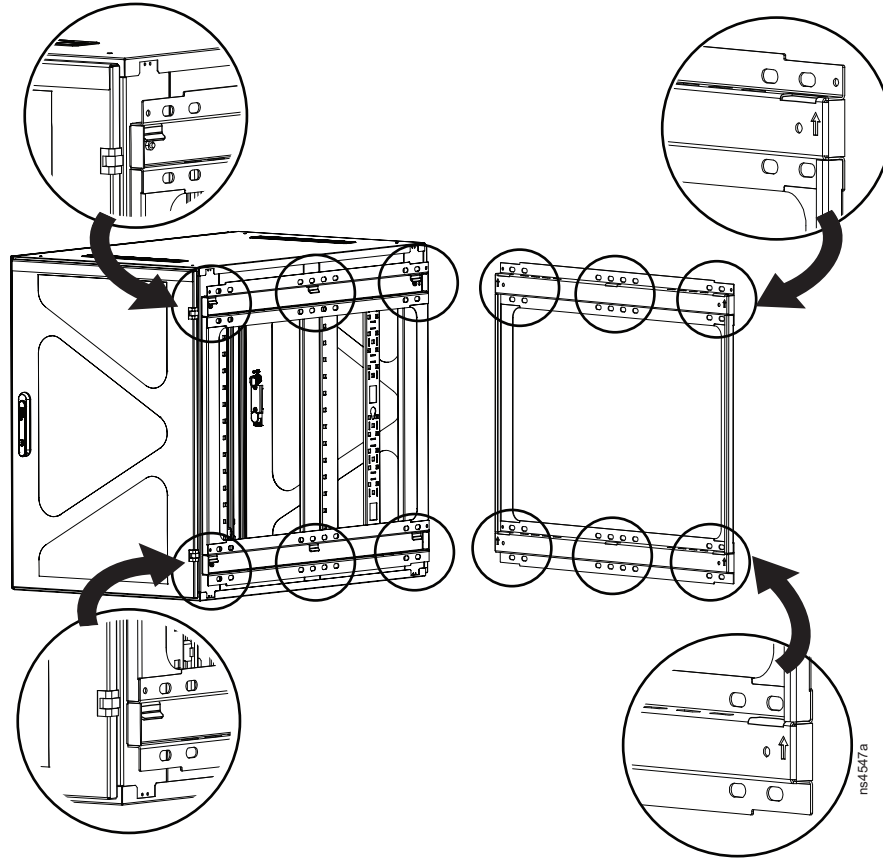
Use a level to ensure the mounting bracket is level and plumb.



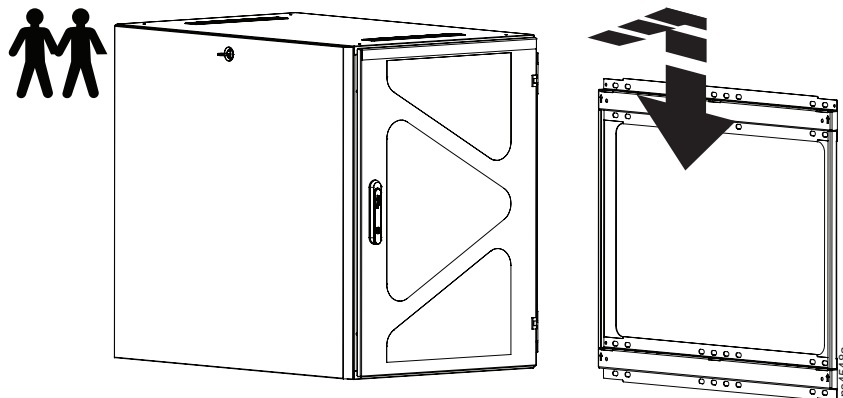
Install the Wall-Mount Enclosure

When the mounting bracket is secured, the Wall-Mount Enclosure can be installed to the mounting bracket.

There are three (3) tabs on the top of the rear frame of the enclosure and three (3) tabs on the bottom. The tabs will slide into the slots in the mounting bracket.



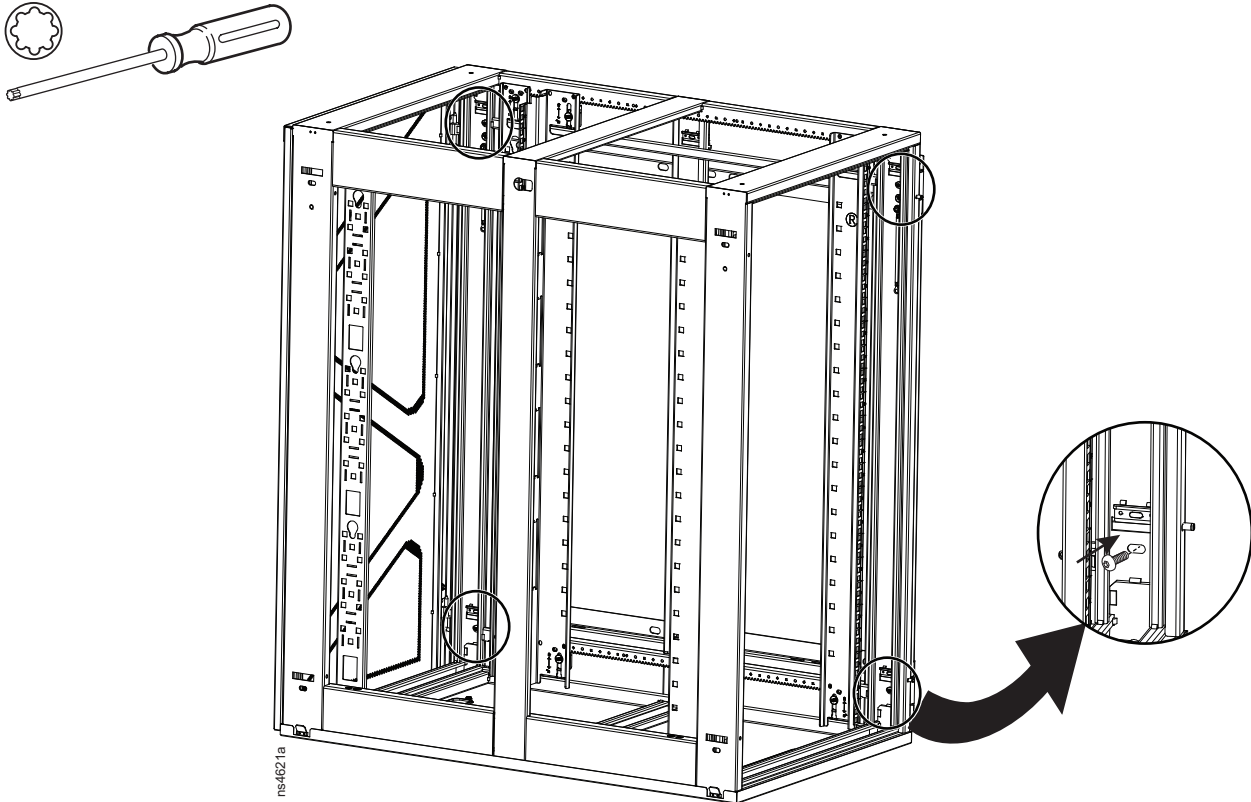
The enclosure must be lifted above the mounting bracket. Position the tabs over the slots in the mounting bracket and lower the enclosure until the tabs are inserted into the slots.



Secure the Wall-Mount Enclosure

Use a T-30 Torx driver to secure the enclosure with the four (4) M6 x 12 Pan head T-30 bolts you removed. See “Remove the Mounting Bracket from the Wall-Mount Enclosure” on page 7.

The illustration below shows the enclosure with side panel and door removed for clarity.



Ground the Wall-Mount Enclosure

⚠ ⚠ DANGER

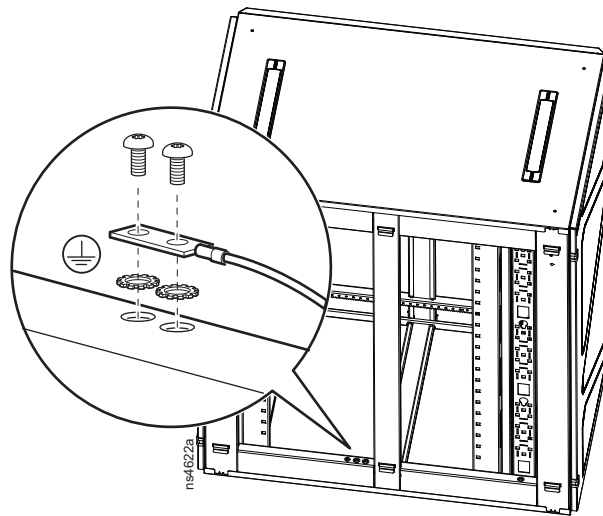
HAZARD OF ELECTRIC SHOCK

Connection of the enclosure to building Common Bonding Network (CBN) is required.

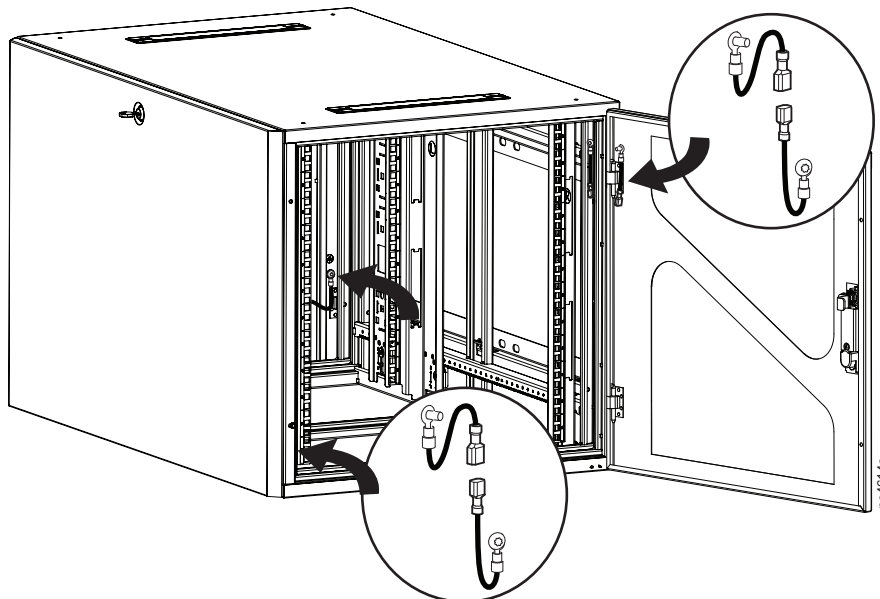
Failure to follow these instructions will result in death or serious injury.

The enclosure should be bonded directly to a common ground using the designated grounding location (two M6 threaded inserts) on the bottom of the Wall-Mount Enclosure frame.

- Use a Common Bonding Network Jumper kit (for example, Listed [KDER] Panduit® RGCBNJ660PY or equivalent).
- Use paint-piercing washers between the ground terminal and the frame, or remove the paint on the frame under the ground terminals, per NEC NFPA 70 Article 250.12.
- Torque the screws to 6.9 N•m (60 lb-in).
- Do not ground one Wall-Mount Enclosure to another in a cascading style. Ground each enclosure directly to the building ground (CBN).



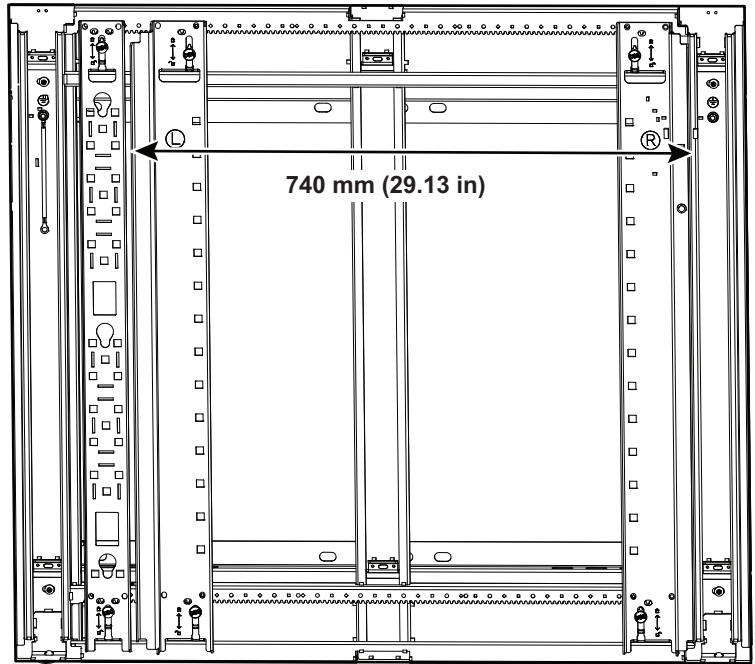
NOTE: The doors, and side panel of the enclosure are grounded to the frame with quick-disconnect ground wires.



Vertical Mounting Rails

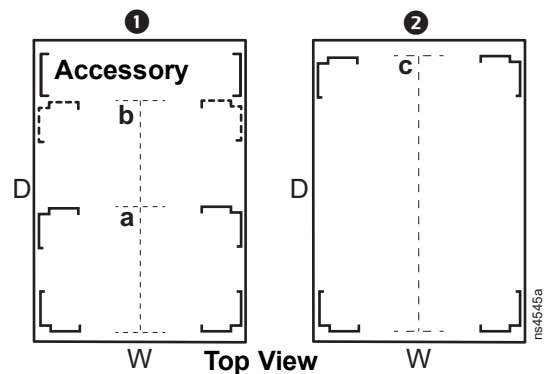
NOTE: NetShelter UPS Depth Wall-Mount Enclosures are intended for use with Listed equipment. If you install un-Listed equipment, you should evaluate the safety of your configuration.

Vertical mounting rails come factory-installed at 740 mm (29.13 in.), the proper location for use with rack-mountable equipment. The vertical mounting rails are adjustable towards the front or the rear of the enclosure to accommodate equipment with other depths.



Position the Vertical Mounting Rails

- Configuration ❶: The Accessory Channel is installed. The Vertical Mounting Rails can be installed a minimum distance of (a) and can extend as far as (b).
- Configuration ❷: The Accessory Channel is removed. The Vertical Mounting Rails can extend as far as (c).



a	b	c
190.5 mm (7.5 in)	746 mm (29.37 in)	835 mm (32.87 in)

Adjust the Vertical Mounting Rails

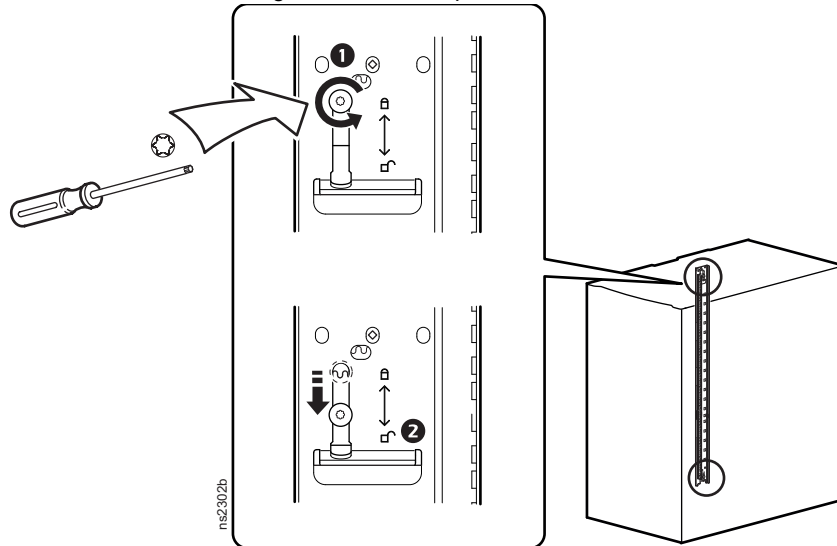
⚠ WARNING

FALLING EQUIPMENT HAZARD

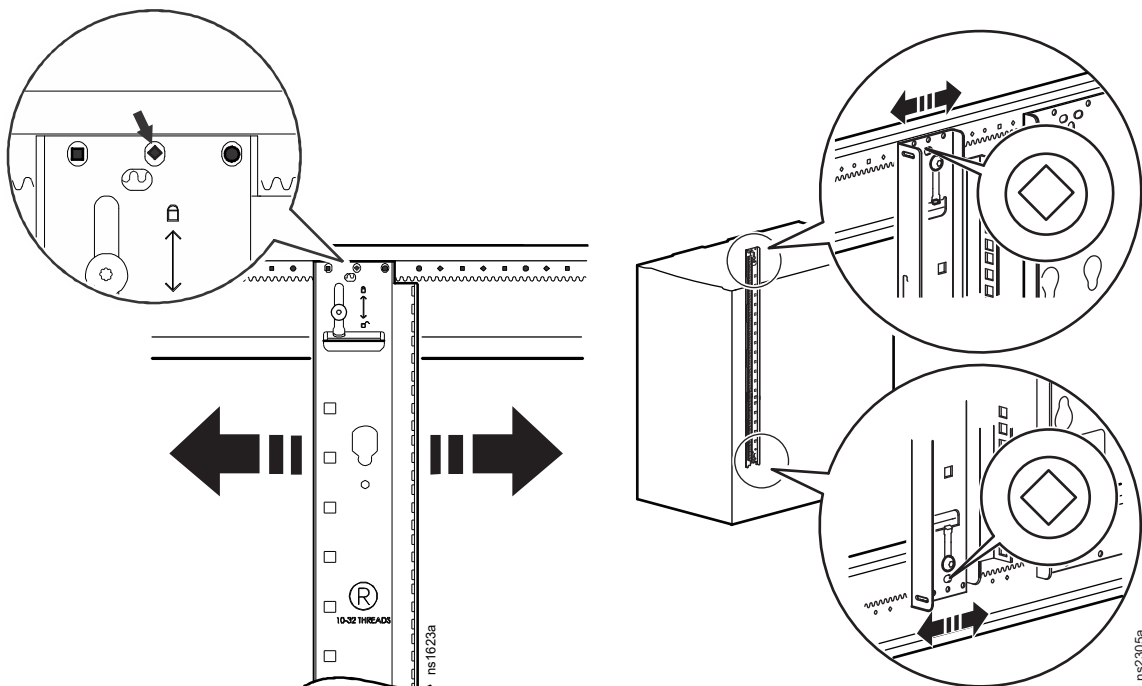
Remove all equipment installed on the vertical mounting rails before performing any adjustments.

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

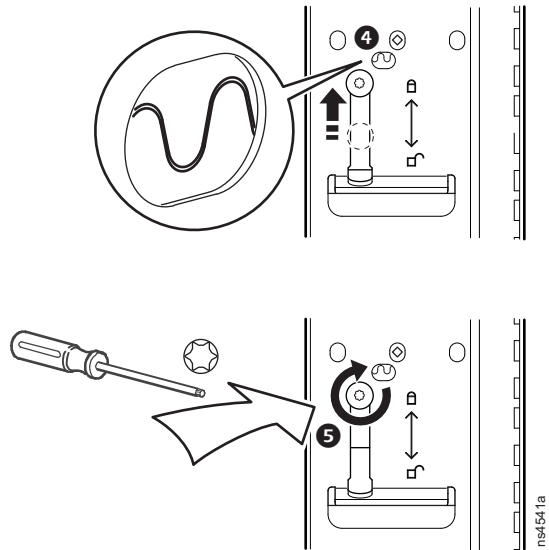
1. Use a Torx T30 driver to loosen the top and bottom Torx screws holding the vertical mounting rail in place. The brackets, held in place by the Torx screws, will now be loose.
2. Move both brackets to the designated unlocked position.



3. Move the mounting rail to the desired location. Vertical mounting rails adjust in 6 mm (1/4 in.) increments. To align the vertical mounting rails, note the symbol (for example, a diamond, as shown in the illustration). Only one symbol will be visible. In the factory standard position, a circle symbol is visible. Make sure the same symbol is visible through the corresponding hole at both the top and the bottom of the rail.

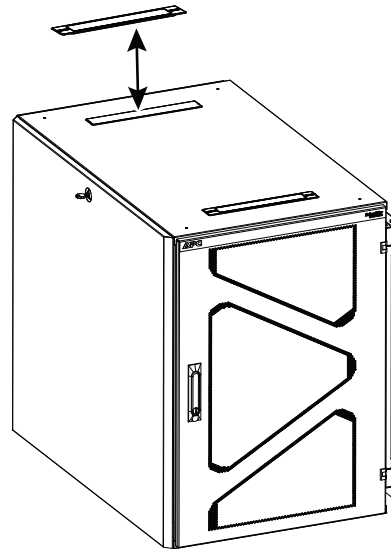


4. When the vertical mounting rail is in the desired location at the top and bottom, raise the flat bracket to the lock position. The teeth in the bracket will engage fully with the teeth in the horizontal side rail.
5. Tighten the TORX screws.



Cable Management

The NetShelter UPS Depth Wall-Mount Enclosure has multiple cable access openings, on the top and bottom. Route, secure, and organize cables using these openings.



In addition, two rear vertical 0U cable organizers, or accessory channels, are included in the Wall-Mount Enclosure. Further cable management accessories are available. Please see www.apc.com or contact an APC or Schneider Electric re-seller for more information.

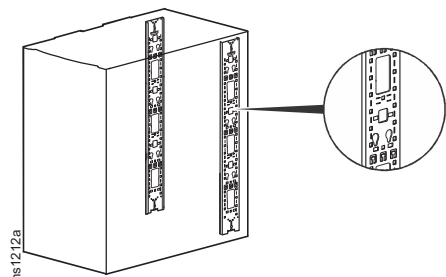
Accessory Channel

The accessory channels provide toolless mounting capabilities for Rack Power Distribution Units and cable management accessories.

There are two accessory channels included with the UPS Depth Wall-Mount Enclosure. The factory-default position for the accessory channels is in the rear of the enclosure, as shown in the graphic.

The channels also provide tie-off locations for cables, as well as other specific holes for managing cables with many NetShelter brackets, fasteners, and toolless mounting equipment.

Similar to the vertical mounting rails, the accessory channel can be moved anywhere along the horizontal side rails. The accessory channels are attached to the horizontal side rails at the top and bottom in the same manner as the vertical mounting rails. See “Vertical Mounting Rails” on page 12 for more information.



NOTE: The accessory channels can be removed, if desired.

Side Panel

⚠ WARNING

FALLING EQUIPMENT HAZARD

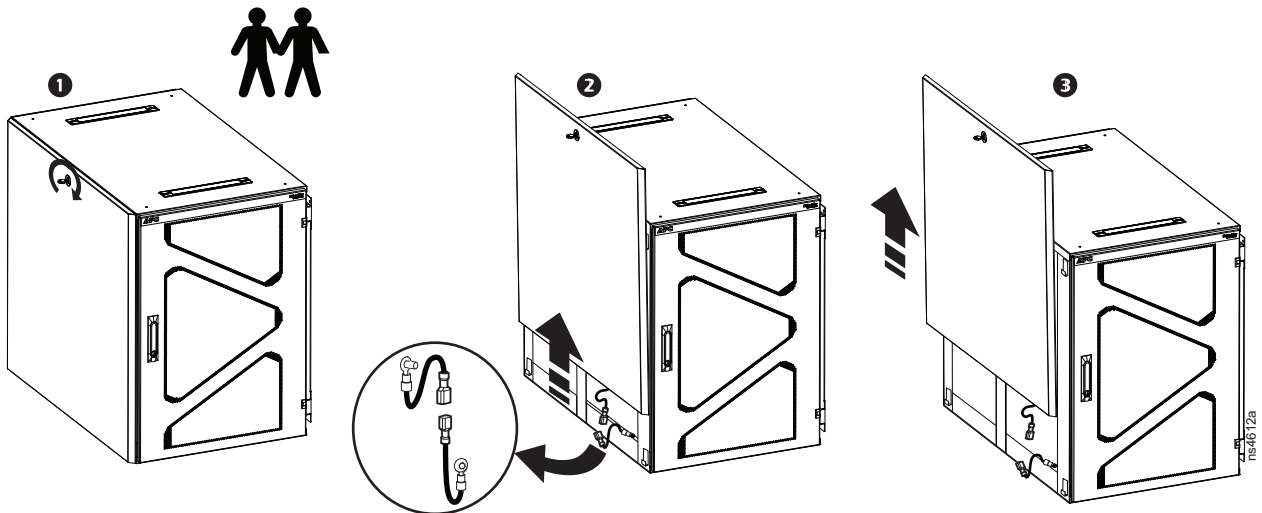
At least two (2) people are required to perform this task.

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

The side panel can be removed to allow for easier cable routing and equipment installation.

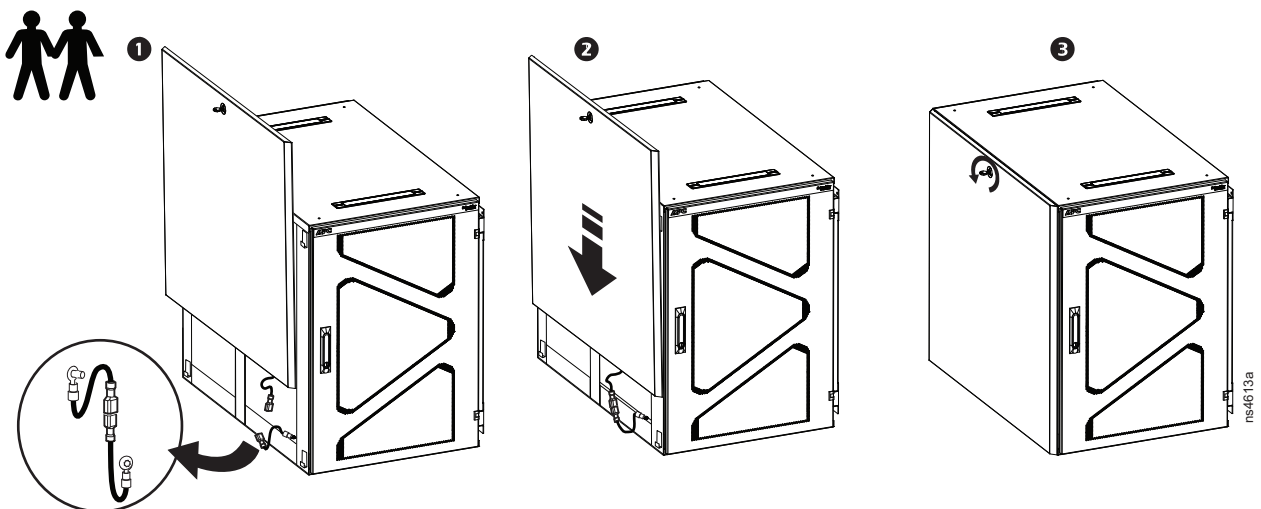
To remove the side panel:

1. Unlock the side pane with the provided key.
2. Lift the side panel up to free the panel from the brackets on the frame. Disconnect the ground wire.
3. Once the ground wire is disconnected the side panel can be removed.



To install the side panel:

1. While holding the side panel in position, connect the ground wire.
2. Position the side panel so that while sliding it down over the side of the frame, the panel will connect with the brackets. Ensure the locking mechanism is in position within it's mounting slot in the enclosure frame.
3. When the side panel is secure on the brackets, and the lock secure in the frame, use the key to lock the side panel. Secure the key.



Install Equipment

⚠ WARNING

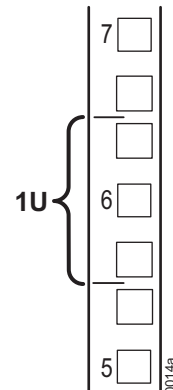
TIP/HEAVY EQUIPMENT HAZARD

Install the heaviest equipment first and toward the bottom of the enclosure to prevent the enclosure from becoming top-heavy.

Failure to follow these instructions can result in death, serious injury, or equipment damage.

Install rack-mount equipment in the enclosure:

1. Review the equipment manufacturer's installation instructions.
2. Locate the top and bottom U space on the vertical mounting rails. Every third hole on the mounting rails is numbered to indicate the middle of a U space.
3. Install the cage nuts on the interior of the vertical mounting rail; then install the equipment.



Cage Nut Installation

If needed, a cage nut hardware kit (AR8100) can be ordered. Contact www.apc.com or an APC reseller to order a cage nut hardware kit.

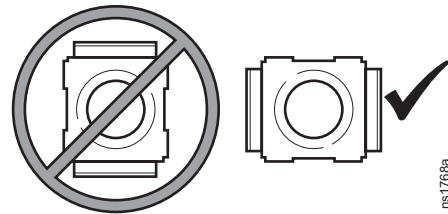
⚠ CAUTION

FALLING EQUIPMENT HAZARD

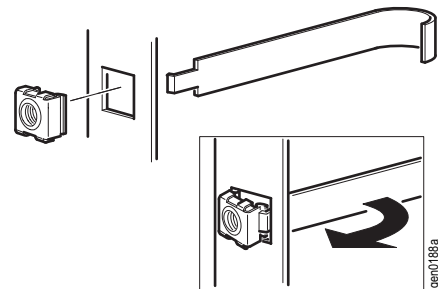
Do NOT install cage nuts vertically with the tabs engaging the top and bottom of the square hole.

Failure to follow these instructions can result in injury, or equipment damage.

- Install cage nuts horizontally, with the tabs engaging the sides of the square hole.
- Install the cage nuts on the interior of the vertical mounting rail.



1. Insert the cage nut into the square hole by hooking one tab of the cage nut assembly through the square mounting hole.
2. Place the cage nut tool on the inside of the vertical mounting rail and into the cage nut. Pull to snap the cage nut into position in the square mounting hole.



Cage Nut Removal

1. Remove any attached screw.
2. Grasp the cage nut and squeeze the sides to release it from the square mounting hole.

Specifications

	AR112SM	AR118SM	AR124SM
Height	622 mm (24.5 in)	889 mm (35.0 in)	1,156 mm (45.5 in)
Enclosure Width	643 mm (25.3 in)		
Width with Bracket	664 mm (26 in)		
Enclosure Depth	1,037 mm (40.8 in)		
Shipping Height	831.85 mm (32.75 in)	1234.55 mm (48.60 in)	1352.55 mm (53.25 in)
Shipping Width	793.75 mm (31.25 in)		
Shipping Depth	1187.45 mm (46.75 in)		
Maximum Load Weight Rating	158 kg (350 lb)	158 kg (350 lb)	158 kg (350 lb)
Net Weight	58.86 kg (129.5 lb)	69.54 kg (153 lb)	80 kg (176 lb)
Shipping Weight	85.45 kg (188 lb)	96.36 kg (212 lb)	112.27 kg (247 lb)

Limited Factory Warranty

The limited warranty provided by Schneider Electric in this Statement of Limited Factory Warranty applies only to Products you purchase for your commercial or industrial use in the ordinary course of your business.

Terms of Warranty

Schneider Electric warrants its products to be free from defects in materials and workmanship for a period of five years (two years in Japan) from the date of purchase. Its obligation under this warranty is limited to repairing or replacing, at its sole discretion, any such defective products. 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 applies only to the original purchaser who must have properly registered the product. Product may be registered at <http://www.warranty.apc.com>.

Exclusions

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 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, start-up by non-Schneider Electric designated personnel, a change in location or operating use, exposure to the elements, Acts of God, fire, theft, or installation contrary to Schneider Electric recommendations or specifications or in any event if the Schneider Electric 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

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