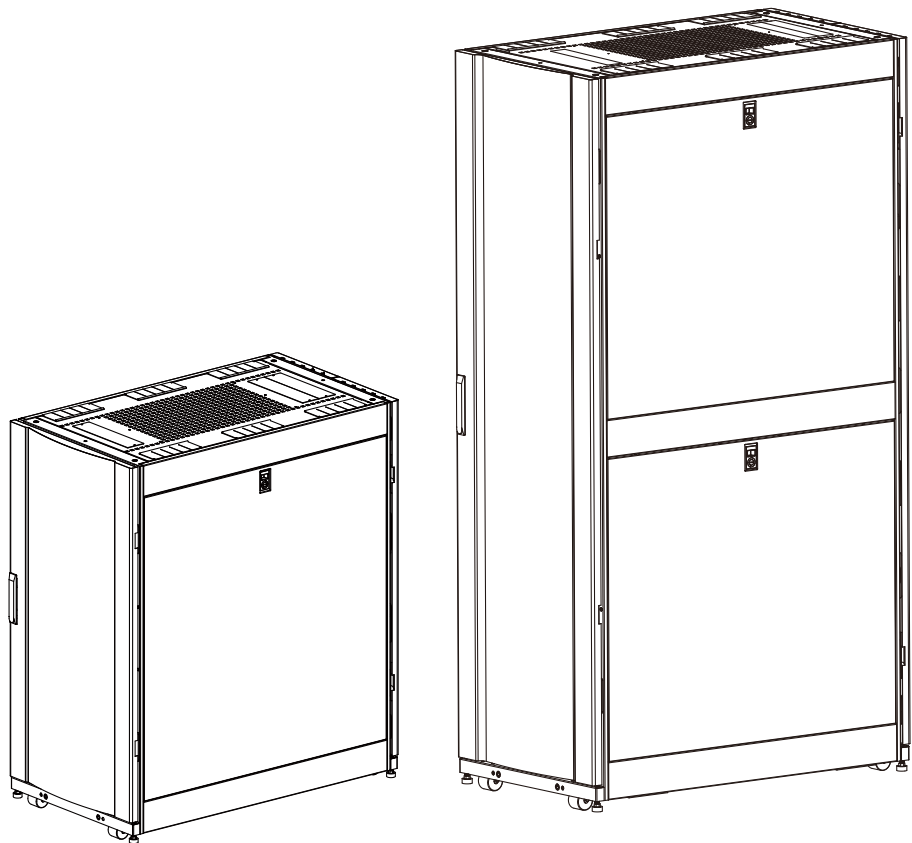


# Carbon™ Rack Enclosure

CRxU1 Series



**SAVE THESE INSTRUCTIONS**

Please read this manual and follow the instructions for installation and use.

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# Safety Instructions

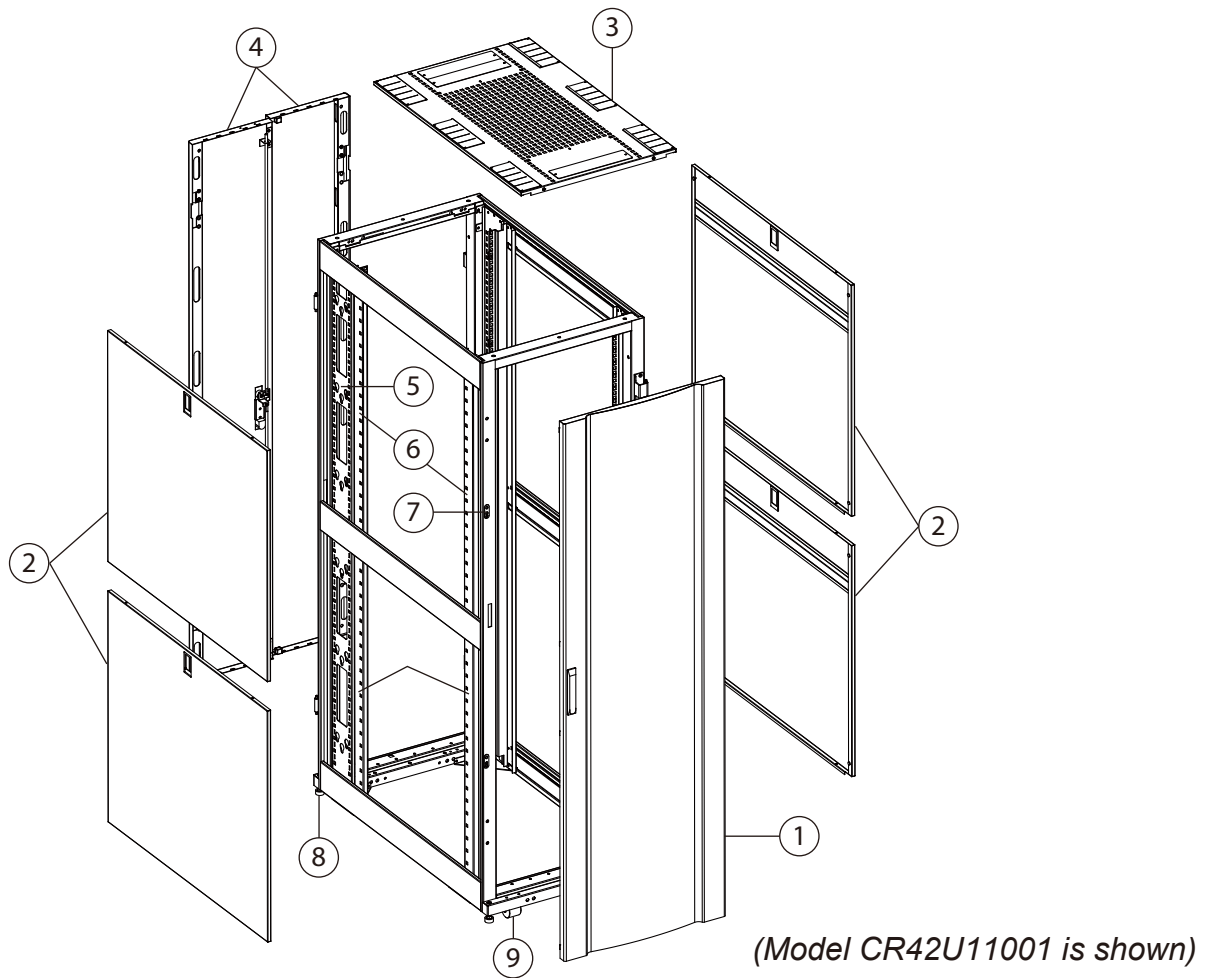


Please read these instructions carefully before use.

- The enclosure is a heavy object. Use of adequate mechanical means to move the enclosure to the desired location is highly recommended for long distances to minimize risk of injury or unit damage. Use of the included casters is to move the enclosure for short distances. Make sure the leveling feet have been raised before using the casters to move the enclosure. To move the enclosure on casters push from the front or rear. Pulling or pushing the enclosure from the sides can cause a serious tipping hazard.
- For safety reasons, it is highly recommended to handle this unit between two or more people. Use caution when unpacking, moving, and installing the enclosure. Failure to follow may cause serious injury, or unit damage.
- Handle the unit with care. Take precautions to avoid damaging the enclosure when unpacking, moving, repacking, or installing. Damage to the unit as a result of negligence is not covered under warranty.
- Inspect the product and included accessories carefully before use. Do not use an enclosure with visible damage.
- Before installing the enclosure, ensure that the floor is even and capable of supporting the total load being installed in the enclosure, including the enclosure itself.
- Do not stack the enclosures.
- Casters are only to be used to move the enclosure over short distances. Casters are not to be used to support the total installed weight of the equipment in the rack. Leveling feet should be lowered and secured such that casters are raised above floor level.
- Keep the enclosure in an appropriately ventilated space, and do not block the surrounding of the enclosure to ensure proper ventilation.
- Install the enclosure in an indoor area, free of dust, extreme moisture and temperature changes, away from flammable objects, conductive contaminants, and exposure to direct sunlight.
- Keep packaging materials if the enclosure will be reshipped. Do not ship the enclosure with any equipment installed. This can cause damage to the packaging material that can result in unit damage.

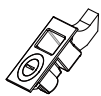
# Part Identification

## Enclosure Components

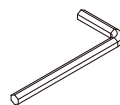


1. Removable, Reversible, and Lockable Front Door
2. Removable and Lockable Side Panels
3. Vented Roof Panel
4. Removable and Lockable Split Rear Doors
5. Rear Accessory Channels
6. Depth-adjustable Vertical Rack Angles
7. In-Row Rack Connection Brackets
8. Leveling Feet
9. Casters

## Hardware and Accessories



Retention Tab\*



Allen Wrench



Key (2)



M6 Phillips-Head Screw (50)



M6 Cage Nut (50)



Cup Washer (50)

# Enclosure Installation



Please read all instructions before installing. The enclosure is an extremely heavy object. For safety reasons, it is highly recommended to handle this unit between two or more people. Use caution when unpacking, moving, and installing the enclosure. Failure to follow these instructions may cause serious injury, or unit damage.

## Caution Labels

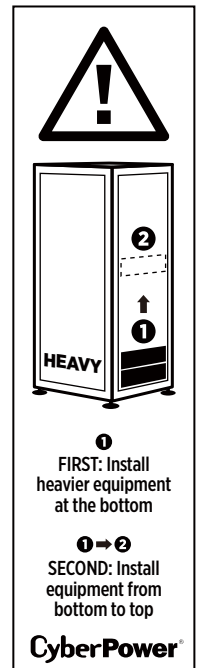
The following labels are found adhered to the enclosure providing the following information. Please read these labels carefully before moving and installing the enclosure.

(A)



(A) Tipping Hazard

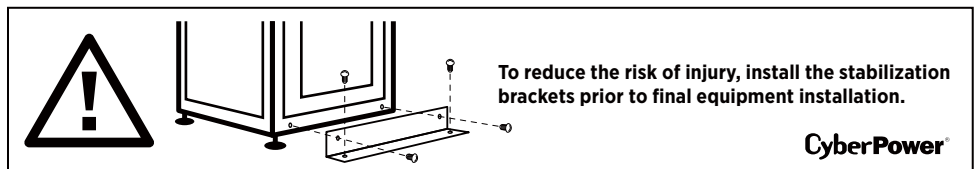
(B)



(B) Equipment Installation Caution

(C) Stabilization

(C)



# Move, Unpack and Place the Enclosure



Use an adequate mechanical means to move the enclosure to the desired location is highly recommended to minimize risk of injury or unit damage.

1. Use a mechanical lift to move the palletized enclosure close to the final place of installation. Minimize the distance the enclosure will be manually moved.



**NOTE:** Alternate method to move the enclosure is to use 4x M8 eye bolts (supplied by others) and screwing them on to the roof corners of the enclosure. Eye bolts should be rated to support at least 1000 lbs (450kg).

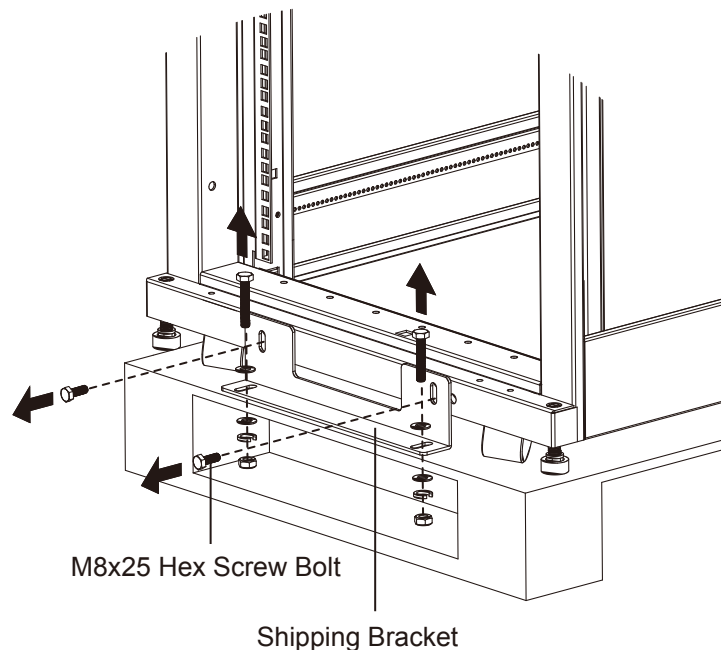
2. After moving the unit to the desired location remove the protective packaging.

**NOTE:** Side panels are shipped in separate packaging within the rack enclosure. Keep and store the side panel packaging material for later use as needed.

3. Unscrew the shipping brackets from the pallet and enclosure, and save brackets and hardware for later use.



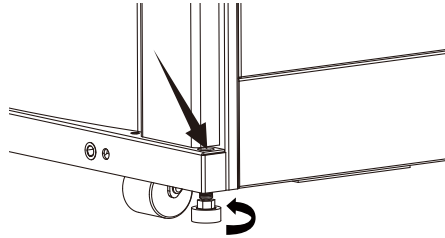
Use caution when removing the shipping brackets as the enclosure may shift unexpectedly.



4. Make sure the leveling feet have been raised. If not, turn the leveling feet counterclockwise to raise them.



Do not use the included casters to move the enclosure over long distances. Always raise the leveling feet when using the casters to move the enclosure. If the leveling feet were not raised, they would be damaged during moving.

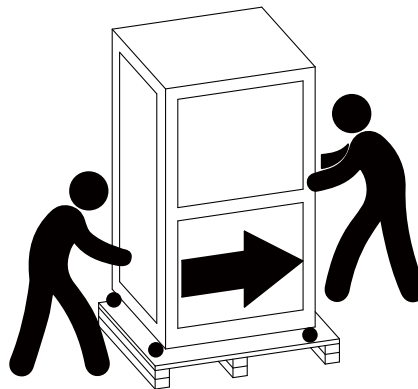


**NOTE:** To raise or lower the leveling feet, use a flat screwdriver to turn the screw from above or an 18mm open-end wrench to turn from the bottom. See drawing above.

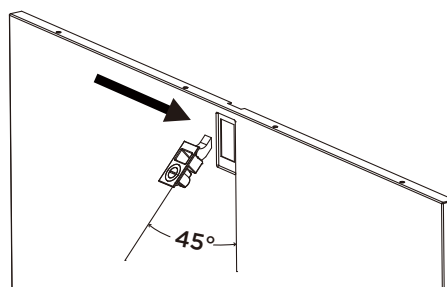
5. Between two or more people carefully push the enclosure from the front or rear to move it down to the floor off the pallet.



- Always handle the enclosure between two or more people. Avoid uneven floors when moving the enclosure.
- To move the enclosure on casters, push from the front or rear. Pulling or pushing the enclosure from the sides can cause a serious tipping hazard.



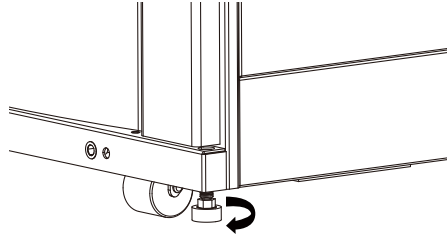
6. Side panels are shipped in separately inside the rack enclosure. Remove the side panels from their protective packaging, install the included retention tabs on to the side panels shown below, and install the panels on to the rack enclosure as shown in page 12, Open and Remove Side Panels.



## Leveling the Enclosure

This enclosure comes with 4 leveling feet installed. Turn the leveling feet clockwise to lower them to the floor. Ensure the leveling feet firmly support the enclosure while keeping it balanced and level.

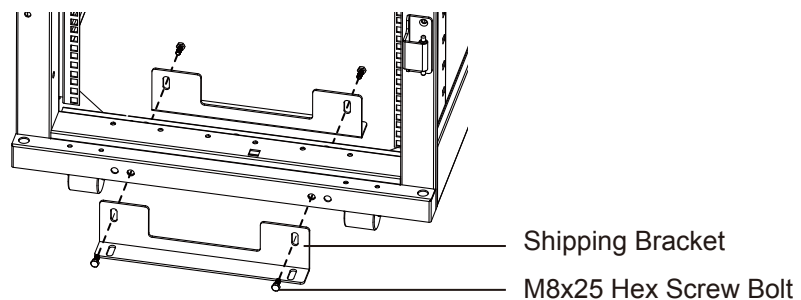
**NOTE:** Always lower the leveling feet on the enclosure after positioning it in its final location of installation.



## Stabilize the Enclosure

To reduce the risk of injury, install the shipping brackets to the front and rear frame prior to final equipment installation. Use the two shipping brackets that shipped with the enclosure and screw them on to the base of the enclosure. The brackets can be installed inside or outside of the enclosure for multiple applications.

**NOTE:** It is recommended to install the brackets inside the enclosure and installing the optional rack enclosure stabilizer kit (CRA60004) on the outside of the enclosure. Doing this will reinforce the stability of the enclosure.

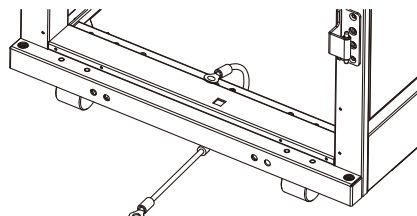


## Grounding Management



An individual grounding connection per enclosure is strongly recommended. Failure to follow may result in serious injury or death.

All enclosure doors have a pre-installed ground wire connected to the enclosure frame. To connect the enclosure to facility's ground, use the reserved grounding holes on the base of the front or rear door frame to install an 8 AWG wire with the included M6 screw, and connect the other side of the wire to the facility's grounding point.





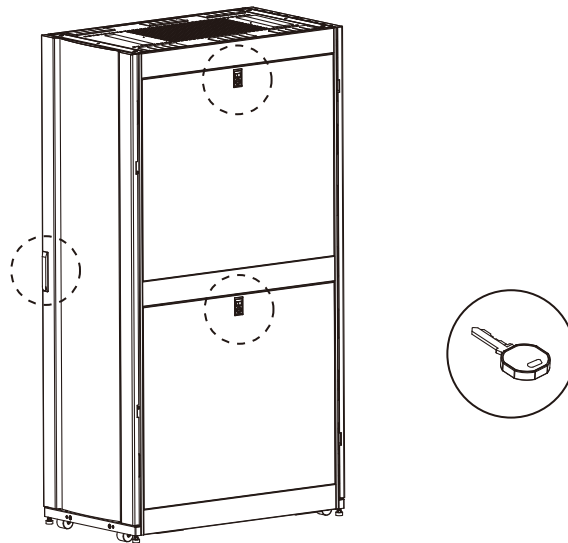
# Enclosure Setup



Setup the following configuration options shown in this section before mounting equipment into the enclosure.

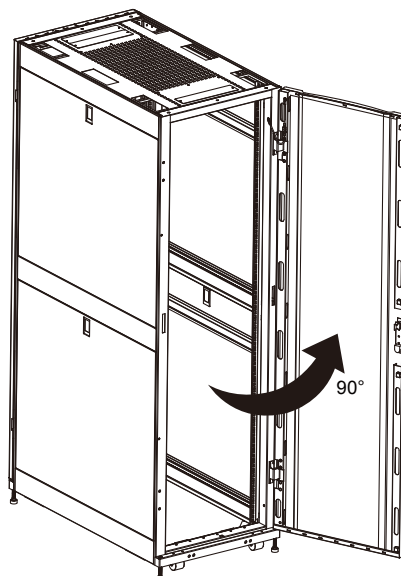
## Door and Side Panel Locks

The front door, rear door and side panel locks are keyed-alike. Use the included keys to operate the locks.

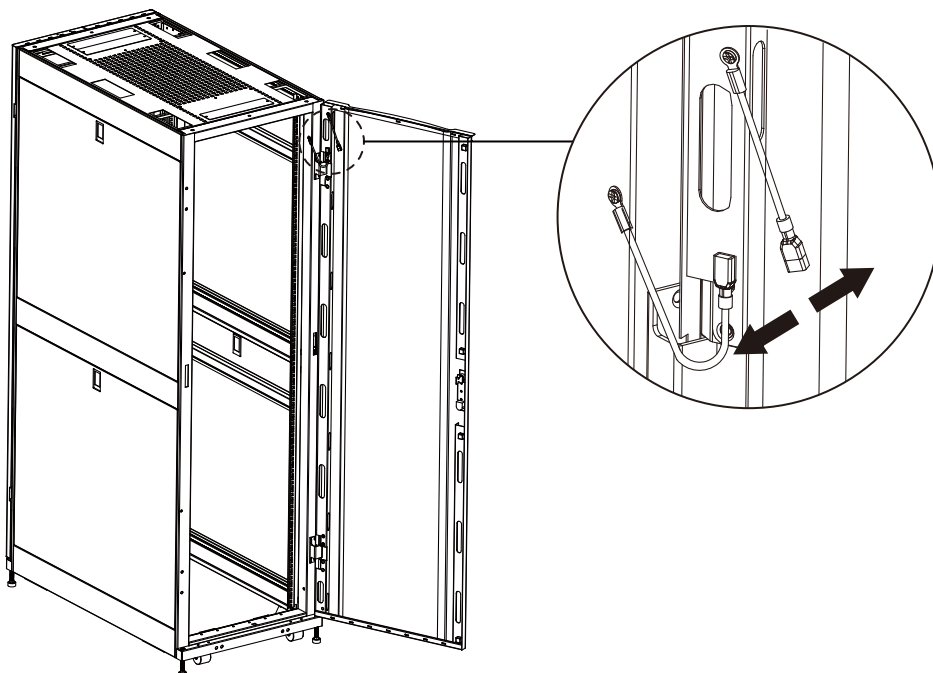


## Remove Front and Rear Doors

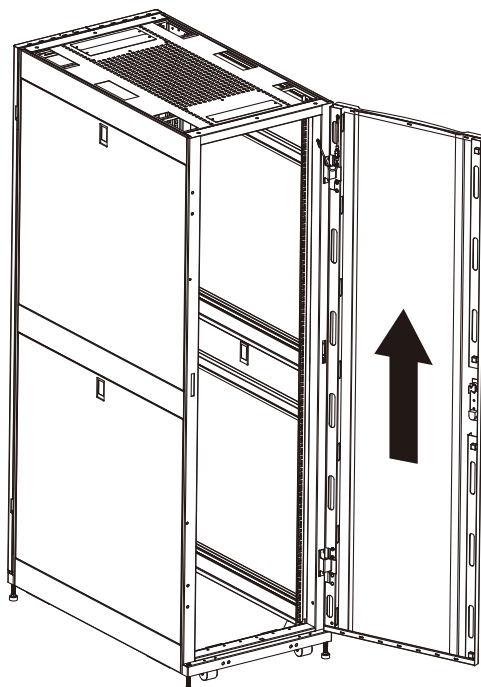
1. Open the front or rear door to be removed 90 degrees.



2. Disconnect the grounding wire connected the door and the frame.



3. Pull the door up to remove it from the door hinge.



## Reverse Front Door

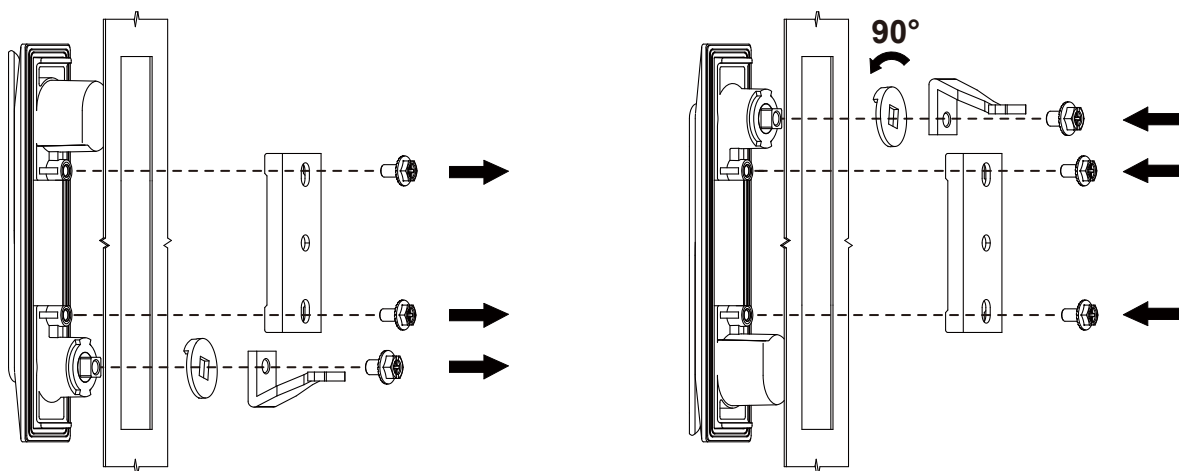


It is recommended to have two or more people assist in this operation.

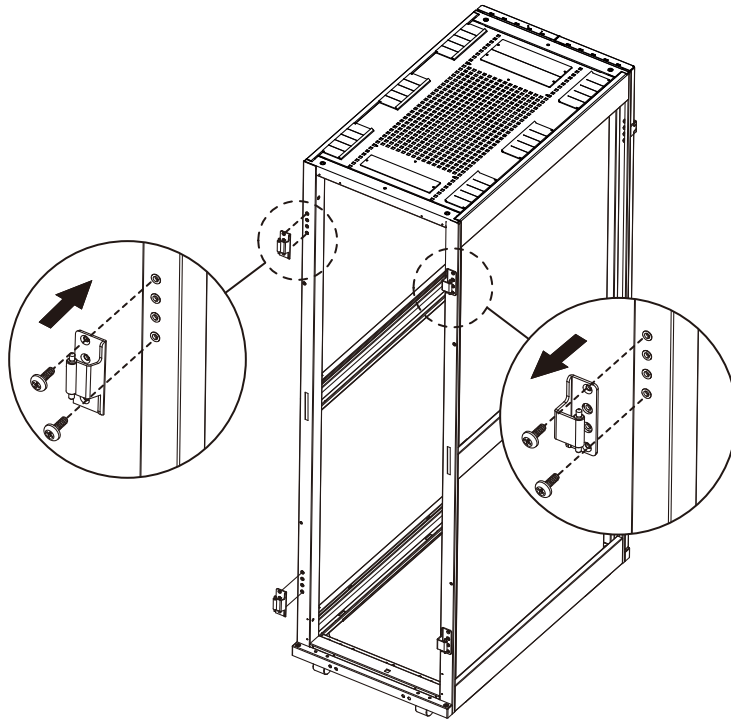
1. Remove the front door by following the steps described in the Remove Front and Rear Doors section. After it has been removed, rotate it 180 degrees.



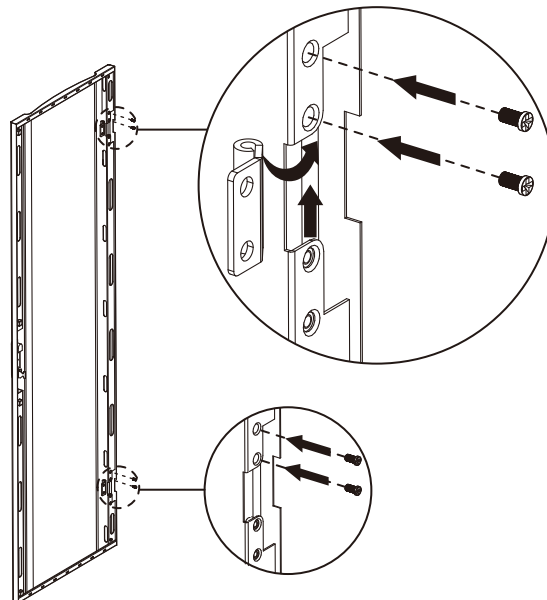
2. Remove the door lock and handle as shown below and rotate the handle 180 degrees. Rotate the cam washer 90 degrees. Reinstall the door lock and handle back on the door.



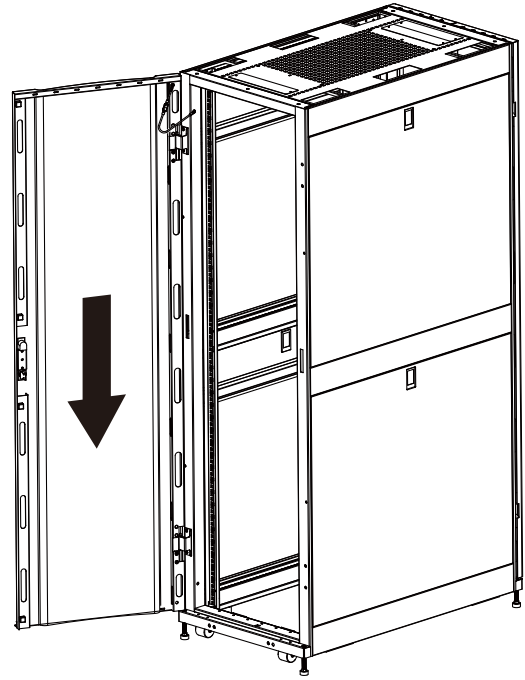
3. Unscrew the two hinges and reinstall them on the opposite side of the enclosure.



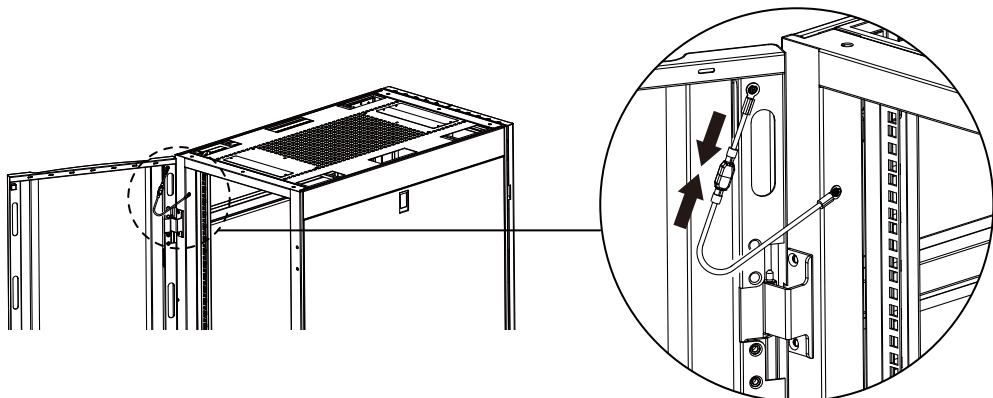
4. Remove the two door latches from the inside of the door. Reinstall them to the corresponding locations as shown below.



5. Install the door on the opposite side by hanging it on the hinges. The door will now open in the opposite direction as previously installed.

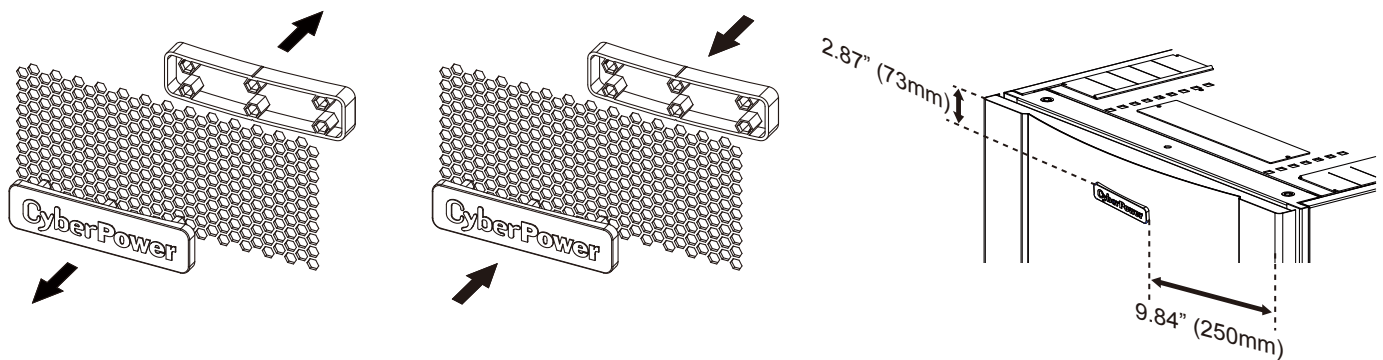


6. Remove the grounding wires from the door and enclosure frame. Reinstall them on the opposite side of door and frame, and reconnect them as shown below.



7. To relocate the CyberPower badge\*, pull the two parts apart as shown below. To re-install the badge measure the vertical and horizontal distance from the edge of the door as shown below and push both parts together.

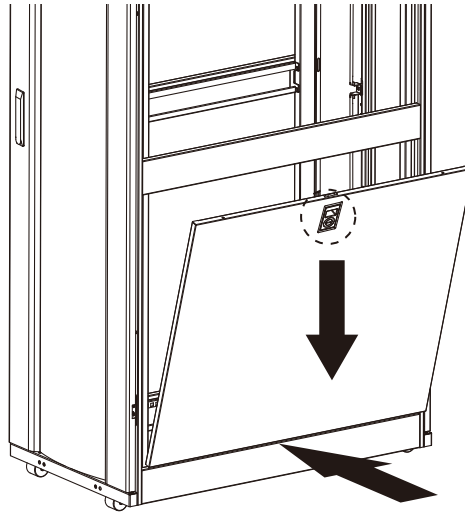
**NOTE:** Please press hard to make sure the badge has been firmly installed.



\*Applies to enclosures with perforated doors only.

## Open and Remove Side Panels

Unlock the side panel and press the retention tab down to release the side panel.

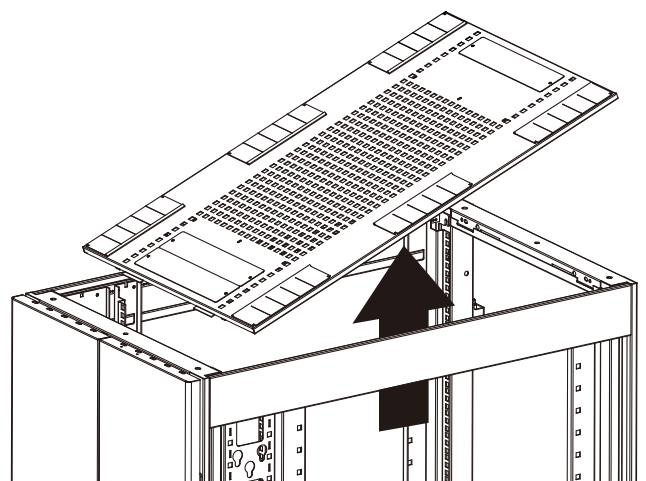
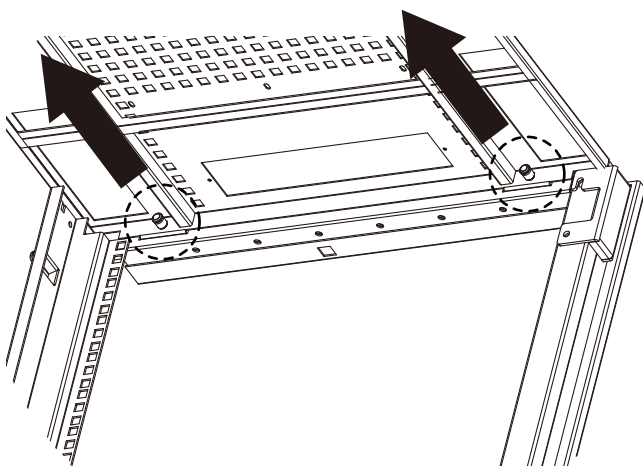


## Open and Remove Roof Panel

The roof panel is removable. From inside the enclosure, locate the two security pins and pull them to release the roof panel. Push the panel upwards to remove it.



**CAUTION** Use caution while removing the roof panel.



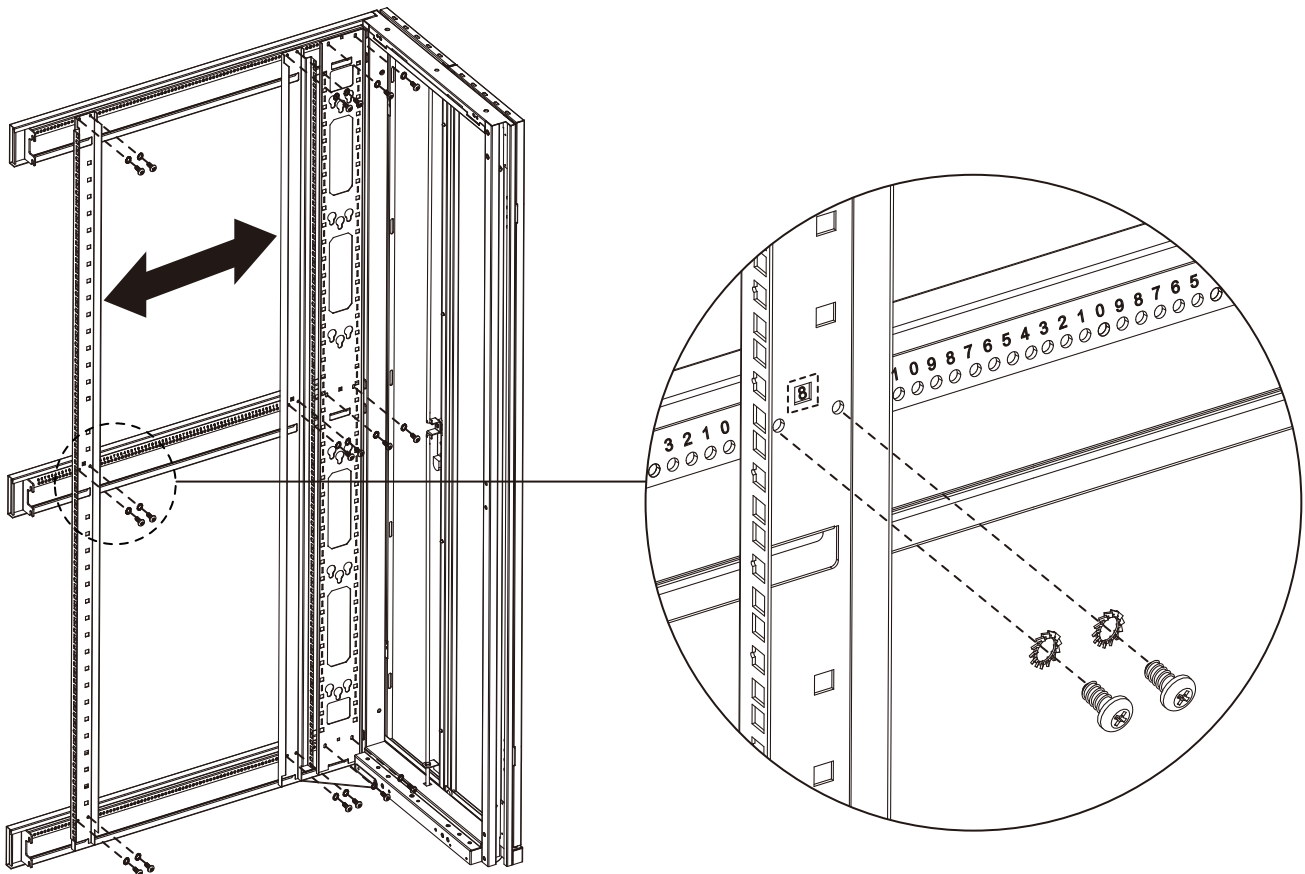
## Adjust the Rack Angles and Accessory Channels



It is recommended to have 2 or more people assist with this operation. For safety, do not adjust the rack angles if equipment is installed in the enclosure. Always ensure that rack angles are securely screwed in.

The installed depth of the rack angles and accessory channels can be adjusted by unscrewing them from the horizontal mounting rails, and moving to the desired location as shown below. Depth can be adjusted in 1/4" (6mm) increments.

**NOTE:** Rack angles and accessory channels are required to be installed perpendicular to the horizontal rails. Position index numbers are printed on the horizontal rails to guide proper installation. Make sure that the top and bottom positions match to ensure that they are vertically straight.



# Connecting In-Row Enclosures



Connecting enclosures together within the same row only provides limited stability and is not meant to substitute the use of shipping brackets. Enclosures being connected together should be of the same height and be compatible with the same connecting hardware.

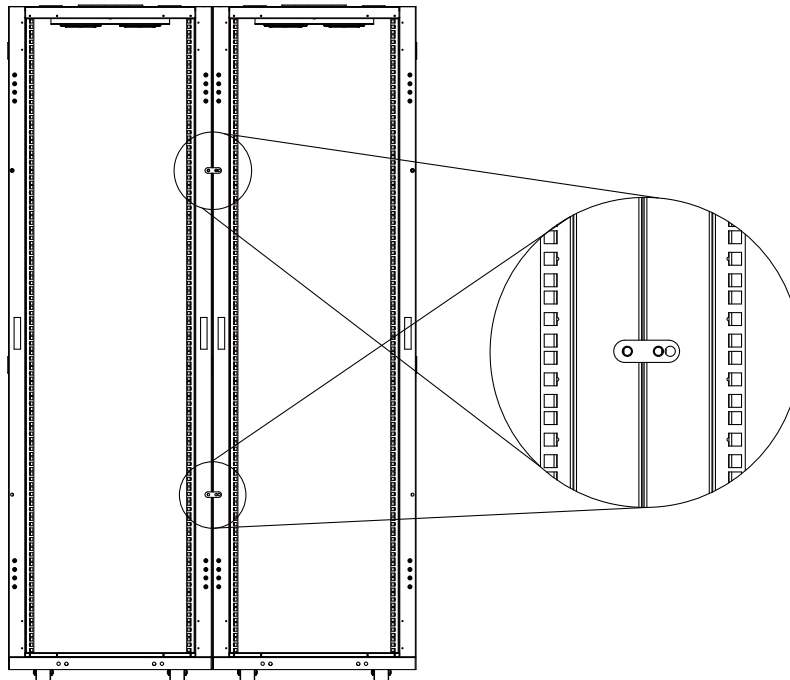
Enclosures within the same row can be connected together by using the included brackets. Side panels can be removed for access between enclosures but is not necessary. There are two connecting brackets on the front and two on the rear of each enclosure.

1. Align the enclosures that will be connected together.

2. Remove the enclosure doors.

**NOTE:** See the *Remove Front and Rear Doors* section for instructions.

3. Remove a connecting bracket, shown below. Align the connecting bracket between the enclosures such that each end can screw into the other enclosure. Repeat this step for all connecting brackets. Each pair of enclosures should be connected together by two front and two rear brackets.



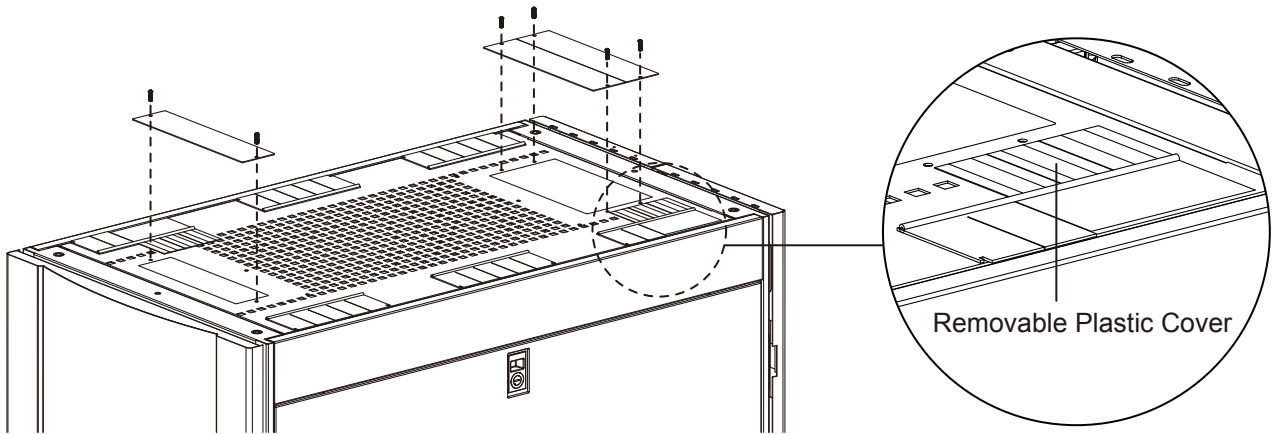
4. (Optional) Reinstall the doors and connect the ground wire connecting the door to the enclosure frame.



# Cable Management

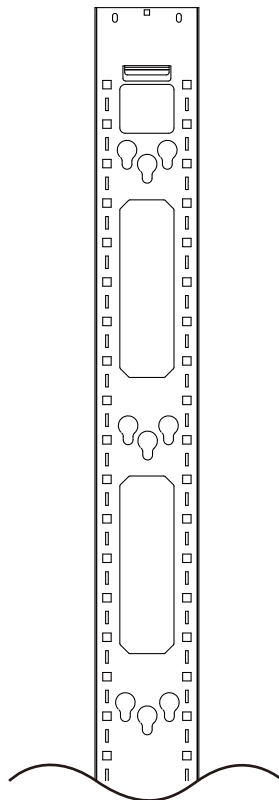
## Cable Access

Cables can be routed through the cable openings on the roof while doors and side panels are locked. To access cable openings, pull up on or remove the plastic tabs located on the edge of the roof. Cable openings covered by a metal plate can be removed by unscrewing them from the roof panel.



## Accessory Channels

CyberPower's rack enclosures come with two accessory channels which have toolless mounting slots for optional vertical cable managers or/and PDUs.



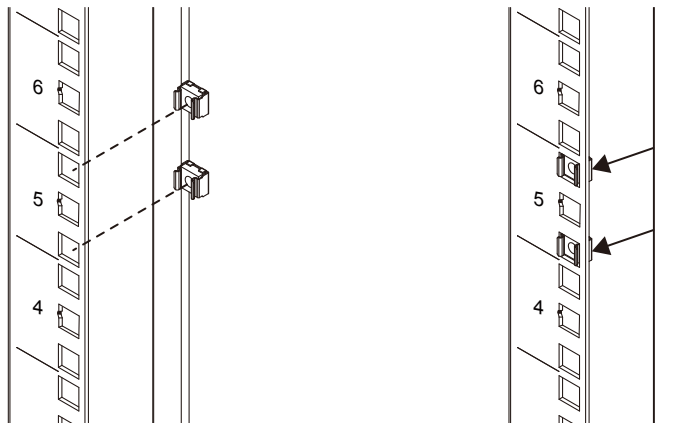
# Equipment Installation



- Verify that the enclosure is securely stabilized prior to installing any equipment.
- It is strongly recommended to first install equipment in the bottom of the enclosure. Heavier equipment should be installed in the bottom of the enclosure.
- If using sliding rails with installed equipment, use caution when pulling the equipment out of the enclosure, especially towards the top of the enclosure, as it can cause loading to shift and increase the hazard of tipping or failing. If multiple pieces of equipment use sliding rails only slide one piece of equipment out at once.

**NOTE:** Please review your equipment instructions carefully before installing in the enclosure.

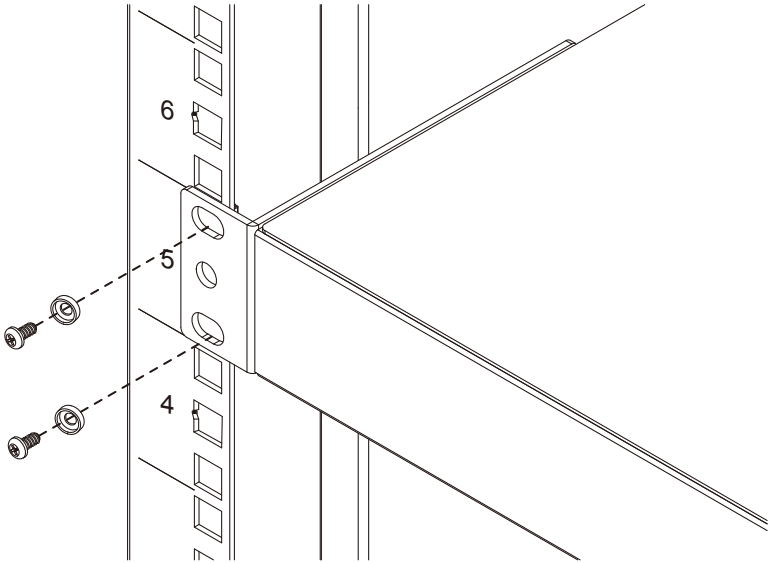
1. Install the included black M6 cage nuts from the back of the rack angles as shown below, and press the sides of the cage nuts to make sure they have been inserted properly.



To ensure proper and secure installation, cage nuts need to be installed horizontally as shown below. Installing cage nuts in the incorrect orientation can cause injury or equipment damage.



2. Install the equipment by screwing the included black M6 screws and cup washers into the cage nuts as shown below.



For warranty and additional information, please visit: [www.cyberpower.com](http://www.cyberpower.com).

# CyberPower<sup>®</sup>

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