

AI Ready Rack

User Manual



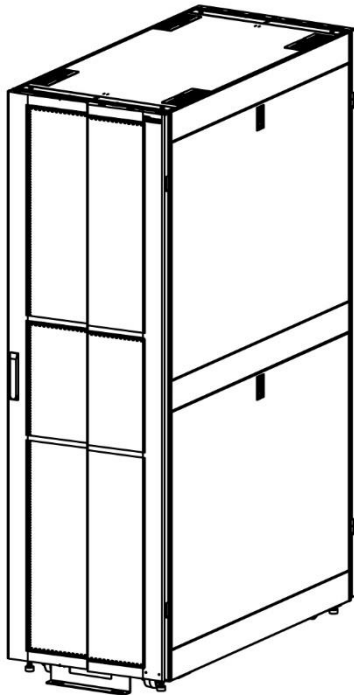
1. Overview and Specification

1.1 Introduction

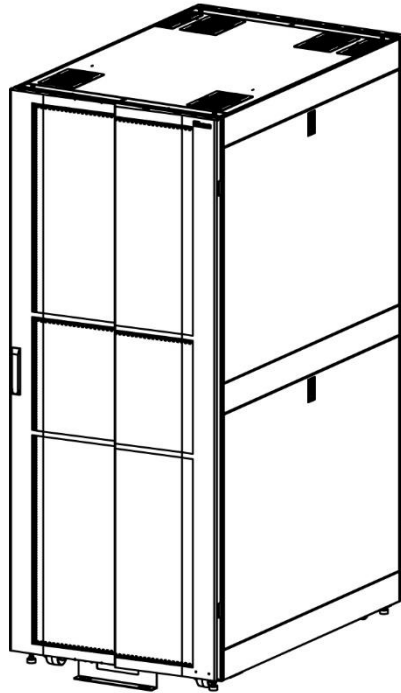
AI Ready Rack was designed for the demand of the AI era. With high load capacity, ample space, ultimate triple point locking solution, millions of configurable options, optimized airflow, cable management features, and extension adaptor for liquid cooling, it stands as the ultimate choice in the modern data center and the age of AI.

User manual covers the setup, installation, configuration, and important safety and operational information for AI Ready Rack.

AI Ready Rack are available in 23.6" (600 mm), 27.6" (700 mm) and 31.5" (800 mm) width; in 39.4" (1000 mm), 43.3" (1100 mm), 47.2" (1200 mm) and 47.2" (1400 mm); in 42U, 45U, 48U and 52U height; and grey in default, black and white colors for optional.



23.6" (600 mm)



31.5" (800 mm)

1.2 Specification

Door Perforation Pattern:	Hexagonal
Perforation Rate:	80%
Static Loading:	4400 lb (2000 kg)
Dynamic Loading:	3300 lb (1500 kg)
Shock Packing Loading:	3000 lb (1360 kg)
Default Rail Setting:	29.5" (750 mm) Front-to-Rear

Width Options - in (mm)

in	mm
23.6	600
27.6	700
31.5	800

Height Options - in (mm)

RU	* Overall Height	Frame Height
42	78.8 (2002)	76.6 (1945)
45	84.1 (2136)	81.9 (2079)
48	89.4 (2269)	87.1 (2212)
52	96.3 (2447)	94.1 (2390)

Depth Options - in (mm)

Frame Depth	Overall Depth (With Doors)	**Rail Max. (w/ PDU Short Bracket)	Rail Max. (w/o PDU Short Bracket)
39.4 (1000)	42.2 (1071)	^30.0 (762.0)	+35.5 (901.7)
43.3 (1100)	46.1 (1171)	^34.0 (863.6)	+39.5 (1003.3)
47.2 (1200)	50.0 (1271)	^38.0 (965.2)	+43.5 (1104.9)
55.1 (1400)	57.9 (1471)	^^38.0 (965.2)	++43.5 (1104.9)

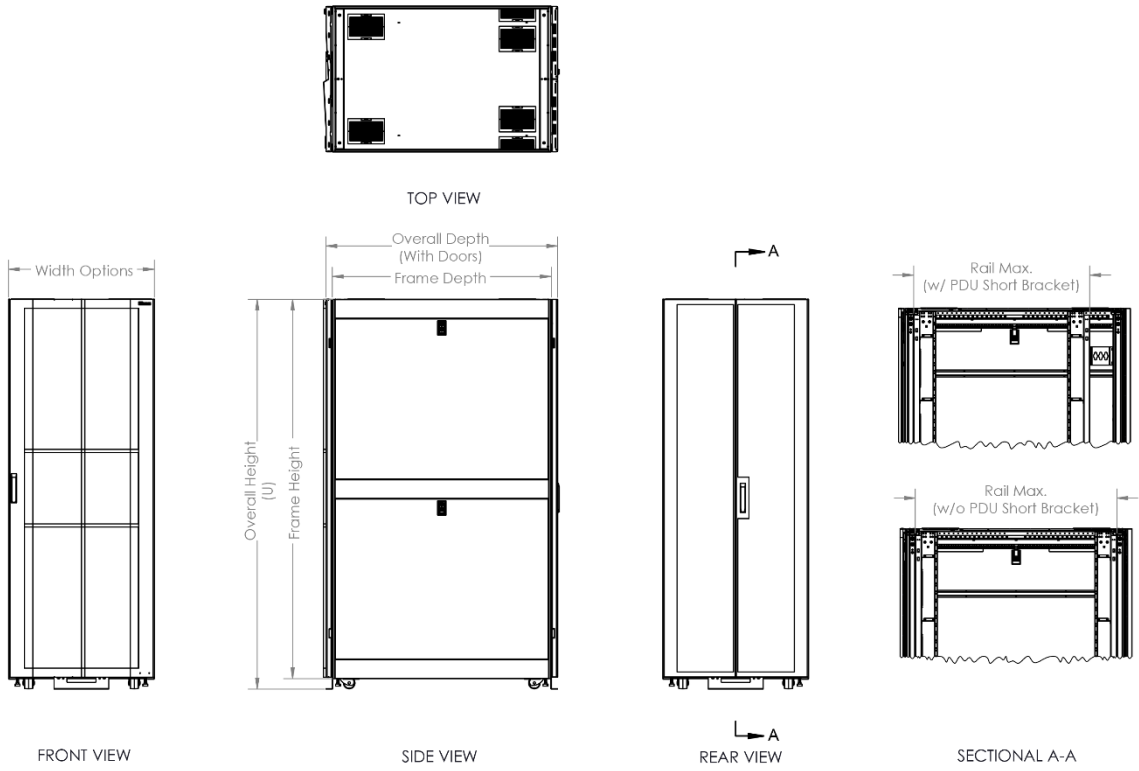
NOTE:

1. * Overall height measurements include casters and leveling feet.
2. ** When adjusted to rail max., cable managers cannot be attached to rails.
3. ^ 2 PDUs can be installed on one side.
4. ^^ 4 PDUs can be installed on one side.
5. + PDU can install at outside of frame.
6. ++ 3 PDUs can be installed at one side in the extension rear frame.

1.3 Certification

Conformance	UL2416 Listed, ISTA3E, CE, RoHS, REACH
Protection Rating	IP20
Specification	EIA-310E

1.4 Dimension Drawings



2. Safety Information

IMPORTANT SAFETY INSTRUCTIONS — SAVE THESE INSTRUCTIONS

Read the instructions carefully to become familiar with the equipment 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 label indicates an electrical hazard 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, death, or equipment damage.

3. Unpacking Instructions

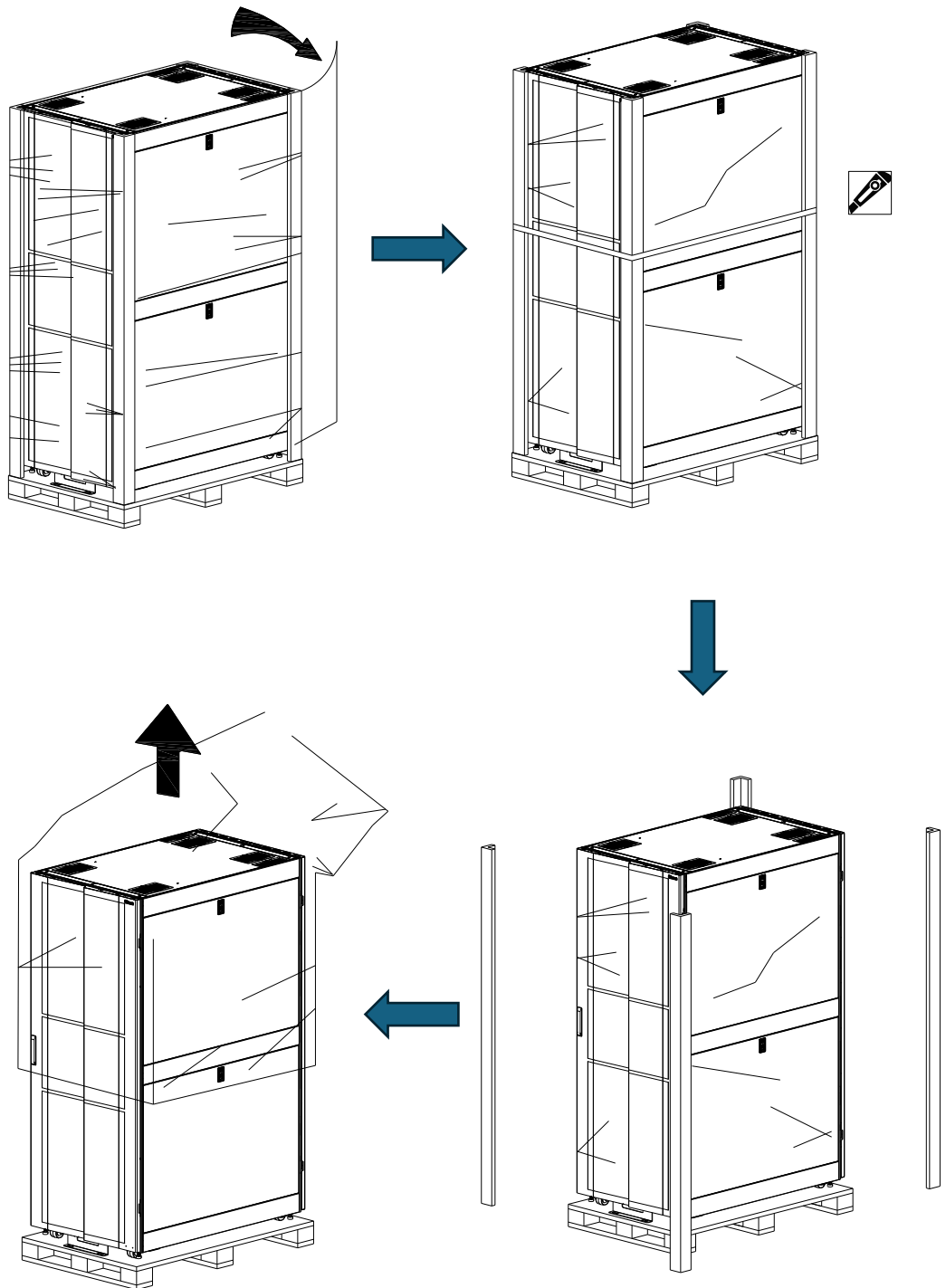
Important: Before proceeding, download the user manual and installation guide by the website, www.inovadc.com. The manual includes important warnings, grounding instructions and loading specifications.

 WARNING
<p>TIP HAZARD</p> <ul style="list-style-type: none">• Unpacking, installation, and customization must be performed by trained personnel only.• Do not attempt to move the equipment with fewer than two people.• Use extreme caution to prevent tipping when unpacking or moving the equipment. Push the equipment only from the front or rear, never from the sides. <p><i>Failure to follow these instructions can result in death and injury.</i></p>

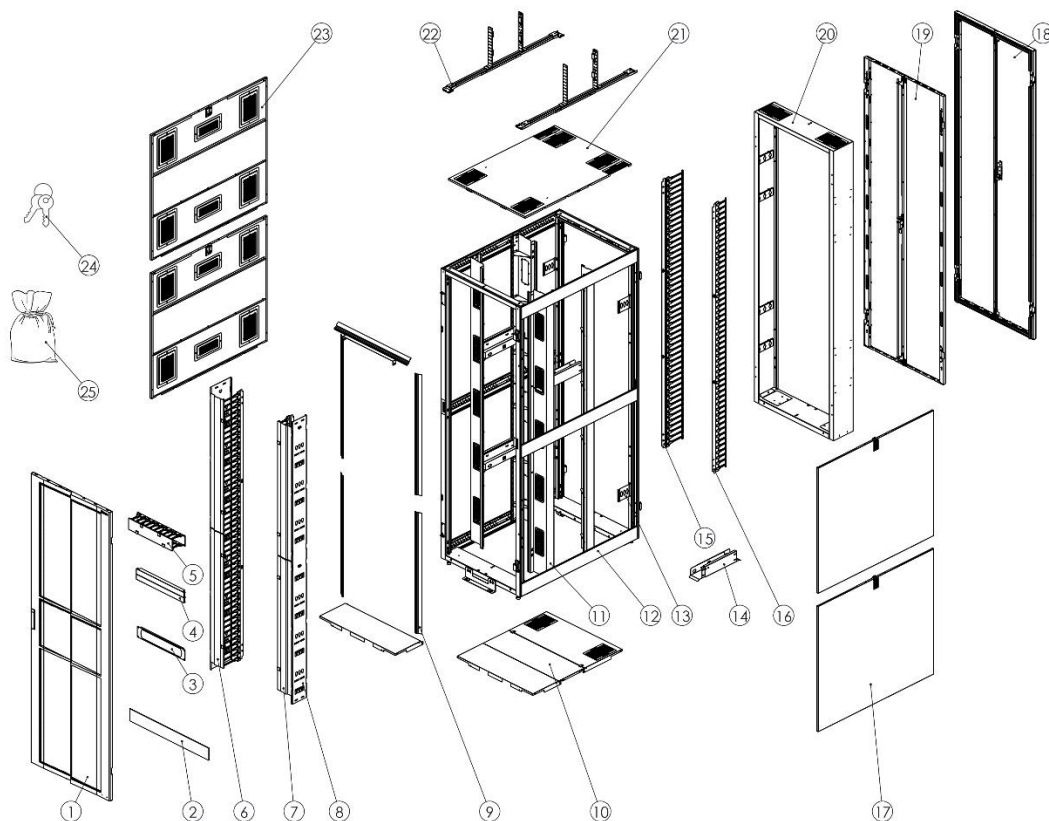
Receiving: Inspect the package and contents for shipping damage. Make sure all parts were sent. Immediately report any shipping damage to the shipping agent. Report missing contents, product damage, or other problems with the product to Inova or your Inova reseller.

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

NOTE: When possible, leave the equipment on the pallet until you are ready to move it to its final location.



4. Components Identification




1	Single Perf Front Door	14	Side Cable Manager
2	Vent Skirt	15	Vertical Cable Manager Light, Long Finger
3	Brush Blanking Panel	16	Vertical Cable Manager Light, Short Finger
4	Blanking Panel	17	Side Panel
5	Horizontal Cable Manager	18	Solid Sealed Rear Doors
6	Vertical Cable Manager Pro, Long/ Short Finger	19	Split Perf Rear Doors
7	Cover, part of Vertical Cable Manager Pro	20	Extended Frame
8	Narrow/ Wide Lashing Panel, Vertical Cable Manager Standard. Also, part of Vertical Cable Manager Pro	21	Full-depth Brush-sealed Top Panel
9	Air Dam Kit	22	Cable Ladder Support Kit
10	Bottom Panel	23	Brush Side Panel
11	Mounting Rail Kit	24	Keys
12	Frame	25	Cloth Bag (50 sets of cage nuts)
13	PDU Short Bracket		






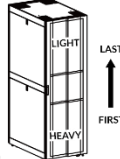

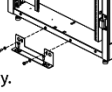
NOTE: Some components and accessories listed are optional. Please choose your exclusive cabinet according to your needs.

5. Cabinet Installation

5.1 Move the Cabinet

 WARNING
<p>TIP HAZARD</p> <ul style="list-style-type: none">• Do not attempt to move the equipment with fewer than two people.• Use extreme caution to prevent tipping when unpacking or moving.• Make sure the leveling feet are up and push the cabinet and push the equipment only from the front or rear, never from the sides. <p>Failure to follow these instructions can result in death and injury, or equipment damage.</p>

Label: The following labels are located on the rear bottom of the cabinet frame and are visible from below:

  www.inovadc.com	WARNING-TIPPING HAZARD		
	 <ul style="list-style-type: none">• Use assistance• Avoid uneven floors• Push at front or rear only 	 <ul style="list-style-type: none">• Install equipment from bottom to top• Heavier equipment at bottom• Static loading 4400 lb (2000 kg) 	 <ul style="list-style-type: none">• Racks shall be anchored to the floor to ensure load bearing capacity and safety. 

5.2 Baying the Cabinet

Cabinets with the same height can be joined together using the provided baying brackets to provide alignment and add stability.

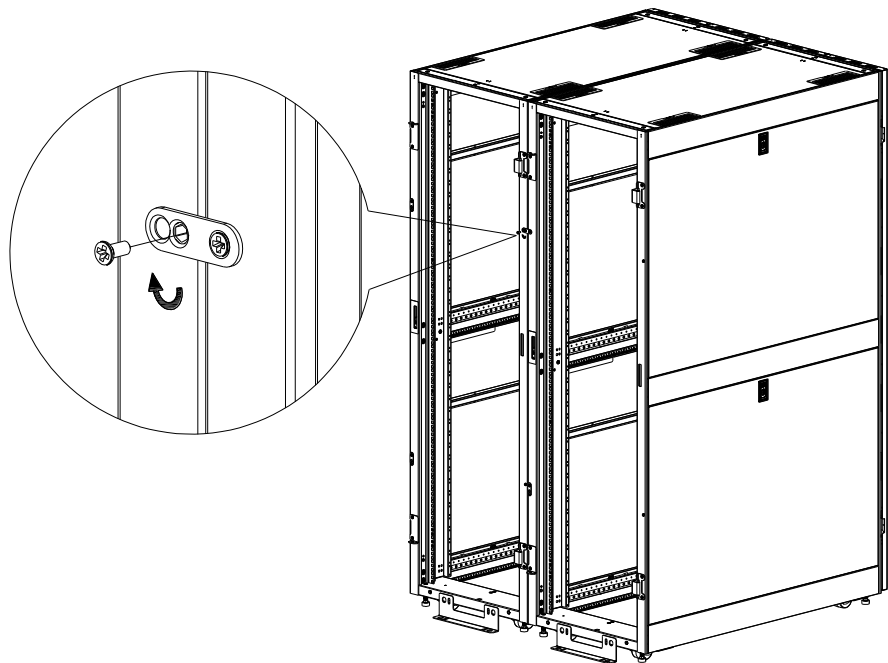
WARNING

TIP HAZARD



• For safety and stability, make sure there is no equipment in the cabinet before baying the cabinets.

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

- Remove the front and rear doors before baying the cabinet. See 'Door Removal'.
- Choose between 24 in (609 mm) centers or 23.6 in (600 mm) centers.
- Align the cabinets and locate the baying brackets. Each cabinet includes four baying brackets and eight M5x12 countersunk screws, respectively on the front and rear sides of the cabinet.
- Loosen the M5x12 countersunk screw and rotate each bracket 90° toward the adjacent cabinet.
- Insert the screw into the hole and tighten.

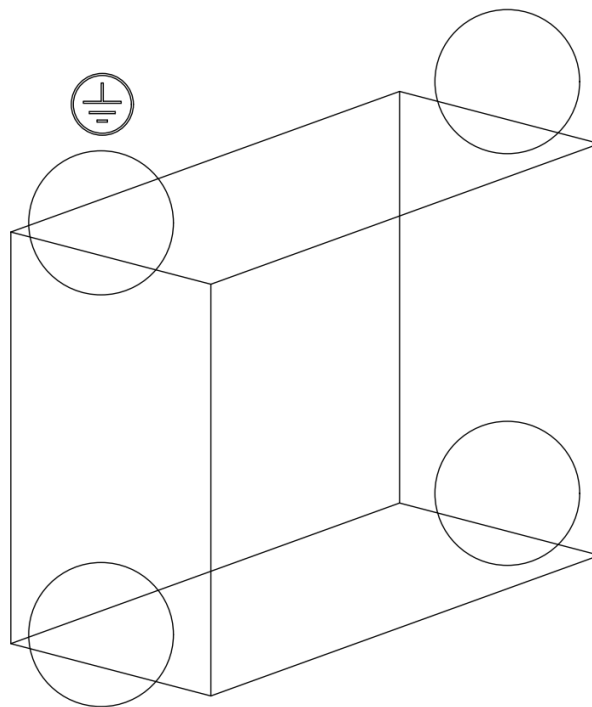


5.3 Ground the Cabinet

  WARNING
HAZARD OF ELECTRIC SHOCK <ul style="list-style-type: none">• Connection of the cabinet to a common ground is necessary. <i>Failure to follow these instructions can result in death and injury, or equipment damage.</i>

Each cabinet should be bonded directly to a common ground using one of the designed grounding locations, respectively at the upper and lower of the front and rear frames. And each location is identified with a ground symbol and has an M6 threaded insert.

- Install in accordance with national and local electrical codes.
- Use a serrated washer between the ground terminal and the cabinet frame or remove paint from the frame where it contacts the ground terminal to establish an electrical bond.



5.4 Secure the Cabinet

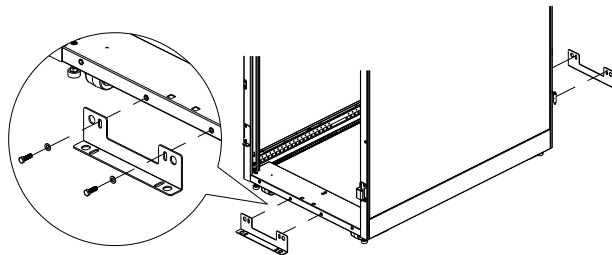
WARNING

TIP HAZARD

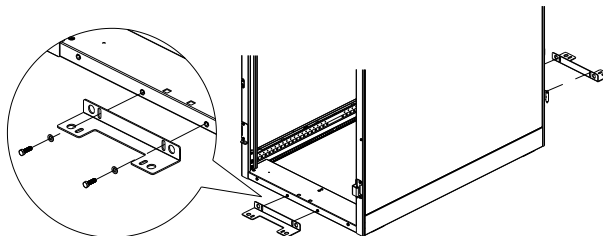
- Make sure the cabinet frame has been leveled and in close contact with the floor.
 - Secure the cabinet to the floor before installing equipment.
- Failure to follow these instructions can result in death and injury, or equipment damage.**

- Two of the L-brackets, eight M8x25 external hex screws and #8 flat washers are packed in an accessory bag.
- The cabinet can be bolted to the floor with four options, as shown below.

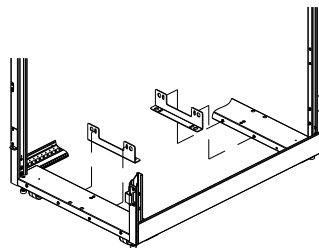
Option 1_Outer, when there are casters and leveling feet:



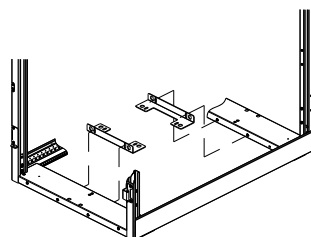
Option 2 _Outer, when there are no caster and leveling feet:



Option 3 _Inner, when there are casters and leveling feet:



Option 4 _Inner, when there are no casters and leveling feet:



6. Component Installation

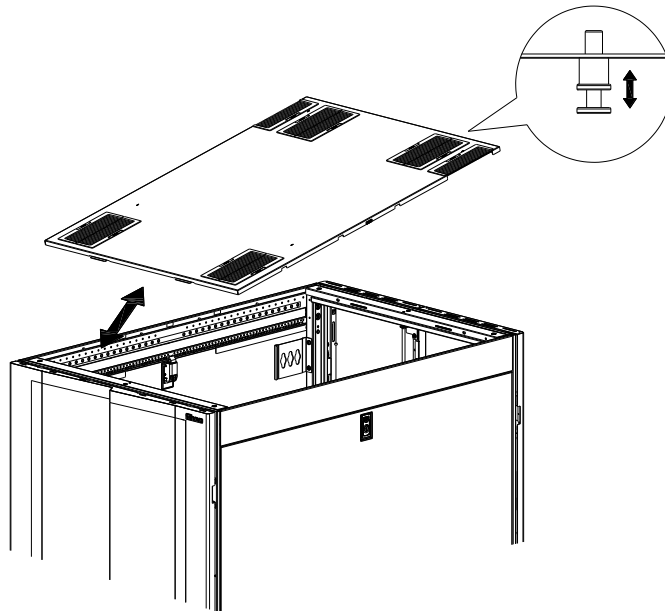
6.1 Top panel

Top Panel Installation:

- Insert the latches which on the top panel into the corresponding slots on the front frame.
- Pull the pins into the rear frame.

Top Panel Removal:

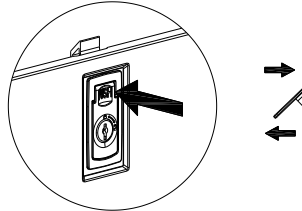
- Pull the pins, ensure the two pins have been snapped out of the holes and lift the edge of the top panel.
- Continue lifting the top panel at an angle until its front edge comes out of the front frame.



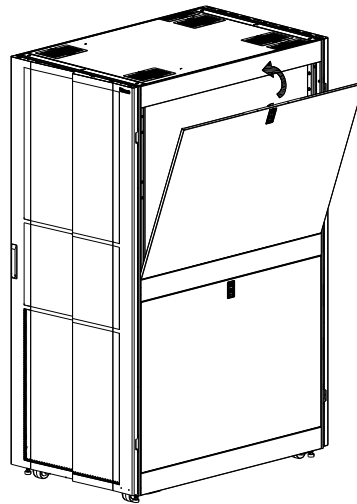
6.2 Side Panel

Side Panel Installation:

- Install the buckle into the side panel.

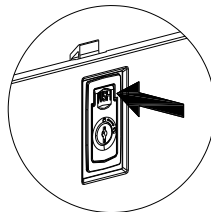


- Use buckles to lock 4 side panels. And use the key to lock the side panel for security.

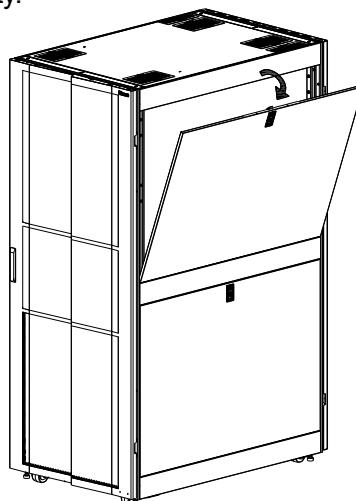


Side Panel Removal:

- Twist the key to unlock the side panel and push the buckle.



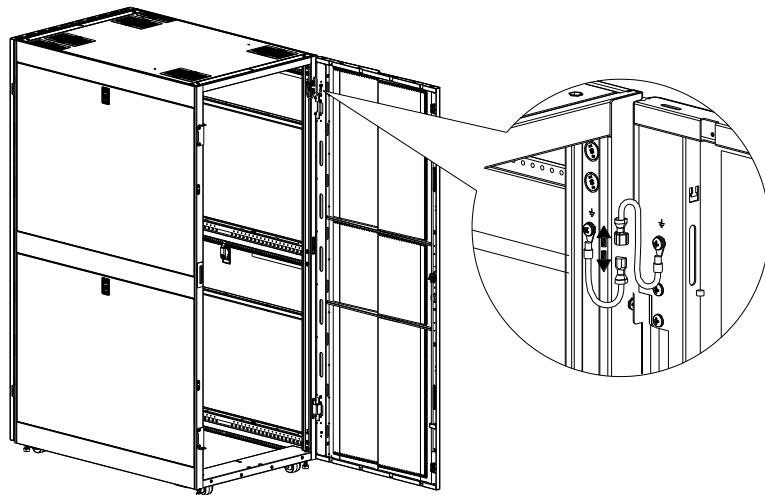
- Pull the upper edge of the side panel outward. Lift the side panel firmly and move to somewhere safety.



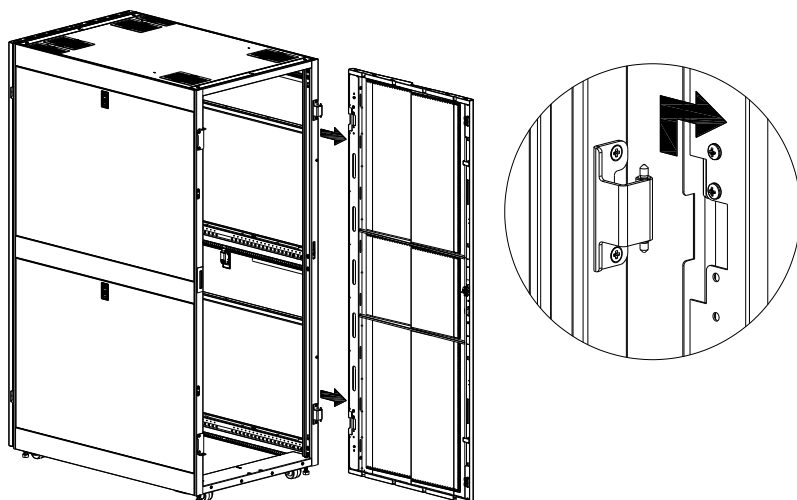
6.3 Door

Door Removal:

- Unlock the cabinet door handle and open the door.
- Disconnect the ground wires on the top or bottom.

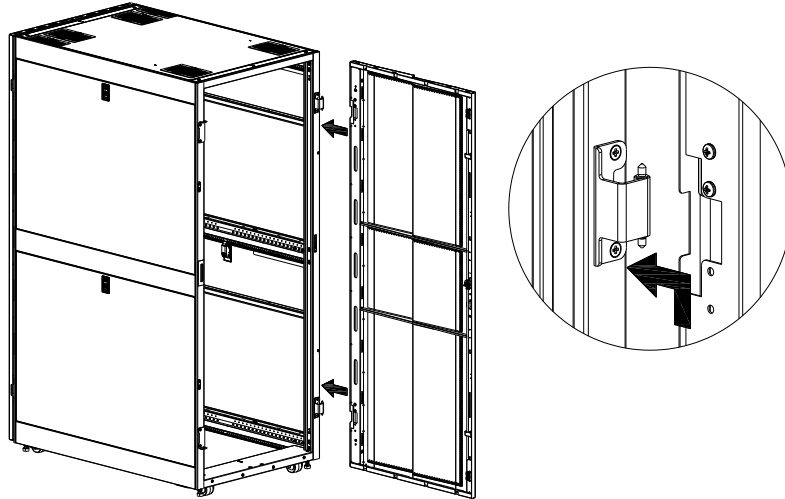


- With the door at 90 degrees to the front of the cabinet, the hinges come apart by lifting the door upward and pull the door from the cabinet until the hinge pins on the door are free of the hinges on the cabinet frame.

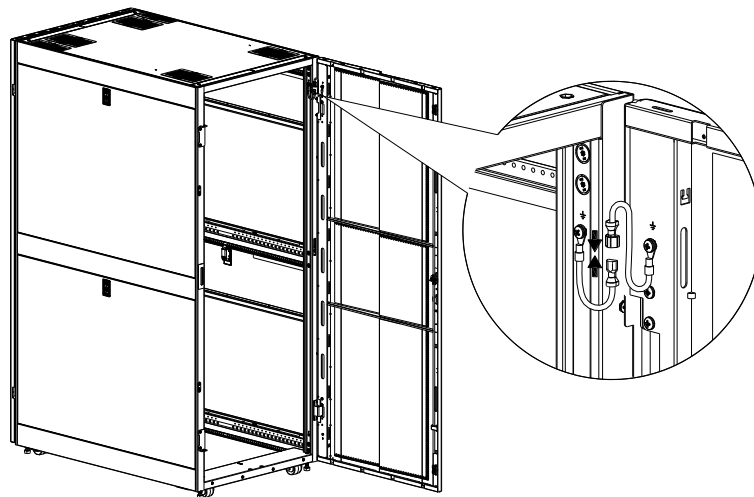


Door Installation:

- Align the male hinges on the frame with the female hinges on the door.
- With the door at 90 degrees to the front of the cabinet and insert the male pins which are on the frame to the female hinges which are installed on the door.



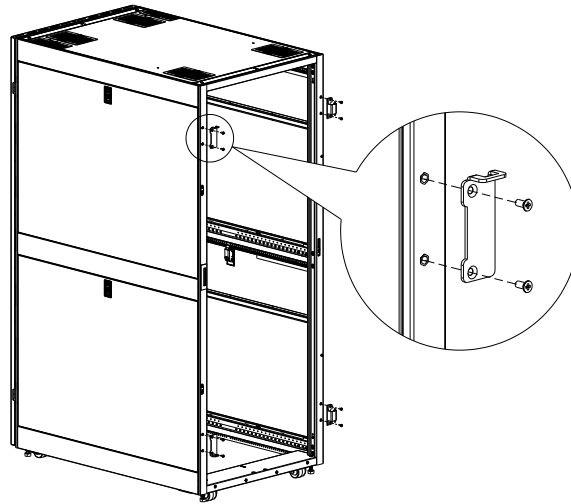
- Connect the ground wires on the top or bottom.
- Close the door and lock the handle.



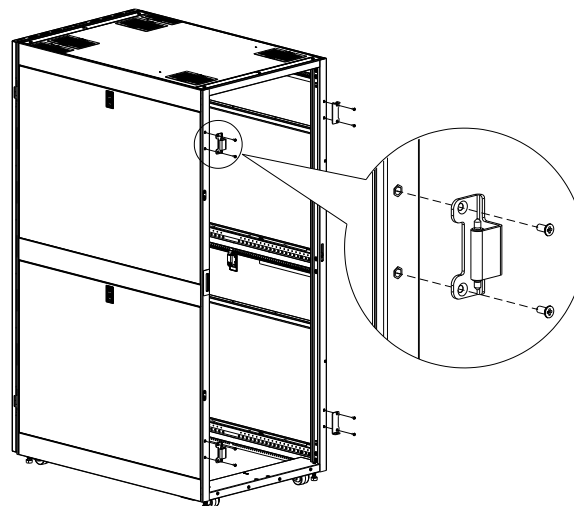
Reverse The Front Door:

NOTE: The front door can be reversed and opens in the other direction. By default, the door opens from the right. After reversing, the door can open from the left.

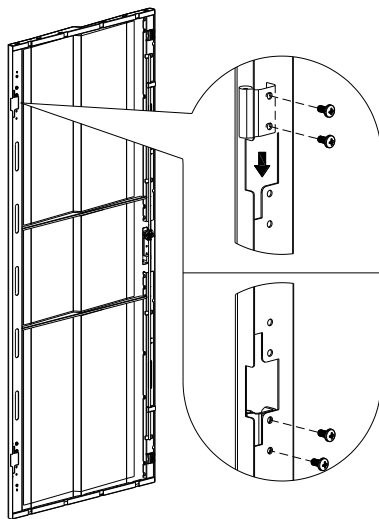
- Follow the “Door Removal” to remove the door.
- Loosen and remove screws from the hinges and lock rod fixed brackets which on the frame.



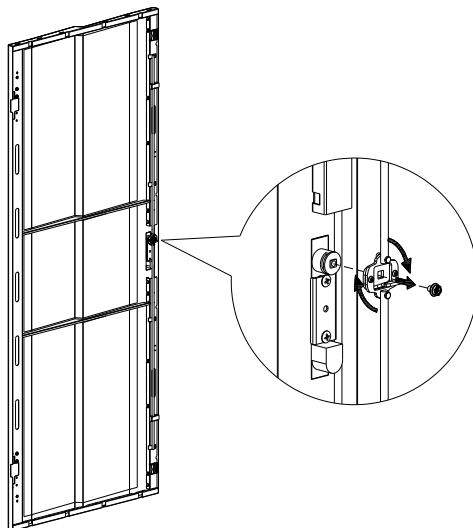
- Swap position of hinges and lock rod brackets, re-install them.



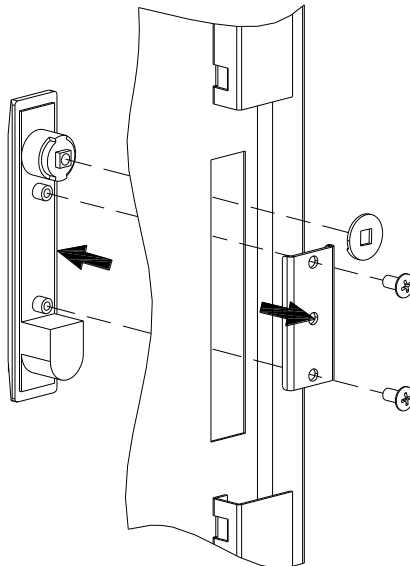
- Remove the hinges from the door and install them downwards.



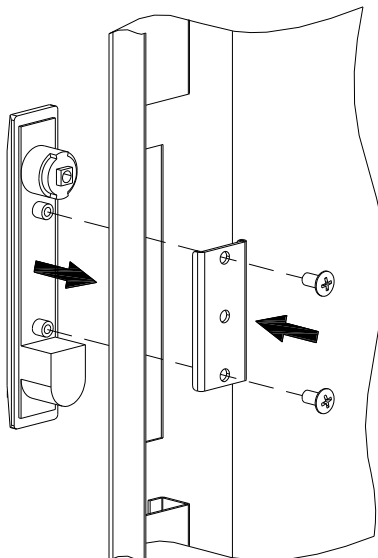
- Remove the cam screw. Then remove and twist the locking role system and the lock tongue to free them from the front door.



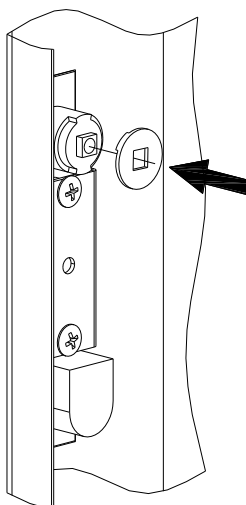
- Remove cam washer and the handle by removing the two M5 hex screws behind the handle. Set screws aside for reinstallation in a later step. Pull the handle free from the front door.



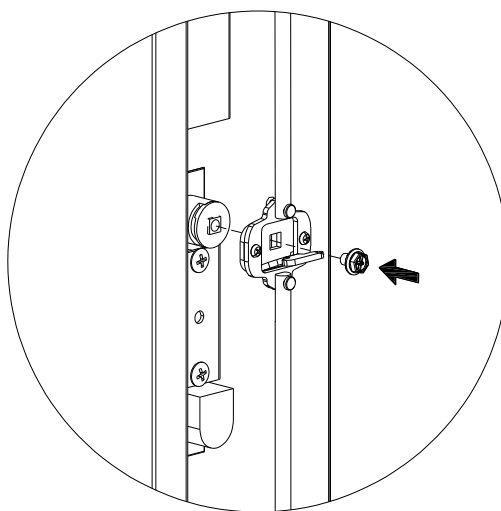
- Rotate the front door 180 degrees. And then install the handle on the door in the desired orientation and fasten the lock with the two M5 hex screws.



- Rotate the cam washer 90 degrees.



- Re-install the locking rod system and the lock tongue and fix by the cam screw.
Attention: Short locking rod is at top and the long is at bottom.



- Follow the “Door Installation” for door installation.

6.4 Mounting Rail

Vertical Mounting Rails Adjustment:

The default rail to rail distance come factory-installed at 29.5" (749.3 mm), the proper location for use with rack-mountable equipment.

The mounting rails are adjustable towards the front or the rear of the cabinet to accommodate different rails, cable managers, or equipment with other depths.

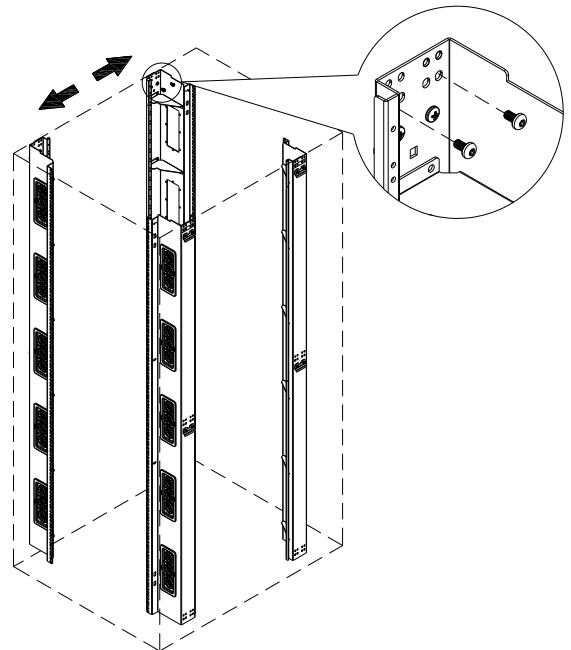
And front and rear mounting rail depth adjustment in half-inch increments.

WARNING

TIP HAZARD

- For safety, remove all installed equipment before adjusting vertical mounting rails.
Failure to follow the instruction can result in death and injury, or equipment damage.

- Loosen M6x16 Round Head Torx Screws which have been fixed on the top, middle and bottom of vertical mounting rail.
- Move the vertical mounting rails to the final locations.
- Align the vertical mounting rails and attention that the observation holes showing the same number on both sides.
- Re-tighten M6x16 Round Head Torx Screws from the top, middle and bottom.



7. Equipment Installation

7.1 Install Equipment

Each three-square holes on the side of vertical mounting rail are marked as a rack unit for locating the U space.

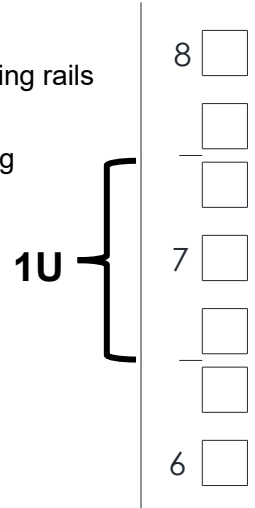
WARNING

TIP HAZARD

- For safety, secure the cabinet to the floor before installing equipment.
- Equipment is installed from the bottom to the top. Install heavier equipment first and toward the bottom of the cabinet to prevent the cabinet from tipping over.
- Do not extend equipment with sliding rails until having been installed into the bottom of the cabinet. And do not extend more than one set of sliding rails at one time.

Failure to follow the instruction can result in death and injury, or equipment damage.

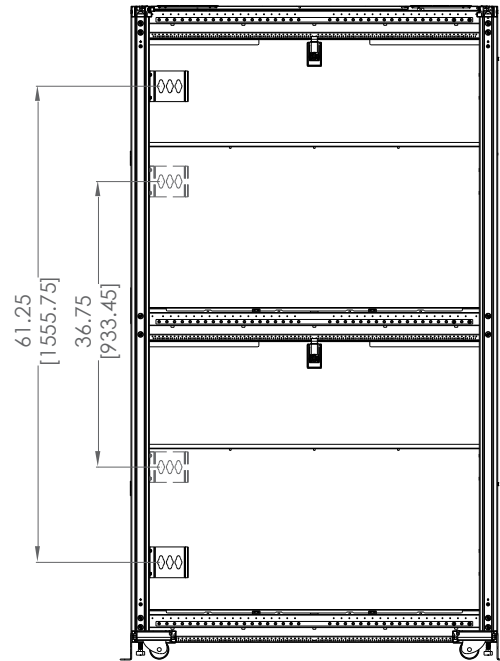
- Align the equipment with the U number to ensure that the equipment is in the same position on the four vertical mounting rails before securing.
- Install cage nuts on the vertical mounting rail before installing equipment.



7.2 Install PDU

Four PDU Short Brackets are inside of the rear of the cabinet and two for one side. The default distance of two brackets is 61.25 in (1555.75 mm). If there is a small size PDU, the positions of PDU Short Brackets can be adjusted to adapt the PDU.

- Loosen M6x12 Phillips Round Head Screw.
- Relocate PDU Short Brackets and fasten them by preserved screws.



Customer Support and Resource

Customer support is available at www.inovadc.com