Installation Guide

REC Series Rack Installation Guide

Powering Business Worldwide

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REC Series Rack Installation Guide

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1. SAFETY WARNINGS

This manual contains important instructions that you should follow during installation and maintenance of the REC Series Enclosure. Please read all instructions before operating the equipment and save this manual for future reference.

1. WARNING! REC Series enclosure components can be very heavy. It is recommended that several people take part in the unpacking process. When lifting heavy components or electronic equipment, ensure that all safety regulations are observed.
2. WARNING! The REC Series enclosure is designed to support a Static Load of 1100kg or a Dynamic Combined Load of 200kg. Dynamic Combined Load is the combined weight of the rack and installed equipment. The fitted casters are for transit only and are not intended to be used to move the rack when it is configured with equipment where the weight of the rack and equipment total over 200kg. The levelling feet (refer to Section 5 of this manual) must be in contact with the floor and supporting the rack before the rack is configured with equipment.
3. WARNING! The enclosure must be stabilized before installing any roll-out type accessory, component or electronic device. Failure to stabilize prior to installing equipment may cause the enclosure to tip over.
4. WARNING! First, load the heaviest electronic devices and accessories into the bottom of the enclosure to prevent the enclosure from becoming top-heavy.
5. WARNING! Never extend more than one roll-out type electronic device or accessory from a stabilized enclosure at a time. Do not sit, stand, or climb on any extended roll-out type electronic device or accessory. Never extend a roll-out type electronic device or accessory component from an enclosure rack that is supported by casters. Doing so may cause a stabilized enclosure rack to tip over.
6. WARNING! Ensure that the floor has a structural load capacity that will safety bear the weight of the REC Series enclosure and installed components.
7. WARNING! There must be an uninterruptable safety earth ground from the main power source to the Power Distribution Unit's (PDU) power cord set. Whenever it is likely that ground has been impaired, disconnect the PDU's power cord until the ground has been restored.
8. WARNING! High leakage current may be present. Grounding connection essential before connecting supply.
9. WARNING! Rack is intended to be used with equipment complying with IEC 60950. Use with non-compliant equipment may result in electrical hazard.
10. WARNING! A grounding kit is supplied with REC Series enclosures. The installer is responsible for grounding the enclosure to the building electrical system. Additional equipment can be electronically bonded to the rack's frame using additional grounding points.

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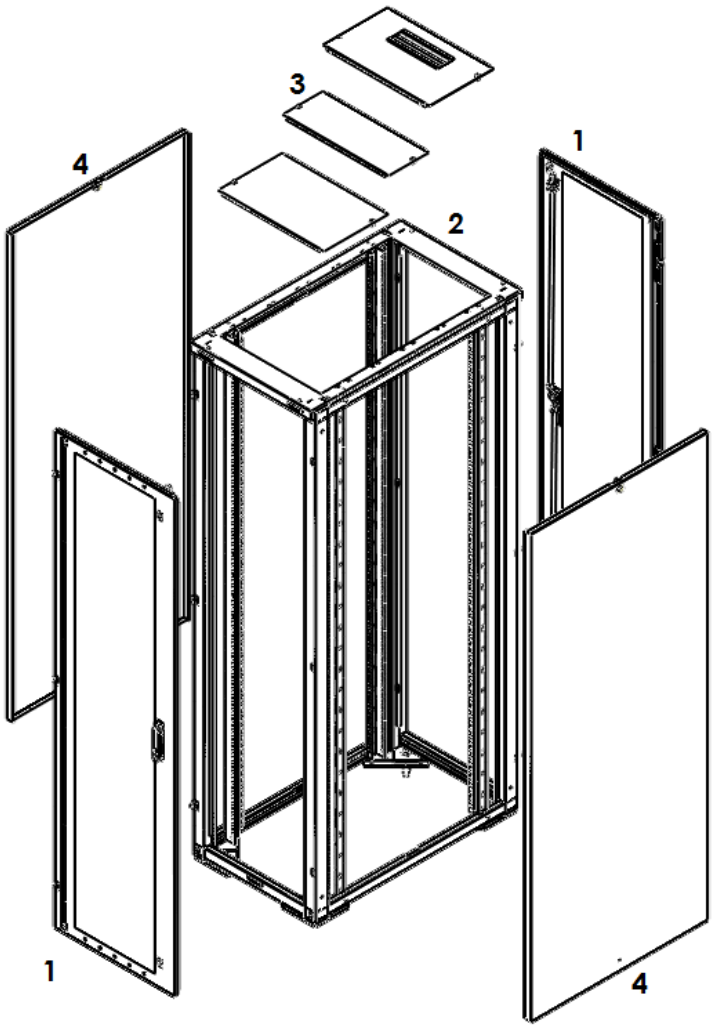
2. 600 WIDE EXPLODED VIEW



ITEM	DESCRIPTION
1	Vented Door Assembly Option
2	Enclosure Frame
3	Roof Panels
4	Side Panel

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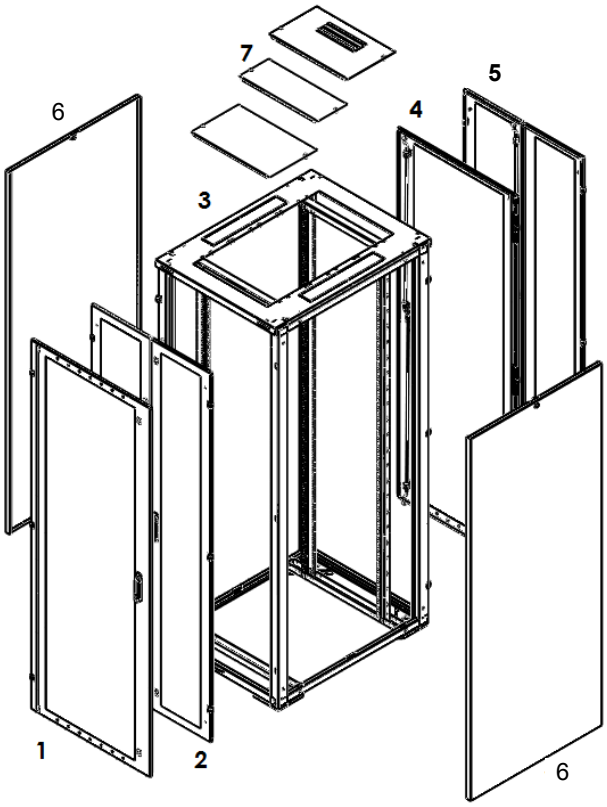
3. 800 WIDE EXPLODED VIEW



ITEM	DESCRIPTION
1	Vented Door Assembly Option
2	Double Vented Door Assembly Option
3	Enclosure Frame
4	Vented Door Assembly Option
5	Double Vented Door Assembly Option
6	Side Panels
7	Roof Panels

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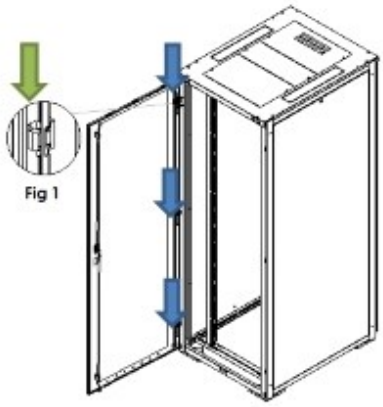
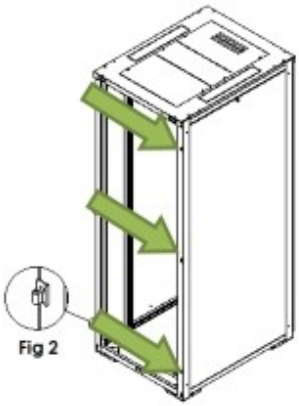
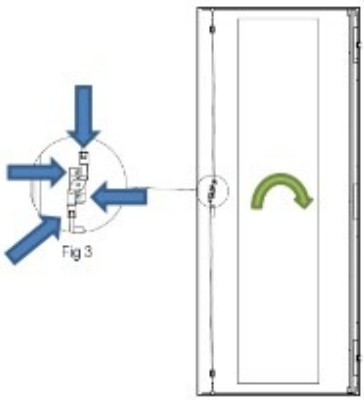
4. SWITCHING DOOR HANDING

1. Remove the three hinge pins (Fig 1).
2. Remove the hinge section from the enclosure frame (Fig 2).
3. Re-install the three hinge sections to the opposite side of enclosure frame (Fig 2).
4. Rotate the door 180 degrees.
5. Re-install the three hinge pins (Fig 1).
6. Loosen the two screws which secure the locking rods (Fig 3).
7. Remove the two screws on the back of the door lock and fixing plate (Fig 3).
8. Remove and rotate the door handle 180 degrees.
9. Replace the fixing plate and two screws (Fig 3).
10. Tighten the two screws which secure the locking rods (Fig 3).







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5. STABILIZING

CAUTION: BEFORE THE RACK IS CONFIGURED WITH EQUIPMENT (IF THE COMBINED WEIGHT OF THE RACK AND EQUIPMENT IS OVER 200KG) THE FOLLOWING PROCEDURE MUST BE IMPLEMENTED AND THE RACK MUST REMAIN STATIC. IF THE RACK IS TO BE RELOCATED THEN EQUIPMENT MUST BE REMOVED BEFORE MOVING THE RACK.

Each enclosure is equipped with four leveling feet (Fig 1).

Use a 13 mm spanner to adjust the leveling feet. Ensure that each foot is in firm contact with the floor. Using a level, adjust the leveling feet as required to level the enclosure. For enclosures that have casters, extend the leveling feet so that the casters are approximately 3 mm off the floor.

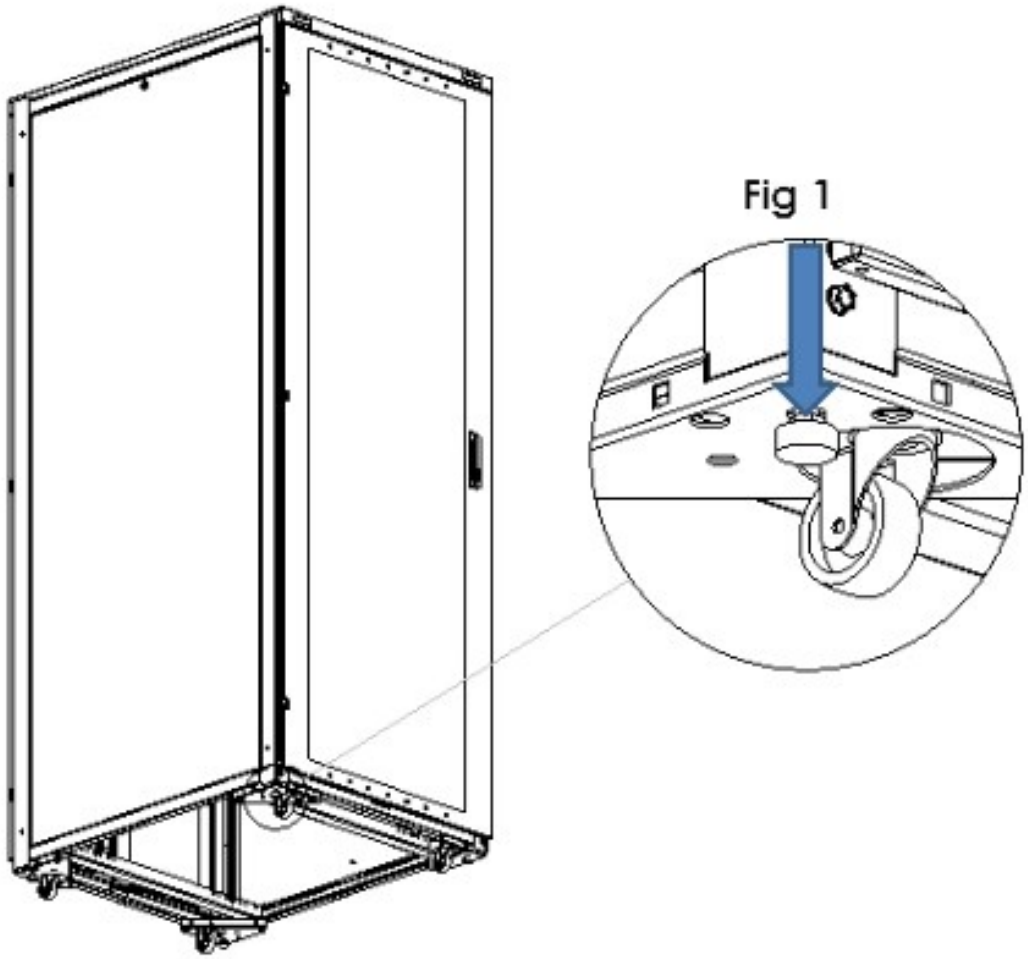

Fig 1

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6. BAYING THE ENCLOSURE

1. Remove 4 blanking grommits per enclosure (Fig 1).
2. Position and level the adjacent enclosure frames. Ensure that the frames are precisely aligned both vertically and front-to-back.
3. **Ensure a shake proof washer contacts the painted surface and** Bolt the adjacent frames together with the four nuts, bolts and washers included in the baying kit, part number NRA BTK.

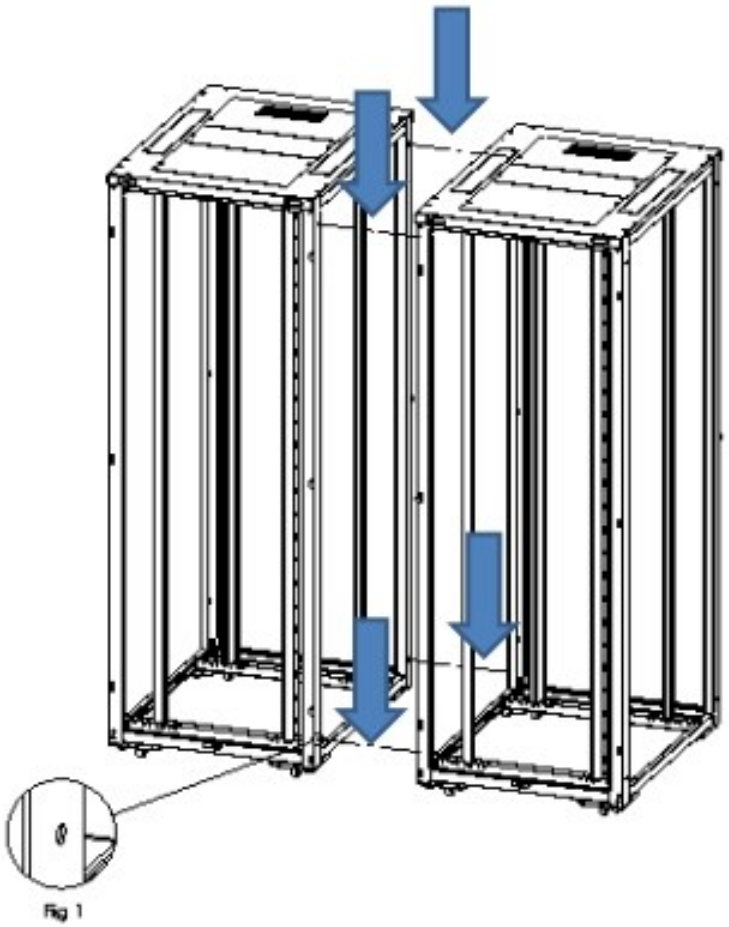

IMAGE WITH DOORS AND SIDE PANELS REMOVED FOR CLARITY

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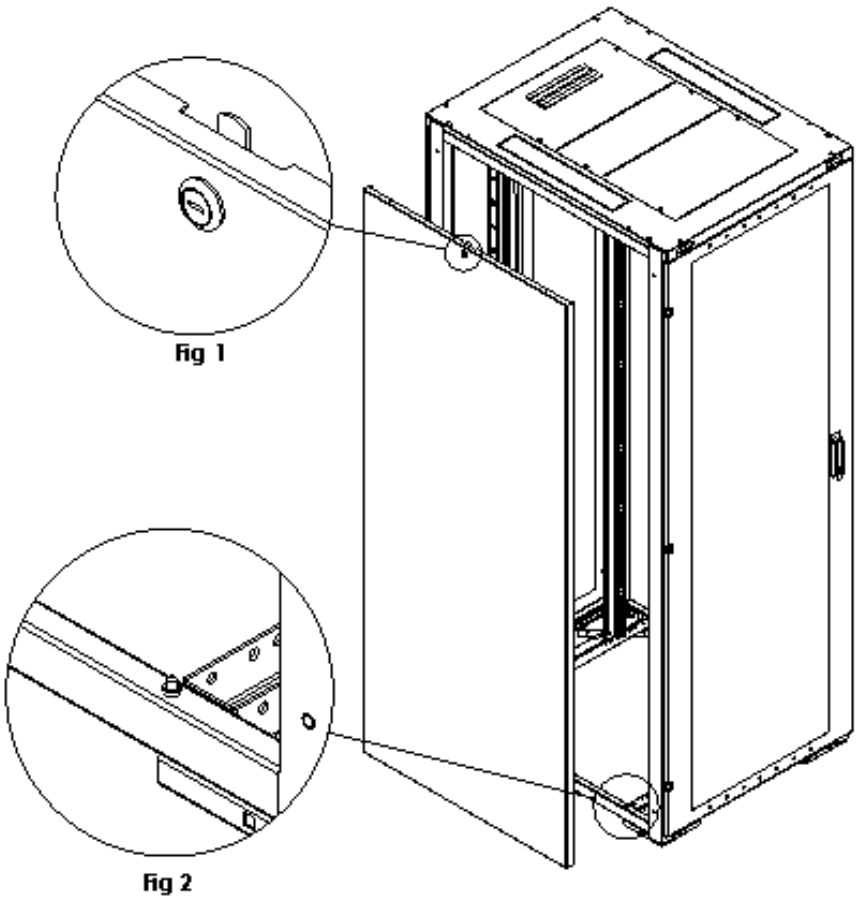
7. SIDE PANEL

Removal of side panel

1. Unlock the side panel with the key supplied (Fig 1).
2. Tilt the panel to clear the upper flange.
3. Lift the panel upwards to clear two locating pins (Fig 2).

Reinstall side panel

1. Align the two holes on the bottom of the side panel with the two pins on the enclosure frame. (Fig 2)
2. Then lower the side panel on to the pins.
3. Lock the side panel with the key supplied (Fig 1).



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8. RACK MOUNT ADJUSTMENT

1. Loosen the four bolts using a 5mm Allen key, do not remove the bolt (Fig 1).
2. Slide rails to desired location.
3. Ensuring the rails are vertical, tighten the bolt with 5mm Allen key (Fig 1).

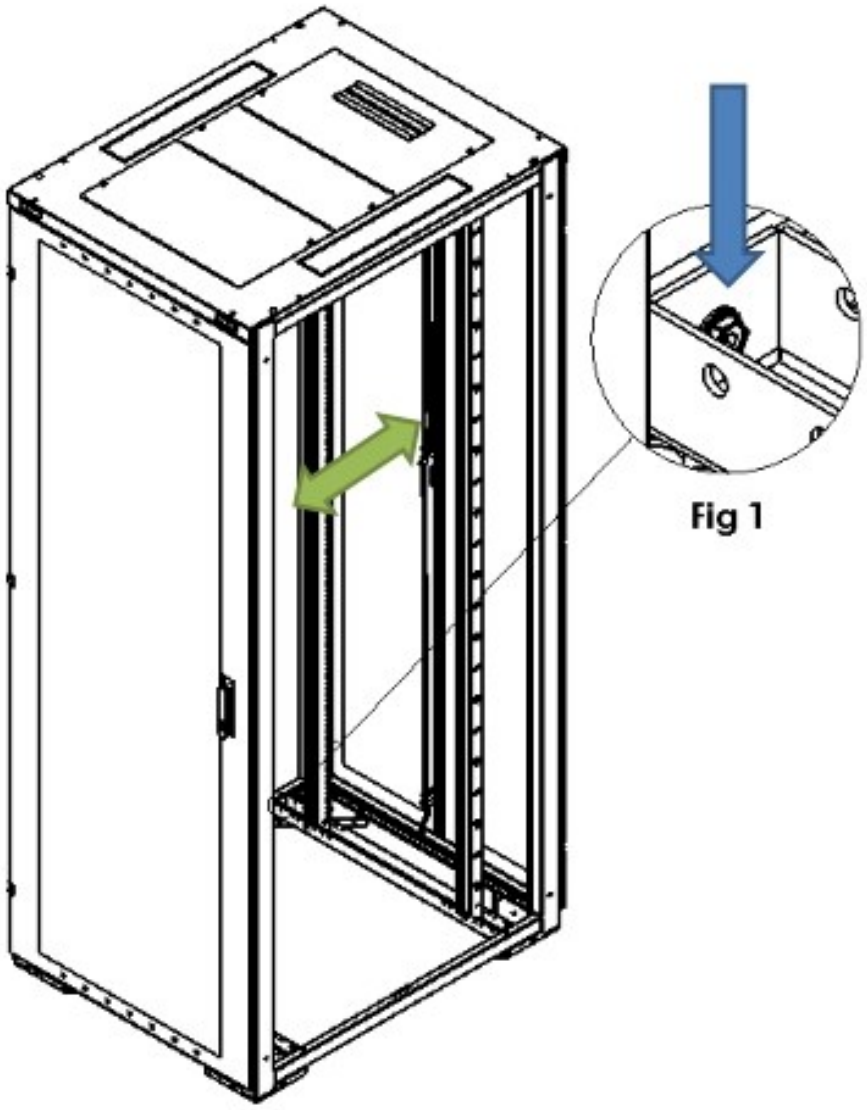

Fig 1

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9. RACK EARTH BONDING

Earth Kit Components (note; not all components used in every application);

ITEM REF	IMAGE	DESCRIPTION	LENGTH	QUANTITY
1		M6 x 25mm Zinc Plated Setscrew	25mm	4
2		M6 Shake proof Washer		8
3		M6 x 12mm Setscrew (4mm Allen)	12mm	4
4		M6 Plain Washers		24
5		M6 Serrated Hexagonal Flange Nut		18
6		Earth Lead	500mm	2
7		Earth Lead	350mm	8

TOOLS REQUIRED:
• SPANNER (WRENCH) - 10mm (x2)
• ALLEN KEY - 4mm

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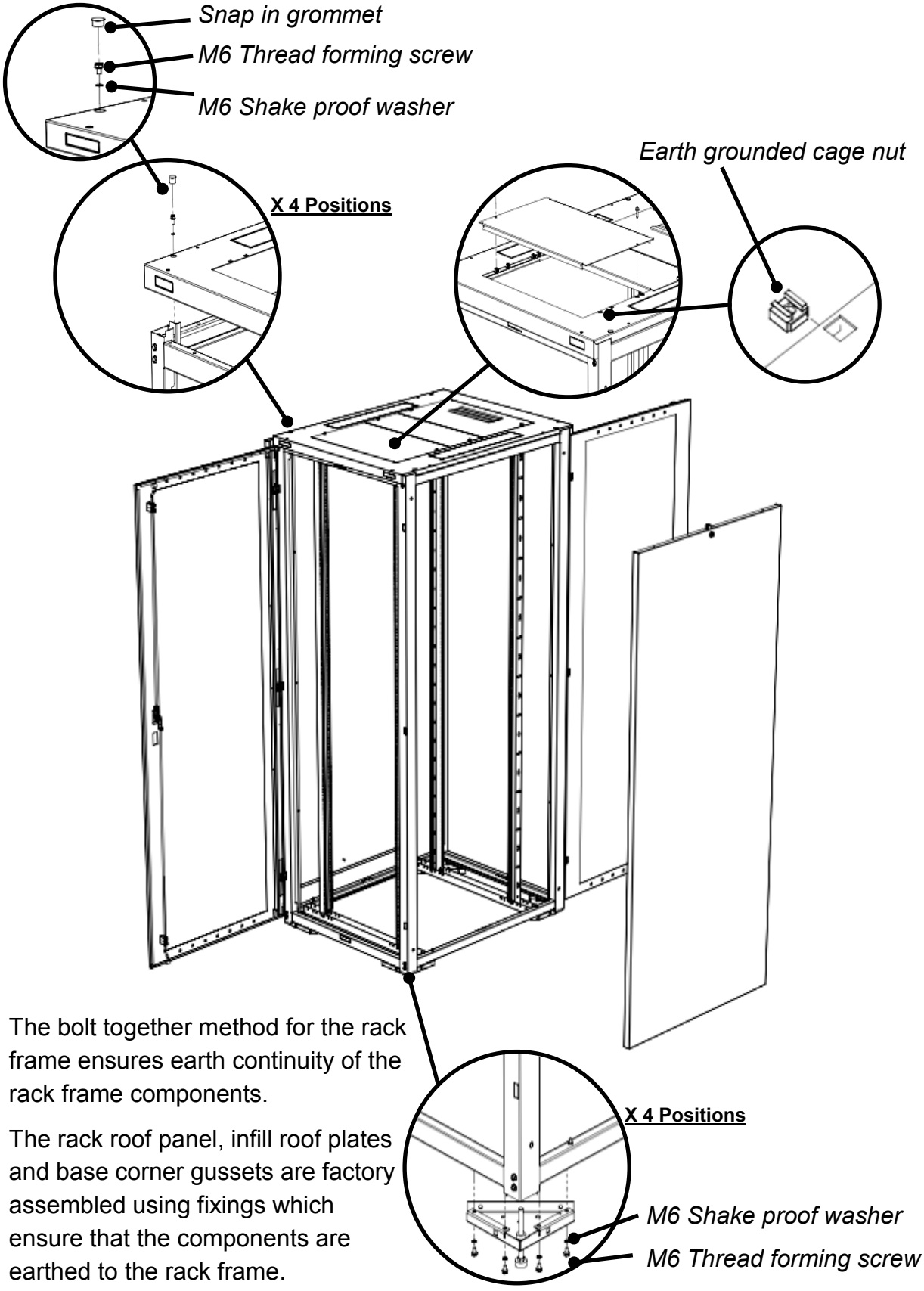
Factory Fitted Component Earth



The bolt together method for the rack frame ensures earth continuity of the rack frame components.

The rack roof panel, infill roof plates and base corner gussets are factory assembled using fixings which ensure that the components are earthed to the rack frame.

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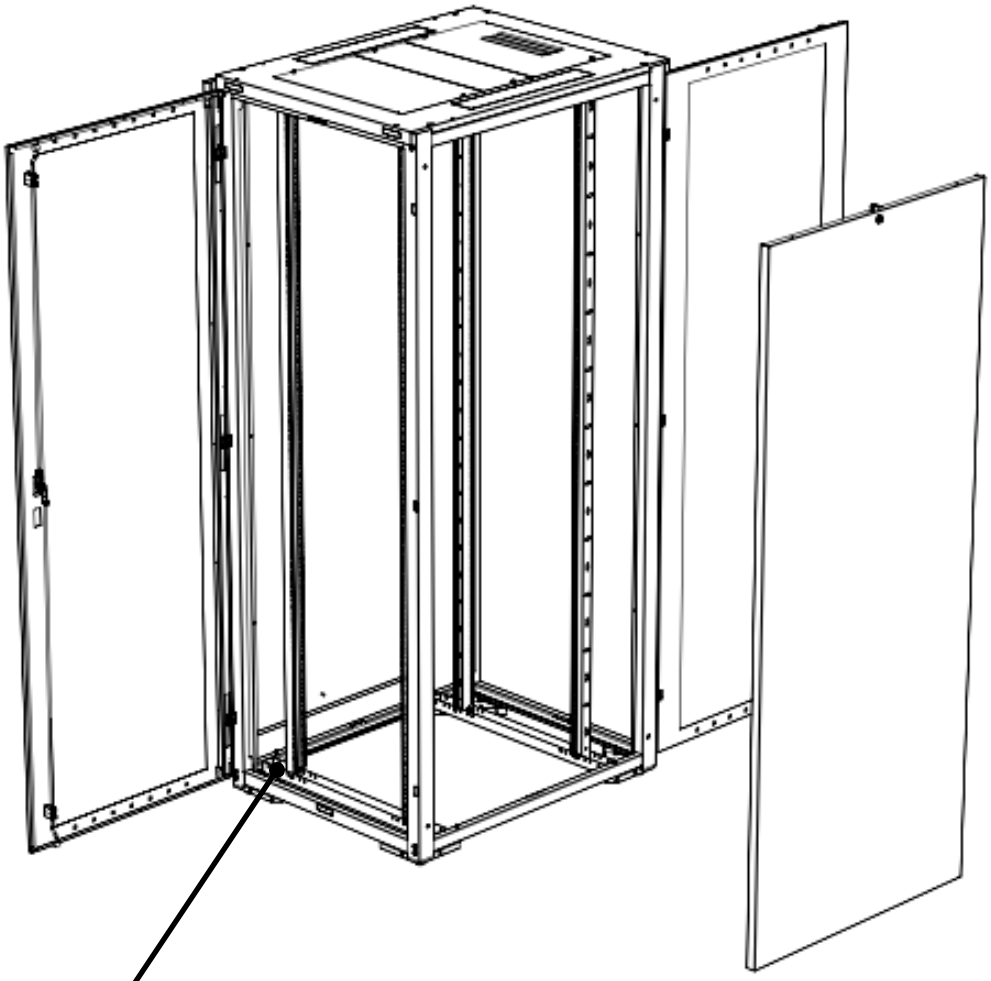
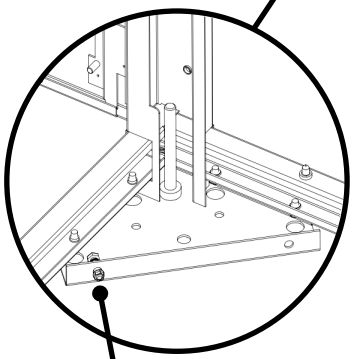
Rack Earth Kit Fitting Instructions





STEP 1 - MAIN RACK EARTH BONDING POINTS

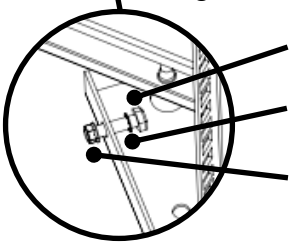
Fit main rack earth bonding points to corner gussets adjacent to door hinge positions. If double doors are fitted then fit main earth points to both adjacent corner gussets.

Note - Main earthing points must be assembled so that the M6 Shake proof washer is fitted under the head of the M6 Setscrew as shown in Fig 1.0.

Tighten to 12Nm.

Repeat this step at the rear of the rack.

Fig 1.0



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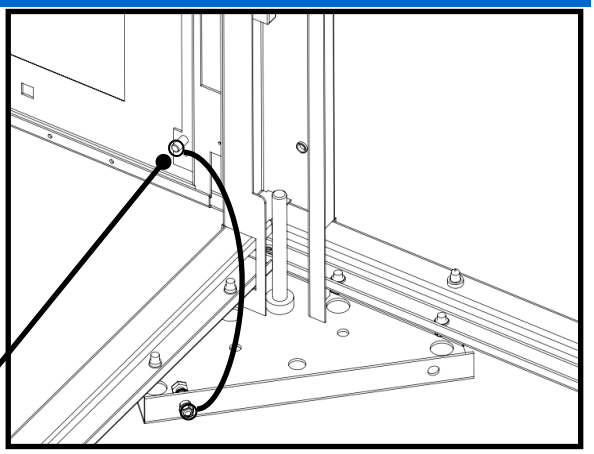
STEP 2 - DOOR EARTH BONDING

Locate the door bottom earth stud (closest to the bottom hinge). Fit earth lead to door as shown in Fig 2.0. Tighten to 6Nm.

Repeat this step at the rear of the rack



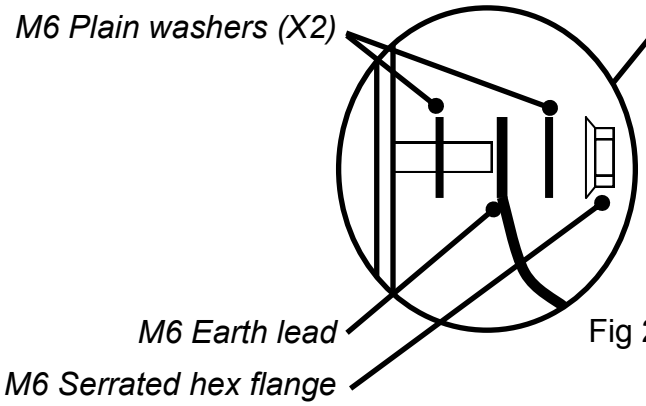
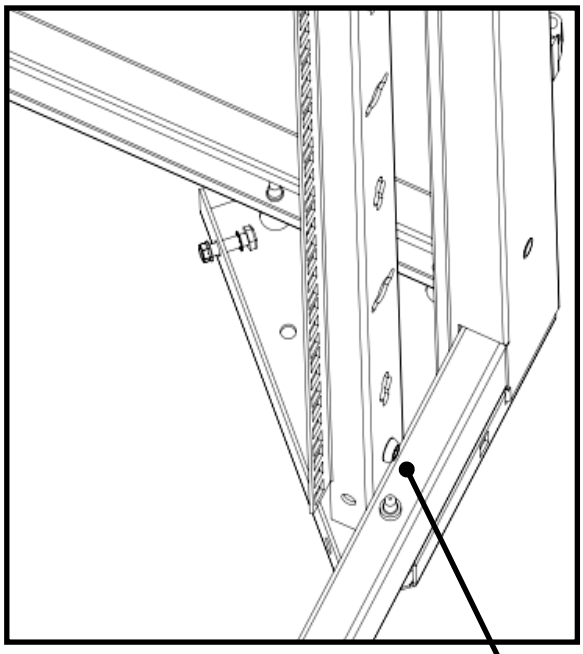


Fig 2.0

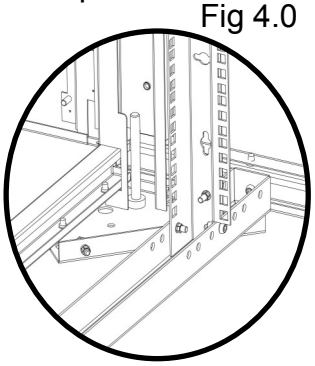


STEP 3 - 19-INCH RAIL EARTH BONDING

Remove the side panel to improve access.

Fit earth assembly as shown in Fig 3.0 and tighten assembly using a torque of

Fig 4.0



Use the same process for earth bonding the 19-inch mounting rails in an 800mm wide rack as shown in Fig

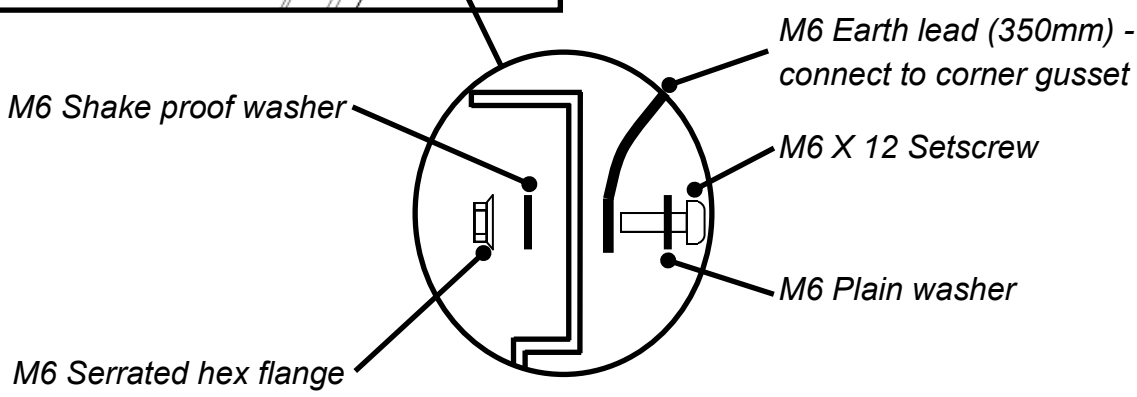


Fig 3.0

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STEP 4 - SIDE PANEL EARTH BONDING

Connect the 500mm lead to the earth stud inside the side panel as shown in FIG 5.0.

Tighten to 6Nm.

Complete STEP 4 on opposite rack side connecting the RH side panel to the rear corner gusset.

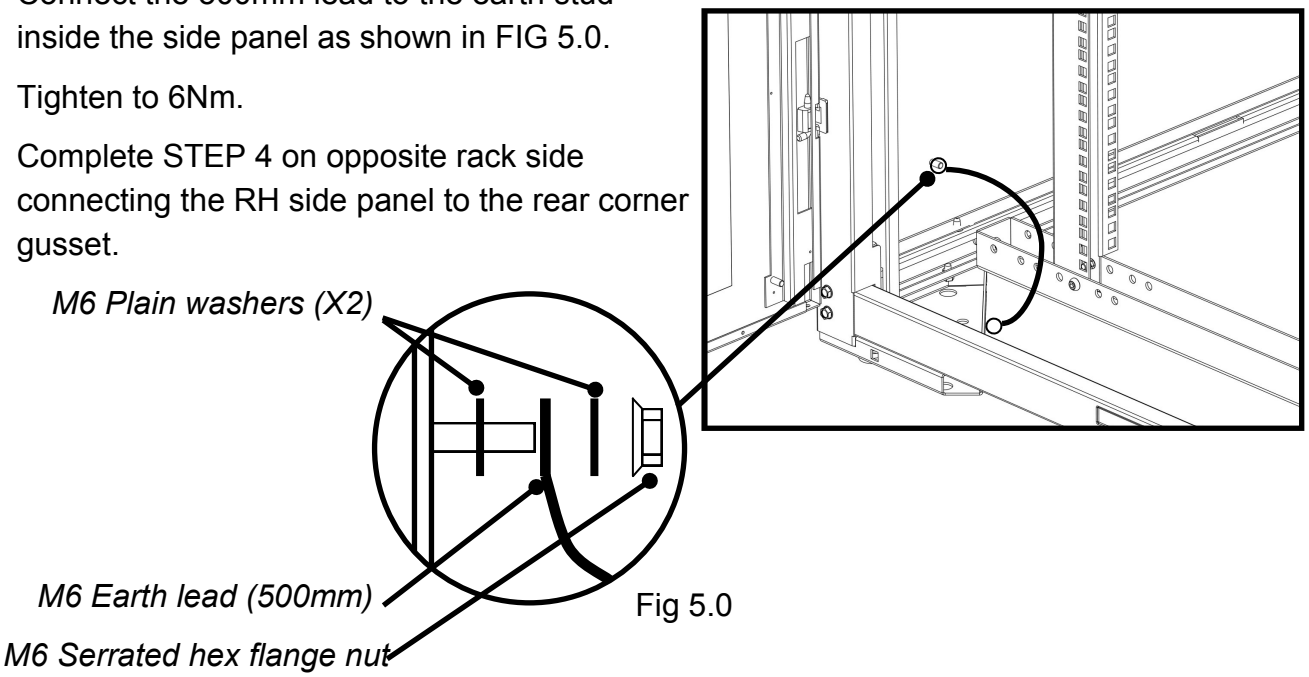
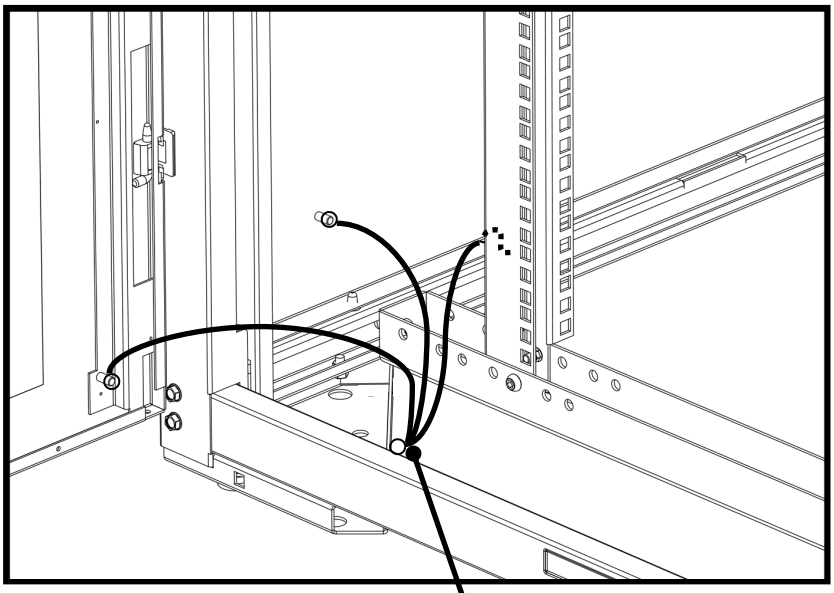


Fig 5.0



STEP 5 - EARTH BONDING TO MAIN EARTH POINTS

Taking the loose ends of the leads fitted in STEP 3 & STEP 4, connect the leads to the earth bonding point detailed in STEP 1 as shown in FIG 6.0.

Tighten to 12Nm.

Repeat STEP 5 at the rear of rack.

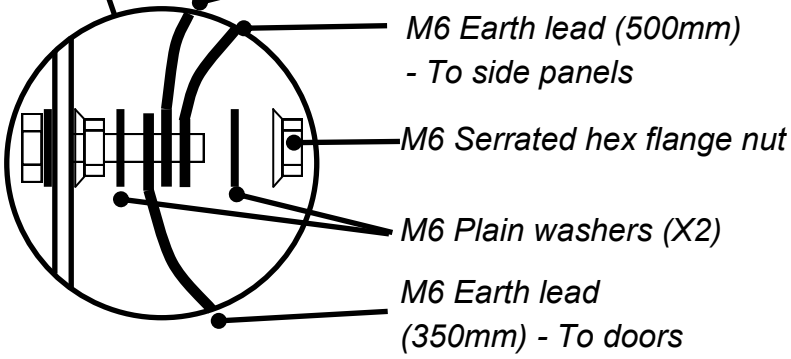


Fig 6.0

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10. AISLE CONTAINMENT

1200mm aisle (images used in these instructions)

1800mm aisle (shown for reference). Fitting instructions follow same process, but 1800mm wide aisles have wider side and roof panels.

TOOLS REQUIRED:
• SPANNER (WRENCH) - 8mm
• SPANNER (WRENCH) - 10mm
• ALLEN KEY - 5mm
• CROSS HEAD SCREWDRIVER

NOTE:

- End of aisle kits should be ordered to suit either 1200mm or 1800mm wide aisles. Kit height will cover both 42U and 47U REC racks.
- Roof panels should be ordered separately .

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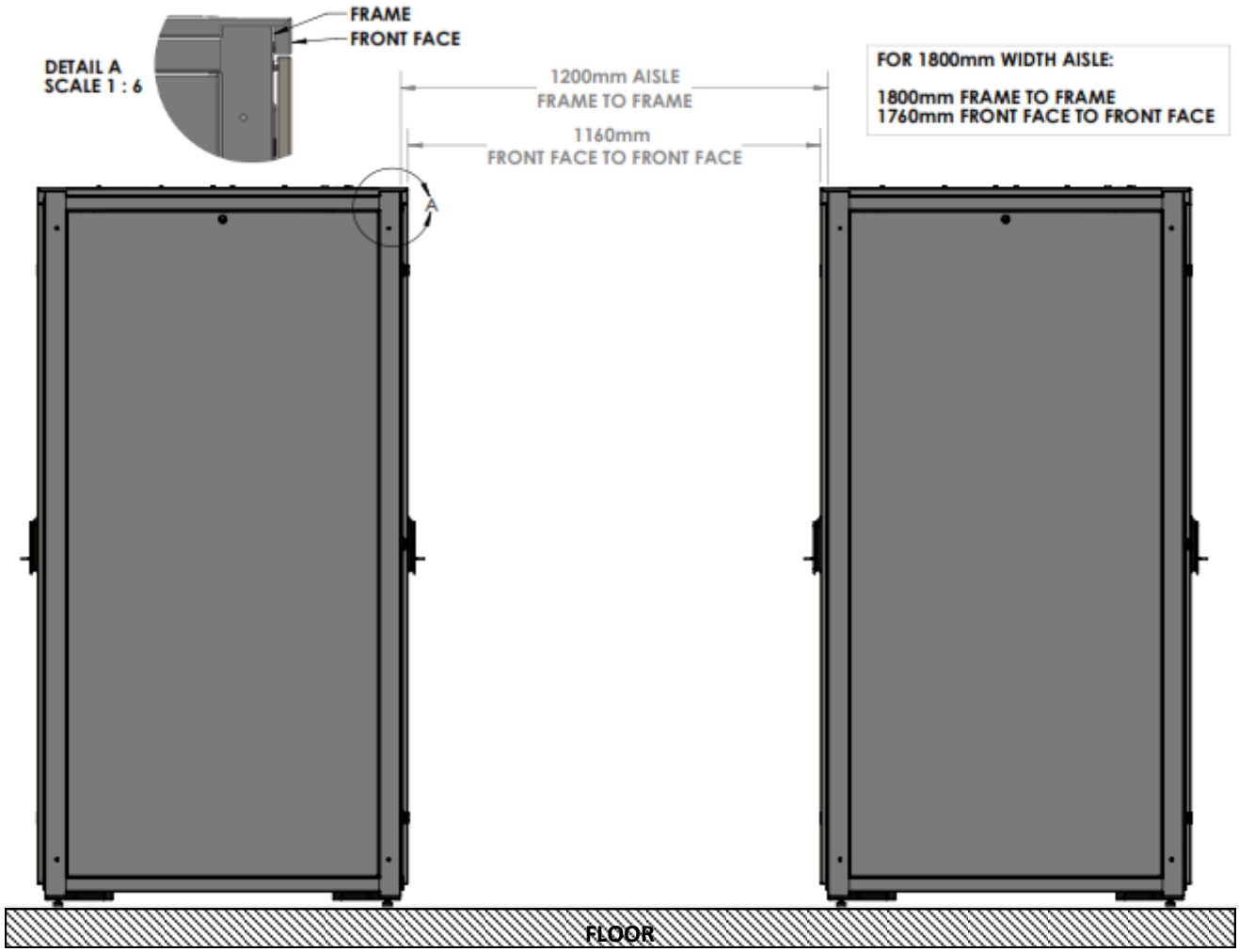
- **Step – 1**

Ensure cabinets are aligned, level and the correct distance apart (either 1200mm or 1800mm, depending on the aisle configuration) as shown in diagram below;



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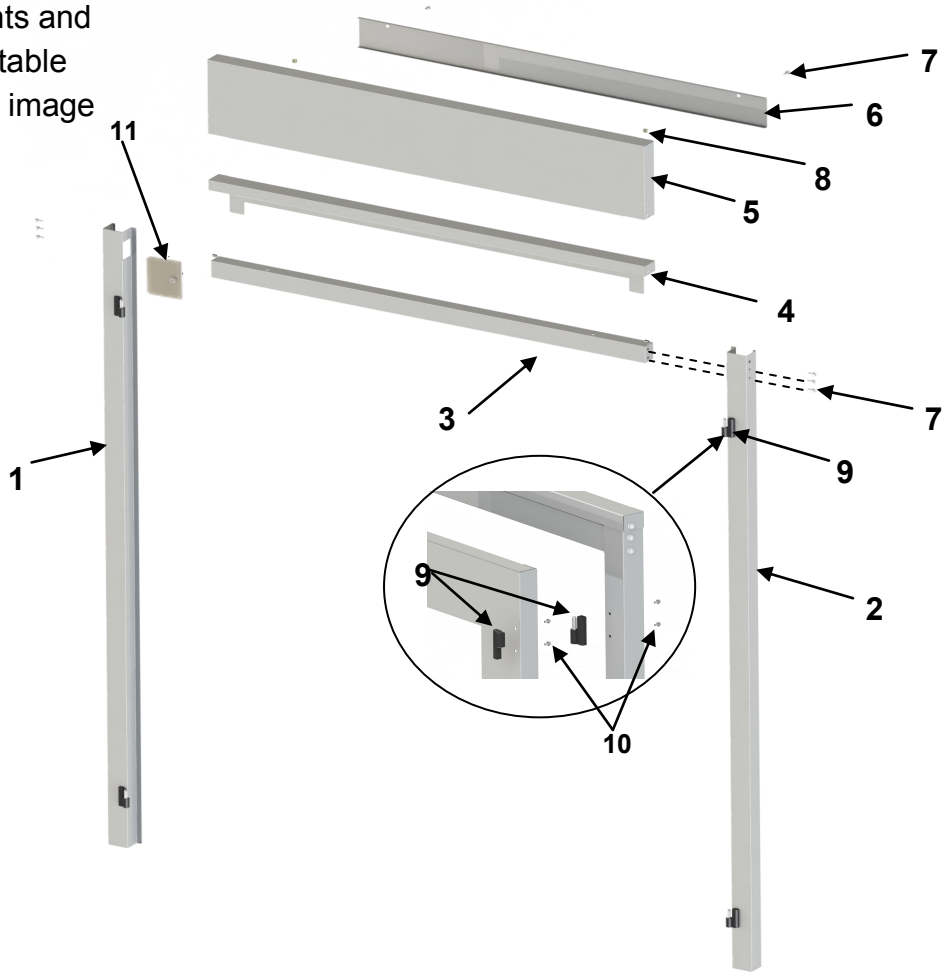
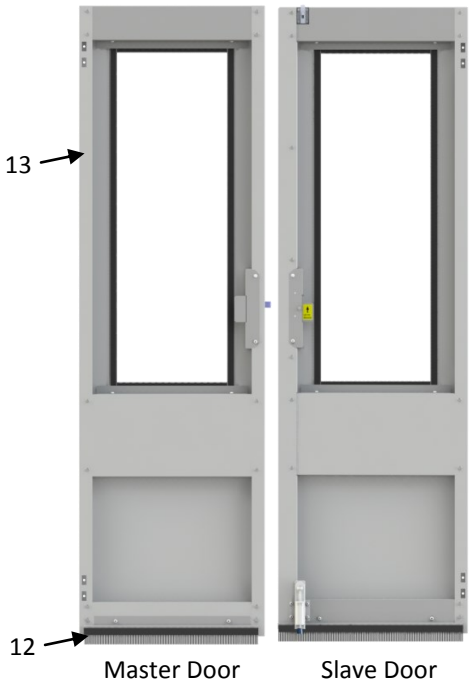
- **Step – 2**

Identify components and fixings detailed in table below and refer to image right.





Doors viewed from inside

ITEM #	DESCRIPTION	QTY
1	FRAME UPRIGHT LEFT	1
2	FRAME UPRIGHT RIGHT	1
3	CROSS BEAM	1
4	TOP PANEL 42U	1
5	TOP PANEL 47U	1
6	BACK FILL PANEL (USED WITH 47U ONLY)	1
7	SCREW M6 x 16mm	12
8	CAGE NUT M6	2
9	HINGES	4
10	SCREW M5 X 8mm FOR HINGES	16
11	CLAMP PLATE	4
12	BRUSH (FOR DOOR BOTTOMS)	2
13	DOOR (PAIR)	1

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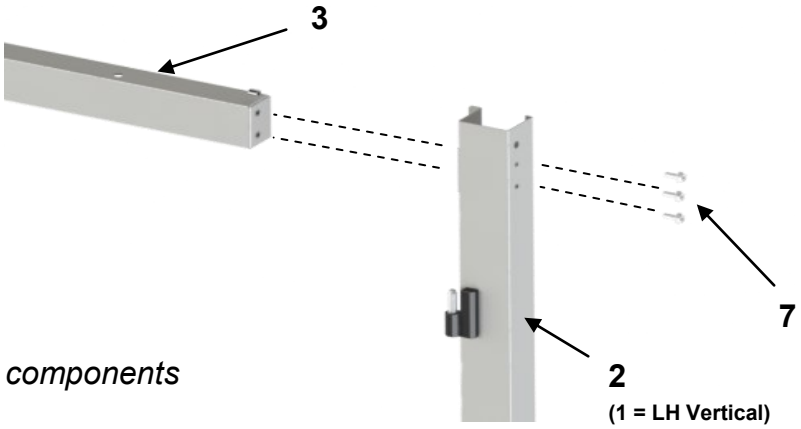
• Step – 3

Referring to the images on page 18, assemble the frame uprights (items 1 & 2) to the frame cross beam (item 3) using 4 off M6 x 16mm screws (item 7).



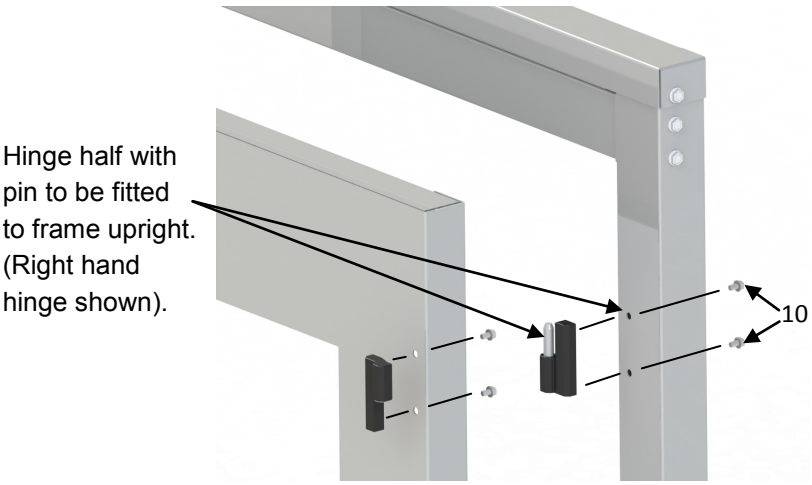
Tip: This is best done with the components laid flat on a level floor.

42U Height; Fit 42U Top Panel (item 4) to frame uprights using 2 off M6 x 16mm screws (item 7). Discard Item 5 and Item 6.

47U Height; Fit 47U Top Panel (item5) to frame uprights using 2 off M6 x 16 screws (item 7) and to Cross Beam (item 3) using 2 screws (item 7). Fit Back Fill Panel (item 6) to rear of Top Panel (item 4) using 2 off screws (item 7) and 2 off M6 Cage Nuts (item 8). Discard Item 4.

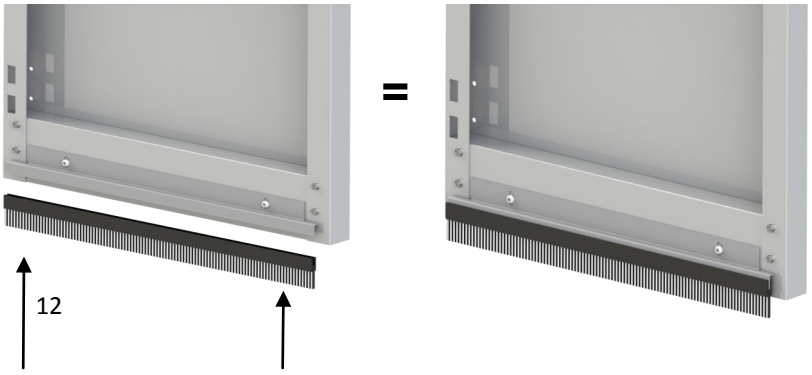
• Step – 4

Fit the hinges (item 9) to the frame uprights (items 1 & 2) using M5 x 8mm screws (item 10) shown in image below; Note the hinges are handed Left or Right . Fit hinges to corresponding door.



• Step – 5

Fit the brush (Item 12) to the brush carrier on the door bottom by pushing it into place (this is easier before doors are hung).



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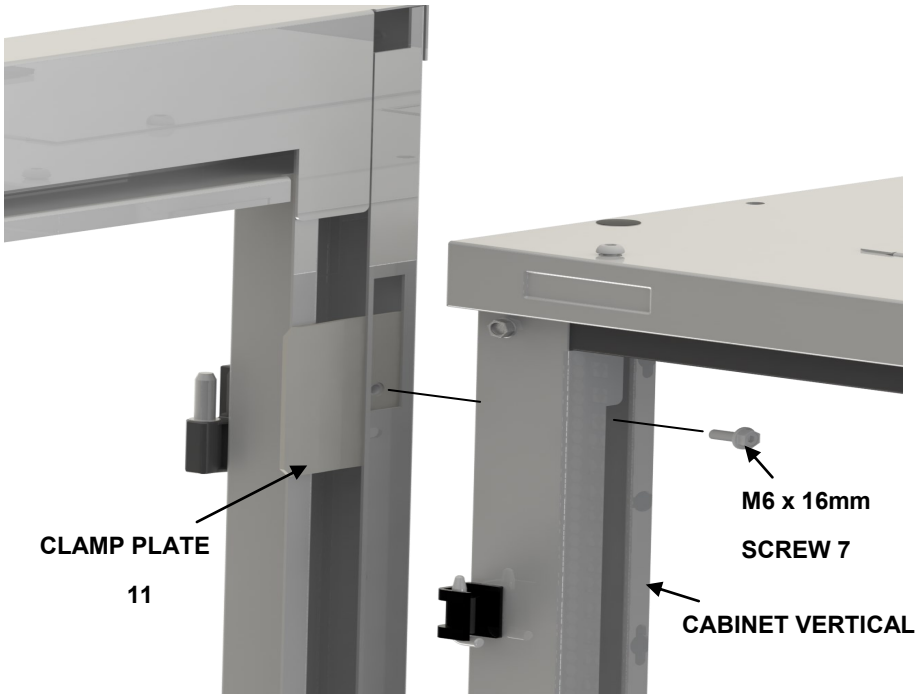
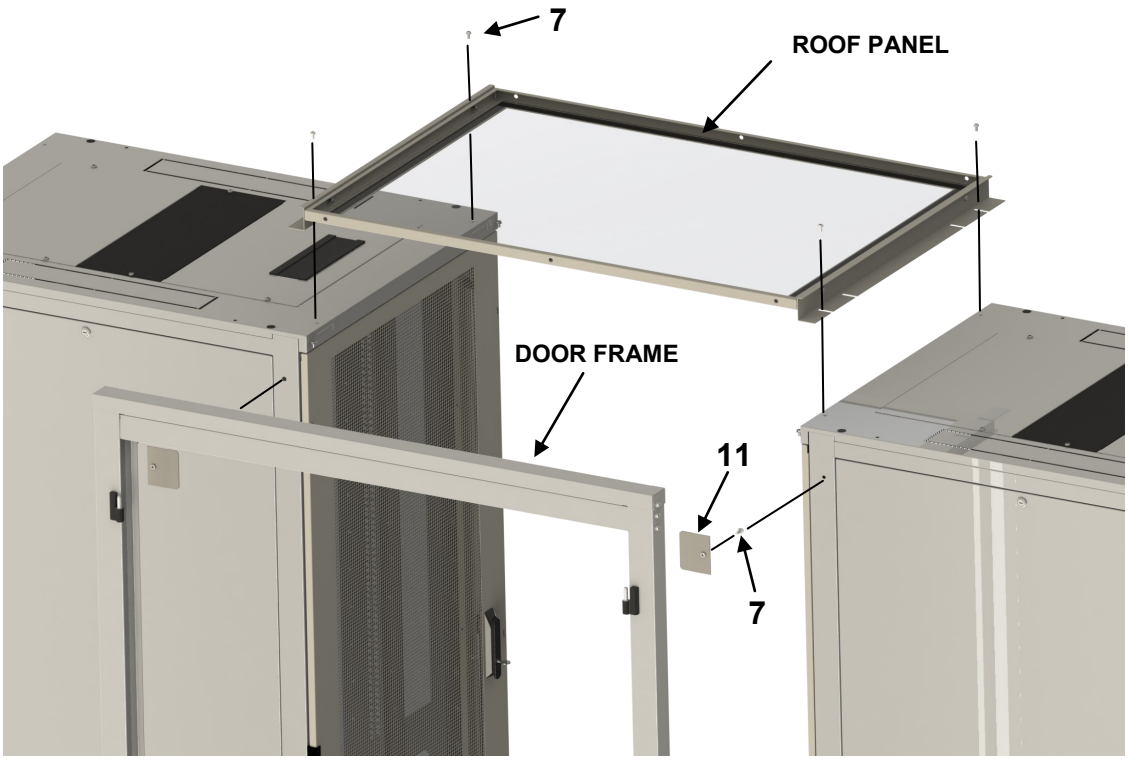
- **Step – 6**

Referring to images below, offer-up door frame to cabinets and attach using clamp plates, item 11, and M6 x 16mm screws, item 7 from inside the cabinets, in 4 positions.



- **Step – 7**

Fit roof panel using 4 off M6 x 16mm screws, item 7.



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- **Step – 8**

Fit the doors by orientating them at right-angles to the frame and lifting them onto the hinge pins.

Note the door positions and panel gaps can be adjusted by loosening the hinge fixing screws and altering their relative positions. The gap between the door and frame should be approximately 3 to 4mm all around.

The hinge adjusting screws are accessed from the rear of the frame and doors (inside the aisle).

DOOR HINGE ADJUSTMENT SCREWS.

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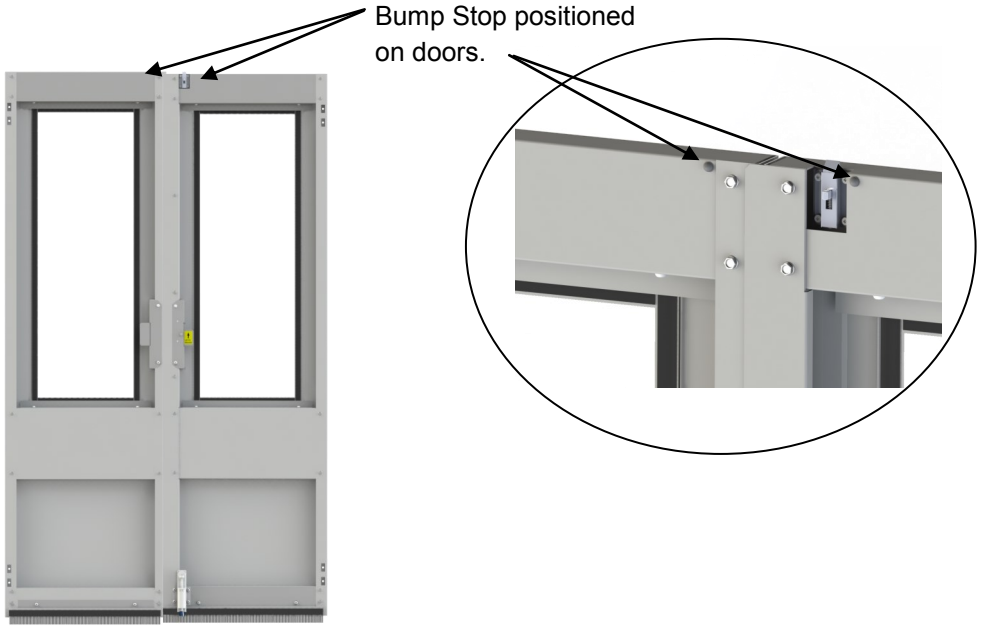
- **Step – 9**

Fit the self adhesive bump-stops to doors as shown (refer to image below)

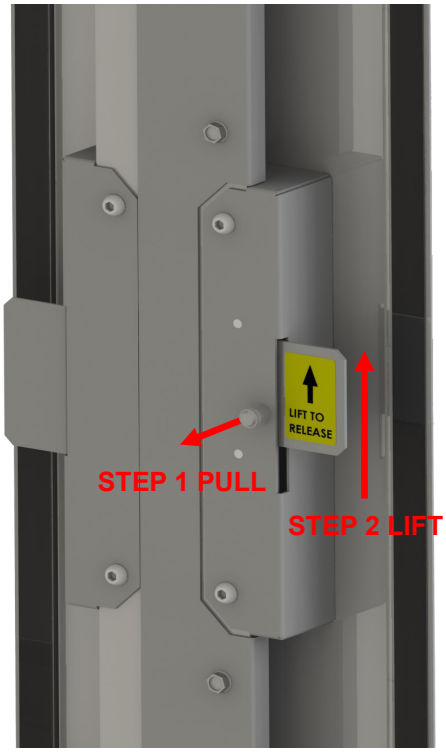


- **Step – 10**

The door-set is fitted with an opening mechanism which enables the master door to be opened from inside the aisle. To open the door from inside the aisle pull button while lifting latch (refer to images below), and push master door to the open position.

Release latch shown in Closed position

Release latch shown in open position



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