Cabinet Supported Aisle Containment Solutions User's Manual

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CHATSWORTH PRODUCTS

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INTRODUCTION

This document is the User's Manual for CPI Cabinet Supported Aisle Containment Systems.

Aisle Containment User Manual

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Legal Information

The information contained in this guide is subject to change without notice.

Chatsworth Products, Inc. (CPI) shall not be liable for technical or editorial errors or omissions contained herein; nor is it liable for any injury, loss, or incidental or consequential damages resulting from the furnishing, performance, or use of this material and equipment.

Warranty

Chatsworth Products, Inc. (CPI) guarantees manufactured products and each part or component thereof against all defects in material and/or workmanship. CPI agrees to remedy any manufacturing defect either through replacement or repair at no charge provided that the defective unit is returned, transportation prepaid, to the CPI factory.

The warranty extends for a period of one year from the date of installation or initial use, provided that this period shall not exceed 18 months from the original date of shipment from the factory.

Any product that has been repaired or replaced shall be similarly warranted on its repair or replacement for the remaining product warranty period or 90 days from the date of repair or replacement, whichever expires last.

This warranty does not extend to products that have been subjected to neglect, accident or improper use, nor to units that have been altered by non-CPI personnel.

No warranties other than those set forth in this section are given or implied with respect to the products furnished. CPI shall, in no event, be liable for consequential damages, for loss, damage or expense directly or indirectly arising from the use of the products, for any inability to use materials or from any other cause.

AISLE CONTAINMENT DOOR SYSTEM

INTRODUCTION TO THE AISLE CONTAINMENT DOOR SYSTEMS

The Aisle Containment Door Systems from Chatsworth Products, Inc. (CPI) have been developed to meet a wide range of application needs. The door systems can be installed in aisle widths that are between two and three tiles wide. The door systems are designed to be compatible with F-Series TeraFrame® and GF-Series GlobalFrame® cabinets that are between 42U minimum and 52U maximum height (77.8" – 98.9"). Door systems are available in three sliding options including: double-door, single-door left-hand sliding and single-door right-hand sliding. Four finish options are available including black and glacier white colors with either anodized aluminum door frames or color-matched door frames. The system can be installed onto slab floors or raised access floors. All systems include a stylish anodized aluminum door frame with full-height, clear polycarbonate inserts, an automatic close system with speed control damper, and a detent-open catch.

SAFETY INFORMATION

WARNING: Improper use of this product may lead to serious injury or death. Read and understand all instructions for proper installation and use of this product.

Installation of Aisle Containment Products may require the use of ladders, scaffolds, and other climbing tools. Follow all climbing device procedures and observe all safety and warning precautious.

The Aisle Containment Door components are heavy and large. This requires that at least two personnel be used for assembly and installation. Obtain adequate assistance or hire professional equipment riggers.

INTENDED USE

- Install the doors only in a restricted service environment, such as a data center. Use indoors only, in environmentally controlled areas; do not use outdoors, in harsh environments, or in air-handling spaces. Not for use in plenums.

STORAGE OF COMPONENTS

- Aisle Containment Components should be stored indoors only in environmentally controlled areas. Do not store outdoors. Do not expose to harsh or humid areas.

TOOLS REQUIRED FOR INSTALLATION

Utility Knife*	Large Phillips screwdriver
Small Phillips screwdriver	8 mm wrench
10 mm socket wrench	12 mm socket wrench
13 mm socket and open end wrench	Straight edge*

**For best results when cutting corrugated plastic sheet use specialized cutting tools, like the Guardian Knife Guide and Coro-Claw™ Flute Cutter by Saw Trax Mfg. Inc.*

UNPACKING

CAUTION: Aisle Containment parts can be heavy. Use a minimum of two (2) people to unpack and remove components from the pallet.

Inspect the components for damage as they are unpacked. If any damage to the cabinet is observed, contact your distributor or CPI Customer Service.

1. The Door Assembly components are packed in a protective crate. The upper crate will need to be removed to access the components. Carefully remove the mounting screws from the steel plates that tie the upper and lower crate. The upper crate will need to be lifted and set aside.

CAUTION: The upper crate can be heavy. Use a minimum of two (2) people to remove.

2. Individual component pieces will be individually wrapped with foam. The foam should be used to provide protection when the components are staged on the floor prior to assembly. Use a utility knife to cut any tape. Be careful not to allow the knife to contact the components as this causes damage.

RECYCLABLE MATERIALS: CPI uses only recyclable materials in all of its cabinet packaging. Please save packaging for later use or dispose of properly. All wood components of CPI pallets have been properly treated to comply with the pest-free certifications required by foreign countries.

3. After the all of the components have been unpacked, locate the hardware kit and inspect the product for concealed damage. If any damage to the aisle containment solution is observed, contact your distributor or CPI Customer Service.

INSTALLING THE AISLE CONTAINMENT DOOR

The Aisle Containment Door is bolted to the floor and supported to the top of TeraFrame or GlobalFrame cabinets.

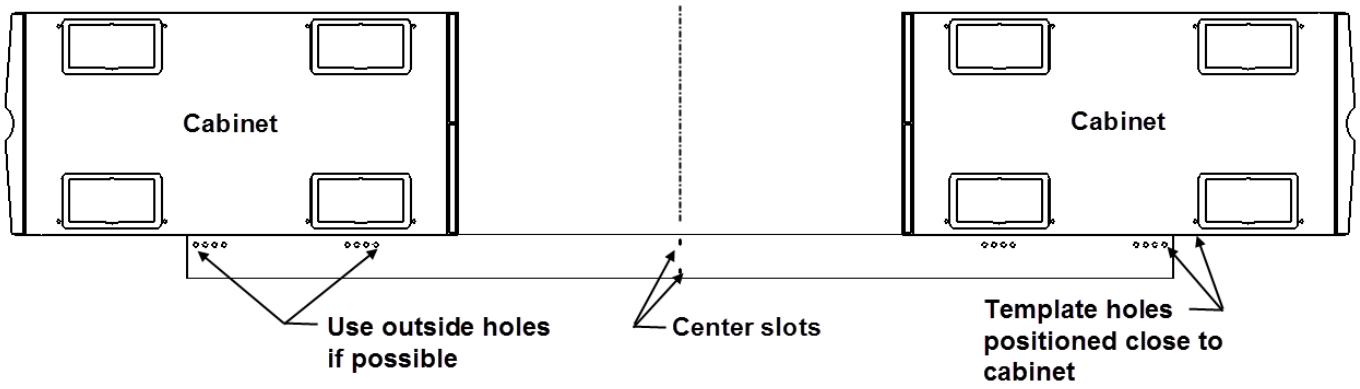
FLOOR PREPARATION

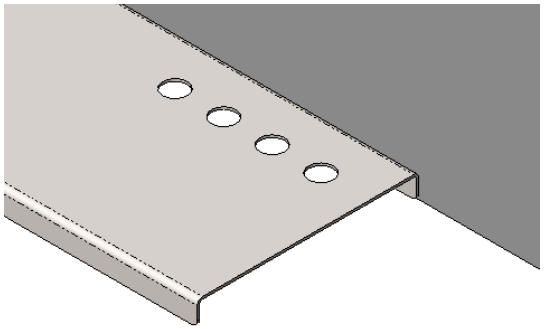
SLAB FLOOR

Install four concrete anchors, two for each side panel, using the floor drilling template to accurately locate the holes. The template is not included with the door; it must be ordered separately, 32875-701 for the double door or 32875-702 for the single door.

DOUBLE DOOR

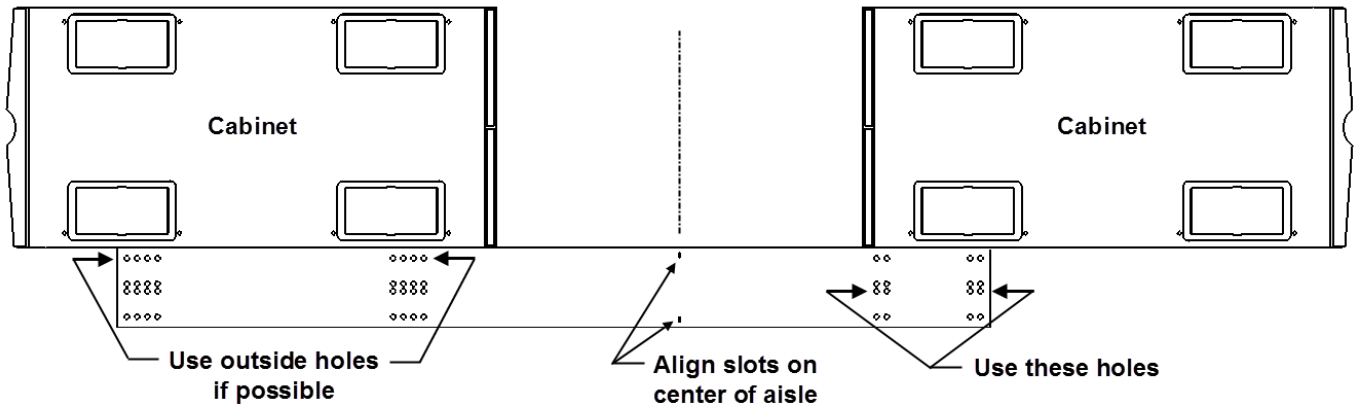
For the double door, position the template (PN 32875-701) with the flanges down and the holes close to the cabinet. The side flange should butt against the cabinet side and the template should be centered on the aisle; the slots at the center of the template can be used as a guide. Drill four holes, two at each end, through the template; the template holes are 1/2” diameter which should be the correct size for 3/8” concrete anchors (not included). If possible use the outside set of holes as shown in the picture below; the other holes can be used if there is an obstruction in the concrete.



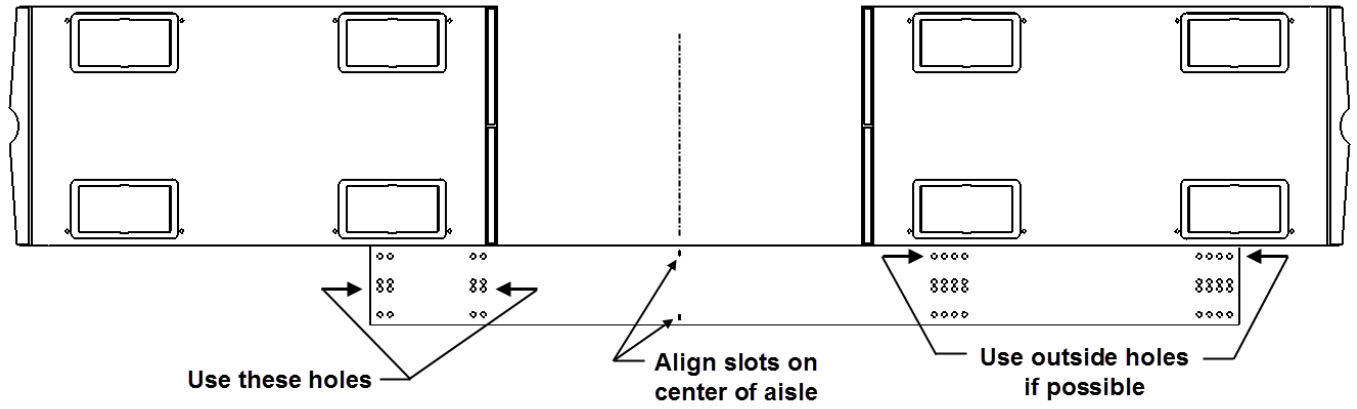


SINGLE DOOR

For the single door, position the template (PN 32875-702) with the flanges down and oriented for left or right door opening as shown in the pictures shown below; the first picture shows a left opening door and the second shows a right opening door. The side flange should butt against the cabinet side and the template slots should be centered on the aisle. Drill four holes, two at each end, through the template; the template holes are ½" diameter which should be the correct size for 3/8" concrete anchors (not included). If possible use the outside set of holes as shown in the picture below; the other holes can be used if there is an obstruction in the concrete.



Left opening door



Right opening door

ACCESS FLOOR

For access floor installations, a door standoff kit (PN 32870-X01 for the double door or PN 32870-X02 for the single right door) is required. The standoff moves the door assembly away from the cabinet by 2.5” so that there is enough clearance for the floor mounting hardware.

In an access floor installation, ensure that the floor is strong enough to support the weight of the door (320 lbs for the double door and 280 lbs for the single door).

Drill four clearance holes (two for each side panel) for 3/8” bolts or threaded rod into the floor tile using the floor drilling template to accurately locate the holes. The template is not included with the door; it must be ordered separately, 32875-X01 for the double door or 32875-X02 for the single door.

Bracing to the subfloor

In an access floor installation, ensure that the floor is strong enough to support the fully populated computer cabinets. Add subfloor bracing to provide the proper support for equipment.

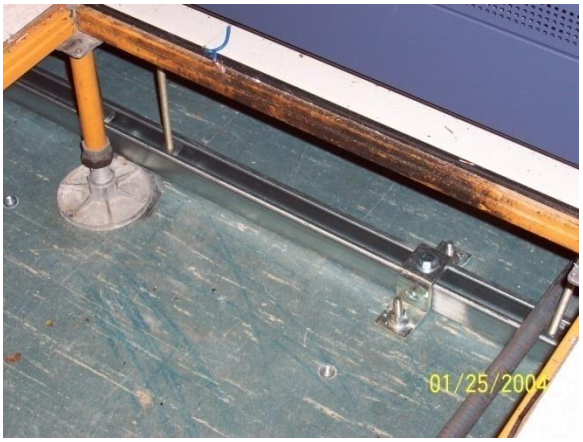


Fig. 2.2.1 Subfloor bracing

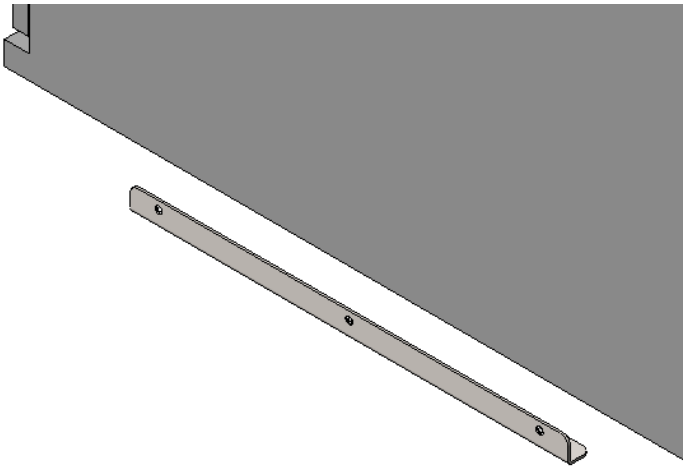
FLOOR MOUNTING ANGLE INSTALLATION

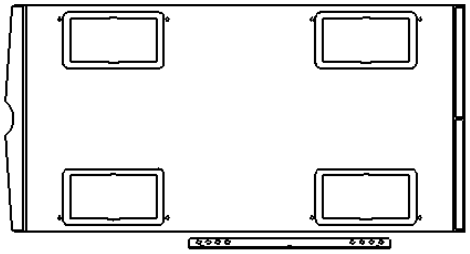
SLAB FLOOR

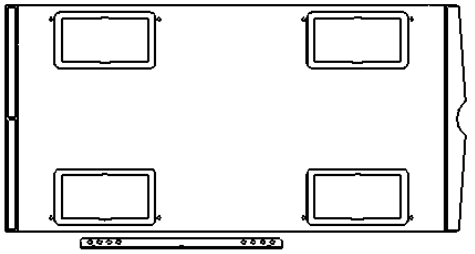
Install four 3/8” concrete anchors (PN: 40604-001, not included) into the four drilled holes. Bolt the two mounting angles to the floor with 3/8” hex bolts (not included).

ACCESS FLOOR

Bolt the two mounting angles to the floor tile with 3/8” hex bolts and fender washers (not included). If subfloor bracing is being used, extend 3/8” threaded rod through the floor tile to the subfloor (not included).



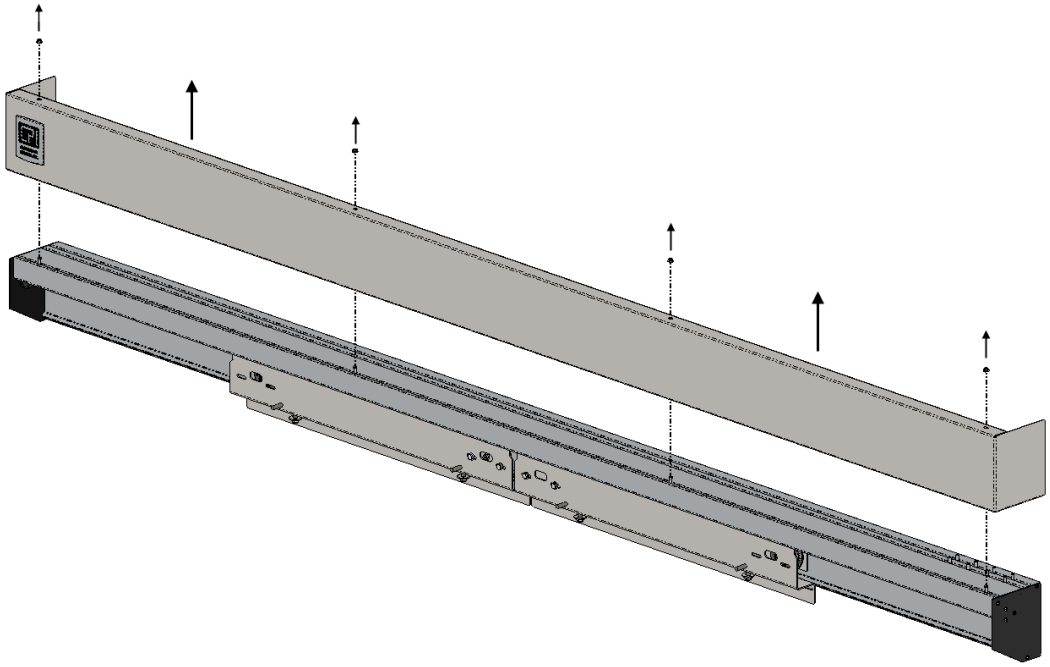




DOOR FRAME ASSEMBLY

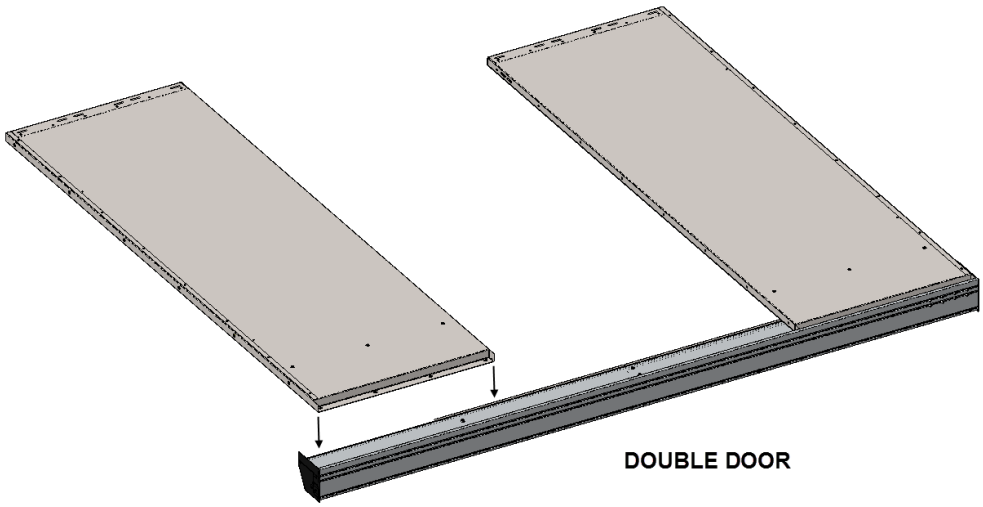
REMOVING THE RAIL COVER

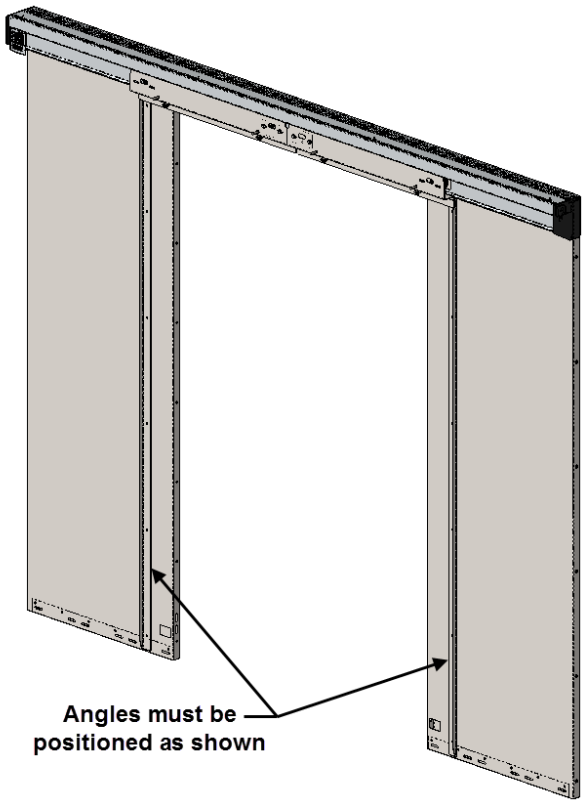
Lay the rail assembly on the floor; use packaging to protect finish. Remove the four nuts that hold the cover on the rail and remove the cover. Set the cover aside.

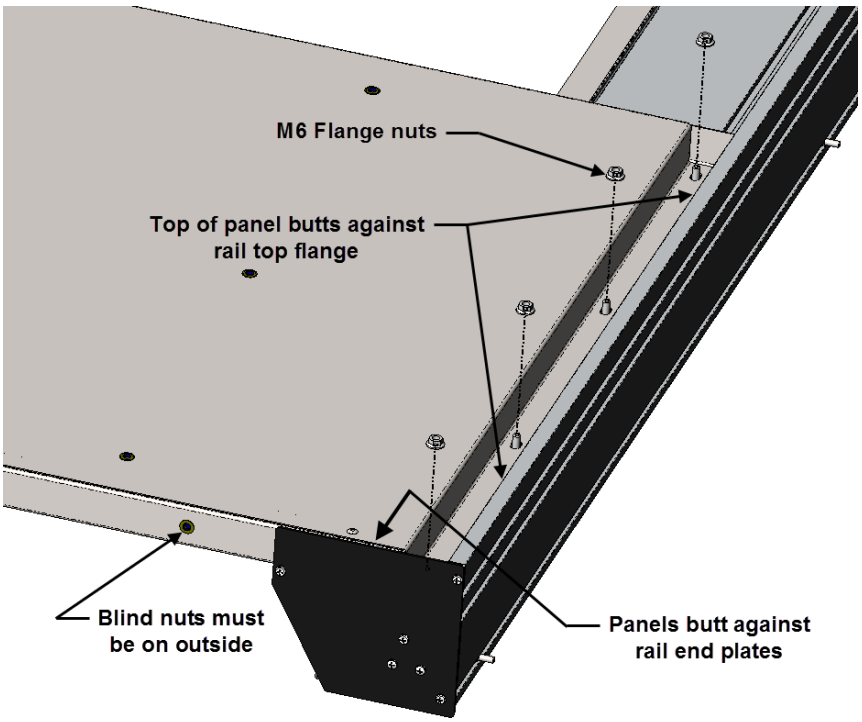


ASSEMBLING THE DOOR FRAME

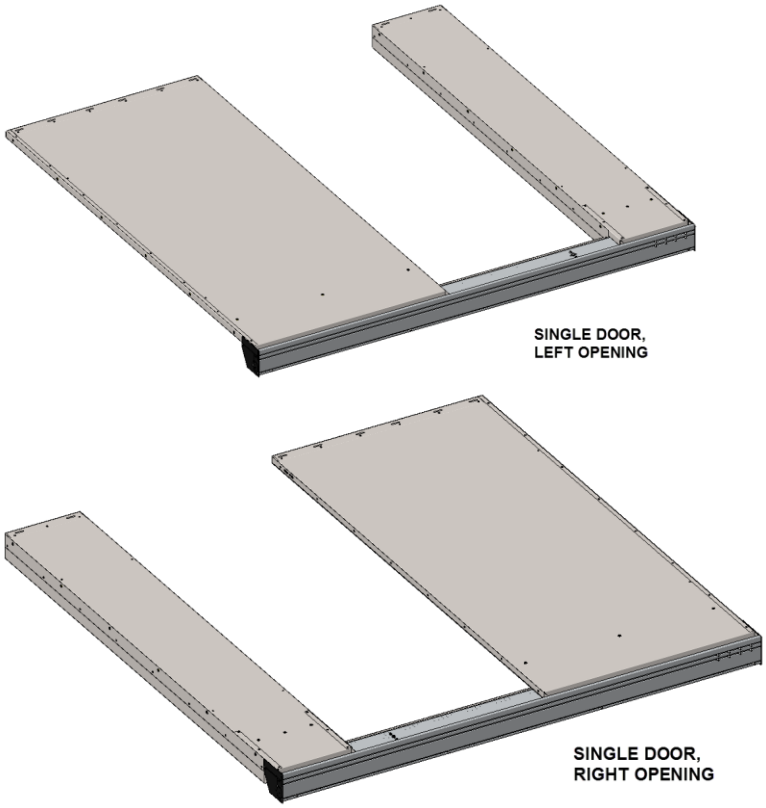
Position the rail assembly with the front towards the floor. Attach the side panels to the rail assembly using M6 flange nuts (see first picture on following page). The rail has bolts that protrude out of the back of the rail; these bolts go through the holes in the top flange of the panels. Be sure that the angles on the front face of the panels are positioned towards the center of the door opening (see second picture on following page). To ensure that the panels are mounted square to the rail be sure that the top edge of the panels are butted against the rail extrusion and slide the panels so that they butt against the rail end plates (see detail on page 13).


DOUBLE DOOR


Angles must be
positioned as shown

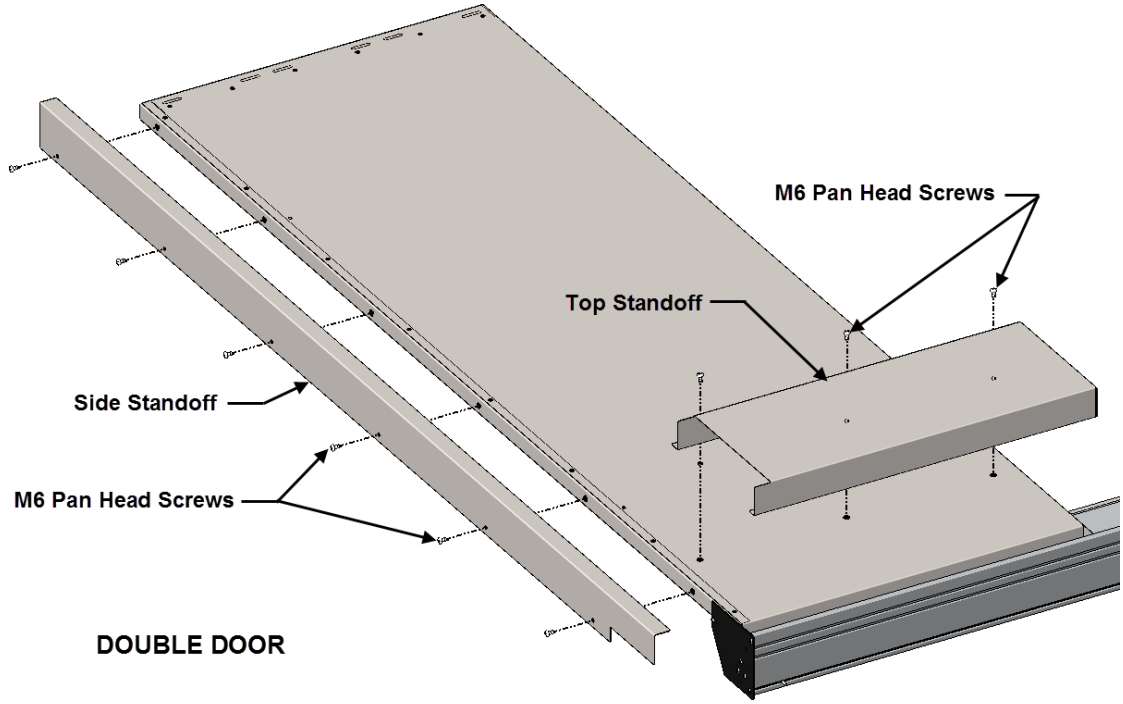


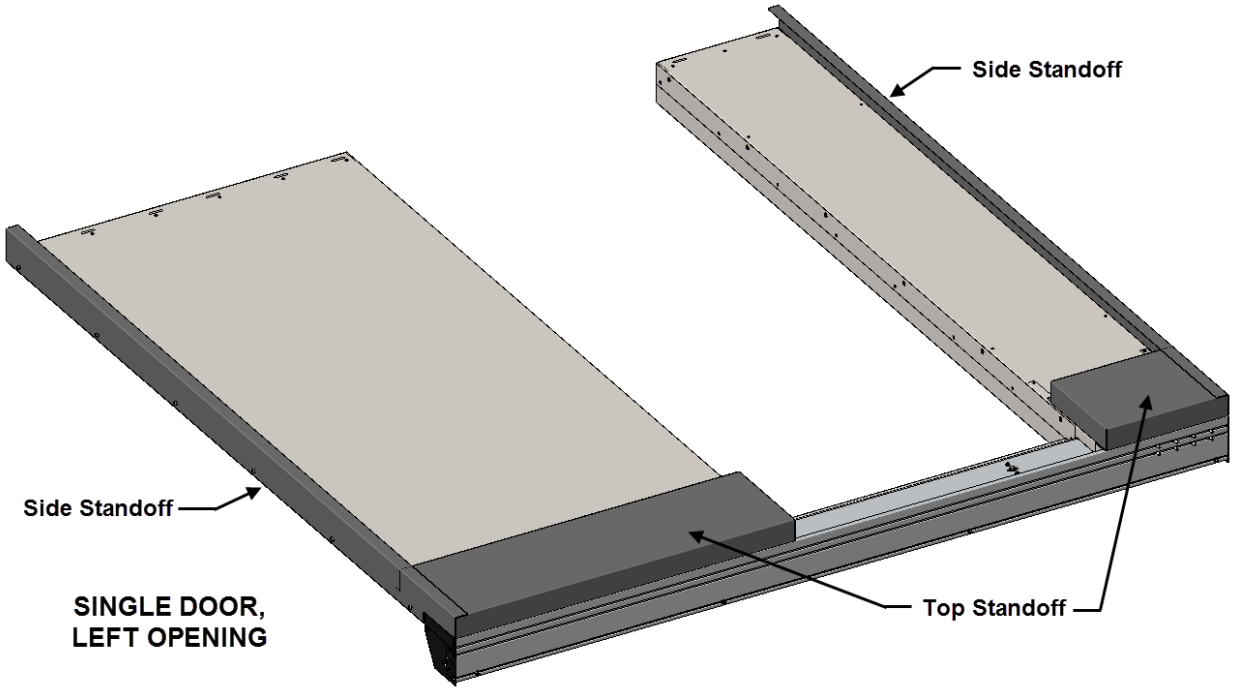
Single Door Assemblies shown below – note position of large and small panels.



STANDOFF ASSEMBLY

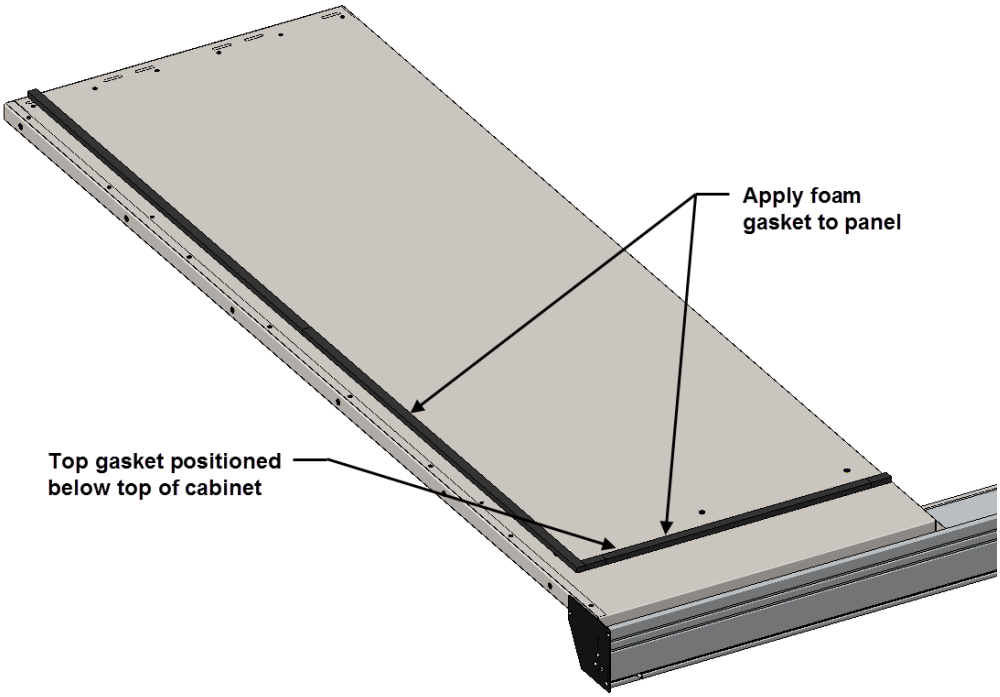
For access floor installations, a door standoff kit (PN 32870-X01 for the double door, PN 32871-X01 for the single left door, or PN 32871-X02 for the single right door) is required. The standoff is mounted to the frame assembly as shown below. Attach the two side standoffs to the side panels using six M6 pan head screws on each standoff. Attach the two top standoffs to the side panels using three M6 pan head screws on each standoff.

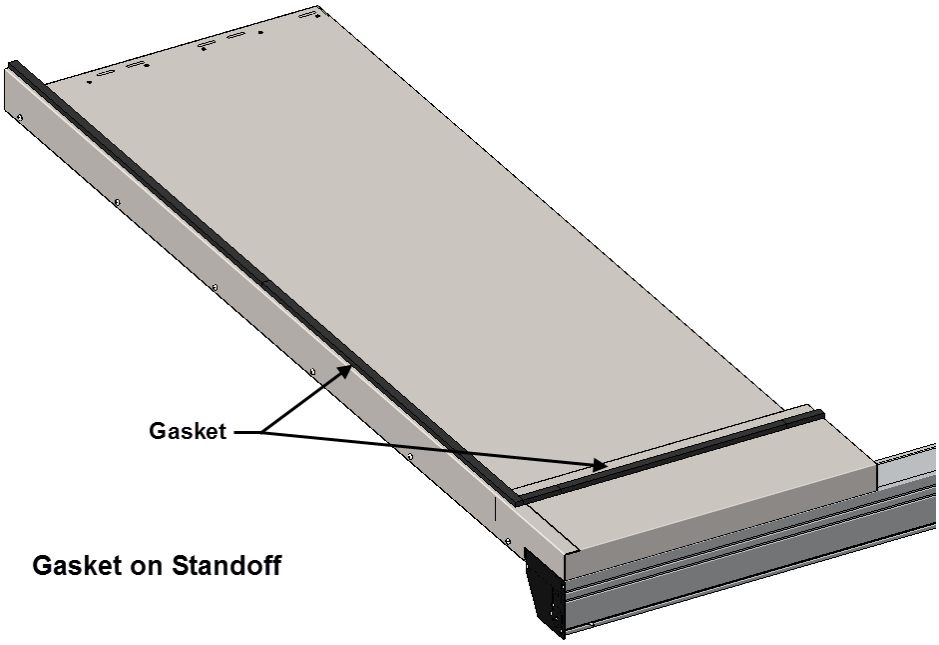




APPLYING PANEL GASKET

Apply the adhesive foam gasket to the side panels as shown below. The top gasket should be positioned 2” – 3” (51 – 76 mm) below the top edge of the cabinet. If the cabinet is taller than the door assembly apply the top gasket at the very top of the panels.





Gasket on Standoff

DOOR FRAME INSTALLATION

CABINET TOP ATTACHMENT

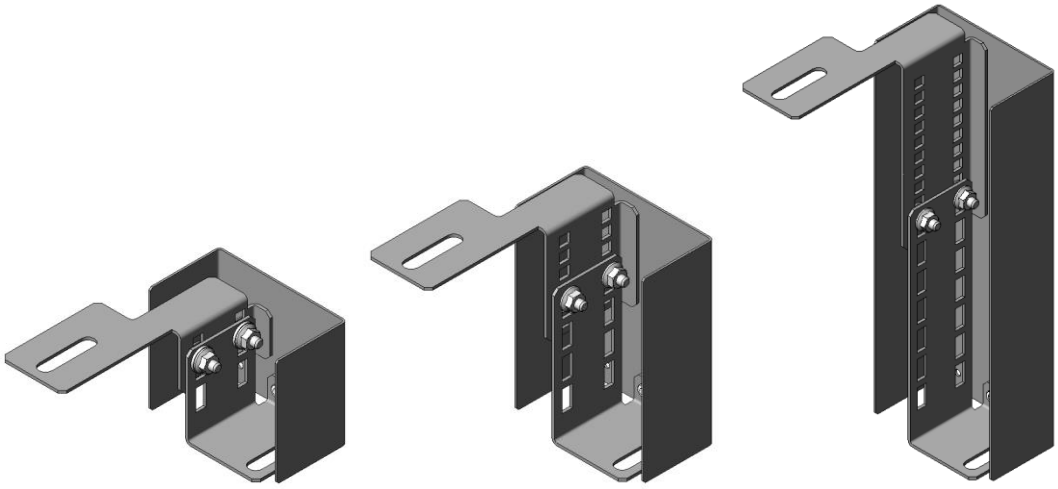
A Cabinet-to-Door Bracket Kit is required to attach the door frame to the top of the cabinets (not included with door). The brackets will work with F-Series TeraFrame and GF-Series GlobalFrame cabinet heights from 42U to 52U. Order one kit per door assembly as follows:

For doors without standoff kit:

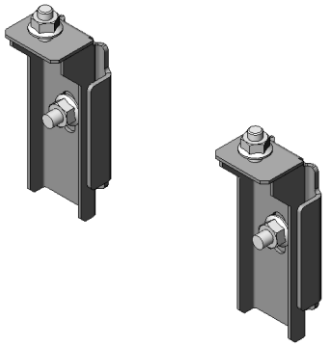
32805-X00 For top of cabinet heights from 85.3” up to 91.4”
32805-X01 For top of cabinet heights from 82.6” up to 94.2”
32805-X02 For top of cabinet heights from 77.8” up to 98.9”

For doors with standoff kit:

32805-X03 For top of cabinet heights from 85.3” up to 91.4”
32805-X04 For top of cabinet heights from 82.6” up to 94.2”
32805-X05 For top of cabinet heights from 77.8” up to 98.9”

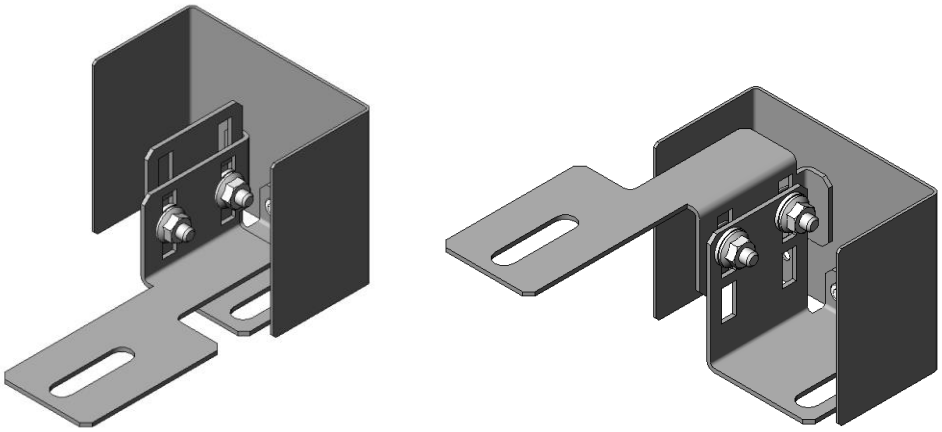


GF-Series GlobalFrame Gen 1 Cabinets will also require a Rail Support Bracket kit, PN 32771-X01. GF-Series GlobalFrame Gen 2 Cabinet do not require a Rail Support Bracket Kit.

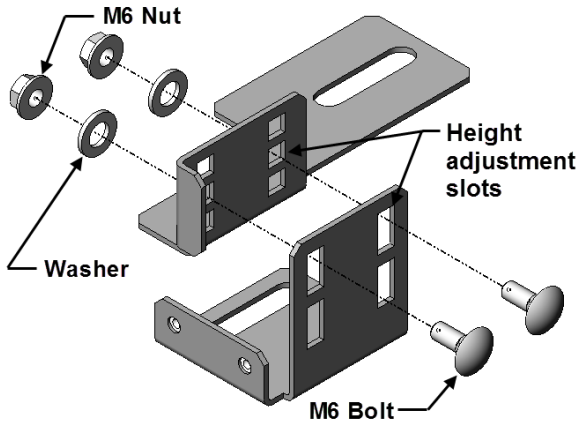


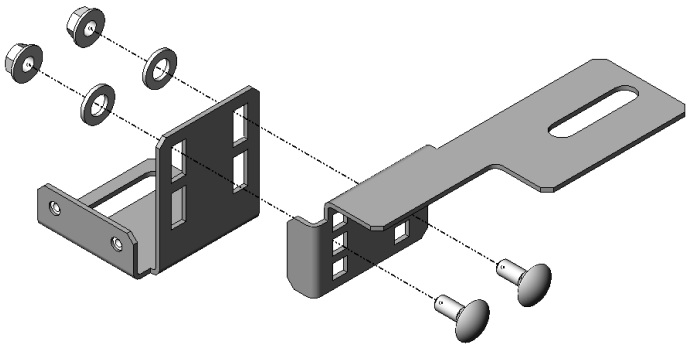
BRACKET ASSEMBLY

The top mounting brackets can be assembled in two different configurations; the first picture below shows the bracket assembled for the minimum height adjustment and the second shows it assembled for the maximum adjustment.



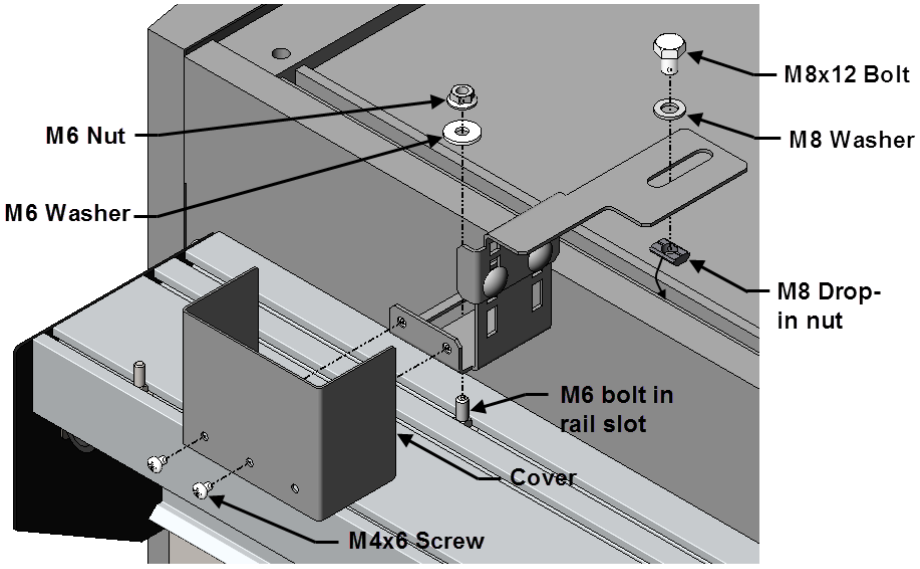
Assemble the two brackets together using two M6 bolts, washers, and nuts for each bracket assembly.





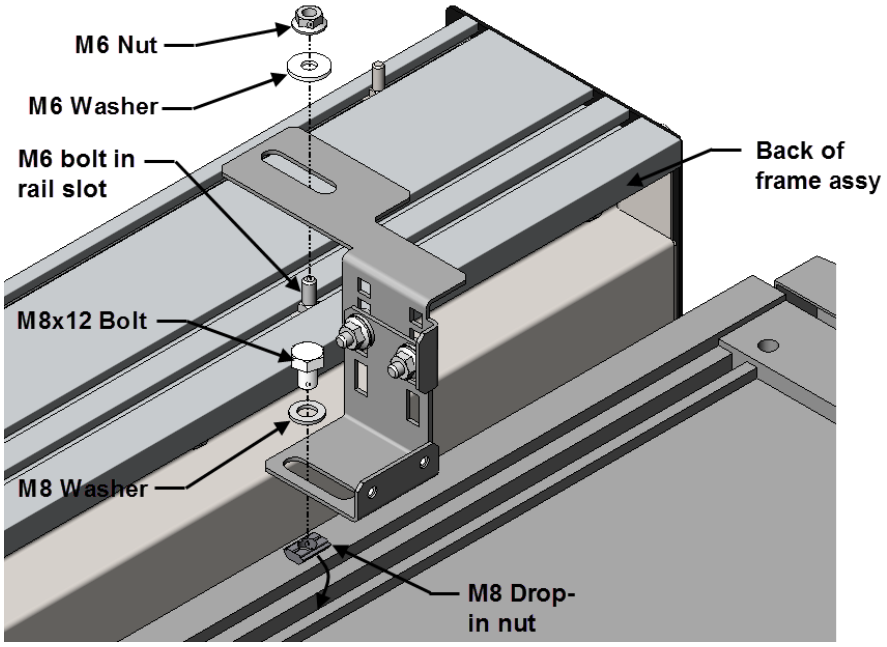
TERAFRAME AND GLOBALFRAME GEN 2 MOUNTING

For F-Series TeraFrame and GF-Series GlobalFrame Gen 2 Cabinets that are taller than the door frame assembly, mount the bracket assembly as shown below. Install the M8 drop-in nut in the cabinet's upper frame slot. Attach the top bracket to the cabinet with the M8x12 bolt and M8 washer into the drop-in nut. The bottom bracket is attached to the door top rail using one of the pre-installed M6 bolts in the rail and a M6 nut and washer. Attach the bracket cover to the bottom bracket with two M4x6 screws.



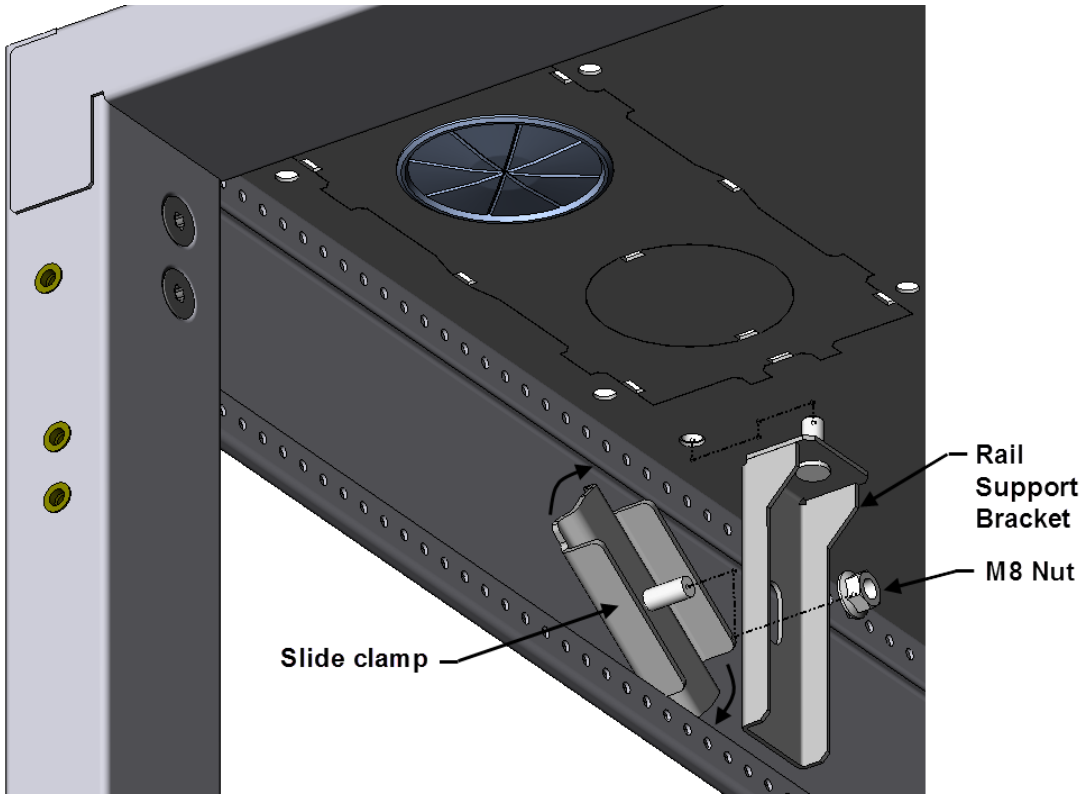
TeraFrame Mounting

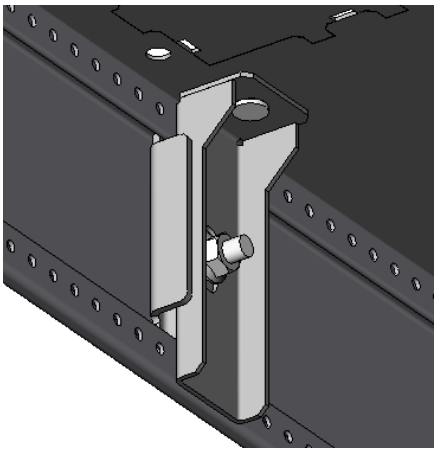
For F-Series TeraFrame and GF-Series GlobalFrame Gen 2 Cabinets that are shorter than the door frame assembly, mount the bracket assembly as shown below; the picture is shown from the back side of the door. Install the M8 drop-in nut in the cabinet's upper frame slot. Attach the bracket to the cabinet with the M8x12 bolt and M8 washer into the drop-in nut. The bracket is attached to the door top rail using one of the pre-installed M6 bolts in the rail and a M6 nut and washer. The bracket cover is not needed in this type of installation.



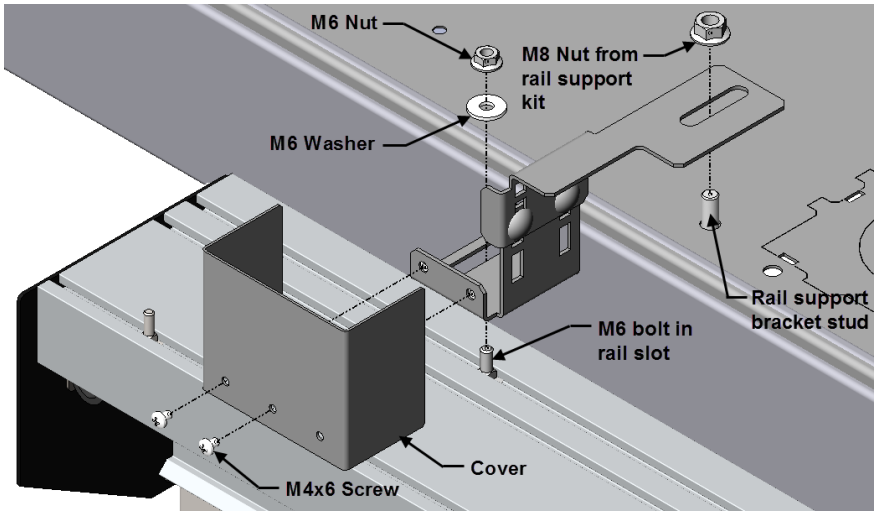
GF-SERIES GLOBALFRAME GEN 1 MOUNTING

Install the Rail Support Bracket kit, PN 32771-X01, on the inside of the GF-Series GlobalFrame Gen 1 Cabinet as shown below. Insert the slide clamp into the cabinet horizontal slide and rotate it to a vertical position. Remove the plastic hole plug from the top panel adjacent to the cable pass port. Mount the rail support bracket to the slide clamp with a M8 nut; the top stud goes through the top panel hole and protrudes out the top.

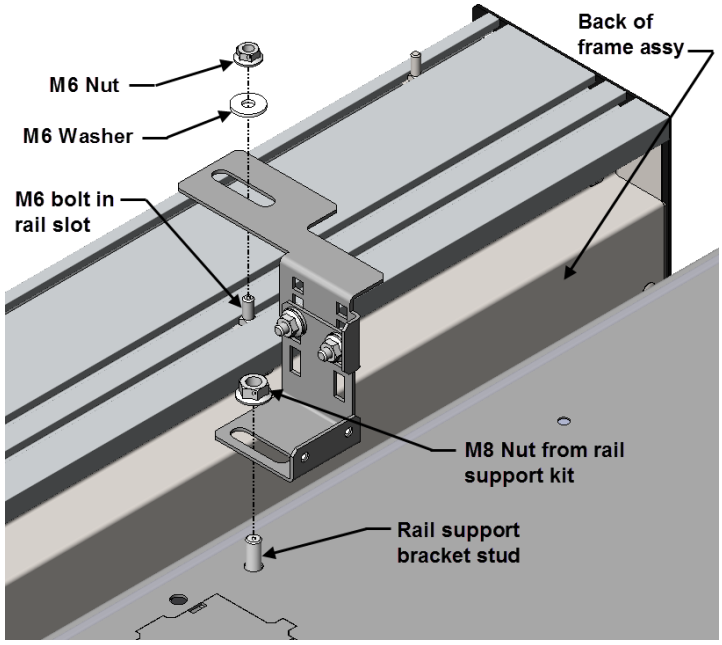




For GF-Series GlobalFrame Gen 1 Cabinets that are taller than the door frame assembly, mount the bracket assembly as shown below. Attach the top bracket to the cabinet with the M8 nut, from the Rail Support Bracket kit, onto the stud. The bottom bracket is attached to the door top rail using one of the pre-installed M6 bolts in the rail and a M6 nut and washer. Attach the bracket cover to the bottom bracket with two M4x6 screws.



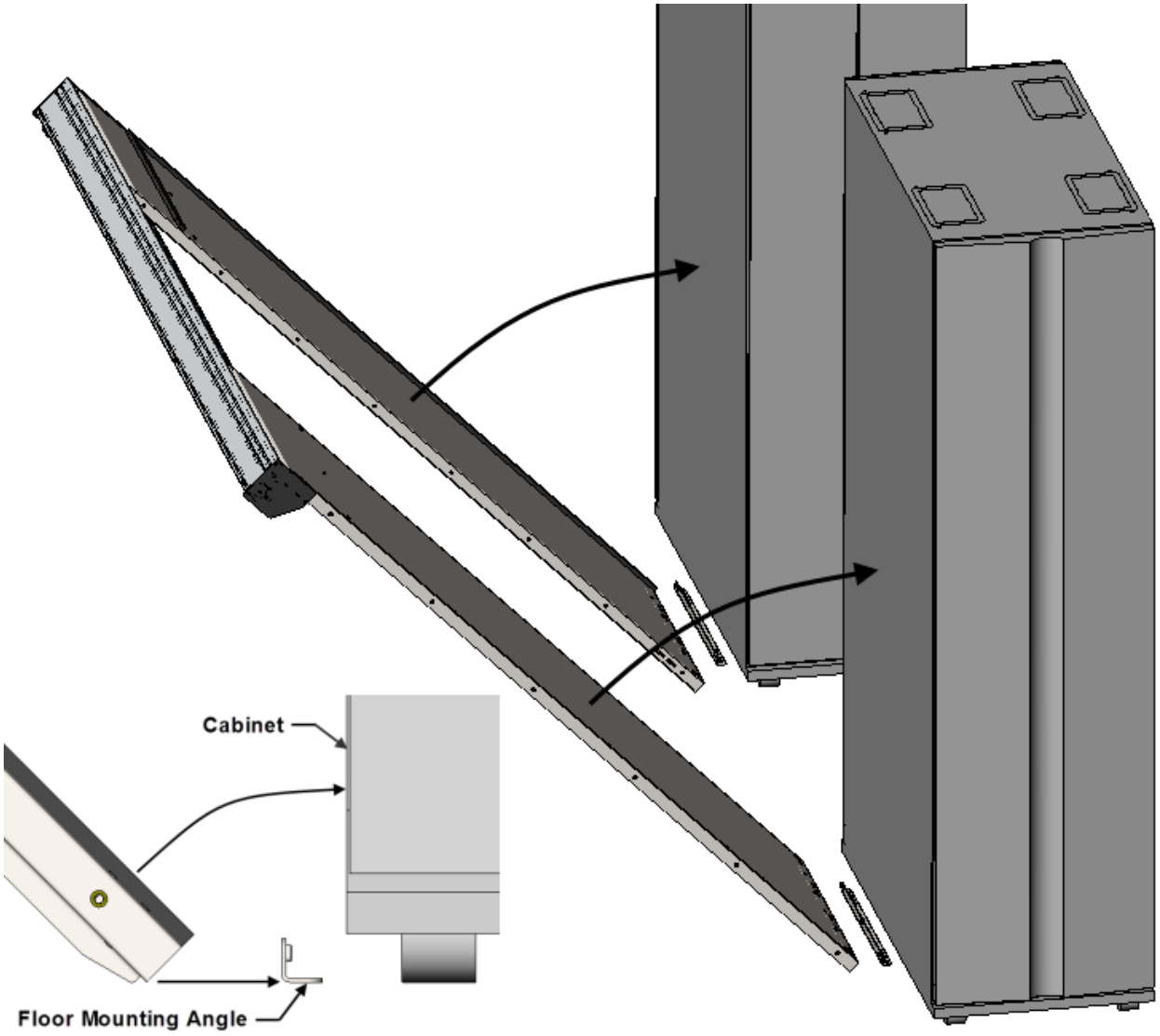
For GF-Series GlobalFrame Gen 1 Cabinets that are shorter than the door frame assembly, mount the bracket assembly as shown below; the picture is shown from the back side of the door. Attach the top bracket to the cabinet with the M8 nut, from the Rail Support Bracket kit, onto the stud. The bracket is attached to the door top rail using one of the pre-installed M6 bolts in the rail and a M6 nut and washer. The bracket cover is not needed in this type of installation.



POSITIONING THE DOOR

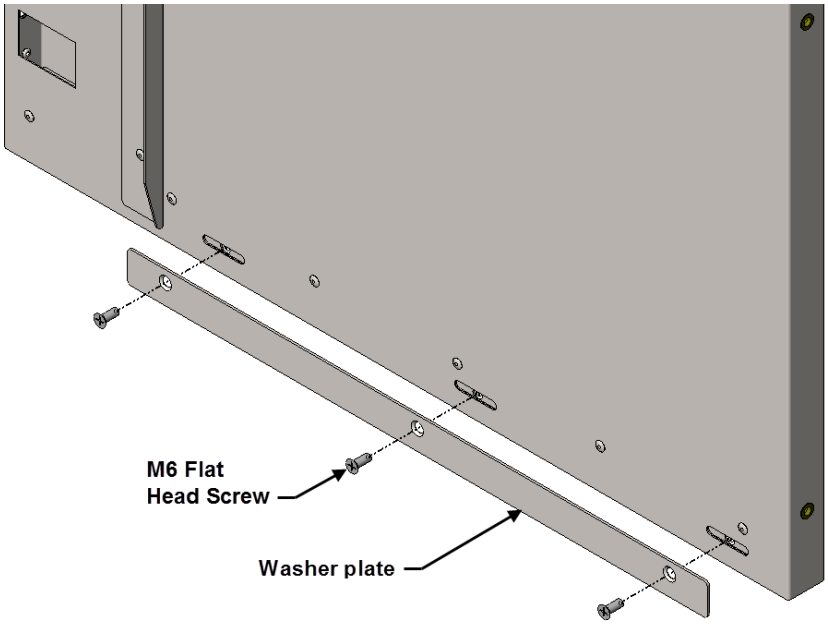
Position the door frame assembly with the bottom of the side panels aligned with the floor mounting angles. Tip the frame assembly up so that the inside pocket of the side panels fit over the floor mounting angles. Utilize a level to ensure the door assembly is vertrically plumb. Check plumbness at the left and right hand side panel assemblies. Tighten the door support bracket hardware.

WARNING: Until the frame assembly is attached to the top of the cabinet, the frame must be held up in place by at least one person.



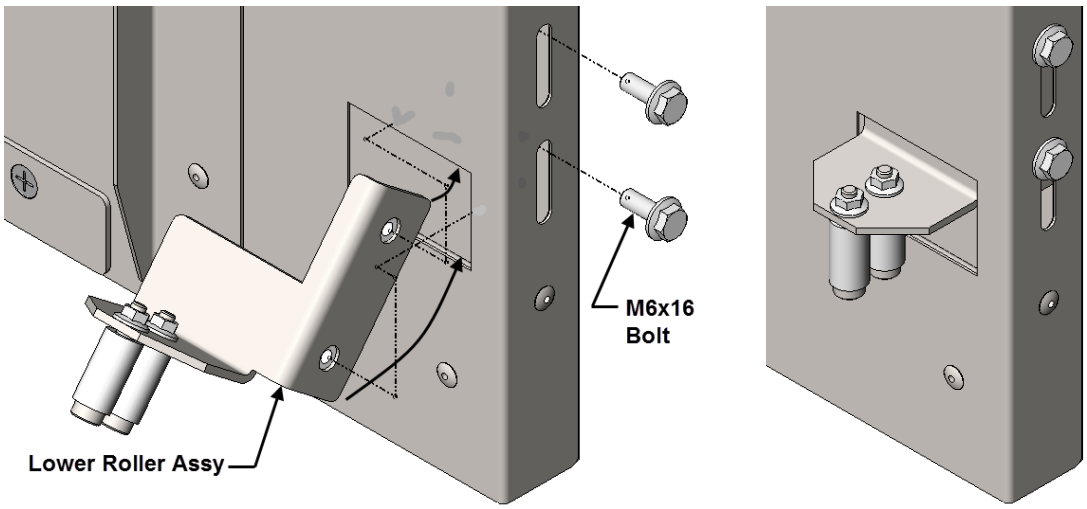
CABINET FLOOR ATTACHMENT

Attach the bottom of each side panel to the floor mounting angle with three M6 flat head screws and a washer plate. **TIP** Use a flat screwdriver positioned underneath the side panel to aid with hole alignment.



LOWER ROLLER INSTALLATION

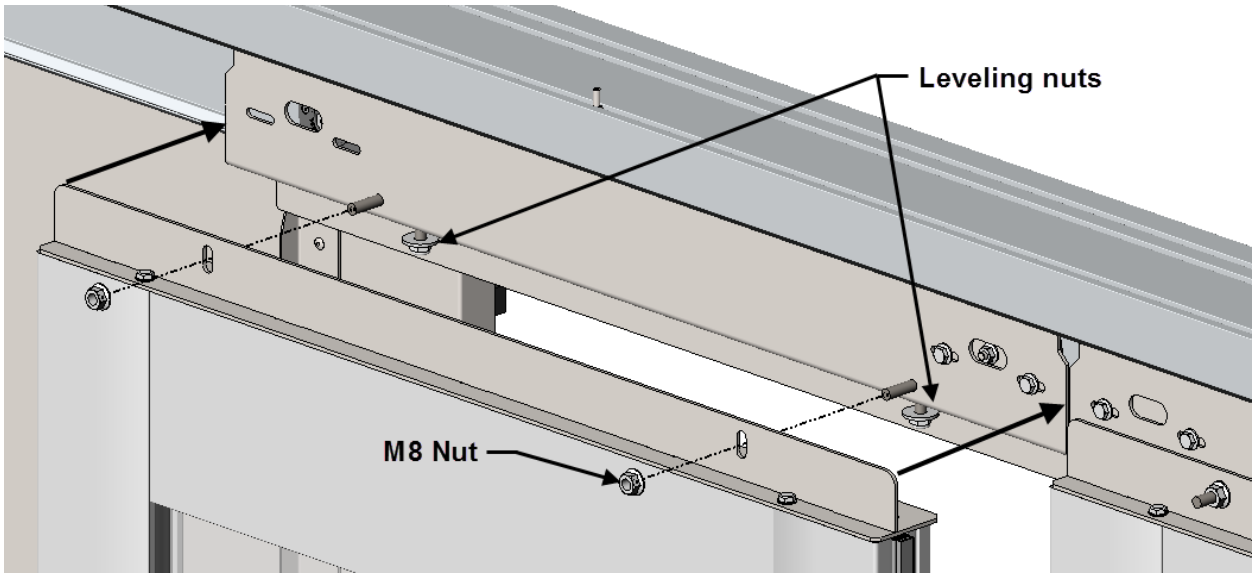
Install the lower roller assemblies (two for the double door and one for the single door) as shown on the following page. Insert the assembly through the rectangular opening on the front of the side panel and rotate it into position. Attach to the side panel with two M6 x 16 bolts. The roller assembly should be positioned at the top of the slots. The bolts should only be finger tight, the roller will be moved later.

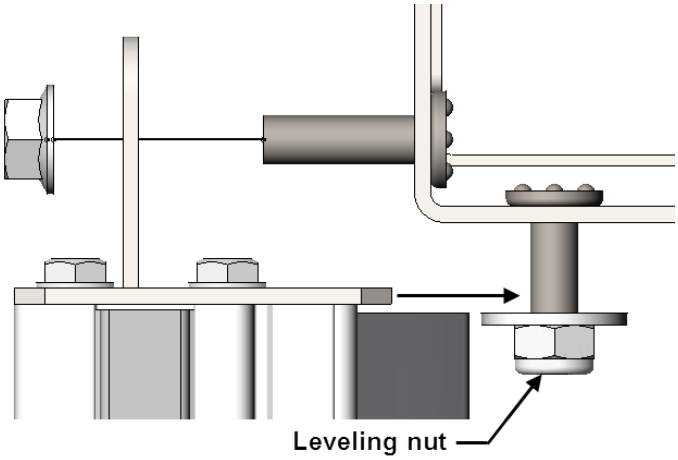


DOOR INSTALLATION

MOUNTING THE DOOR

Hang each door panel onto the roller bracket studs and secure with two M8 nuts; the nuts should only be finger tight to allow height and leveling adjustment. Be sure that the rear flange of the door hanger bracket is positioned on top of the leveling nuts, see second picture below.

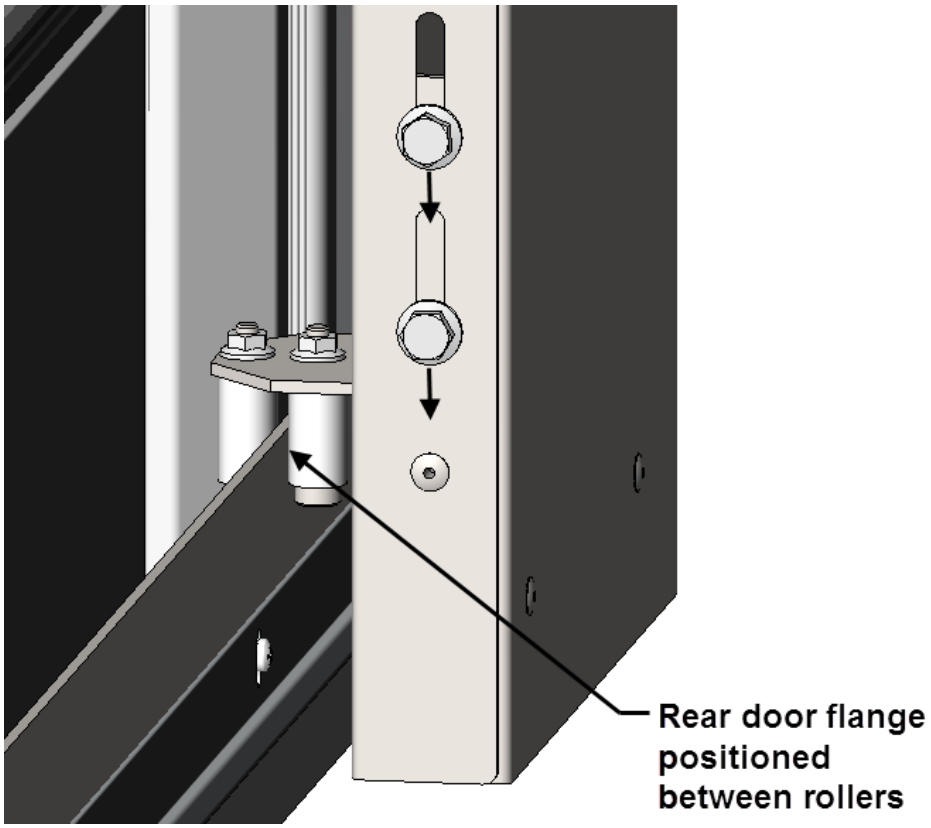




Adjust leveling nuts as required to level each door assembly. The leveling nuts include nylon inserts to prevent rotation during use. Do not overtighten. Once both door assemblies are leveled, tighted the M8 nuts attaching the door assembly to the bracket finger tight then 1/4 turn with a wrench.

ADJUSTING LOWER ROLLERS

From inside of the door, loosen the lower roller bolts and slide the roller assembly down so that the rear door flange is captured between the two rollers. Adjust the height to maintain at least a 1/4 “ gap between the door flange top and the metal bracket for smooth operation. Tighten the bolts.



CABINET SUPPORTED COLD AISLE CONTAINMENT ROOF SYSTEMS

INTRODUCTION TO THE CABINET SUPPORTED COLD AISLE CONTAINMENT ROOF SYSTEMS

The Cold Aisle Containment Ceiling Panel Kits from Chatsworth Products, Inc. (CPI) have been developed to meet a wide range of application needs. Cold Aisle Containment Ceiling Panel Kits attach to the tops of cabinets. Clear polycarbonate panels allow light to enter the aisle. The system is designed to accommodate different height cabinets. Options are available in 100, 200 and 300 mm height elevations to provide additional clearance space above cabinets.

SAFETY INFORMATION

WARNING:

COLD AISLE CONTAINMENT ROOF SYSTEMS ARE DESIGNED TO BE SECURELY ATTACHED TO THE ROOF STRUCTURE OF THE INSTALLED CABINETS.

DO NOT LEAVE ASSEMBLY UNSECURED TO CABINETS.

CABINETS MUST BE STABLILIZED PRIOR TO AISLE CONTAINMENT ROOF SYSTEM ASSEMBLY.

CAUTION SHOULD BE EXERCISED TO ENSURE THE CABINET LOAD RATING IS NOT EXCEEDED.

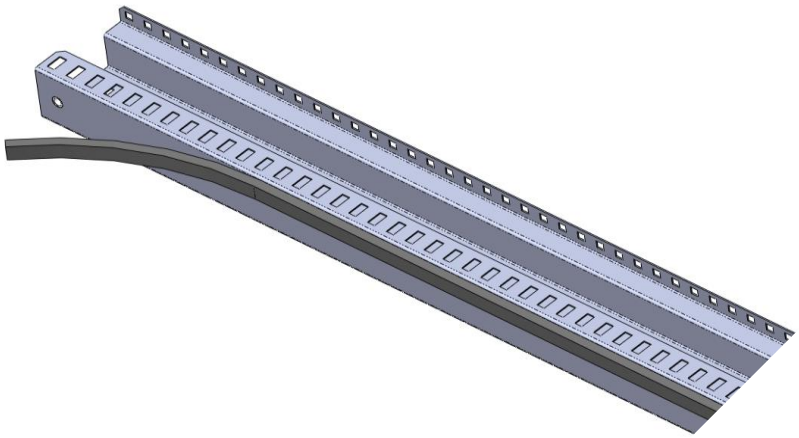
SITE PREPARATION

- Measure row lengths; order a roof system with a compatible adjustment range.
- Length of roof can be adjusted (larger) by approximately 4” (100mm) on each end.
- Attachment to cabinets will require holes in top of cabinet. Custom brackets may be required IF a non-CPI cabinets are used, or if deployed in an aisle that is not 48” (1200) or 72”(1800) wide. Contact CPI customer service for more information.
- At ends of row, cabinet heights should be level across the row.
- Each cabinet under the ceiling will need to support the additional weight of the ceiling:
    - For cabinets on the ends of the aisles, plan for an additional 43 lb (19.5 kg) per cabinet.
    - For cabinets in the middle of the aisle, plan for an additional 21 lb (9.5 kg) per cabinet.

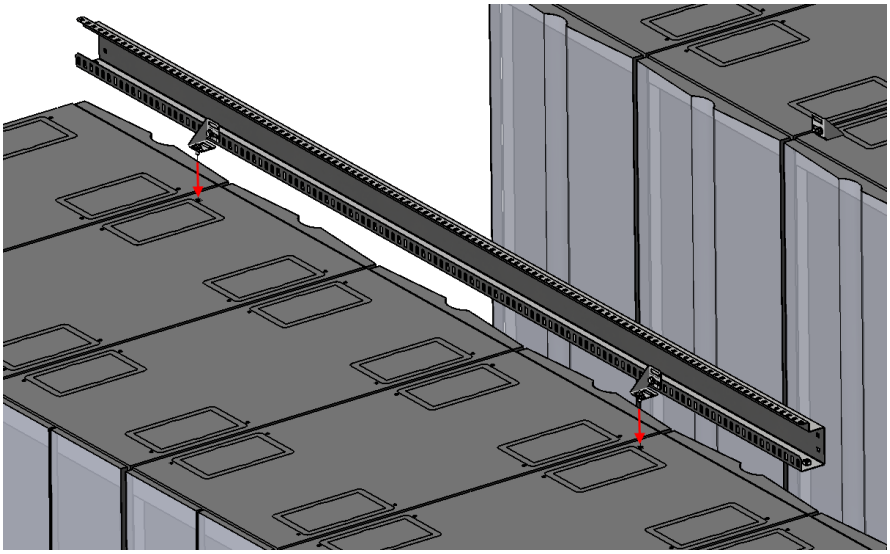
INSTALLING THE COLD AISLE ROOF SYSTEM:

BUILDING THE FRAME:

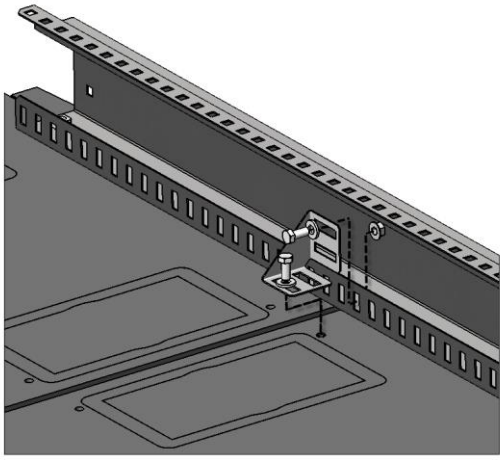
1. Open boxes and organize materials. Separate the beam sections into two sets of equivalent length components, one for each side of the row.
2. Install foam tape to underside of beam as shown below.



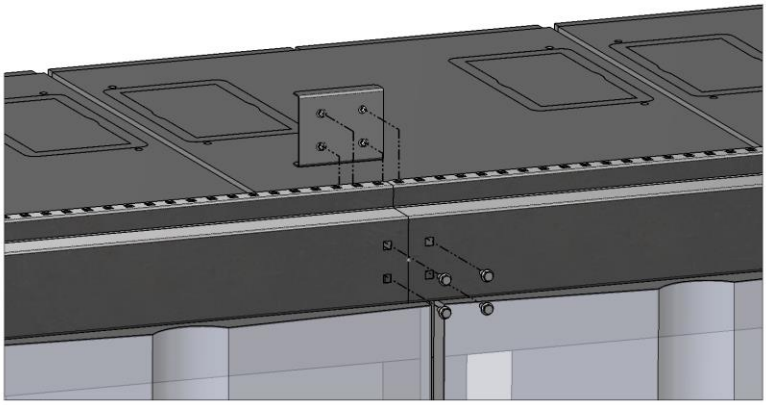
3. The nominal roof lengths are minimums, each end panel allows for approximately 4” (100mm) of increase in the aisle length. Measure the actual cabinet row length, this measurement must be slightly larger than the ordered “nominal” roof length. Position the end of the first beam approximately half of the difference inboard from the side panel of the end cabinet. For example, if a row of cabinets measures 6100mm, a 6000mm roof containment system should be deployed, and the starting beam should be positioned 50mm inboard of the end cabinet.



4. Loosely install gusset brackets to convenient locations along frame. Each beam length should have a minimum of two gusset bracket. Where longer beams are used, install additional brackets approximately equal distances along the length of the beams. The picture below shows the bracket installation for a GF-Series GlobalFrame Gen 1 Cabinet using M8x16 bolts, washers, and nuts.

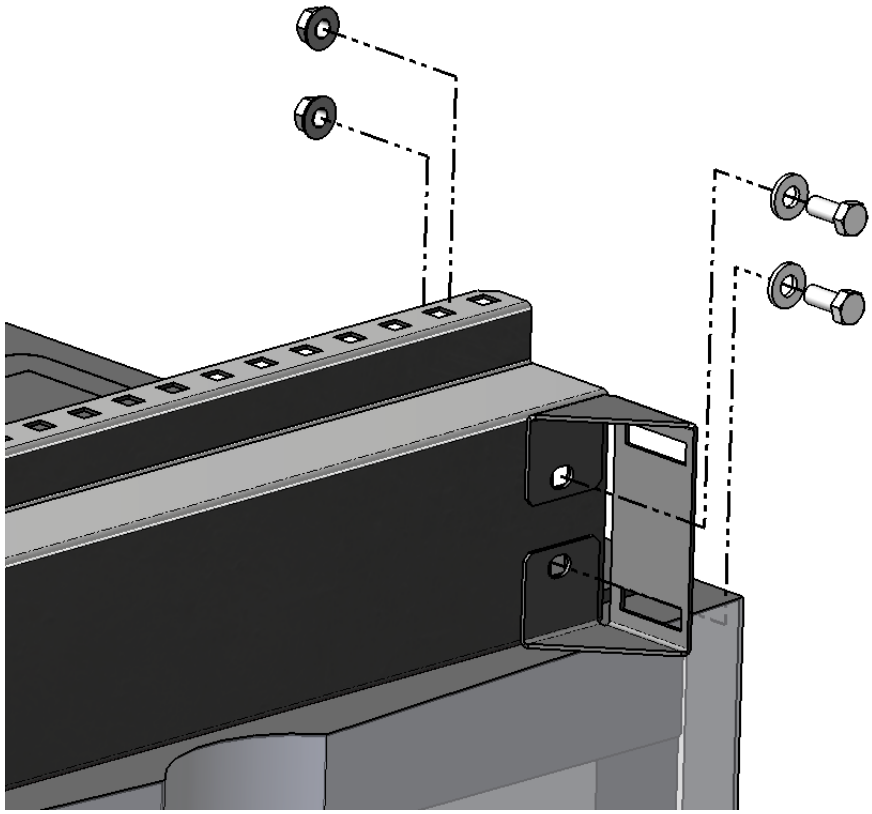


5. Attach neighboring beam sections using the provided splice brackets as shown using M8X16 bolts.

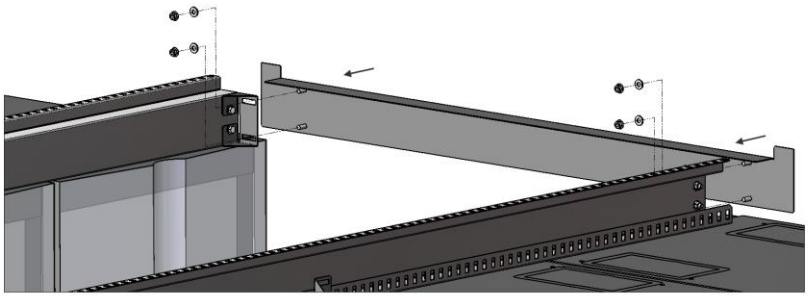


6. Once all beams are supported over the roof, recheck that the beam is centered over the aisle length so that the distances from the beam ends to the ends of the row are approximately equal.
7. Repeat steps 3-6 for opposite side of row.

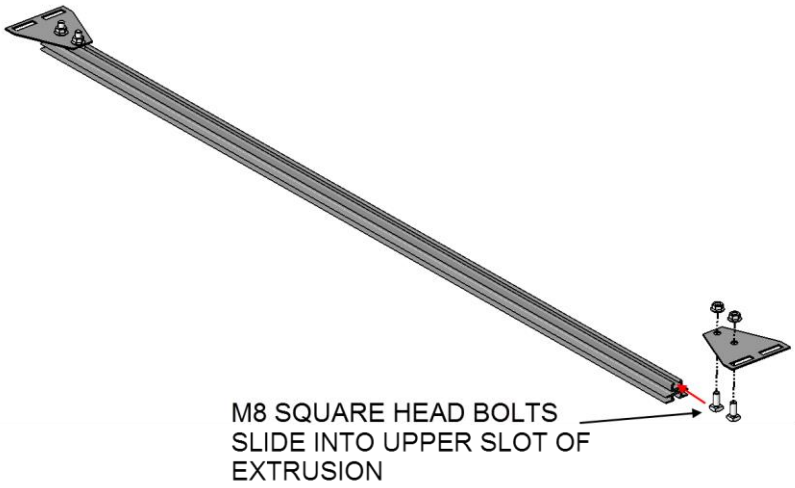
8. Install gusset brackets to the end beams as shown using M8X16 Bolts, nuts and washers



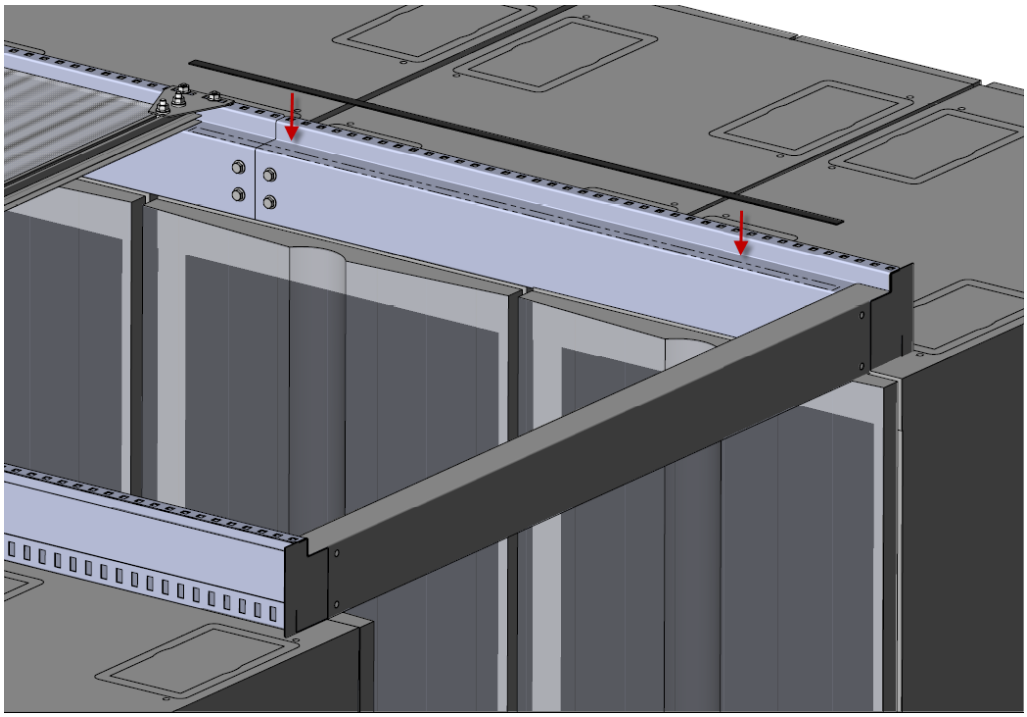
9. Attach the lateral end headers across the aisle as shown using M8 nuts and washers.



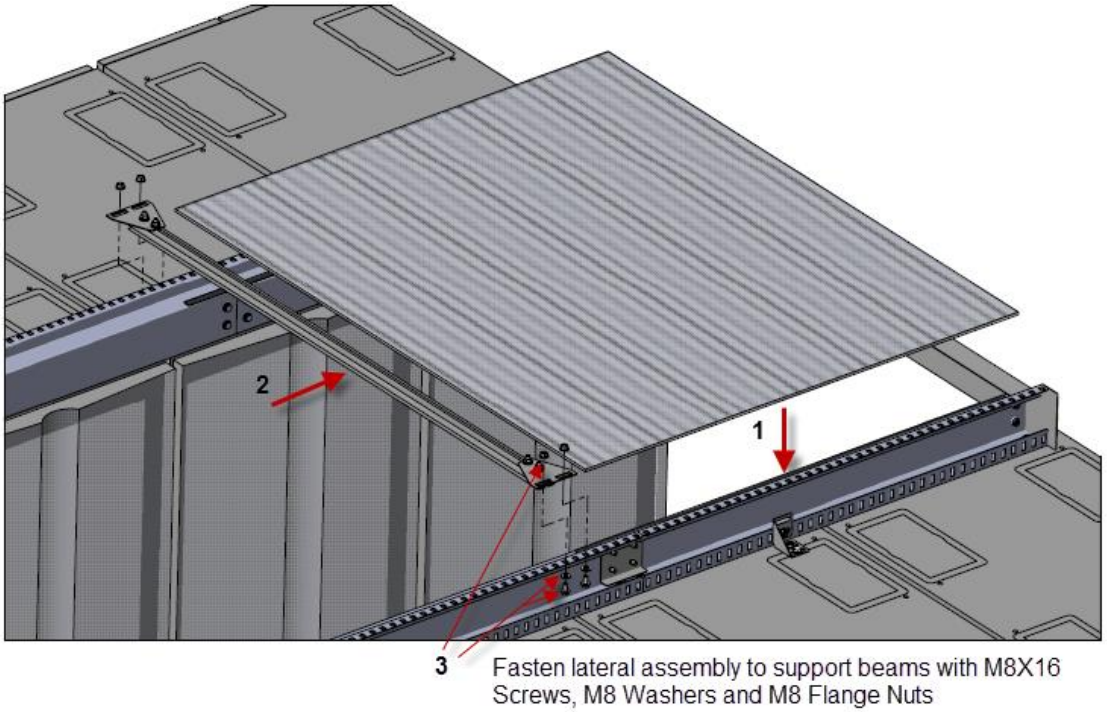
10. Install T-nuts into extrusion and loosely install lateral gusset plates on both sides of extrusion.



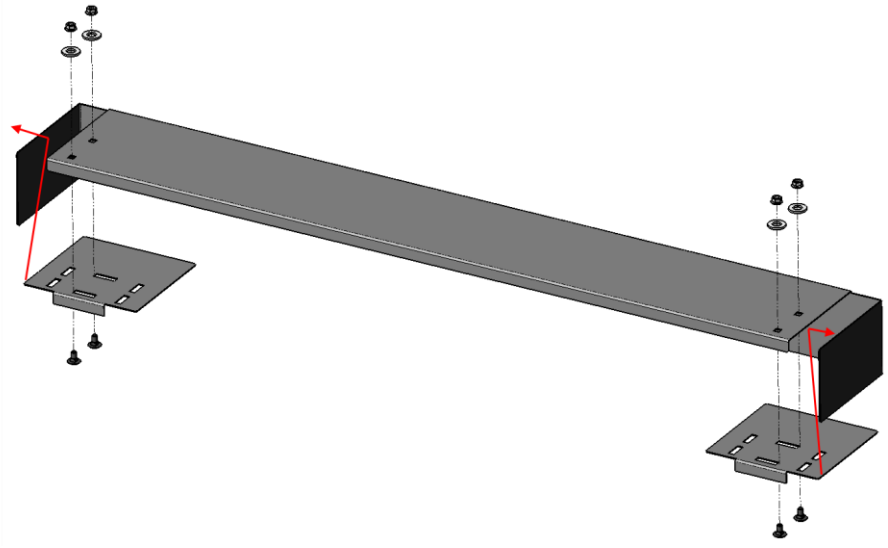
11. Install sealing tape along support beam edges. Cut sealing tape to length, allowing for flush placement up to extrusions.



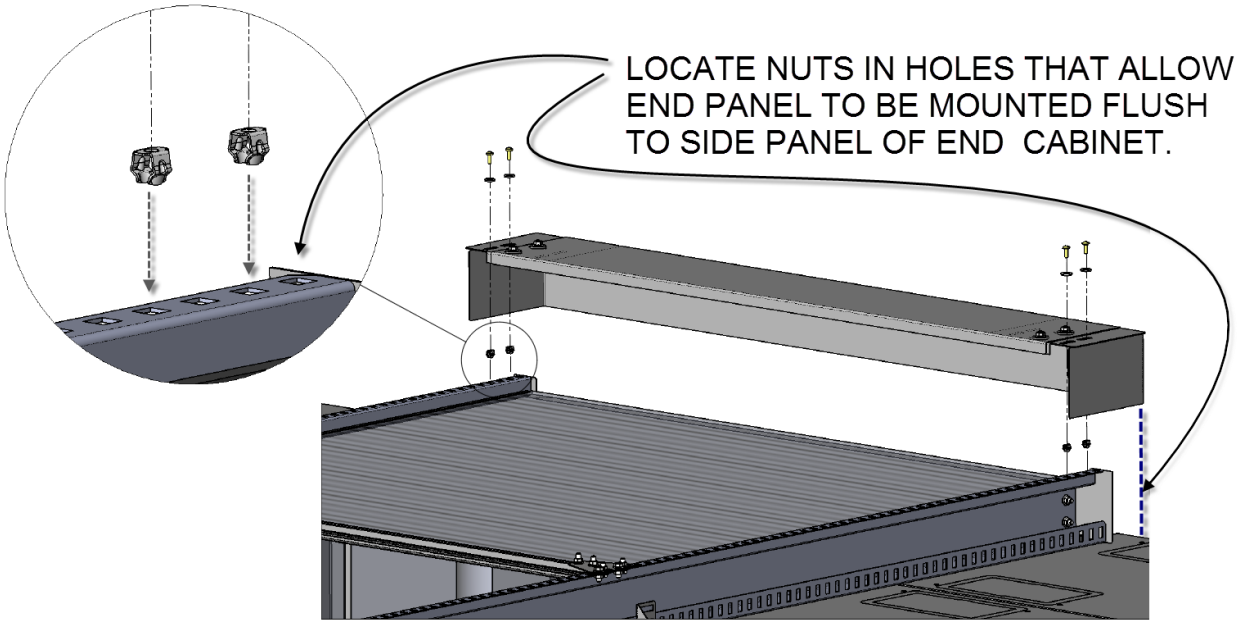
12. Starting at one end of aisle, install a panel onto the containment frame with the corrugate ribs oriented laterally across aisle.[1] The panel should overlap the end header flange approximately 1". On edge opposite the aisle header, install the lateral aluminum extrusion beam onto the poly panel.[2] Attach the gusset brackets to the frame beam as shown.[3] If required, trim the panels with a knife and a straight edge. For best results, use specialized cutting tools like the Guardian Knife Guide and Coro-Claw™ by Saw Trax Mfg. Inc., to cut across or with the ribs respectively.



13. Assemble the cap plates into the ends of the telescoping cover as shown below. Note orientation of M8 carriage bolts. Leave the bolts finger tight such that the cap plates may be adjusted during assembly.



14. Attach the telescoping cover assembly to the roof structure as shown below using the M6 front mounting nuts. Place the telescoping cover assembly onto the header such that the end of the cover is aligned with the outer face of the end cabinet. Push front mounting nuts into square holes in the top face of the roof beams. Use the square holes that are visible when the outer face of the cabinet is aligned with the cover. Use large washers provided and M8X16 screws to fasten the header cover to the beam.

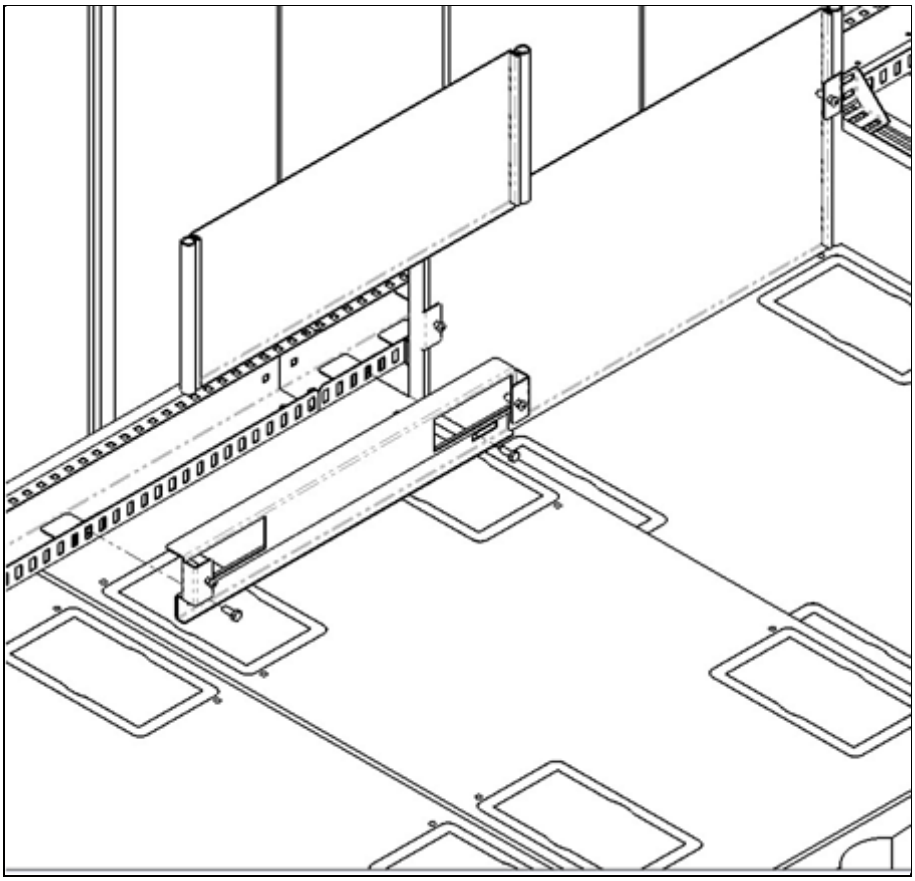


15. Continue installing polycarbonate panels with edging and lateral extrusion beams to complete assembly of roof.

INSTALLING COLD AISLE CONTAINMENT ADJUSTABLE HEIGHT FILLER PANEL:

If shorter cabinets are included in a row, adjustable filler panels may be installed to seal the top of the cabinet to the roof structure.

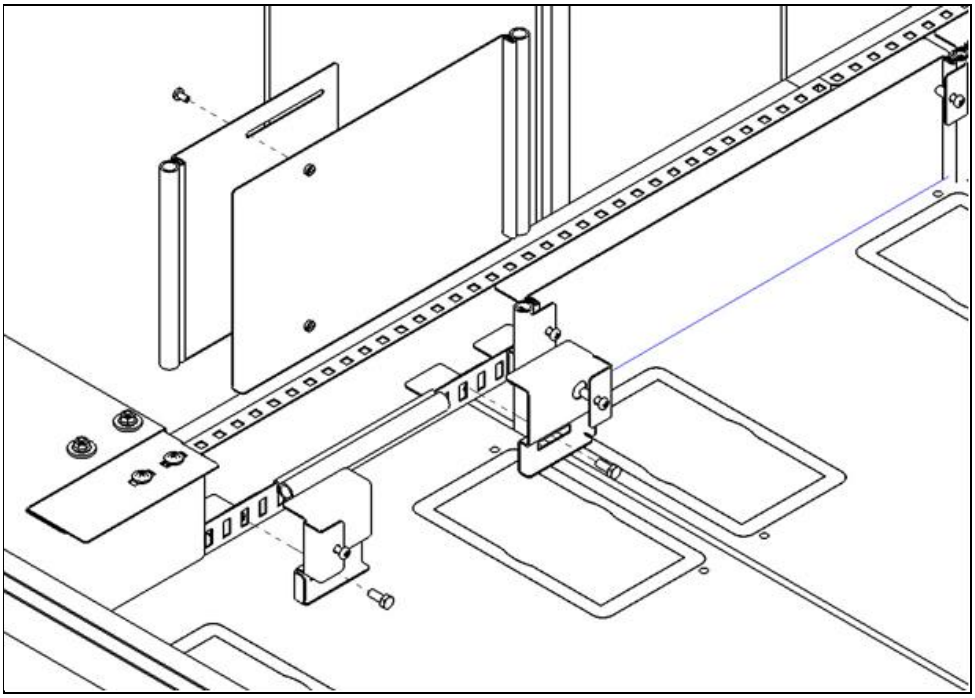
1. Attach Panel Support to Elevation Beam using M8X20 screws and nut plates.
2. Install adjustment panel in place and secure with M6X25 screws.



INSTALLING COLD AISLE CEILING END PANEL ADJUSTABLE HEIGHT AND WIDTH:

If shorter cabinets are included in a row, adjustable filler panels may be installed to seal the top of the cabinet to the roof structure.

1. Install left and right supports to elevation beam at required spacing using M8X20 screws and nut plates.
2. Add rubber seal to vertical flanges on panels and horizontal edge on elevation beam between support brackets.
3. Assemble panels at required width using 2 M6X12 screws.
4. Install adjustable panel assembly between support brackets and secure using M6X25 screws.



FINISHING THE INSTALLATION:

1. Ensure all fasteners are tightened.
2. Check for remaining air gaps and fill using sealing tape as required.
3. Contact CPI Technical Support if unable to resolve significant gaps.

CABINET SUPPORTED HOT AISLE CONTAINMENT DUCT SYSTEMS

INTRODUCTION TO THE CABINET SUPPORTED HOT AISLE CONTAINMENT DUCT SYSTEMS

The Cabinet Supported Hot Aisle Containment Duct Systems from Chatsworth Products, Inc. (CPI) have been developed to meet a wide range of application needs. Hot Aisle Containment Exhaust Ducts attach to the tops of cabinets to create a large exhaust duct over the contained aisle. Clear polycarbonate panels allow light to enter the aisle. The System accommodates different height cabinets. Exhaust Duct Panels extend to a maximum height of 60 inches from the cabinet or can be trimmed for shorter roof heights.

SAFETY INFORMATION

WARNING:

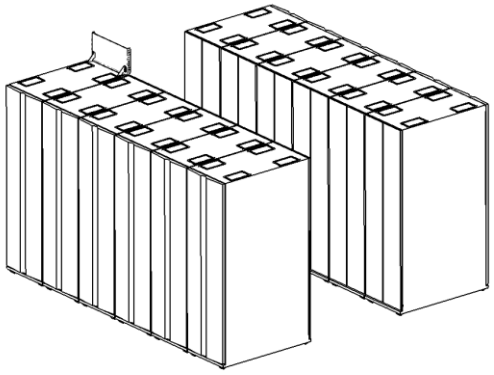
HOT AISLE CONTAINMENT DUCT SYSTEMS ARE DESIGNED TO BE SECURELY ATTACHED TO THE ROOF STRUCTURE OF THE INSTALLED CABINETS.

DO NOT LEAVE ASSEMBLY UNSECURED TO CABINETS.

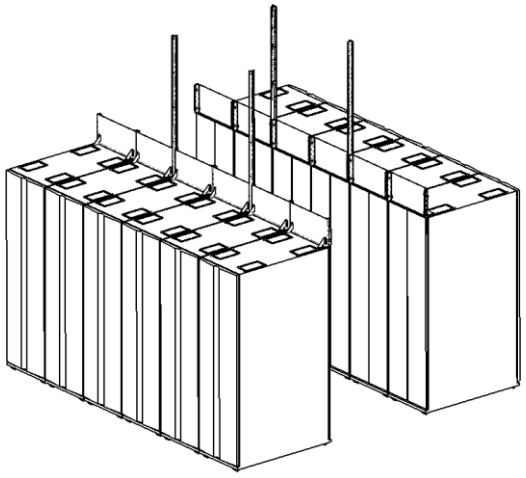
CABINETS MUST BE STABLILIZED PRIOR TO AISLE CONTAINMENT SYSTEM ASSEMBLY.

CAUTION SHOULD BE EXERCISED TO ENSURE THE CABINET LOAD RATING IS NOT EXCEEDED.

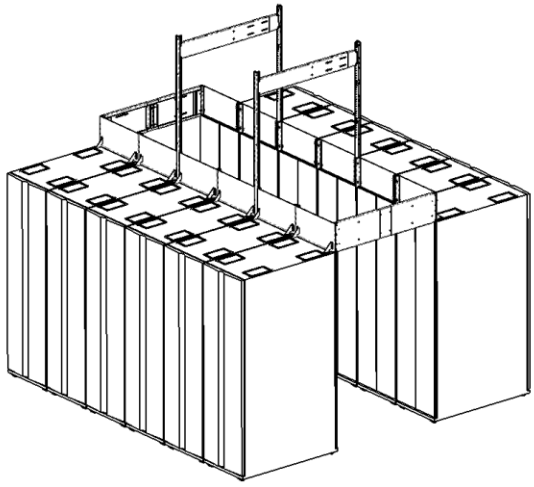
INSTALLING THE HOT AISLE CONTAINMENT DUCT SYSTEM



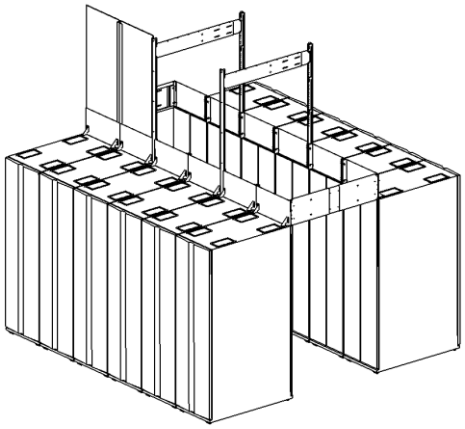
Step 1: Fasten lower duct panels to cabinets



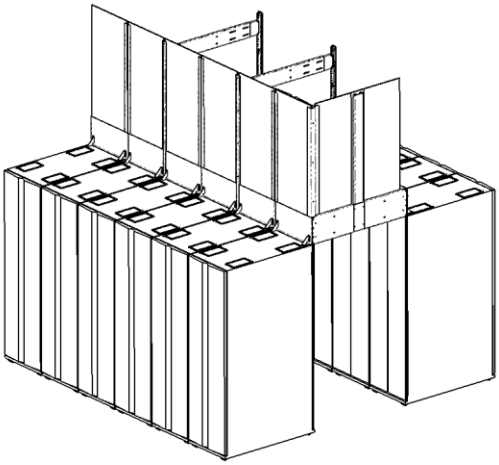
Step 2: Attach adjacent panels and lateral brace vertical beams



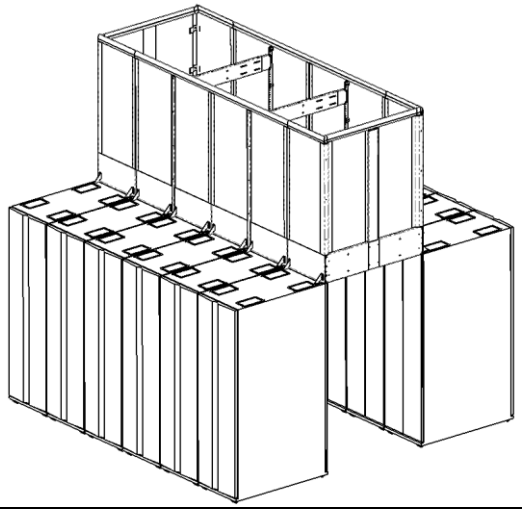
Step 3: Install end and mid lateral headers



Step 4: Install cabinet poly panels and dividers



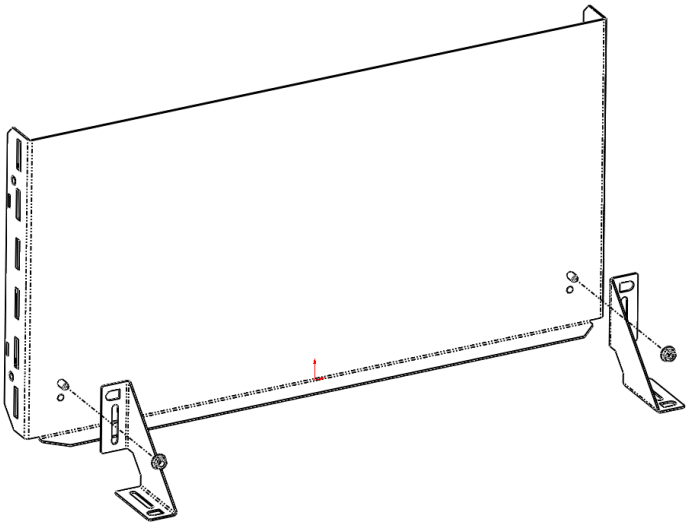
Step 5: Install corner, header panels and seam

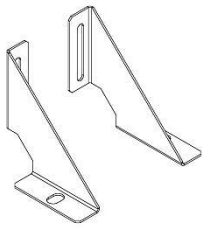


Step 6: Complete installation with upper seal

FASTENING LOWER FRAME PANELS TO CABINET

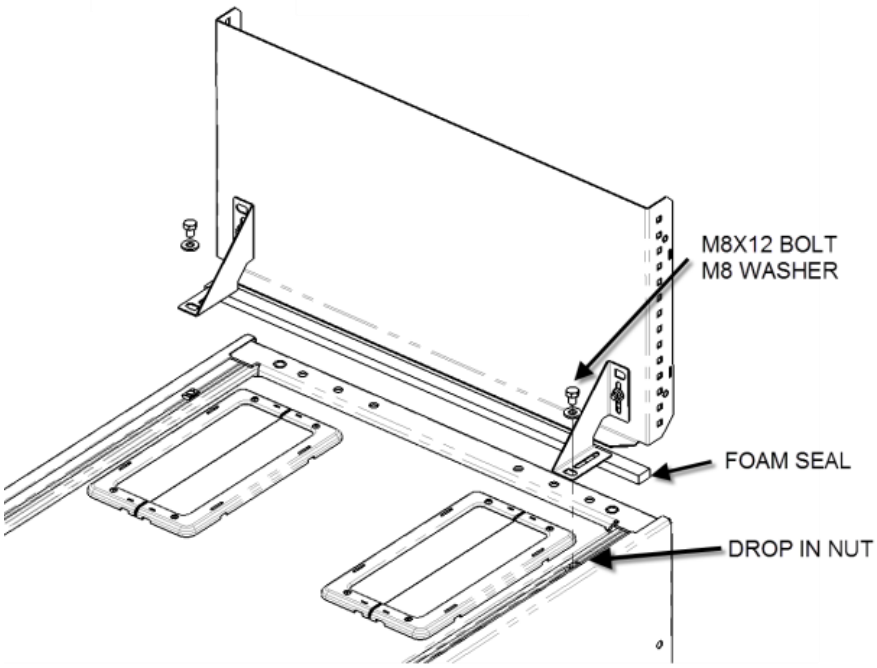
1. Install gussets to lower frame panel with M6 nuts.
   a. Left image: GF-Series GlobalFrame Gen 1 and F-Series TeraFrame Gen 2 Cabinet Gussets.
   b. Right image: GF-Series GlobalFrame Gen 2 and F-Series TeraFrame Gen 3 Cabinets Gussets.
2. Align gussets with dimples on lower frame panel and secure with M6 nuts.



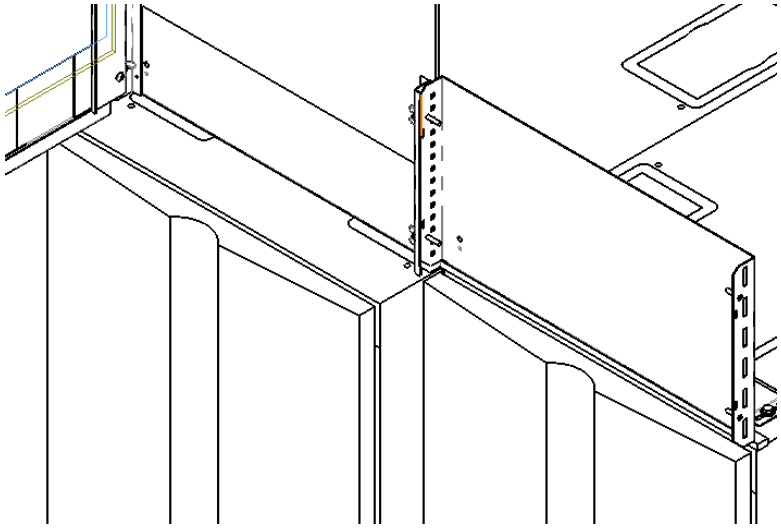


TERAFRAME AND GF-SERIES GLOBALFRAME GEN 2 CABINET INSTALLATION:

1. Install a drop-in M8 nut in each of the grooves of the front to back frame members.
2. Install foam seal to lower edge of frame panel.
3. Attach the duct frame assembly to the top of the cabinet frame using the M8X12 bolt and washer as shown.



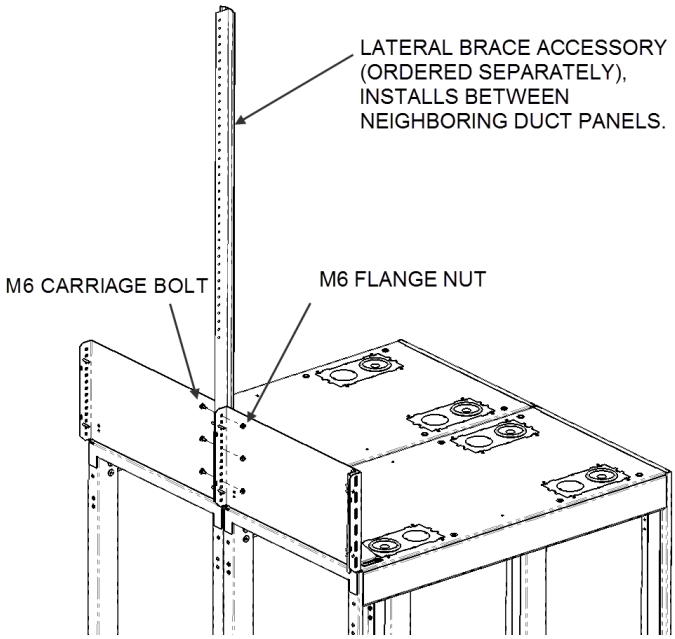
4. Locate the frame panels by aligning with the shallowest cabinet.



Shallow Cabinet

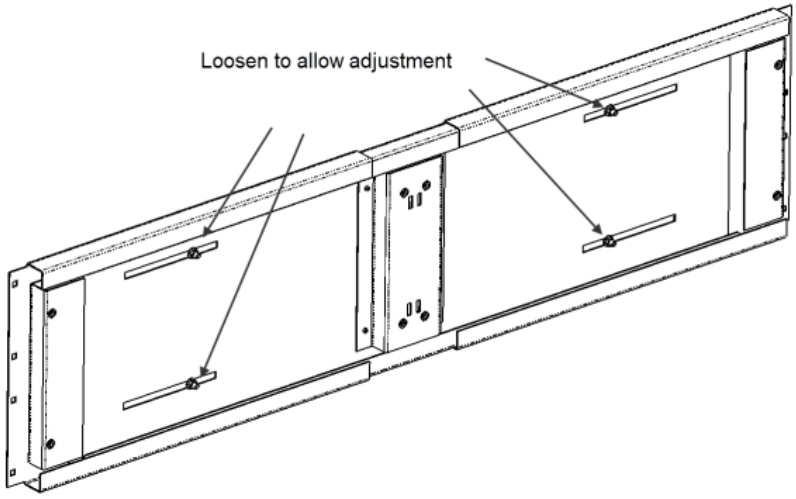
ATTACH ADJACENT PANELS AND LATERAL BRACE VERTICAL BEAMS

1. Attach neighboring duct frames using M6X16 carriage bolts and M6 flange nuts.
2. A lateral brace should be installed every 48-60” (1200-1500mm) along the cabinet aisle. Where required, the vertical beam of the brace is installed between neighboring duct panels as shown.
3. The vertical beam of the lateral brace should be cut 2.5inches [64mm] less than the cabinet to ceiling distance to accommodate for the upper lip seal.
4. Fasten carriage bolts through upper most and lower most flange holes that have clearance for the bolt.

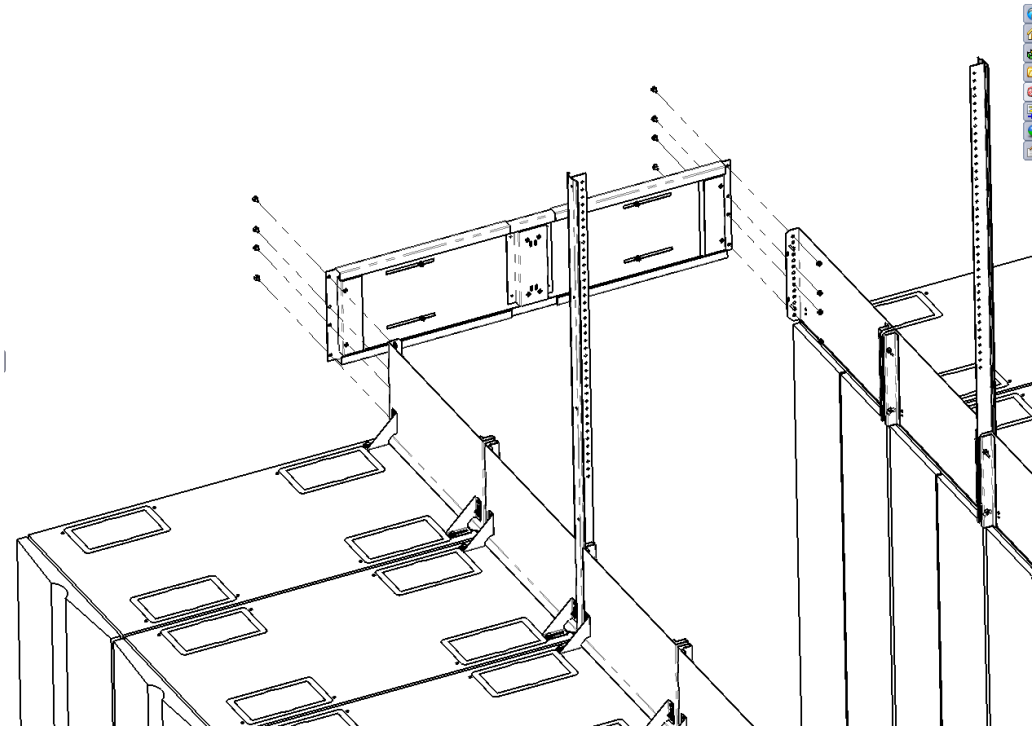


INSTALL END AND MID LATERAL HEADERS

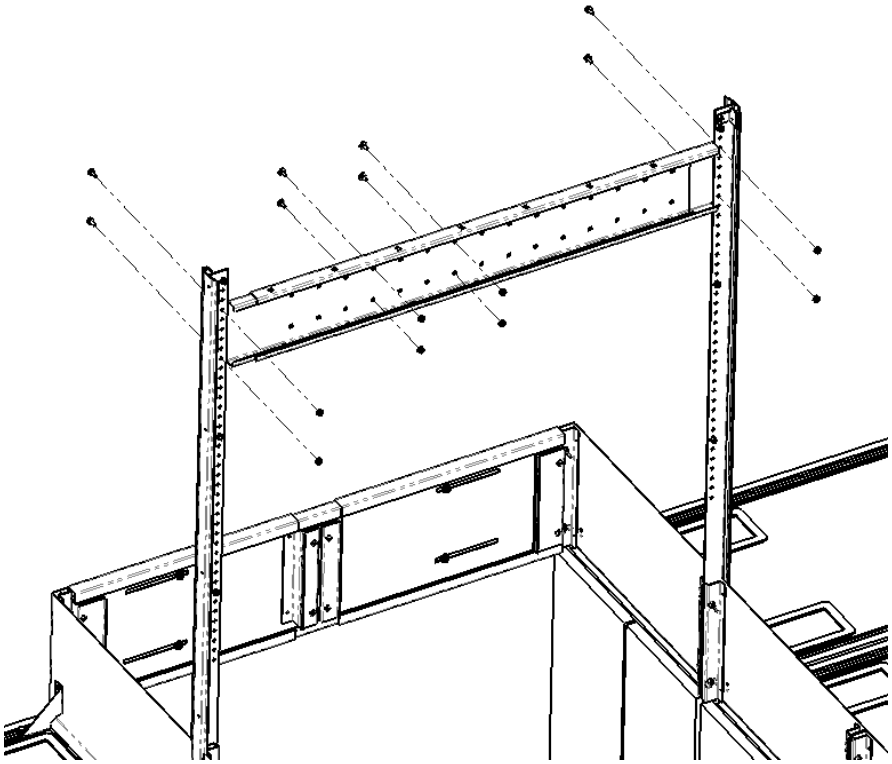
1. Slightly loosen the 4 M6 nuts on the telescoping end header to allow adjustment.



2. Install the header to the end of row duct panels using M6X16 carriage bolts and M6 flange nuts and washers. Check frame squareness and retighten the 4 M6 nuts to secure the header length.



3. Attach the lateral telescoping beam to vertical braces with M6X16 carriage bolts and M6 flange nuts and washers.
4. Secure the beam length with M6X16 carriage bolts and M6 flange nuts and washers.



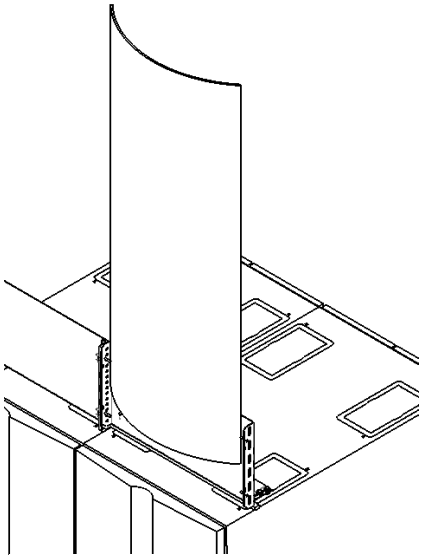
PREPARING THE POLY PANELS AND H-CHANNELS:

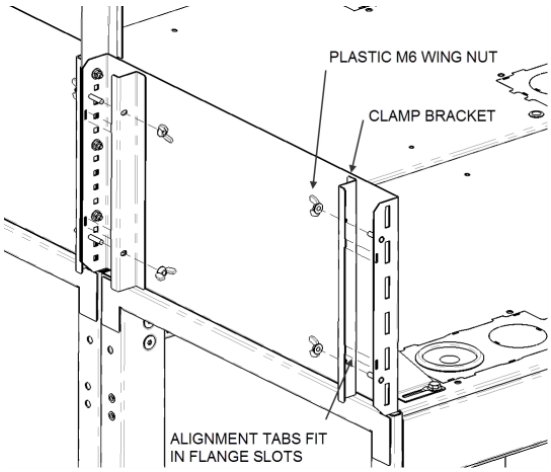
1. The ribs of the double wall poly panels are oriented in a vertical direction. For each cabinet height, cut the vertical dimension of the panels to be equal to the cabinet to ceiling distance less approximately 6". Cut using a sharp knife and a straight edge. For best results, use specialized cutting tools like the Guardian Knife Guide and Coro-Claw™ by Saw Trax Mfg. Inc., to cut across or with the ribs respectively.
2. After cutting, remove protective film from both sides of the plastic panel.
3. Plastic H-channels are used to join adjacent poly panels that are not connected with the lateral brace accessory. The H-channels should be cut to the cabinet to ceiling distance less approximately 13 inches. The plastic H-channels are saw cut.

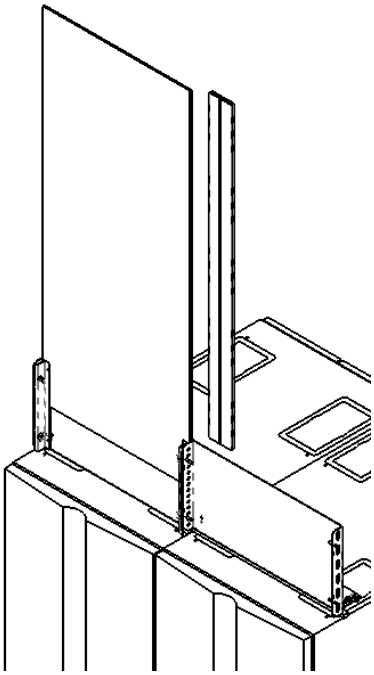
H-CHANNELS

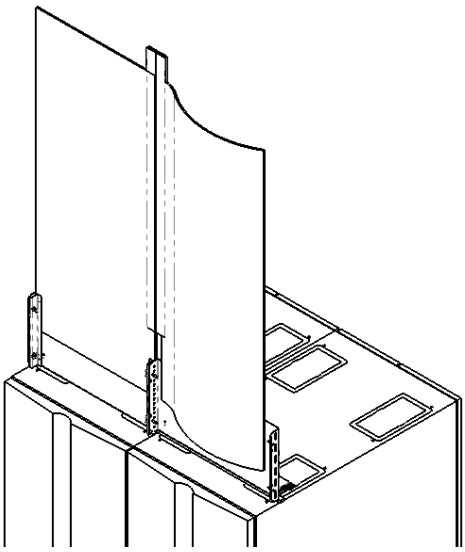
ATTACHING POLY PANELS, LATERAL BRACES, AND H-CHANNELS

1. Orient the panel above the cabinet and slide one edge horizontally behind the upper frame panel bolt. Arch the panel to clear the clamp stud on the opposite side as shown below – top, left.
2. Install clamp brackets as shown in the image below – top, right. Position the panel 1.5" from the ceiling and tighten the clamps to secure.
3. If a lateral brace is not used between adjacent panels, install an H-channel extrusion over the plastic edge as shown in the image below – bottom, left. To minimize friction and ease installation, wipe the edge of the sheet with a damp towel just prior to installing the channel.
4. If a lateral brace is used between adjacent panels, install the small L-clamps to the vertical brace beam to secure the upper region of the panel.
5. Repeat the poly panel installation process for all remaining cabinets.



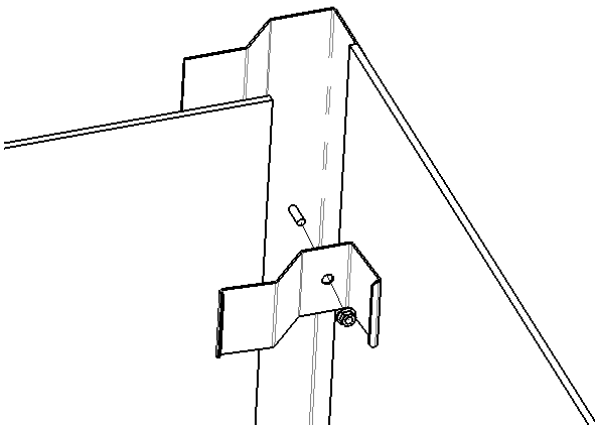




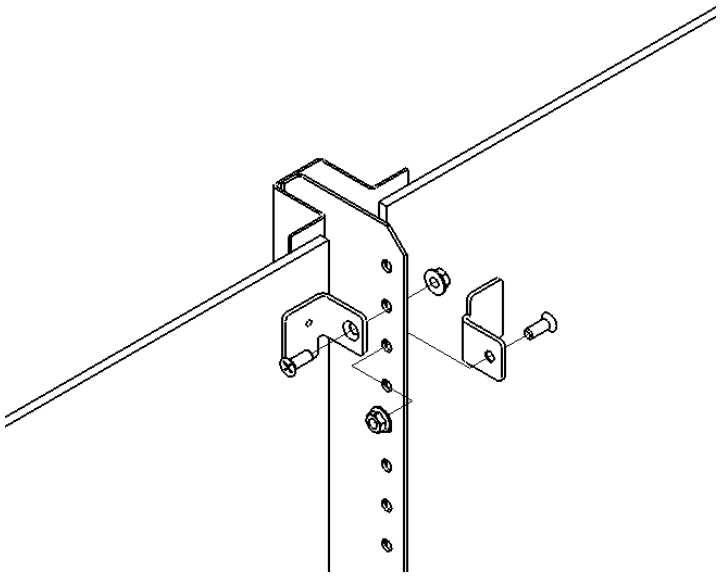


ATTACHING CORNER PANELS

1. Prior to installation, both the corner panels and the center header panels should be cut down to allow for a 2.5” space to the ceiling.
2. Install corner panel by attaching to poly panels with clamp brackets and M6 hex nuts as shown in the figure below, top.
3. Install center header panel by attaching to poly panels with L-clamps, M6 countersunk screws and M6 hex nuts, as shown in the figure below, bottom.

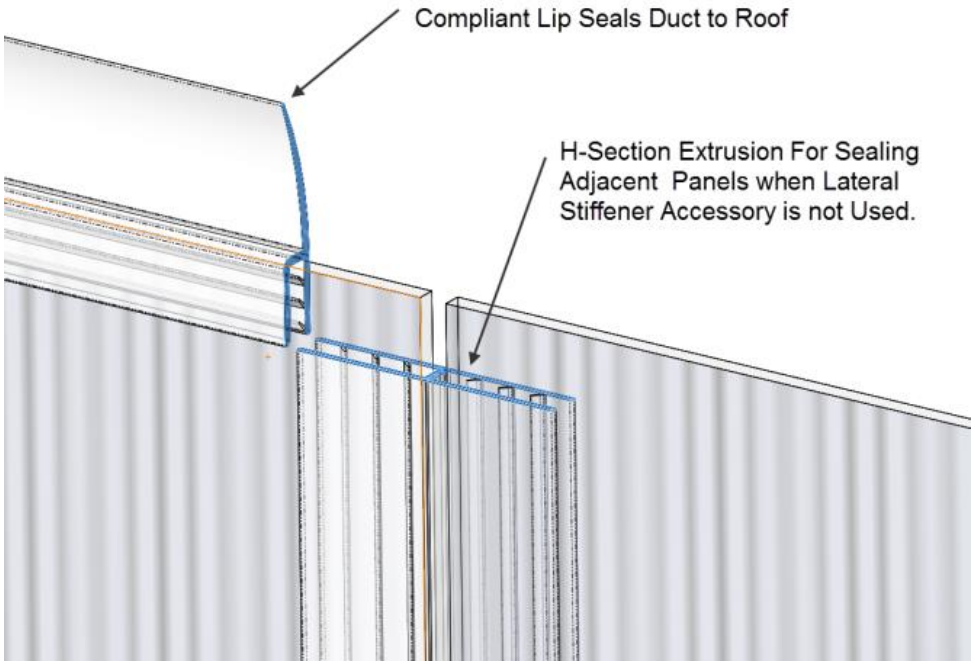


Corner Panel Installation

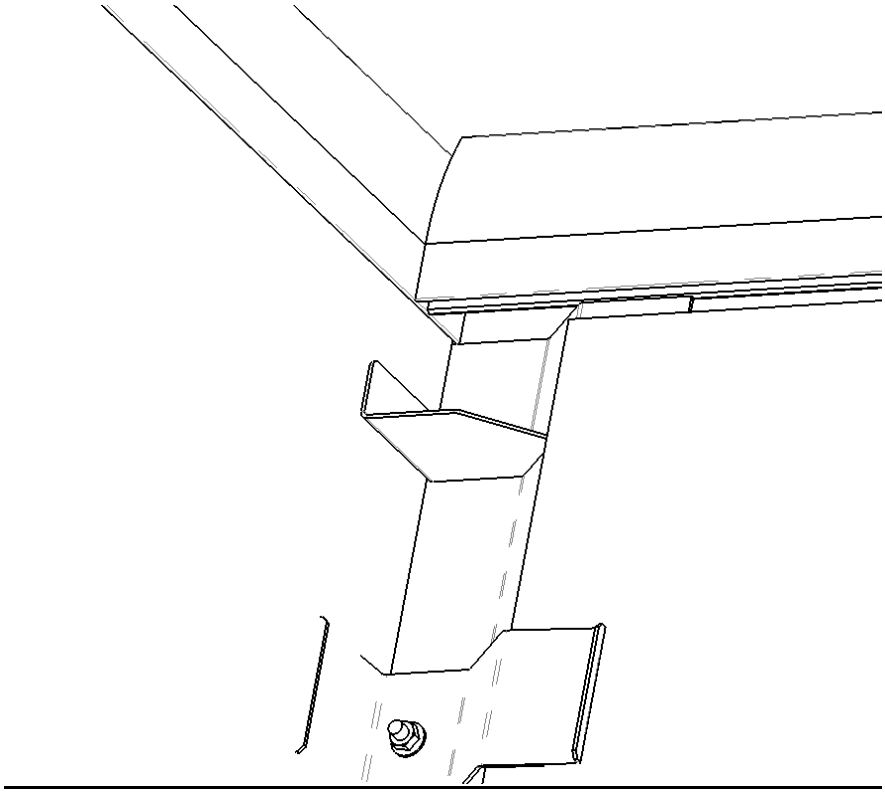


Center Panel Installation

4. Install upper seal around entire duct, as shown in the image below. Single seals can be used to connect multiple panels for aesthetics or seals can be cut down for ease of installation.



5. Install air stops between corner panel and poly panels by slotting vertical flange into upper seal



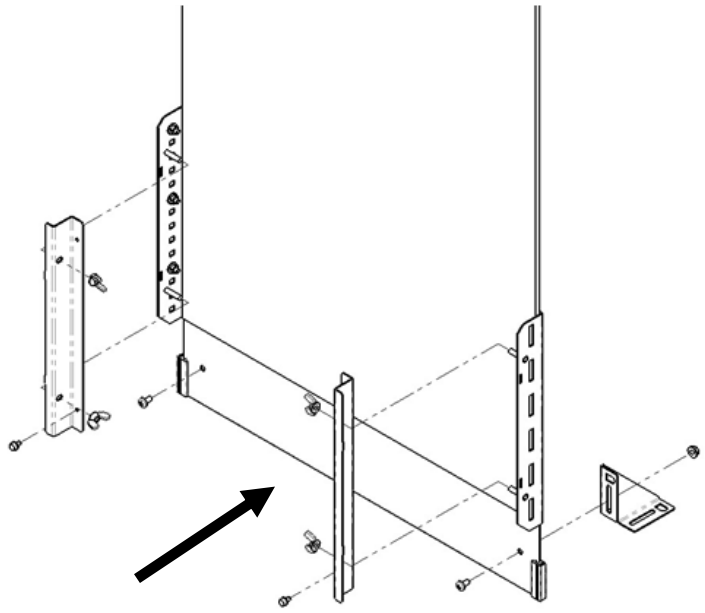
HOT AISLE CONTAINMENT ADJUSTABLE HEIGHT PANEL

1. During hot aisle panel installation, insert adjustable panel between polycarbonate panel and hot aisle vertical panel.

2. Extend adjustment panel as required to accommodate varying cabinet heights.

3. After installing vertical clamps, secure the adjustment panel with the M5X8 Taptite screws. Attach gusset bracket to cabinet if necessary.

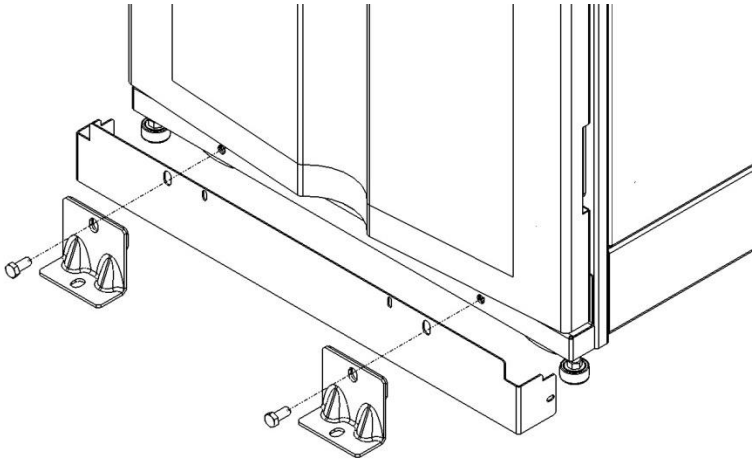
4. Add rubber seal to adjustment panel sides extending beneath vertical panel to contact adjacent cabinets.

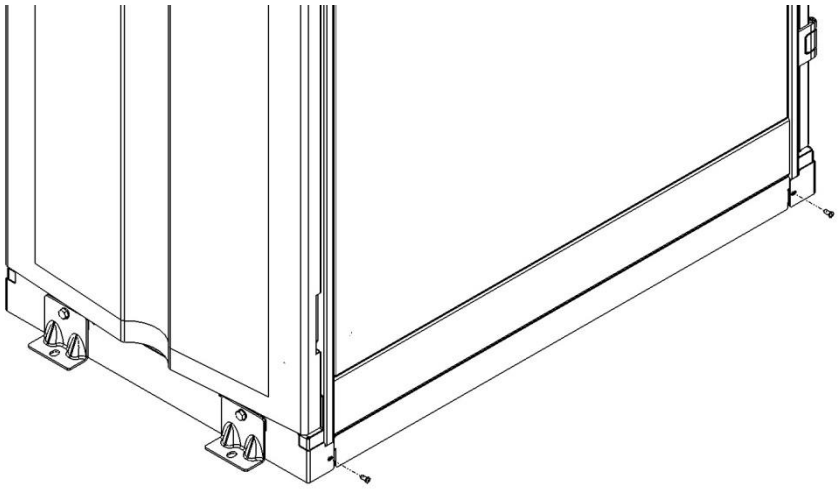


AISLE CONTAINMENT FLOOR SEAL KITS

FLOOR SEAL KIT FOR GF-SERIES GLOBALFRAME GEN 1 CABINET AND F-SERIES TERAFRAME GEN 3 CABINET

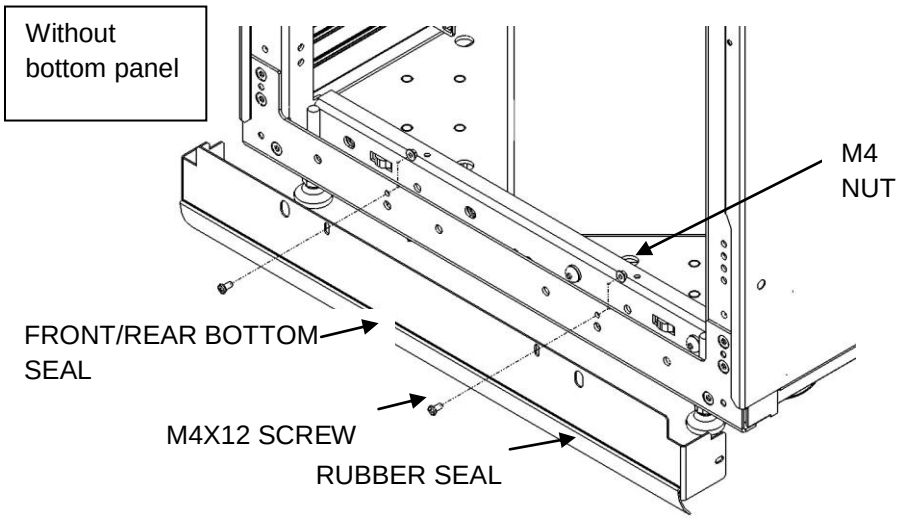
1. Install bottom seals on front and rear of each cabinet as shown.
2. Install side bottom seal on end row cabinets.

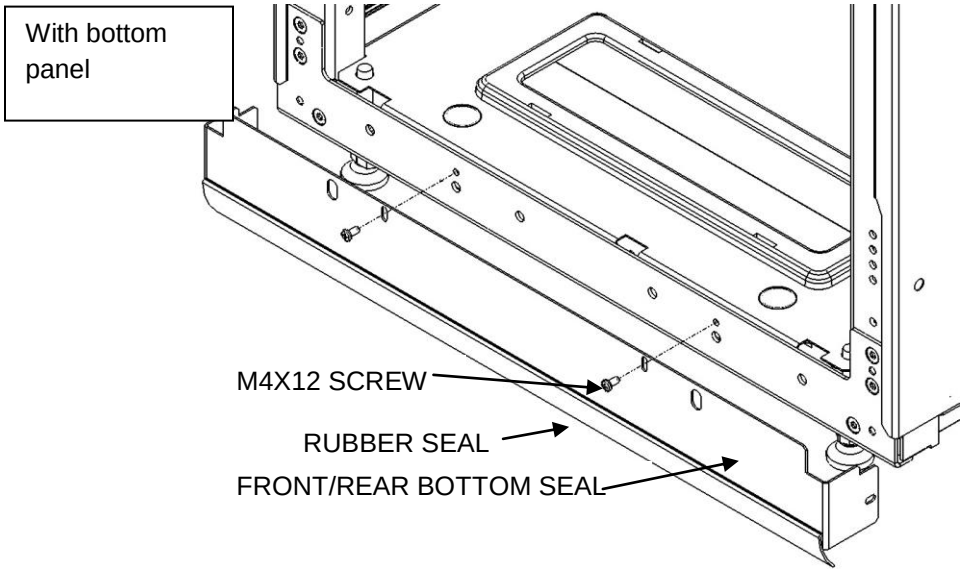


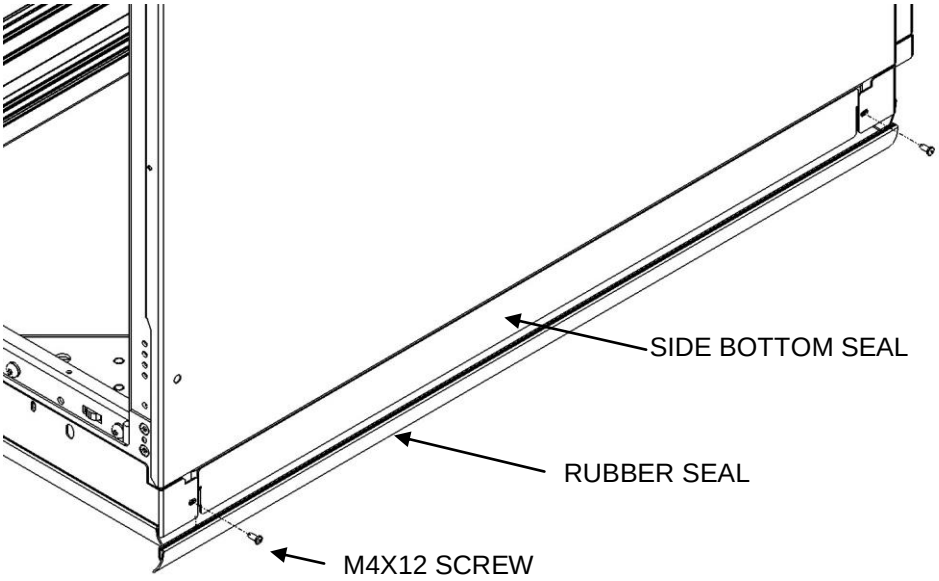


FLOOR SEAL KIT FOR F-SERIES TERAFAME GEN 2 CABINET

1. Install bottom seals on front and rear of each cabinet as shown.
2. Install side bottom seal on end row cabinets.

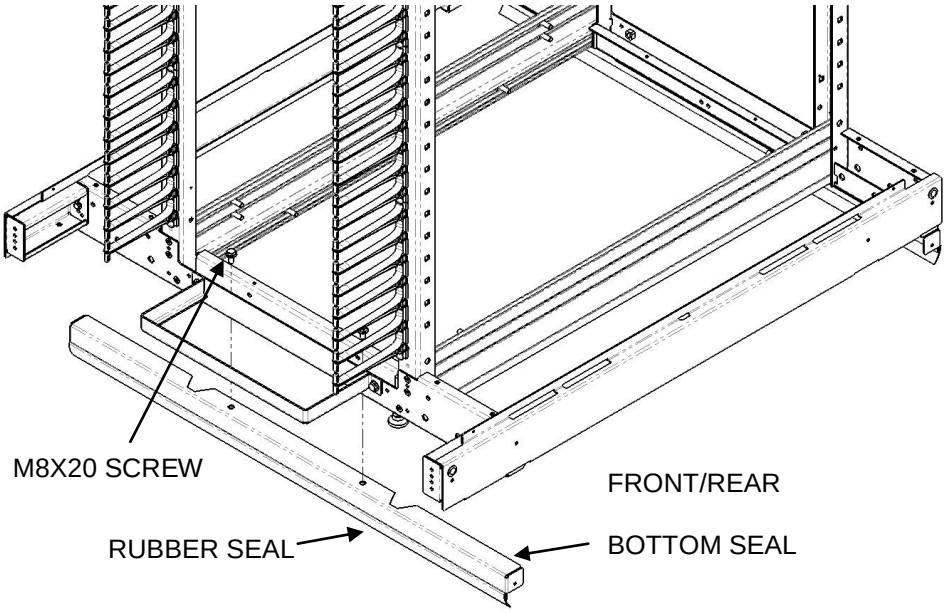


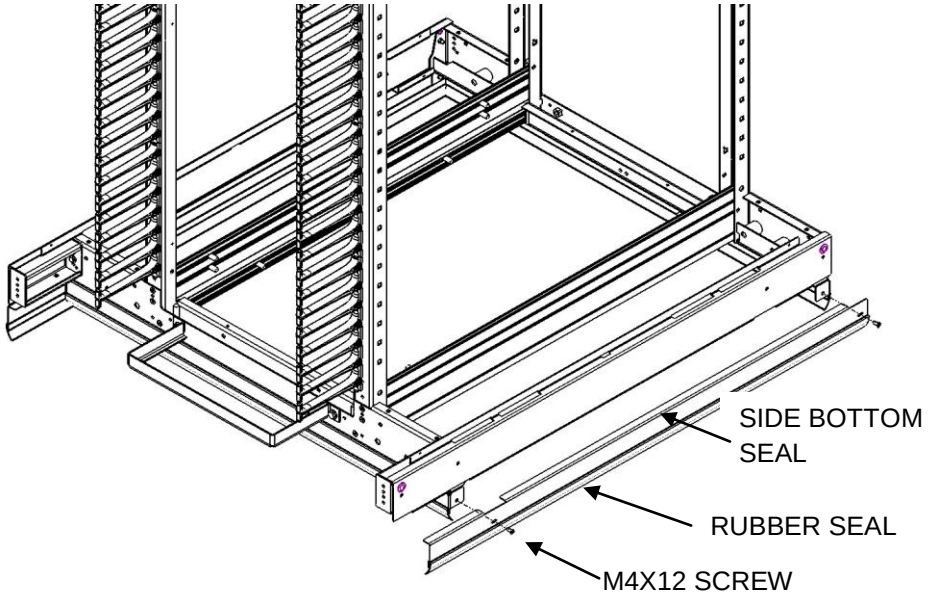




FLOOR SEAL KIT FOR N-SERIES TERAFRAME NETWORK CABINET FOR CISCO NEXUS 7018 SWITCH

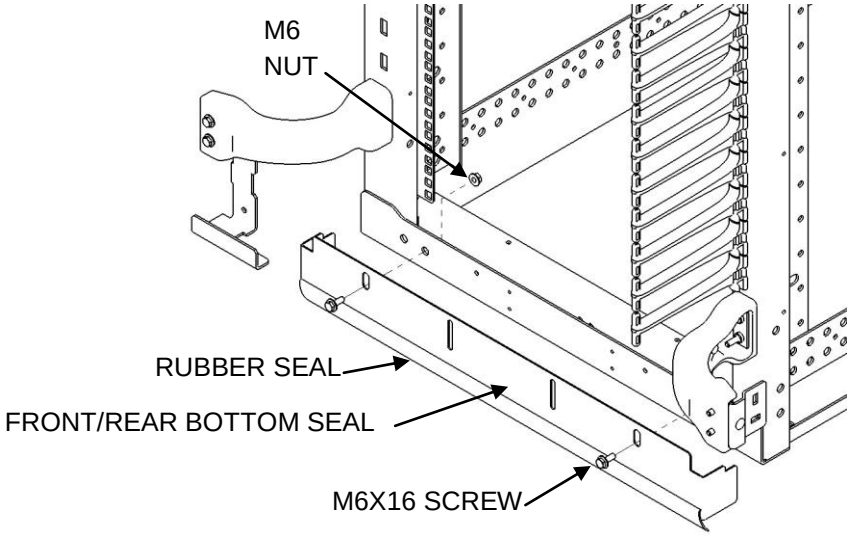
1. Install bottom seals on front and rear of each cabinet as shown.
2. Install side bottom seal on end row cabinets.



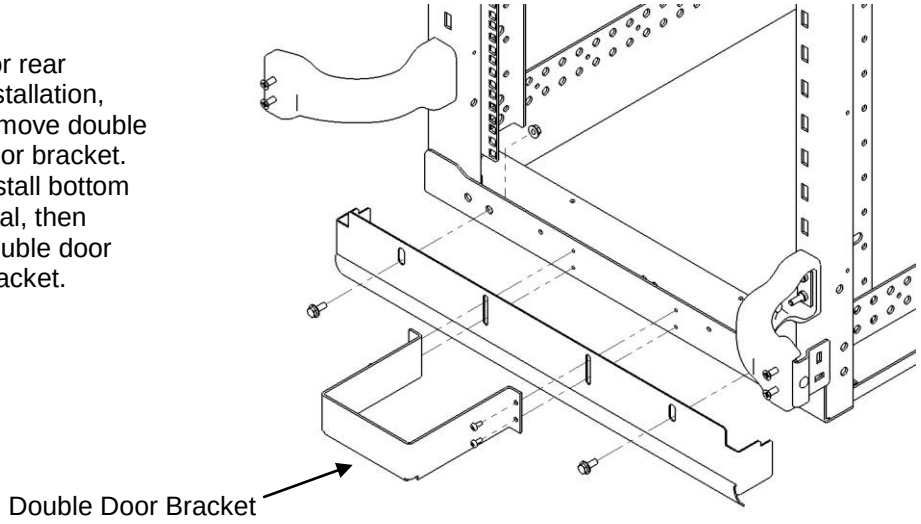


FLOOR SEAL KIT FOR N-SERIES TERAFRAME NETWORK CABINET

1. Install bottom seals on front and rear of each cabinet as shown.
2. Install side bottom seal on end row cabinets.

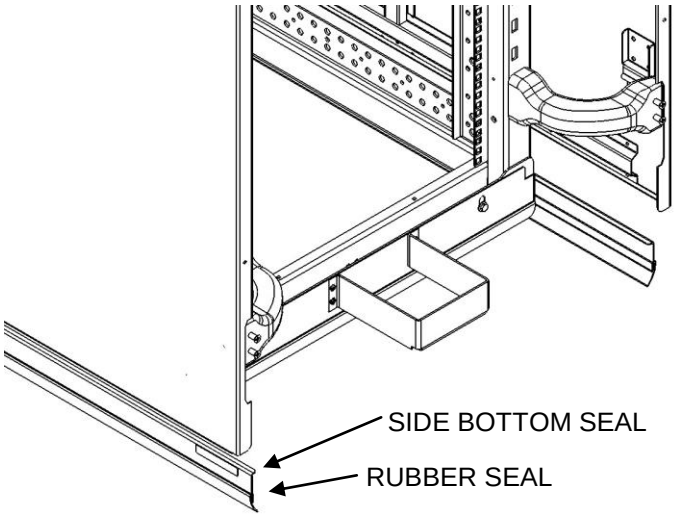


For rear installation, remove double door bracket. Install bottom seal, then double door bracket.



Remove film from adhesive tape.

Attach bottom seal to inside bottom of side panel.



FREQUENTLY ASKED QUESTIONS (FAQ)

Q: What door configurations are available?
A: The doors are available in double door, single door left opening, or single door right opening configurations. The finish of the door frames can be ordered with either an unpainted anodized aluminum finish or painted with the color the same as the other parts of the door.

- Double Door, painted frame PN 32770-X01
- Double Door, unpainted frame PN 32770-X02
- Single Door, left opening, painted frame PN 32780-X01
- Single Door, right opening, painted frame PN 32780-X02
- Single Door, left opening, unpainted frame PN 32780-X03
- Single Door, right opening, unpainted frame PN 32780-X04

Q: Can the door system be used with any cabinet?
A: The door system was designed to be used with F-Series TeraFrame or GF-Series GlobalFrame cabinets; other cabinets may require special brackets to attach the door system to the top of the cabinet.

Q: What cabinet heights can the door system be used with?
A: The door system will work with F-Series TeraFrame and GF-Series GlobalFrame Cabinet heights from 42U to 52U.

Q: What aisle widths will the door system work with?
A: The door system will work with aisle widths of 36” – 48” for single doors and 48” – 72” for double doors.

Q: What is the door opening width?
A: The door opening is 32” for the single door and 44” for the double door.

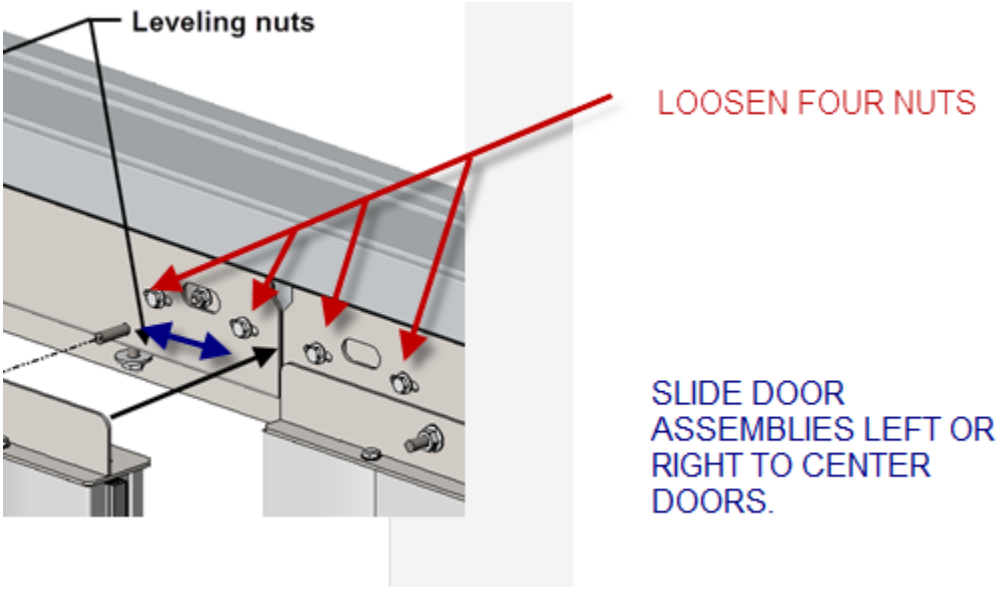
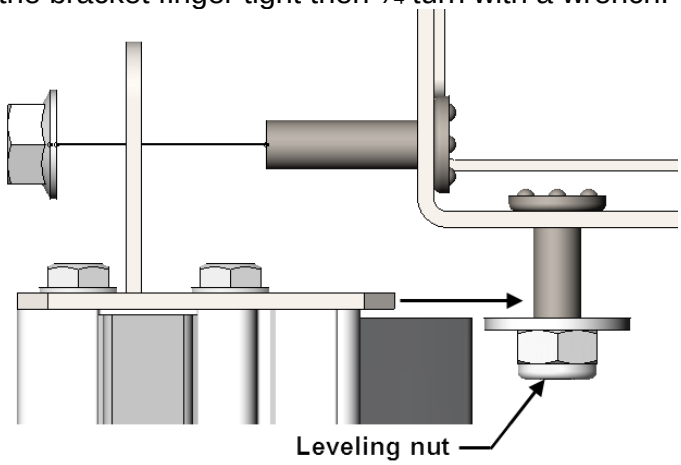
Q: What aisle lengths are available for Cold Aisle Containment?
A: CPI offers standard part number configurations for cabinet aisle lengths of 12’ (3.6 m) to 52’ (16 m). Each of these systems includes a telescoping roof section that can infinitely adjust the roof system an additional 8” (200 mm) in length.

Q: What aisle widths are available?
A: CPI offers the cold aisle containment roof system in two standard aisle widths of 48 and 72” (1.2 amd 1.8 meters) or 2 and 3 floor tiles. The design of the roof system accommodates about 2 inches of compliance in the row width. CPI cabinets are recommended, however, if your application includes other manufacturer’s cabinets, contact CPI Technical Support.

Q: What if my cabinets have varying heights?
A: The simplest installation results when all cabinets are of a consistent height. If the tallest frames in an aisle are relatively evenly distributed along the length of the aisle (and along both sides of the aisle), and have an adequate load rating to support the additional weight of the roof structure, lower cabinets can be sealed to the roof structure with the drop-down sealing panels (see CPI PNs 32720 and 32728). If not, consider CPI’s Frame Supported Hot Aisle Containment Solution.

Q: What if there is an uneven gap between the two door assemblies.
A: Either one of both of the door assemblies is not level. Adjust the leveling nuts to level the doors and eliminate the gap.

Q: What if the door vertical gasket stops before sealing to the vertical L shaped bracket on the side assemblies?
A: The door(s) are not centered on the track. Loosen hardware securing door support brackets to the trolley system. Slide door assemblies left or right as required. Re-tighten hardware.



Q: What if the door stops before fully closing?
A: Adjust door brush seal height if too low. Door support hardware may be overtightened. Loosen M8 hardware securing door to support brackets. Loosen leveling nuts to lower door assembly. Check operation. If improved, tighted the M8 nuts attaching the door assembly to the bracket finger tight then ¼ turn with a wrench.