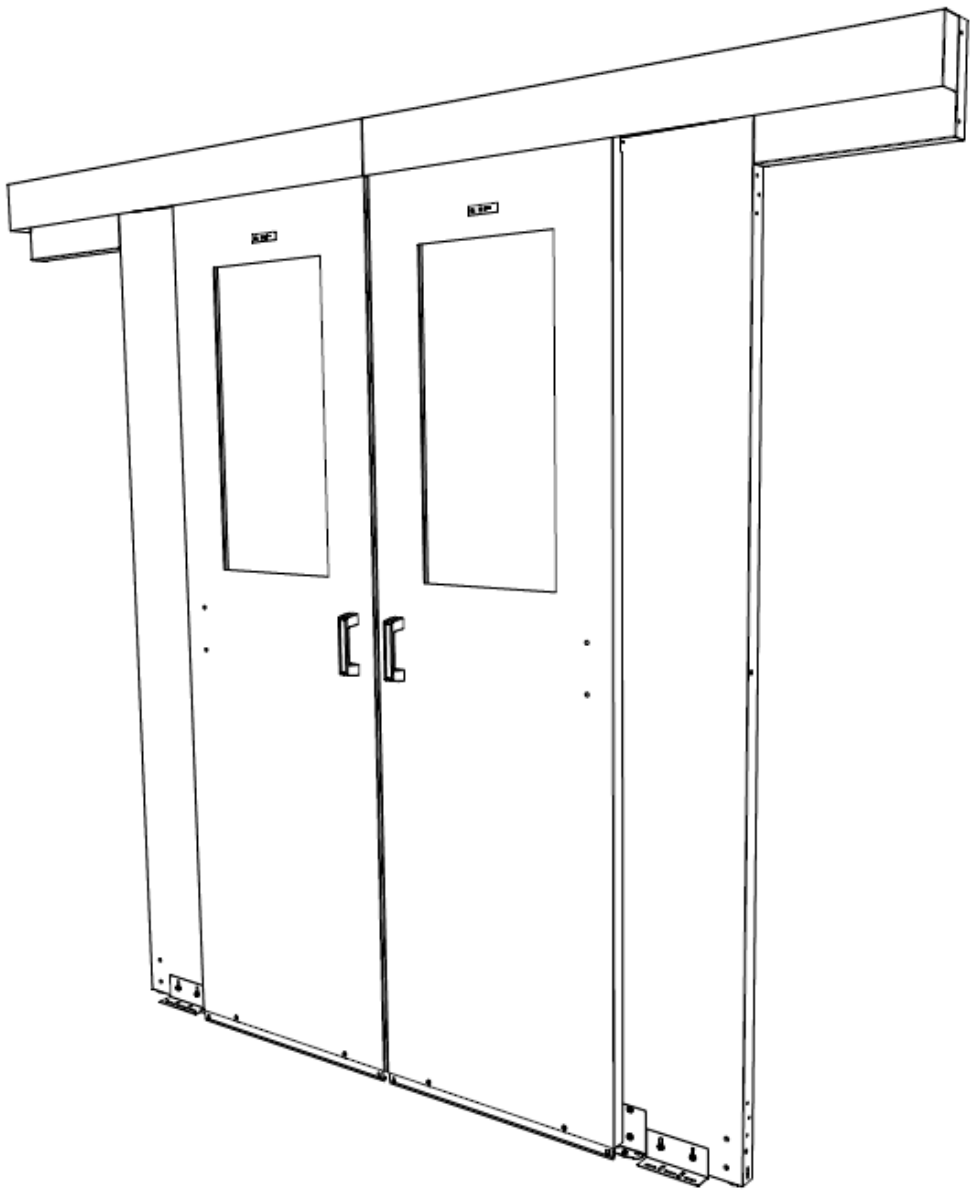
Installation Guide

Dual Sliding End of Row Door

Publication No. MN160014EN



Powering Business Worldwide

Table of Contents

About this Guide

This document contains general and detailed information about the installation, trouble shooting and care of Eaton's Dual Sliding End of Row Door product.

Intended Audience

This document is intended primarily for personnel responsible for installing and maintaining an Eaton Dual Sliding End of Row Door.

Technical Support

If you encounter any problems with this installation, send an email and detailed description of the problem as well as contact information to Technical Support at dc.support@eaton.com.

Sales Representative and Contact Information

Contact your Eaton Sales representative using one of the methods below:

Phone	Call us toll free at 800.225.7348 (US Only) or 508.852.4300
Mail	Eaton 160 Gold Star Boulevard Worcester, MA 01606
Email	InfoESWorcesterMA@Eaton.com
Web	Visit us at www.eaton.com/wrightline and click on "Contact Us." Simply complete and submit the form as directed on our website.

Before you Begin

Before installing an Eaton Dual Sliding End of Row Door, it is recommended that you familiarize yourself with the various door components described within this document. Also, it would benefit installers to review the following section titled *Installation Best Practices and Helpful Hints* on page 3 of this installation guide.

Tools Required

The following tools are required to complete the installation of an Eaton Dual Sliding End of Row Door:

- A tape measure
- A chalk line (if allowed in your data center)
- A spirit level
- A powered screw gun/driver
- A 3/8" hex socket driver bit
- A Phillips head driver bit
- A 5/32" Allen wrench
- A 3/8" combination wrench
- A 7/16" combination wrench

Installation Best Practices and Helpful Hints

This section contains an assortment of best practices and helpful hint topics that should be read before installing an Eaton Dual Sliding End of Row Door.

<table>
<tr><td>More than a One Person Job</td><td>For reasons of safety and installation quality, it is highly recommended that two or more installers work together to complete the installation of an Eaton Sliding End-of-Row Door.</td></tr>
<tr><td>Anchoring Dual Sliding End of Row Door Components to the Floor</td><td>
<table>
<tr><td>IMPORTANT!</td><td>If there is additional hardware required to complete the installation of the Dual Sliding End of Row Door (floor, wall, and/or ceiling anchoring support), and the specified hardware is NOT itemized and included on the door quote, then the required hardware must be included and priced by the Installation Team on the installation quote.</td></tr>
</table>
The hardware required for anchoring Dual Sliding End-of-Row Door components to a facility floor depend upon the floor material. Anchoring hardware required for each facility is site specific and MUST BE SPECIFIED AND/OR APPROVED by facility management; preferably during the planning, design, and system ordering phase.
When identifying anchoring hardware, take into consideration the type and length of anchoring screws used on a data center floor. The floor material may be steel, concrete, aluminum, or wood-core. The proper screw type and size should be used based on the floor material.
<table>
<tr><td>IMPORTANT!</td><td>If prior to arrival, the installation team is not provided with details about the type of anchoring hardware required to conduct the installation, it is possible the team will arrive at the installation site without the necessary/proper anchoring hardware and the installation will be delayed until the proper anchoring hardware is either provided or acquired.</td></tr>
</table>
</td></tr>
<tr><td>Installation Accuracy</td><td>The Dual Sliding End of Row Door is a mechanical device that is shipped partially disassembled. As such the quality of door operation and reliability will depend on the accuracy of installation. Specifically, the smooth operating characteristics of the door rely on accurate measuring, leveling, squareness and alignment of the field installed components.</td></tr>
</table>

Dual Sliding End of Row Door Components - Detailed Descriptions

Dual Sliding End of Row Door Components

This section contains brief descriptions of the components used to construct an Eaton Dual Sliding End of Row Door. Detailed installation instructions start on page 7.

Jamb Wall Assemblies

Jamb Wall Assemblies are the vertical structures that define the sides of the door opening.

A left hand and right hand Jamb Wall Assembly will be field assembled using the following sub-components:

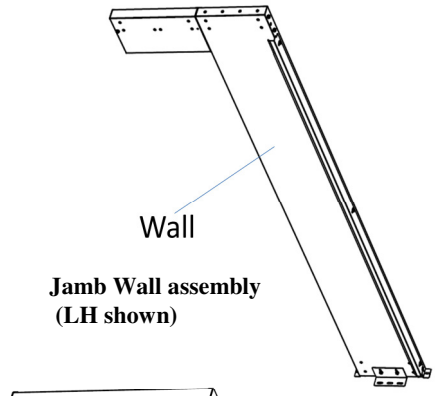
Walls: The vertical support panels that are the basis for the Jamb Wall Assemblies.

Track Extensions: Track Extensions support the extended ends of the door tracks.

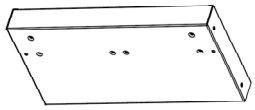
Vertical Door Seal Channels: Vertical Door Seal Channels provide adjustable sealing surfaces that interface with the door's vertical perimeter seal gaskets.

Floor Brackets: Floor Brackets provide adjustable flanges that enable the Jamb Wall Assembly to be screwed to the data center floor. Floor Anchor Brackets are non-handed. There are two types of Floor Brackets available:

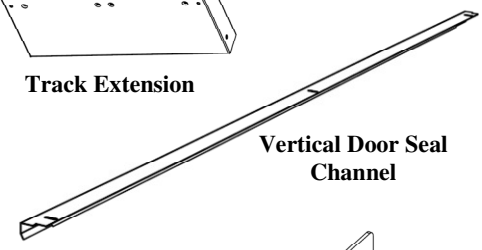
- Face Mount Floor Brackets
- Side Mount Floor Brackets



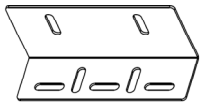
Jamb Wall assembly (LH shown)



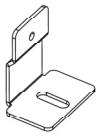
Track Extension



Vertical Door Seal Channel



Face Mount Floor Bracket



Side Mount Floor Bracket

Transom Assembly

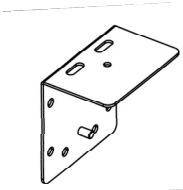
The Transom Assembly is the horizontal structure that defines the top of the door opening.

The Transom Assembly will be assembled using the following sub-components:

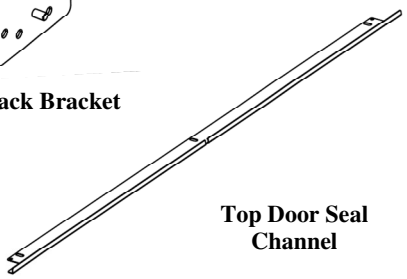
Transom: The transom is the horizontal structure that defines the top of the door opening.

Track Brackets: Track Brackets support the left and right hand Door Tracks.

Top Door Seal Channel: The Top Door Seal Channel provides an adjustable sealing gasket that interfaces with the top of the doors.



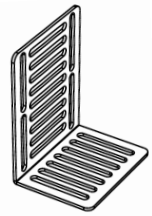
Track Bracket



Top Door Seal Channel

Enclosure Brackets

The Enclosure Brackets provide adjustable attachment flanges that enable the Jamb Wall Assemblies to be attached to the tops of the data center's electronic rack enclosures.



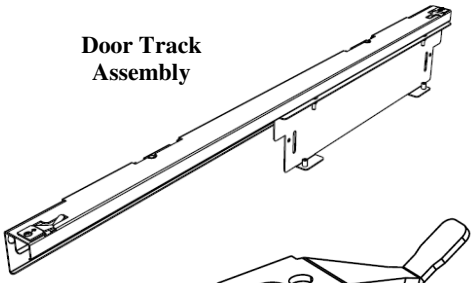
Enclosure Bracket

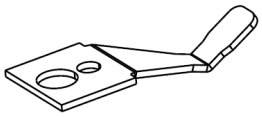
Door Track Assemblies

Door Track Assemblies are the horizontal structures that support the sliding doors. The Door Tracks have an adjustable incline that enable the doors to auto-return to a closed position.

The Door Tracks are shipped in a non-handed configuration. The Door Tracks will be field configured into (1) left hand and (1) right hand Door Track Assembly by attaching a Door Hold-open Retainer to opposite ends of each Door Track.

Door Track Assembly





Door Hold-open Retainer

Door Assemblies

The Door Assemblies are the sliding panels that close off the door opening. A left hand and right hand Door Assembly will be field assembled using the following sub-components:

Doors Panels: The Door Panels will be field configured into (1) left hand and (1) right hand Door Assembly by attaching a Door Handle to opposite sides of each Door.

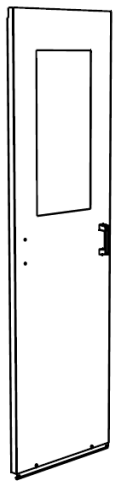
Door Handles: Door Handles are non-handed.

D-Bulb Gasket: One continuous length of *doubled* D-Bulb Gasket is provided. The *doubled* D-Bulb Gasket should be torn through the perforated seam to create two individual D-Bulb Gaskets.

Door Alignment Tabs: The Door Alignment Tab on each door interlocks with the opposing door to maintain alignment when the doors are closed. Door Alignment Tabs are non-handed.

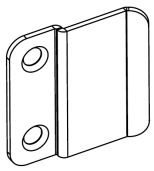
Door Guides

The Door Guides retain and guide the bottom of the sliding doors. One left hand and one right hand Door Guide is provided. The Door Guides are adjustable in or out, to enable planar alignment of the doors when closed.



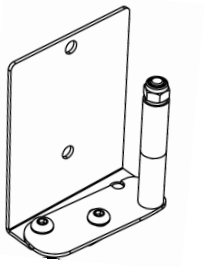
Door Assembly (LH shown)

Door Handle

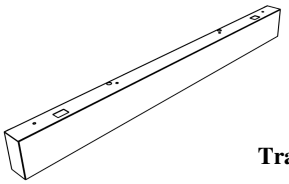
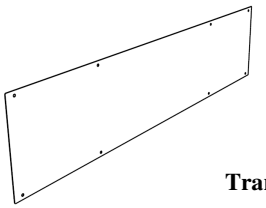


Door Alignment Tab

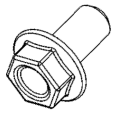
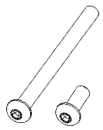
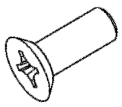
D-Bulb Gasket



Door Guide (LH shown)

Track Covers The Track Covers hide the Door Tracks. The Track Covers are non-handed.	 **Track Cover**
Transom Cover The Transom Cover finishes off the inside of the Transom Assembly and provides a sealing surface for other aisle containment products.	 **Transom Cover**

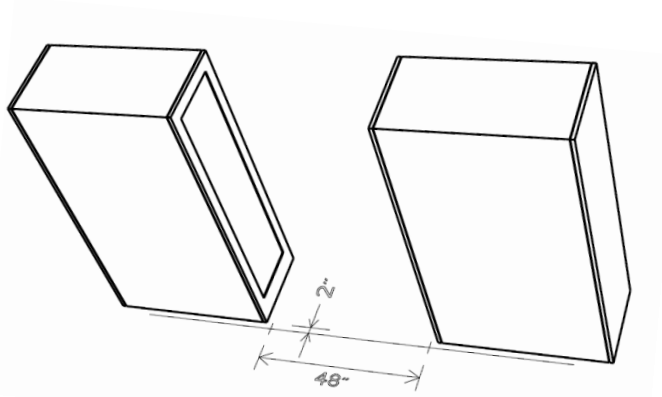
Dual Sliding End of Row Door Fasteners

¼-20 Hex Head Self Threading Screw (Part #54348) A 3/8" hex socket bit is required to install this screw.	
#10 x 3/8" Phillips Pan Head Self Threading Screw (Part # 66714) A Phillips head bit is required to install this screw.	
¼-20 Hex Keps Nut (Part #18209) A 7/16" combination wrench is required to install this nut.	
¼" Washer (Part #18959)	
Allen Head Screws (A 5/32" Allen wrench is required) **¼-20 x 3" Allen Head Screw** (Part #87464) **¼-20 x 5/8" Allen Head Screw** (Part #87398)	
#10 x ½" Phillips Flat Head Self Threading Screw (Part #82555) A Phillips head bit is required to install this screw.	
Door Handle Fasteners **#10-32 x 1-1/4" Phillips Head Machine Screw** (Part #93051) A Phillips head screwdriver is required to install this screw. **#10 Hex Keps Nut** (Part #87693) A 3/8" hex socket driver bit is required to install this nut.	 

Installing an Eaton Dual Sliding End of Row Door

Step 1: Prepare the Site

1. Measure out 2” from each electronic rack and place marks on the floor.
2. Snap a chalk line on these two marks. This line represents the outer face of the Door Jamb Wall. (Note: if usage of a chalk line is not permitted in your data center, use another acceptable means to define this line.)
3. Mark two points on the line 48” apart to designate the desired position of the door opening width.

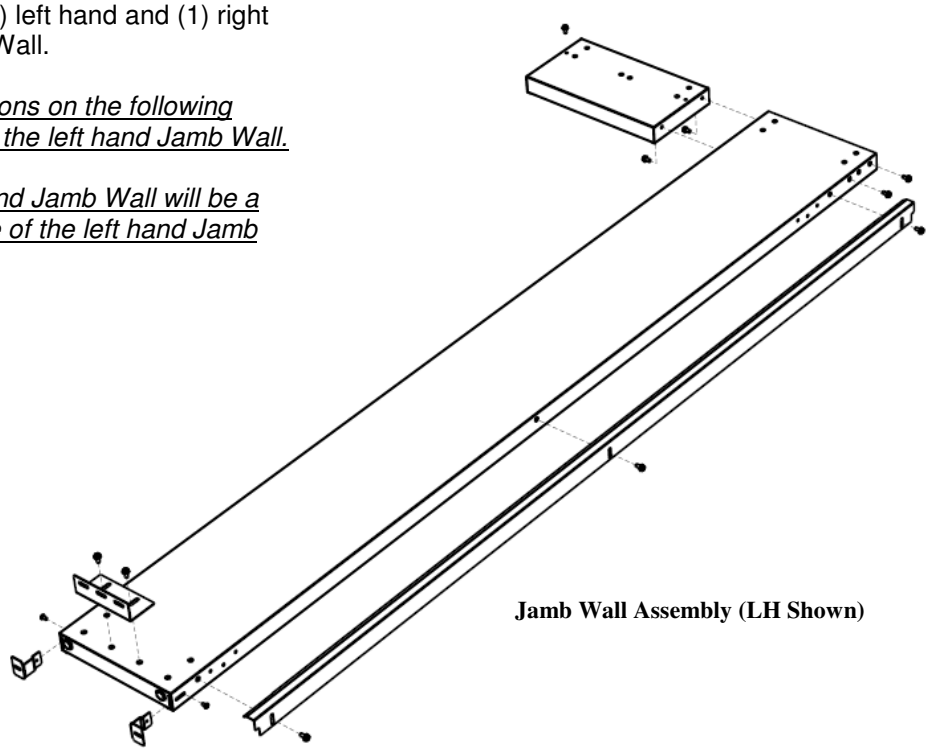


Step 2: Assemble the Jamb Walls

Assemble (1) left hand and (1) right hand Jamb Wall.

The instructions on the following page are for the left hand Jamb Wall.

The right hand Jamb Wall will be a mirror image of the left hand Jamb Wall.



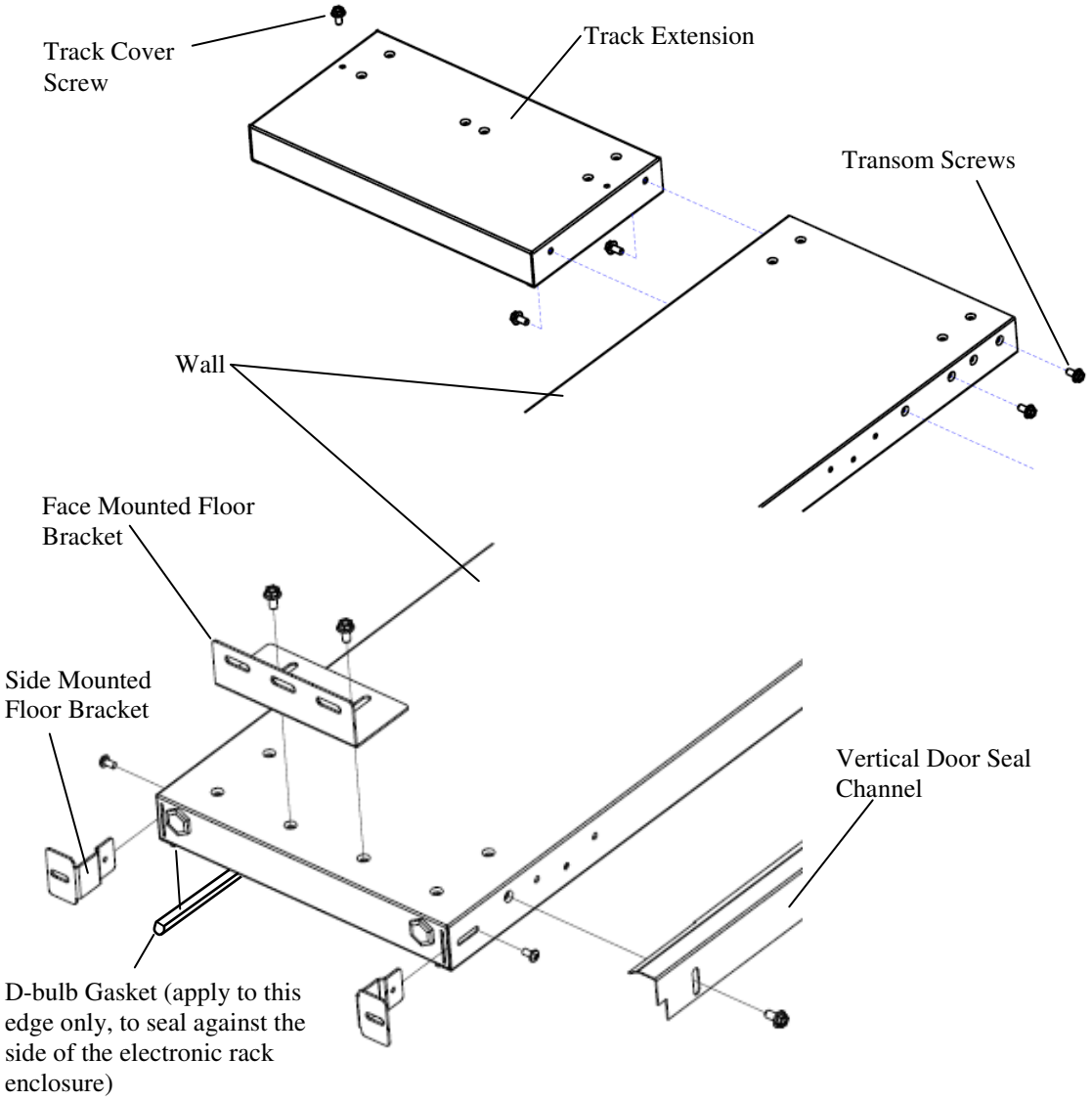
Jamb Wall Assembly (LH Shown)

(Assemble the Jamb Walls - continued next page)

(Assemble the Jamb Walls – continued from previous page)

1. Attach a Track Extension to the wall with (2) 1/4-20 x ½" Hex Head Self Threading Screws.
2. Pre-install a 1/4-20 x ½" Hex Head Self Threading Track Cover Screw into the attachment hole in the Track Extension. Leave the screw protruding about 1/8".
3. Pre-install (2) 1/4-20 x ½" Hex Head Self Threading Screws into the Transom attachment holes on each wall. Leave the screws protruding about 1/8".
4. Attach a Vertical Door Seal Channel to the wall using (3) 1/4-20 x ½" Hex Head Self Threading Screws. Position the channel with the screws centered in the slots.
5. There are (2) different Floor Bracket styles available. Choose the appropriate instructions for your model.
   a. Face Mounted Floor Brackets: Attach (1) bracket to the face of the wall with (2) 1/4-20 x ½" Hex Head Self Threading Screws. Secure the bracket in its highest position.

   b. Side Mounted Floor Brackets: Attach (1) bracket to each side of the wall using (1) #10 x 3/8" Phillips Pan Head Self Threading Screw for each bracket. Secure the brackets in their highest position.
6. If it is necessary to seal the Jamb Walls to the electronic rack enclosures, apply the provided "D-bulb" gasket to the outer edge of each wall.

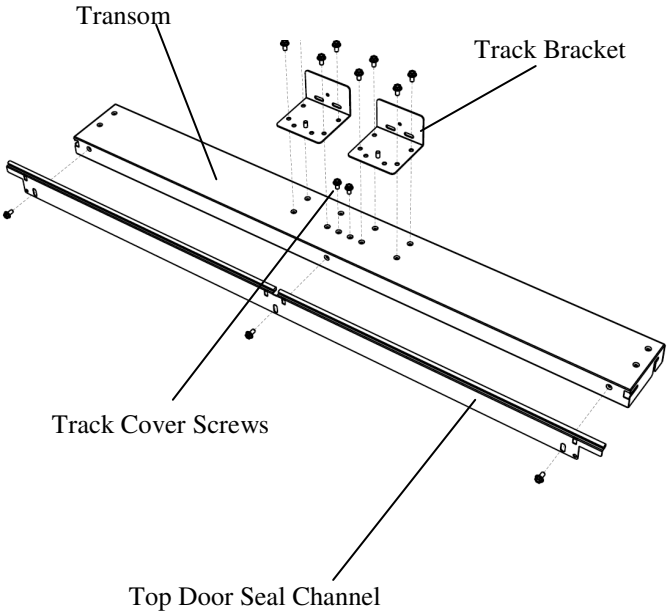


Step 3: Assemble the Transom

1. Attach (2) Track Brackets to the Transom with (8) 1/4-20 x ½" Hex Head Self Threading Screws

2. Attach the Top Door Seal Channel to the Transom with (3) 1/4-20 x ½" Hex Head Self Threading Screws. Position the channel with the screws centered in the slots.

3. Pre-install (2) 1/4-20 x ½" Hex Head Self Threading Screws into the center Track Cover holes in the face of the Transom. Leave the screws protruding about 1/8".



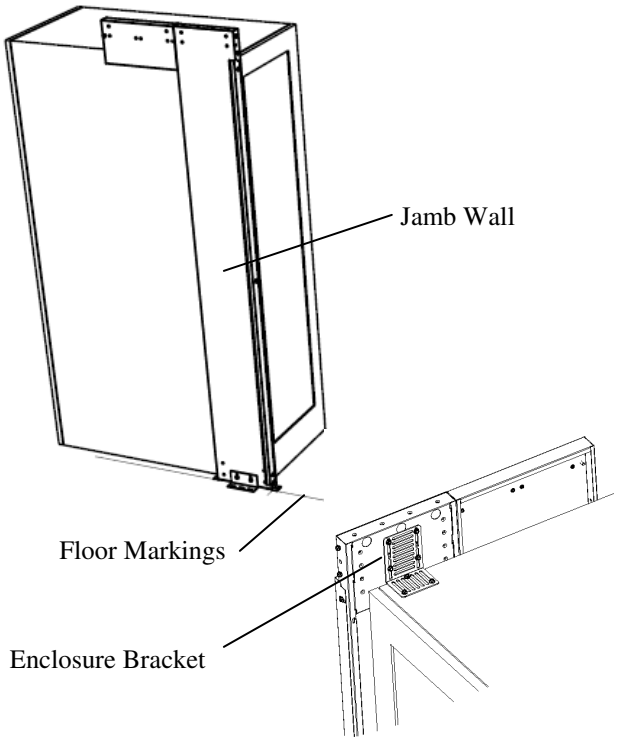
Step 4: Erect and Secure the Jamb Wall Assembly *(This is a two person job.)*

Erect the Jamb Wall Assembly

1. Ensure that the walls' leveling feet are fully retracted. Stand the left hand Jamb Wall, aligned with the chalk line and the mark that defines the door opening width.

2. Loosely attach the left hand Jamb Wall to the top of the electronic rack enclosure with an Enclosure Bracket. Attach the bracket to the wall in the most optimum position with (4) 1/4-20 x ½" Hex Head Self Threading Screws. Attach the bracket to the enclosure with appropriate fasteners.

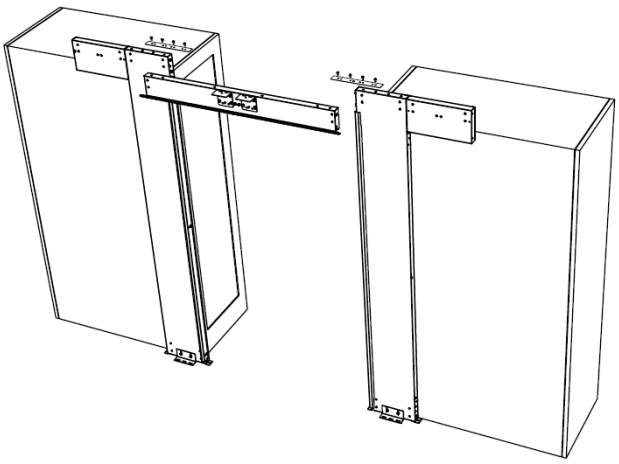
*Note: If direct attachment to the electronic rack enclosure is not permitted, a Ceiling Hanger Attachment Bracket (part number SCCI) is available. See page 17 for installation instructions.



(Continued next page)

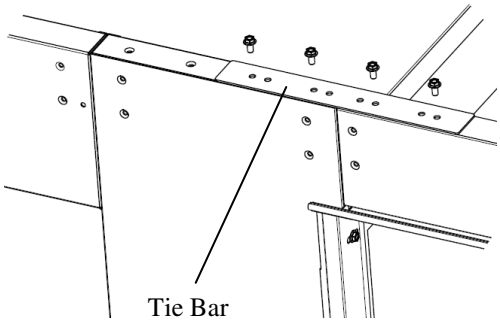
(Erect the Jamb Wall Assembly – continued from previous page)

3. Roughly position the right hand Jamb Wall, and then engage the Transom Assembly onto the pre-installed Transom attachment screws. Now tighten the Transom attachment screws.



4. Loosely attach the right hand Jamb Wall to the adjacent electronic rack enclosure in the same manner as the left hand Jamb Wall.

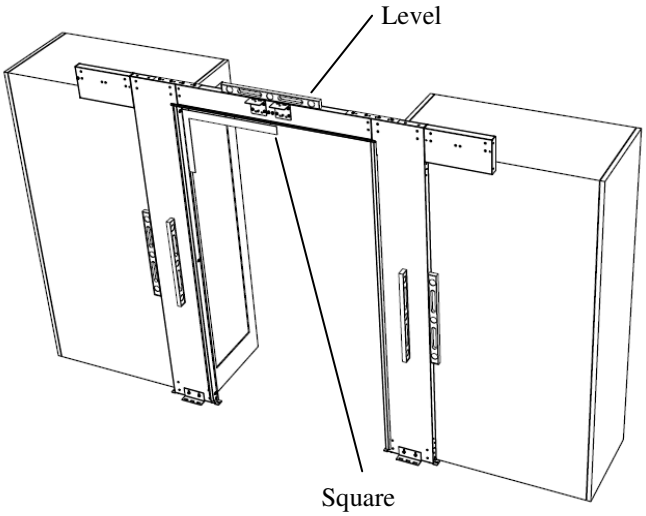
5. Install a Tie Bar onto the top of the Jamb Wall Assembly at each Transom/Wall interface with (4) 1/4-20 x ½" Hex Head Self Threading Screws.



Level and Secure the Jamb Wall Assembly

1. Verify that the Jamb Wall Assembly is level, planar, and aligned with the marks on the floor. Extend the Walls' leveling feet as required, but not more ¾".

   Then tighten the Enclosure Bracket screws.
2. Lower the Floor Anchor Brackets to the floor (if required) and then attach the brackets to the floor with appropriate fasteners for the site.

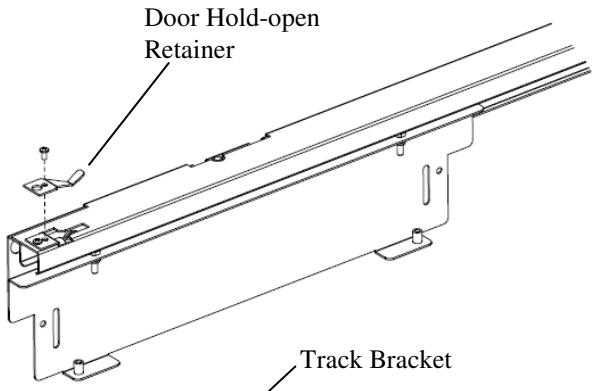


Failure to properly secure the Jamb Wall assembly to the electronic enclosures and to the floor will result in a potential tipping hazard which can cause serious injury.

Step 5: Install the Door Tracks

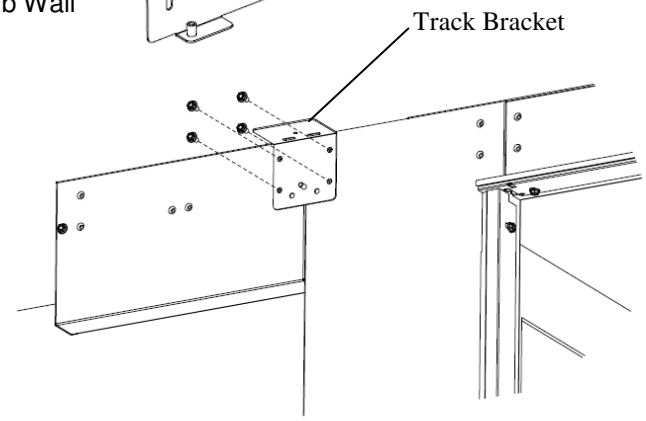
Prepare the Door Tracks

Attach a Door Hold-open Retainer to the left end of one Door Track and to the right end of the other Door Track. Use (1) #10 x 3/8" Phillips Pan Head Self Threading Screw for each retainer.



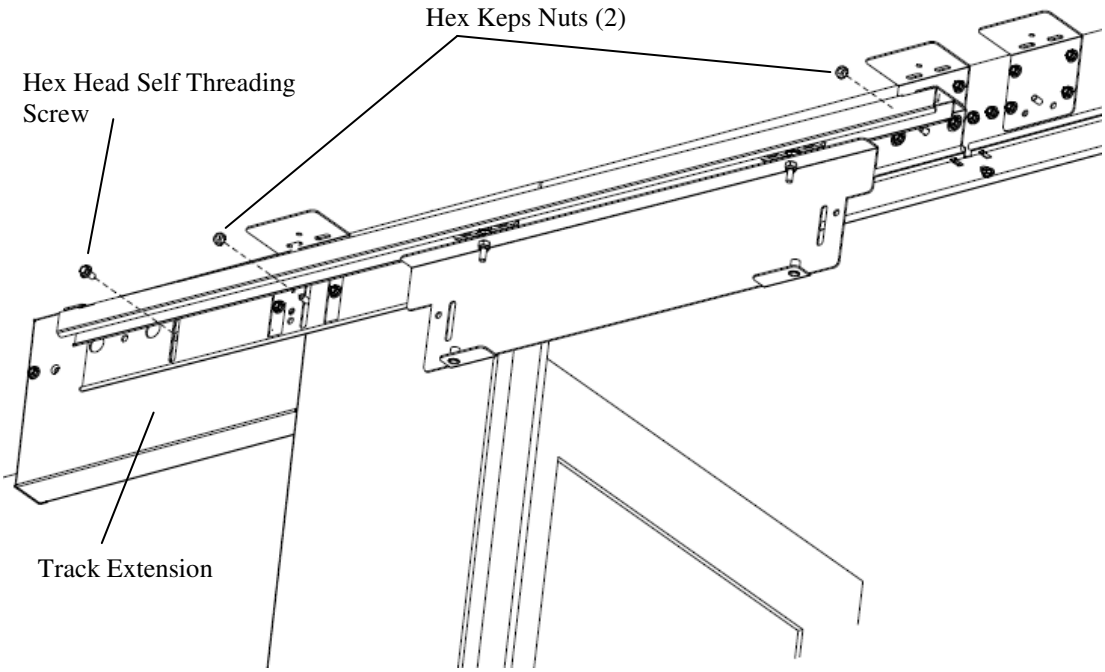
Install the Remaining Track Brackets

Attach a Track Bracket to each Jamb Wall with (4) 1/4-20 x ½" Hex Head Self Threading Screws.



Install the Door Tracks

1. Loosely attach the left hand Door Track onto the Track Bracket studs with (2) ¼-20 Hex Keps Nuts.
2. Loosely install (1) 1/4-20 x ½" Hex Head Self Threading Screw into the Track Extension.

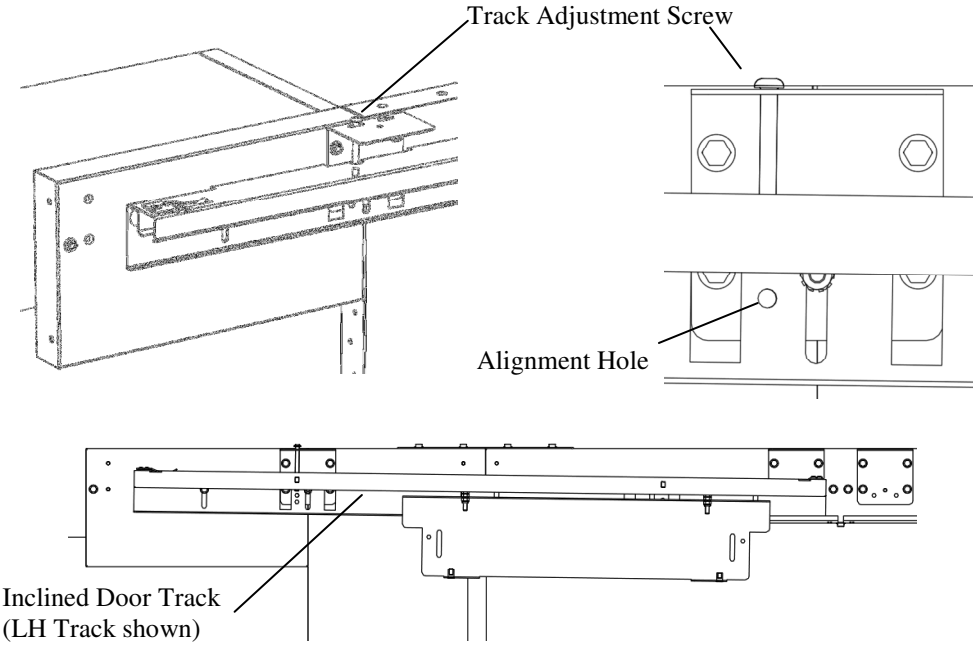


(Installing the Door Tracks – continued on next page)

(Installing the Door Tracks – continued from previous page)

1. Install a ¼-20 x 3" Allen Head Track Adjustment Screw into the track's threaded insert.
2. Using a 5/32" Allen Wrench, turn the adjustment screw to incline the Door Track until the Track's alignment hole aligns with the hole in the Track Bracket. Then tighten the (3) track attachment fasteners.

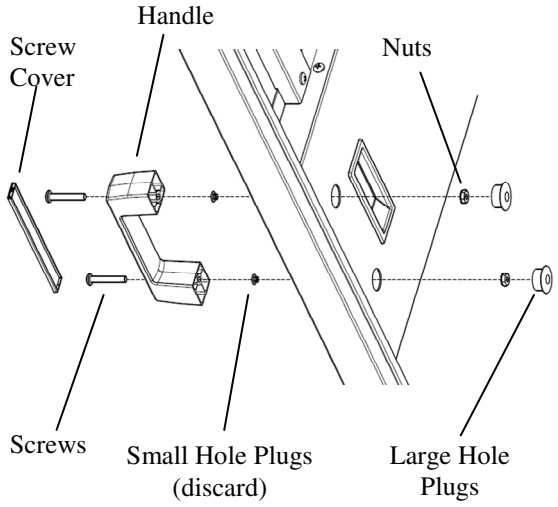
   (This incline is 1/2°, which should result in a moderate initial self closing door speed. The closure speed will be fine tuned at the end of the installation process by adjusting this angle.)
3. Repeat this procedure for the right hand Door Track.



Step 6: Install the Doors *(This is a two person job.)*

Prepare the Doors (LH Door shown)

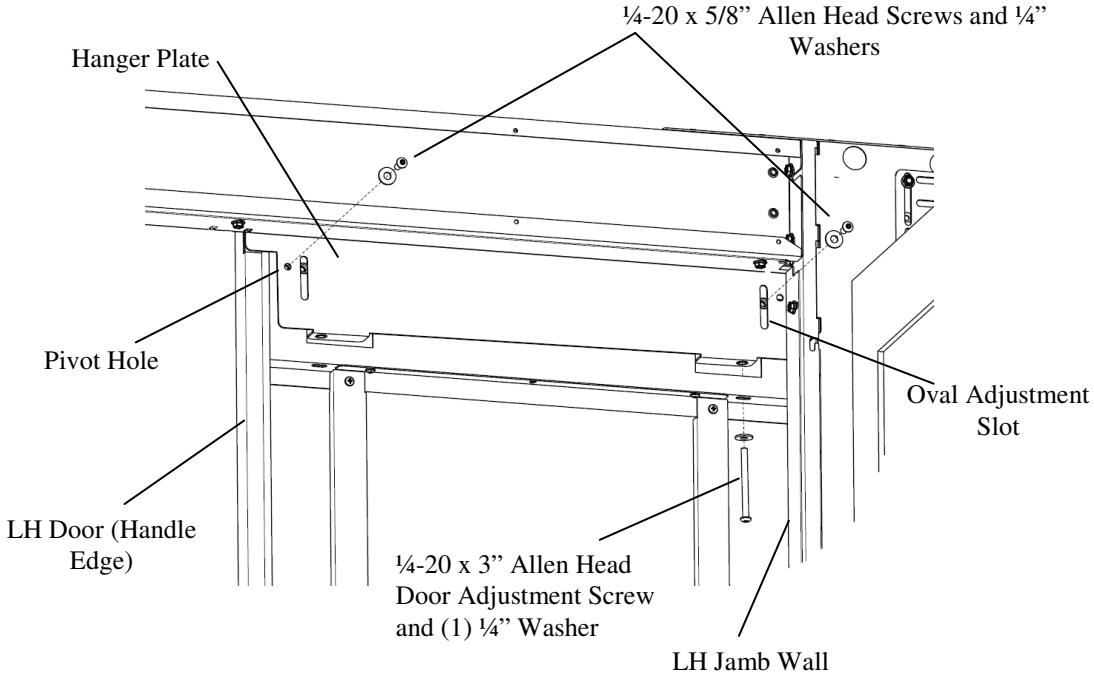
1. Remove (2) small Hole Plugs from the face of the door.
2. Attach the Handle to the door with (2) #10-32 x 1-1/4" Phillips Head Machine Screws and (2) #10 Hex Keps Nuts.
3. Insert the Screw Cover into the Handle.
4. Insert (2) large Hole Plugs into the screw access holes.
5. Repeat this process for the right hand door.



Hang the Doors

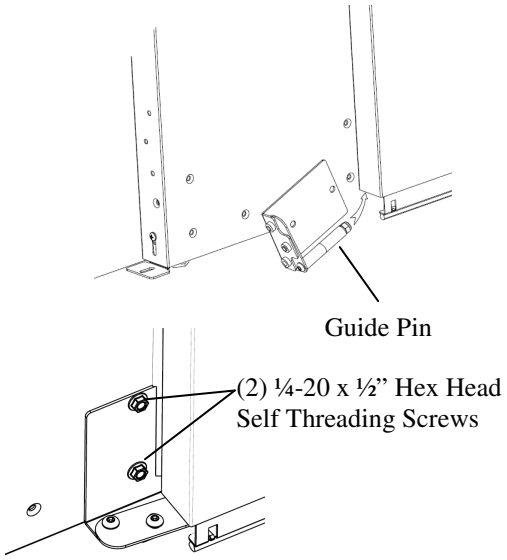
1. Have one person position the door while a second person loosely attaches the door from inside the aisle with (2) ¼-20 x 5/8" Allen Head Screws and (2) ¼" Washers. The handle edge of the door is attached to the Hanger Plate at the pivot hole. The opposite side of the door (near the jamb wall) attaches to the plate at the oval adjustment slot.
2. Install a ¼-20 x 3" Allen Head Door Adjustment Screw and a ¼" Washer into the threaded insert in the Door Hanger Plate near the Jamb Wall. Seat the screw head against the door's top frame member.
3. Using a 5/32" Allen Wrench, turn the Door Adjustment Screw until the door is plumb, then tighten the door attachment screws.

   Repeat this procedure for the right hand door.



Complete The Door Installation

1. Rotate the left hand Door Guide into place below the door, inserting the guide pin into the channel in the bottom of the door. Attach the Door Guide to the Wall with (2) 1/4-20 x ½" Hex Head Self Threading Screws. Repeat this procedure for the right hand Door Guide.



(Complete the Door Installation – continued on next page)

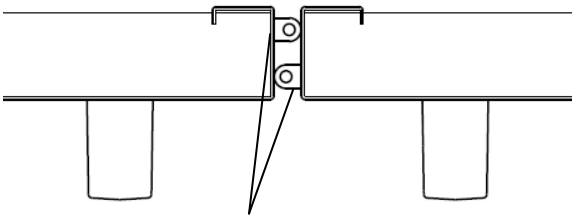
(Complete the Door Installation – continued from previous page)

2. Apply "D-Bulb" gasket to the mating edges of each door. Starting at 1-3/4" from the top of the doors, apply the gaskets along the entire height of the doors. Stagger the gasket positions as shown.

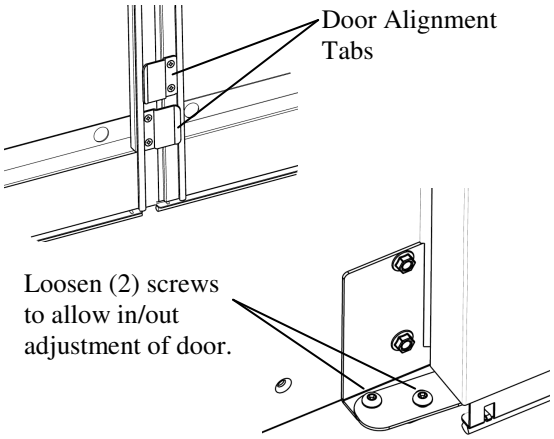
3. Attach (1) Door Alignment Tab to the inside of each door, using (2) #10 x ½" long Phillips Flat Head Self Threading Screws for each Alignment Tab.

4. With the doors closed, check to ensure that the doors are level and vertically aligned with each other. If required, loosen the (2) Allen head screws on the Door Guides and adjust the Guide Pins in or out to align the faces of each door.

Top View of Doors



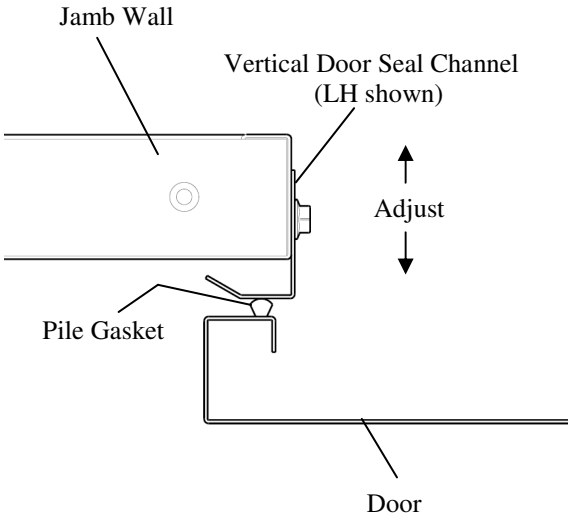
Staggered D-Bulb positions



Step 7: Adjust the Door Perimeter Seals

When properly adjusted, the door perimeter seals should not hinder the self closing speed of the doors.

1. Adjust the position of the Vertical Door Seal Channels so that their contact surfaces barely touch the pile gaskets on the doors.



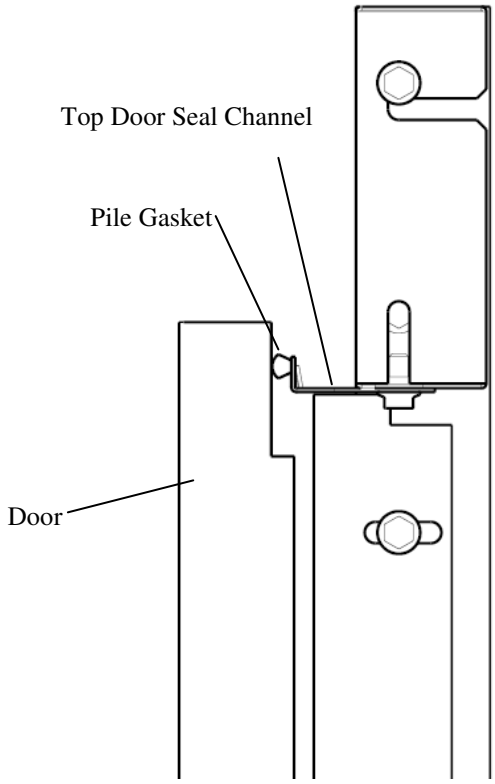
Top View of Door

(Adjust the Door Perimeter Seals – continued on next page)

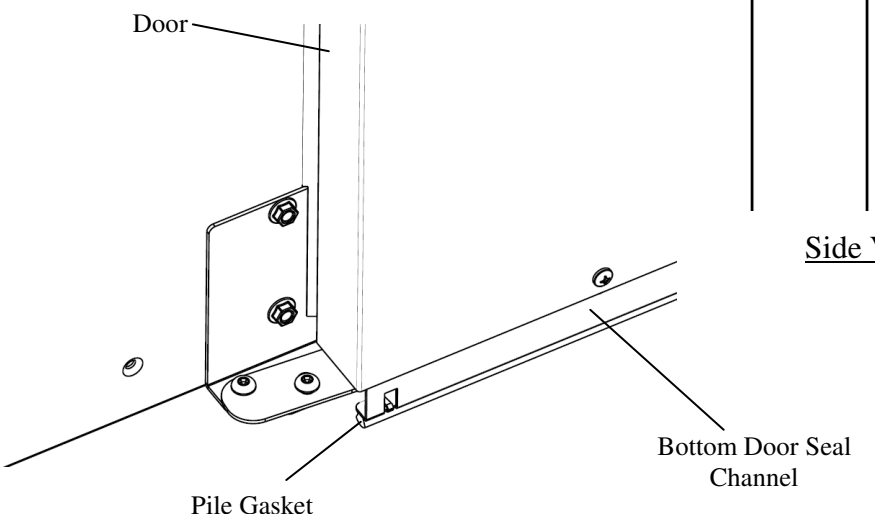
(Adjust the Door Perimeter Seals – continued from previous page)

2. Adjust the position of the Top Door Seal Channel so that the pile gasket barely touches the rear door surface.

3. With the doors fully closed, adjust the position of the Bottom Door Seal Channels so that the pile gaskets barely touch the floor.



Side View of Door



Step 8: Adjust Door Automatic Closure Speed

1. Open each door fully and then allow the doors to self-close. The door closure speed should be as slow as possible while still ensuring that the doors always fully close. (While the doors may rebound slightly, they should be adjusted so that they always return to their fully closed position.)

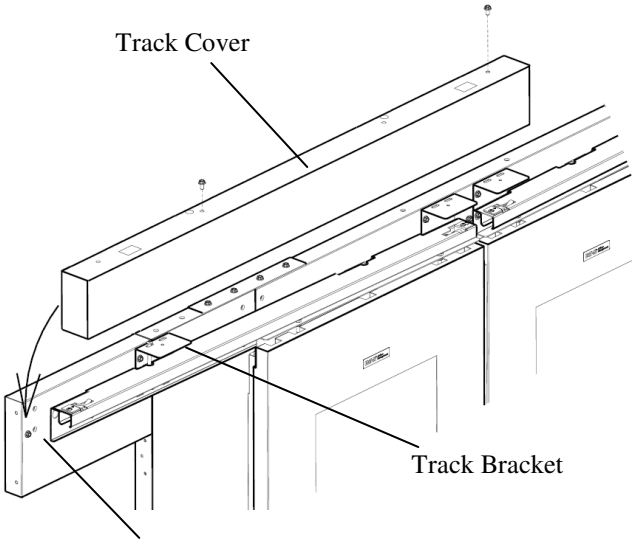
2. Adjust the incline of each track as required by loosening the track's (3) attachment points and then turning the Track Adjustment Screw. Retighten the (3) track attachment points when the desired closure speed is attained.

3. If the track incline is adjusted, it may be necessary to loosen the door attachment screws to re-level the door. Ensure that each door's "D-Bulb" gasket fully seats against the other door.

Step 9: Install Covers

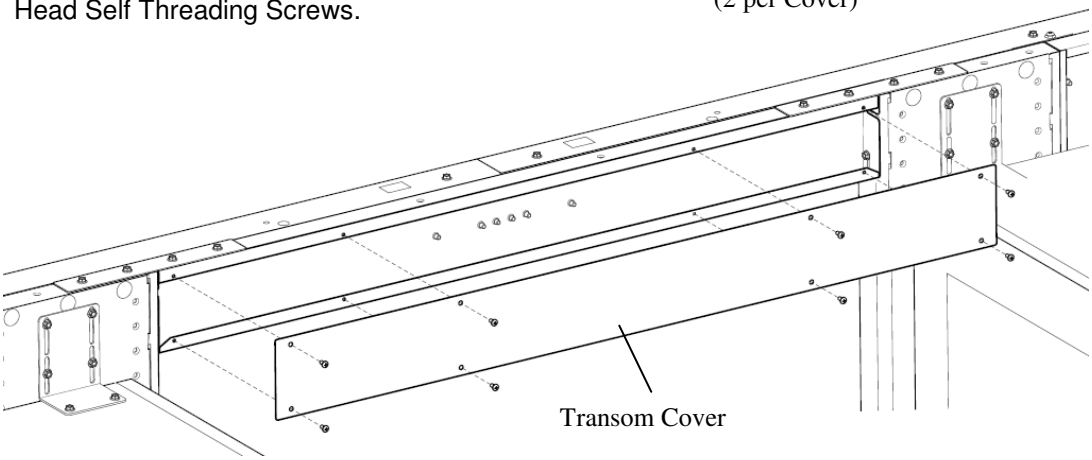
Install the Track Covers

1. Note: Track Cover attachment screws were pre-installed in earlier steps.
2. Two Track Covers are required; one for each Door Track. To install a Track Cover, position the cover onto the top of the Track Brackets, engaging the key-hole slots at each end of the cover with the previously installed screws. Install (2) 1/4-20 x ½" Hex Head Self Threading Screws into the Track Brackets to secure the cover.



Install the Inner Transom Cover

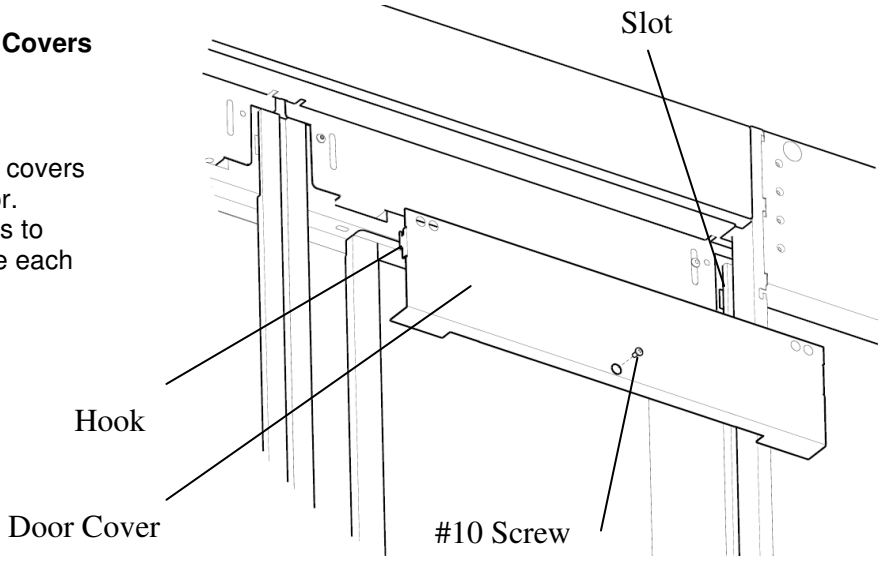
Attach the Inner Transom Cover to the Transom with (8) #10x3/8" Phillips Pan Head Self Threading Screws.



Install the Inner Door Covers

(If equipped)

Insert the hooks on the covers into the slots in the door. Push the cover upwards to seat the hooks. Secure each cover with (1) #10x3/8" Phillips Pan Head Self Threading Screw.



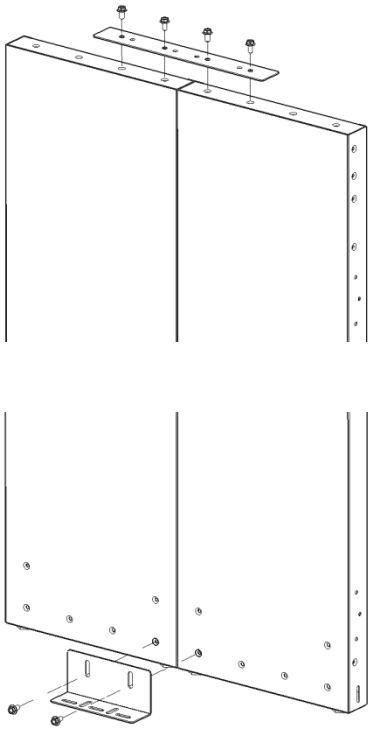
Accessory Walls

Accessory Walls are available in 6”, 9”, 12” & 24” widths. Accessory Walls can be joined to the existing Jamb Walls to make a wider Jamb Wall Assembly.

Remove the Track Extension that supports the end of the Door Track (see page 10).

Join the Accessory Wall to the existing Jamb Wall using (1) Tie Bar, (1) Floor Anchor Bracket and (6) 1/4- 20 x ½” Hex Head Self Threading Screws.

Re-attach the Door Track to the newly added Accessory Wall. Depending on the Accessory Wall width, it may be necessary to drill a .218 diameter hole in the wall in order to re-attach the Door Track as it was originally attached to the Track Extension.



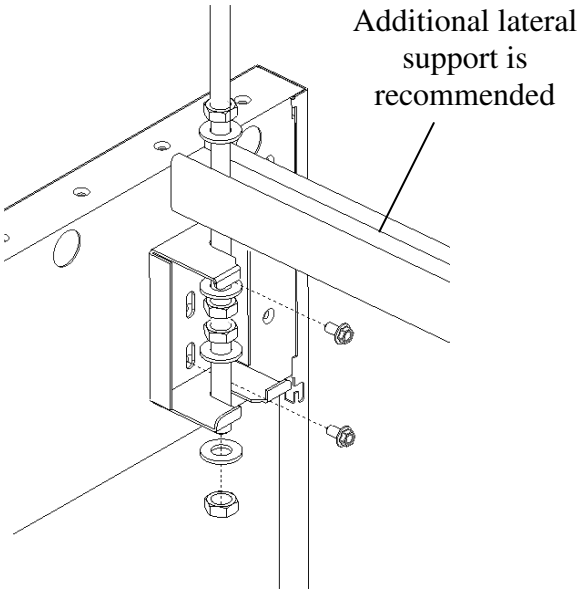
Ceiling Hanger Attachment Bracket (part #*SCCI*)

If direct attachment to the electronic rack enclosures is not permitted, a Ceiling Hanger Attachment Bracket (part number SCCI) is available.

The Stud Plate that is included with the SCCI Bracket Kit is not required for this application. Attach the bracket directly to the back of the Jamb Wall with (2) 1/4- 20 x ½” Hex Head Self Threading Screws.

Attach your threaded rod to the “U” slots in the bracket with appropriate washers and nuts.

Additional lateral support is recommended, as shown, to prevent swaying of the Jamb Wall Assembly.



Dual Sliding End of Row Door Maintenance

This section describes how to care for your Eaton Dual Sliding End of Row Door by performing regular maintenance. Regular maintenance will ensure trouble free operation of your door and efficient aisle containment.

Routine Inspection and Cleaning As Needed

Conduct routine inspections on your door and perform necessary cleaning tasks as needed. Refer to the following table for routine tasks.

Inspect the free travel of each sliding door. Doors should slide freely and come to a gentle stop against the opposing door. If not, adjust the door's perimeter seals and track incline as instructed on pages 12 through 15 of this Installation Guide.

Task	Frequency	Tools and Supplies
Clean Door Guides	Monthly	Clean with a damp cloth. Dry with a clean, dry cloth.
Clean Door Tracks	Monthly	Clean with a damp cloth. Dry with a clean, dry cloth. A light application of silicone lubricant may be applied to the angled roller support flanges using a clean lightly saturated cloth.
Clean Windows	As required	Clean with a non-solvent window cleaner approved for Lexan and Plexiglas.
Tighten all exposed screws and bolts	Annually	Refer to the *Dual Sliding End of Row Door Fasteners* section on page 6 of this Installation Guide.
Adjust Door Perimeter Seals	Annually, or as required	Refer to pages 14 and 15 of this Installation Guide.
Adjust door automatic closure speed	Annually, or as required	Refer to pages 12, 13, 14 and 15.

Eaton
Electrical Sector
1000 Eaton Boulevard
Cleveland, OH 44122 USA
Eaton.com

MN160014EN
May 2015

To contact an Eaton salesperson or local distributor, please visit www.eaton.com/wrightline or call 800-225-7348.

Powering Business Worldwide