

INSTALLATION MANUAL

ACOUSTI-CLEAR AUTOMATIC®



215 WEST NEW ROAD GREENFIELD, IN 46140

ABOUT YOUR MODERNFOLD PARTITION

Thank you for choosing a Modernfold Operable partition system. As an industry leader in the moveable partition concept, Modernfold delivers the highest-quality, custom partition solutions from start to finish. Our operable partitions and architecturally-striking glass partition systems wow customers and provide them with endless possibilities for their environments. Where others see only space, Modernfold sees possibilities.

Before installing a Modernfold partition, read this manual carefully as it includes safety warnings, a description of the wall's major components, as well as procedures related to the operation of the partition, and a maintenance schedule.

Use of Modernfold Partitions can result in serious injury or death. Be alert to the possibility of pinching or crushing injuries where the panels retract into the stack, where the panels seal off when extending, and at the locations where two panels meet. Hazards at all these locations could result in serious injury to a person who may be struck, trapped or pinched by moving Partitions. Modernfold Partitions should only be operated by adults who have been trained in their safe operation.

For these safety reasons, Modernfold partitions should only be used in conjunction with Modernfold control boxes that have been tested to work as designed by Modernfold. Use of Modernfold partitions with any other control devices will void the warranty and be at your own risk.

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Acousti-Clear Automatic

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Warnings and Safety Information



WARNING

Operable partitions pose a pinching and/or crushing hazard. To avoid serious injury or death:

- **Do not** operate your operable partition with persons or objects within 4 feet of the operable partition or the partition path, including the stacking area.
 - **Do not** walk or place body parts in front of the partition or into stack area while partition is moving.
 - Ensure no other persons enter the partition path, including the stack area, while wall is moving or being operated.
 - Ensure that both sides of the operable partition, as well as the partition path, are clear of obstructions.
-
- Operable partitions may be regulated by local, state, or district rules and regulations. All applicable rules and regulations should be reviewed before installation and use.
 - Operators must be above the **age of eighteen (18)** and trained in the safe operation of the partition and understand its safety features.
 - **Do not** place objects between the panels, in the path of the operable partition, in the stack area, or in the near vicinity of the operable partition as this can damage the operable partition when it is in motion.
 - In case of malfunction, **do not** operate the operable partition or attempt to repair it. Contact your authorized local operable dealer for service.
 - **Do not** operate your operable partition if it is making any abnormal noises or if the operable partition does not appear to be working properly. Contact your authorized local operable dealer immediately.
 - **Do not** operate your operable partition if a panel is loose or displaced from its normal securely fastened position.
 - **Do not** operate your operable partition if panels are missing as this can damage the system.
 - Operable partitions are intended only for interior use in which the room is climate controlled.
 - **Do not** force the panels into the stacked position
 - To prevent floor damage, **only** operate partitions over finished floors which are fully cured and clean of debris (See Manufacturer's Recommendations)
 - Track systems are designed to support the weight of the partitions only. **Do not** hang anything from the track or the partitions.

PROCEDURE FOR INSTALLING ACOUSTI-CLEAR AUTOMATIC®

Purpose

To properly document the correct methods and processes required for the installation of Acousti-Clear Automatic

Before Beginning Installation

Installation Precautions

- Installation of Modernfold partitions should only be performed by certified trained professionals. Failure to follow this requirement will result in a voided warranty.
- Proper protective equipment should be used on all installations of Modernfold partitions.
- **Do not** alter any track suspension bracketing or hanger rods in any way.

Review drawing and field Conditions

- Make sure you have drawings for fabrication, not approval drawings.
 - Verify opening dimensions against drawings.
 - Make sure existing building partitions are properly reinforced for jamb attachments at each end of the opening.
 - Examine pocket and/or stack area for proper clearance and adequate depth.
 - Look for any job site conditions that could interfere with installation or operation of the partition.
 - Verify that control stations are at least four feet from the stacking area or partition path.
-
- **All discrepancies must be corrected before installation can begin**
 - **Read installation instructions completely before beginning installation**
 - **Call the Modernfold Tech Line if you have problems or questions with installation at 1-866-561-8324**
 - **Verify all parts against the packing list**
 - **Locate and lay out all pieces**
 - **Be prepared to verify track level and straightness with laser or other leveling instruments. Finished track installation must be straight and level.**

Tools Required

Assembly requires common tools as hammers, screwdrivers, tape measures, etc and:

- Heavy Duty Drill
- Drill Bits (include 9/16")
- 4'-0" Level and/or Laser Level
- Torpedo Level(s)
- Cordless Drill & Various Phillips Bits
- Set of Allen Wrenches
- Rubber Mallet
- Petroleum Jelly (to lubricate track)
- Clean cloths
- Paper towels
- Set of Wrenches
- Socket set

Preliminary Installation

Modernfold defines the preliminary installation as the installation of the suspension system and its related parts. The Acousti-Clear Automatic® single panel operable partition is installed on our G150 suspension system. The installation of each piece of track is mounted to the header, secured together, and leveled and plumbed.

G150 Suspension System

Made with all aluminum tracks, and steel mounting plates for indirect mounting, the G150 Suspension System is designed and built to last. G150 is typically used for lower height single panel configurations when a right angle turn or switch and curve are desired.

Opening Tolerances and Site Guidelines

Steel – Must be level within 1/8" (.13-inch) across the entire length of the track including the stack area.

Track – Must be level within 1/8" (.13-inch) across the entire length of the track including the stack area.

Floor – Must be level within 1/4" (.25-inch) across the entire length of the opening including the stack area.

The maximum out of level, overall, is 1/8" (.13-inch) on either side of the opening.

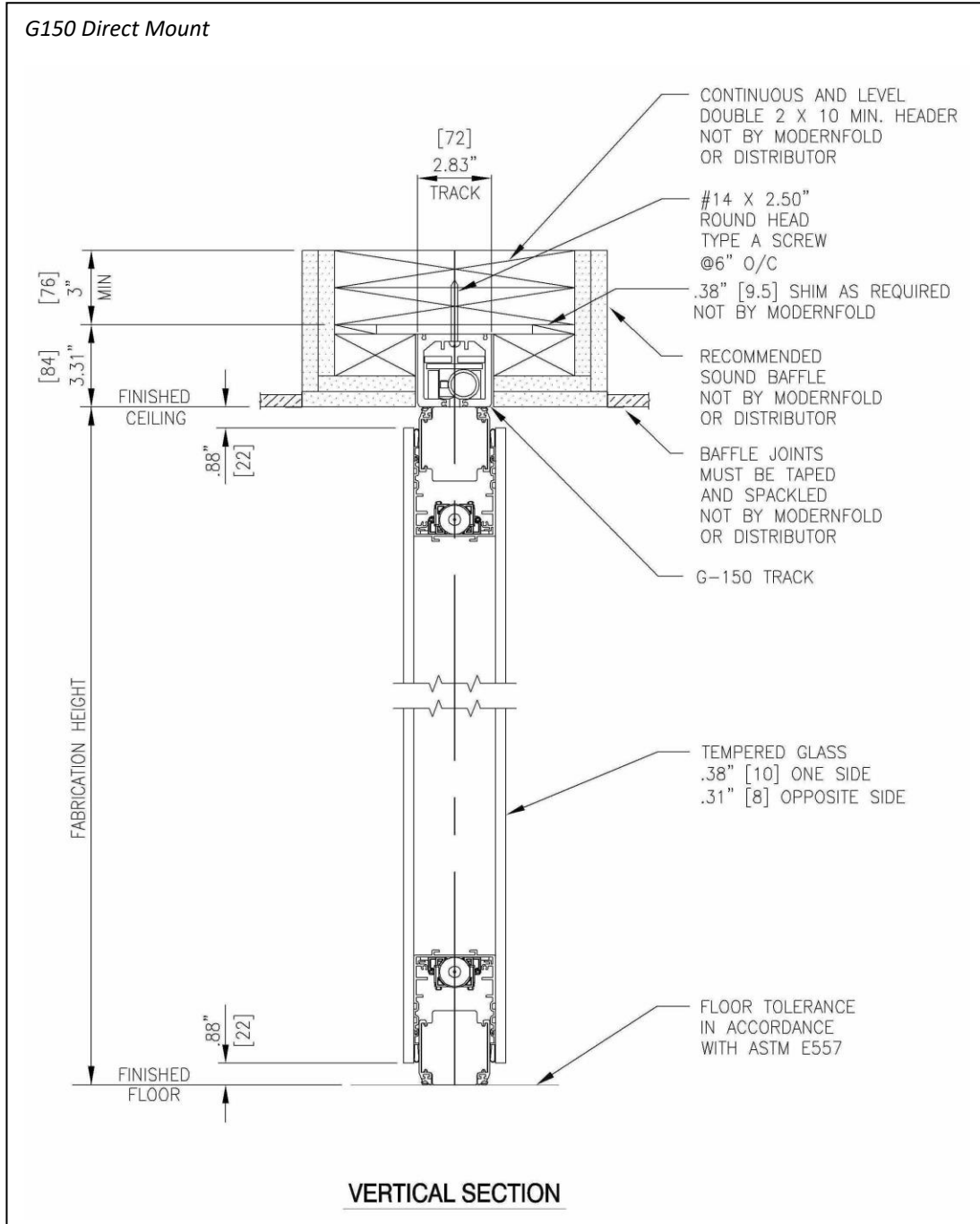
Step 1- Preliminary Installation for G150 Tracks

Beginning the Installation – G150 Track

Chalk a line in the center of the header where the track will hang. Mark the spacing of each thru hole in the track along this center line. The track is predrilled every 6-inches with 5/16-inch clearance holes for screws. Then drill (or tap) the header for the proper type of fastener. There are no fasteners shipped with the suspension system. You will have to provide the proper anchor and fastener for your type of installation. **(See page 5 illustration – G150 Direct Mount- for head depth)**

Hanging Track Sections

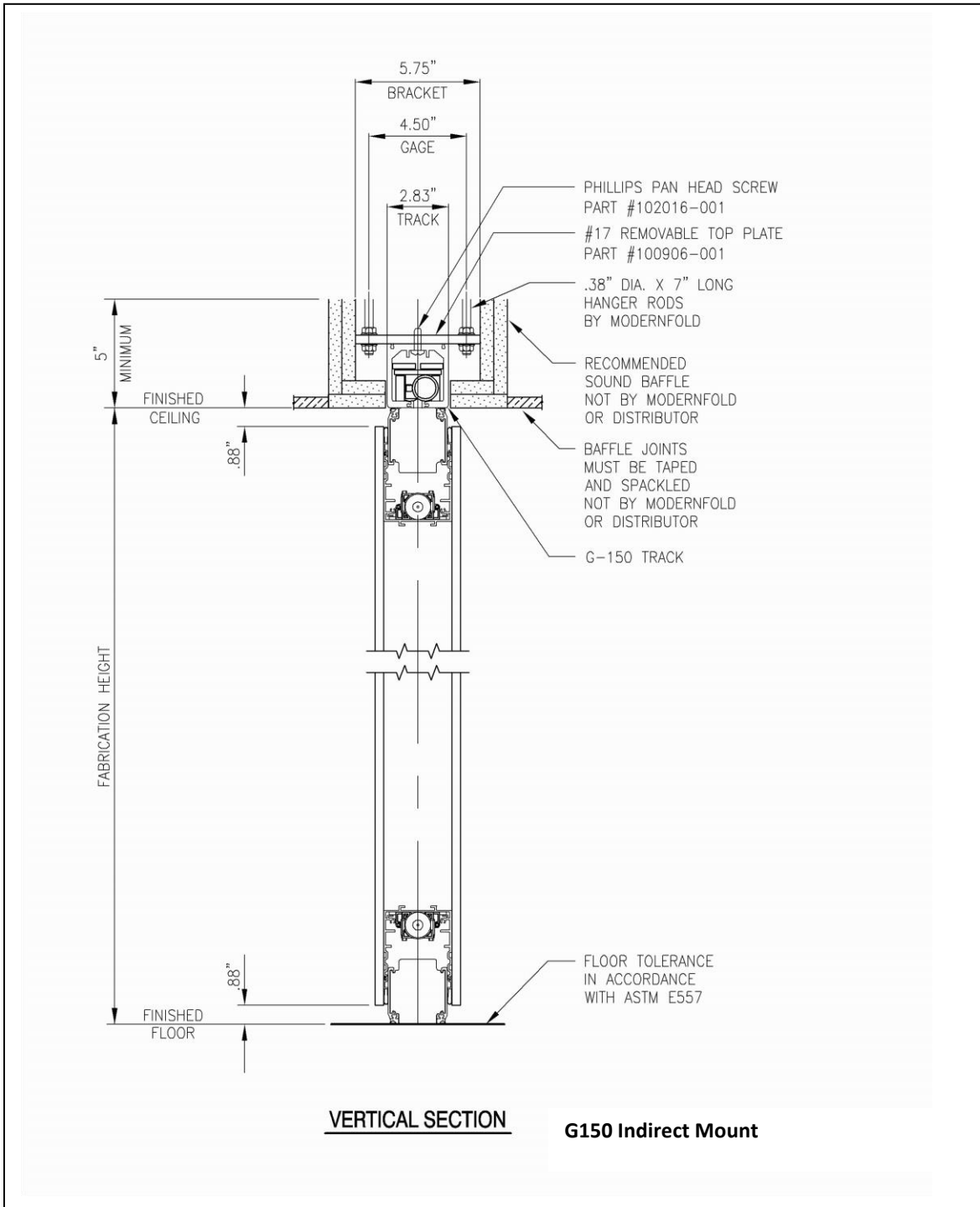
The first assembly to be installed will be the stack area weldment. Lift into place and install with fasteners determined by type of header system installed. Next section (piece) to be installed is the removable (maintenance) section. Groove pins will be used at the running edge joints only. Drill (or tap) header to accommodate the same fastener used to attach other track sections.



Screw removable section to header. Then use a blade screwdriver to position pins over joints **after** the panels have been installed. Continue installing the remainder of the intermediate sections. First, guide the track section onto previous track section's splice pins and then fastening to the header. Lastly, install 4 groove pins into the opposite end of the track, groove end first, and insert approximately 3/8-inch with 3/8-inch exposed. Continue with remainder of sections until complete.

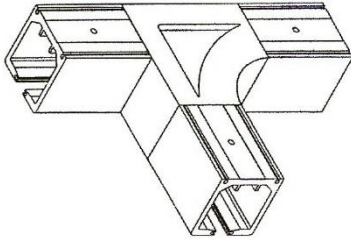
G150 Indirect Mount

For the G150 Indirect mount suspension system, layout and drill or punch 7/16-inch (0.44) diameter thru holes in the structural support, refer to your job specific beam punching layout.



Installing Switches

The G150 switch is available as both direct and indirect mount. Be sure to use the layout drawings for the proper position and orientation of the switch and curve intersections in your installation. It is important that each switch be installed in its proper place in order for the switch's programming lugs to perform appropriately.



G150 Direct Mount L.H. Switch

NOTE: Be sure to note that the bracket spacing for the stack area is different from the rest of the opening. This is to handle the concentrated weight of the panels in a small area.

Installing the Hanger Rods

Attach the first two (2) pairs of hanger rods to the structural support using a 3/8" flange nut on both sides of the support.

Then attach a pair of hanger rods at or near the lead end of the first section of track. This procedure will allow you to hang each end of the track section, and then install the remaining intermediate hanger rods.

Alternatively, you can install all of the hanger rod pairs at the same time. This will allow you to attach the brackets sequentially, which may be easier for some job site conditions.

Hanginɡ Track Sections

1st Section

Lift the track into place and slide the brackets over the hanger rods, either at each end or sequentially, depending upon which method of hanger rod installation you used. Again, be sure to use a flange nut on **both** sides of the hanger bracket. Do not completely tighten the flange nuts at this time. You will be adjusting them as each section is installed.

Intermediate Sections

Each track section is hung in the same manner as the first section. Attach a pair of hanger rods near each end of the section (or for each bracket), securing to the structural support with a flange nut on both sides. If the attachment at the structure is not a thru-hole connection, only one flange nut is required.

Final Section

The final (removable) track section is also hung by attaching the hanger rods to the structural support and to the brackets on the track.

Leveling the Track

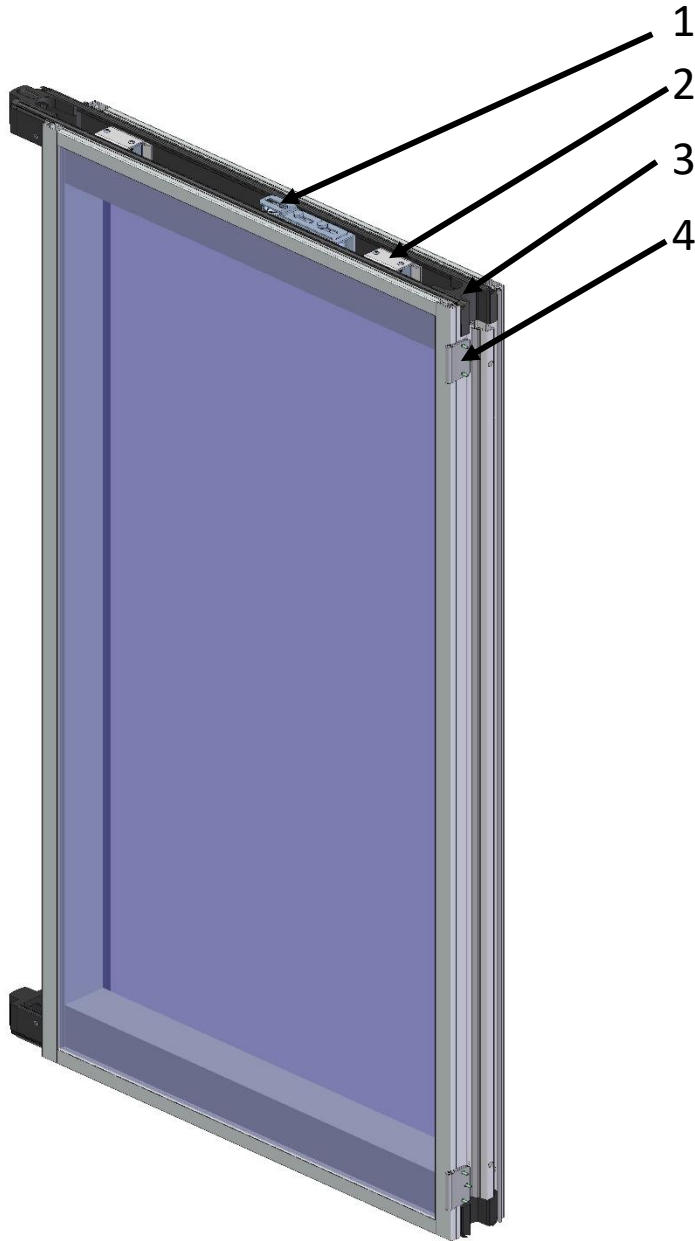
When all the track sections are installed, level the entire track. Be sure fabrication height is correct, and then check for any loose hanger rod flange nuts. If the track is direct mounted, shim the entire track as necessary to correct discrepancies in the header. Finally, check the track joints to insure that the track is straight and that all of the sections fit together without gaps. Also make sure that there are no burrs or offsets to interfere with the trolley operation. For G150 direct and indirect mount, make sure that the splice pins are positioned securely.

Cleaning & Lubricating the Track

Clean the inside of the track to remove dirt, shavings, or other foreign matter that may interfere with the operation of the partition (Small screws can be particularly damaging to trolley wheels). Then coat the inside of the track with a thin covering of petroleum jelly (i.e. Vaseline).

Step 2- Panel Installation

Panel Design



1. Trolley
2. Automatic actuator
3. Seals
4. Hinge

Acousti-Clear Automatic® partition panels are equipped as standard with automatic actuators for extending and retracting the top and bottom seals.

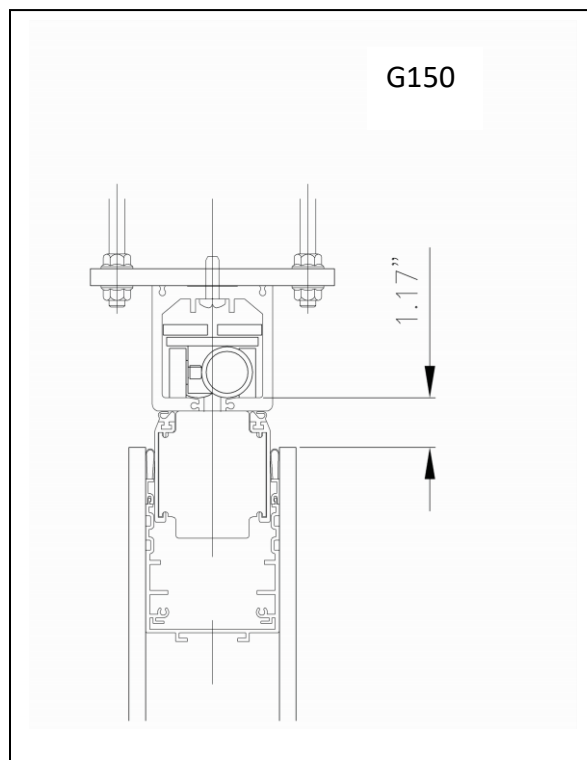
Trolley height Presets

If the suspension system was installed at an earlier date, it should be checked for level and readjusted as necessary before panels are installed. Also confirm that **all** hardware has been properly tightened.

Prior to hanging the panels, conduct the following inspections:

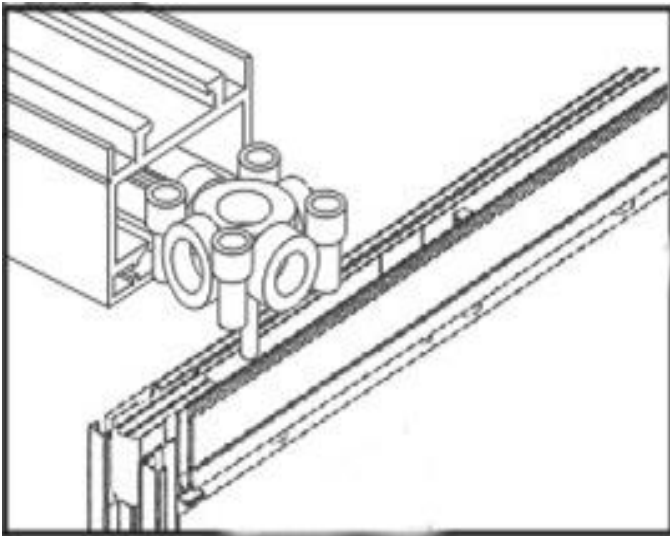
- Inspect each panel for damage; make any repairs.
- Inspect trolley pendant bolts for damage.

The trolleys for the G150 are preinstalled at the factory (1.17-inches). Final adjustments may be required later on in the installation process. Final adjustments to the trolley set dimension may be required later on in the installation process.



NOTE: Be careful when lifting each panel to avoid placing weight on the bottom edge of the panel and the bottom seal mechanism. The bottom seal mechanisms can be damaged as a result.

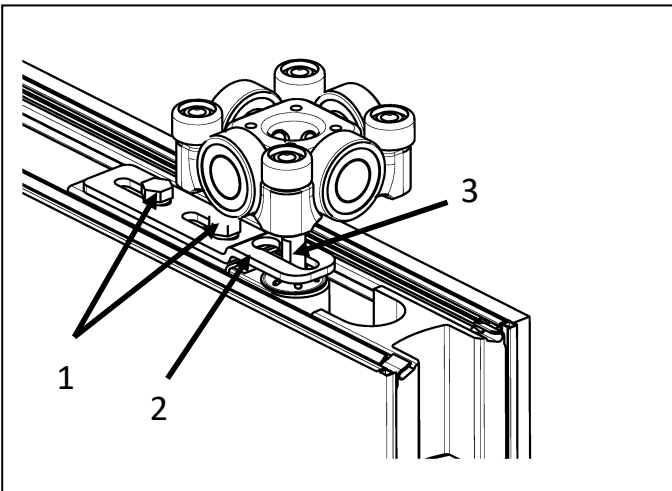
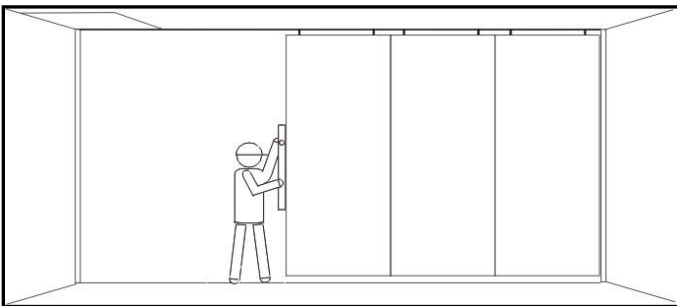
Hanging the Panels



Insert the panel trolleys into the track:

- For Recessed Mounted track you must remove the 4-foot removable track section located at the lead end of the opening
- For Surfaced Mounted track you must remove the removable track section at the lead end of the opening

Identify each panel and stage them in preparation for hanging. The panels are hung in accordance with the layout drawings.



To adjust trolleys loosen the two 13 mm hex head screws (1). Push the lock plate (2) in the direction of the trolley bolt (3). Using a 9 mm wrench at the trolley bolt flats, you can then adjust the roller bolt as required,

Note: the trolley block can be adjusted sideways +/- 10 mm. The position of the trolley bolt needs to be controlled exactly. Following the adjustment, push the lock plate back into position and snugly re-tighten the hex head screws.

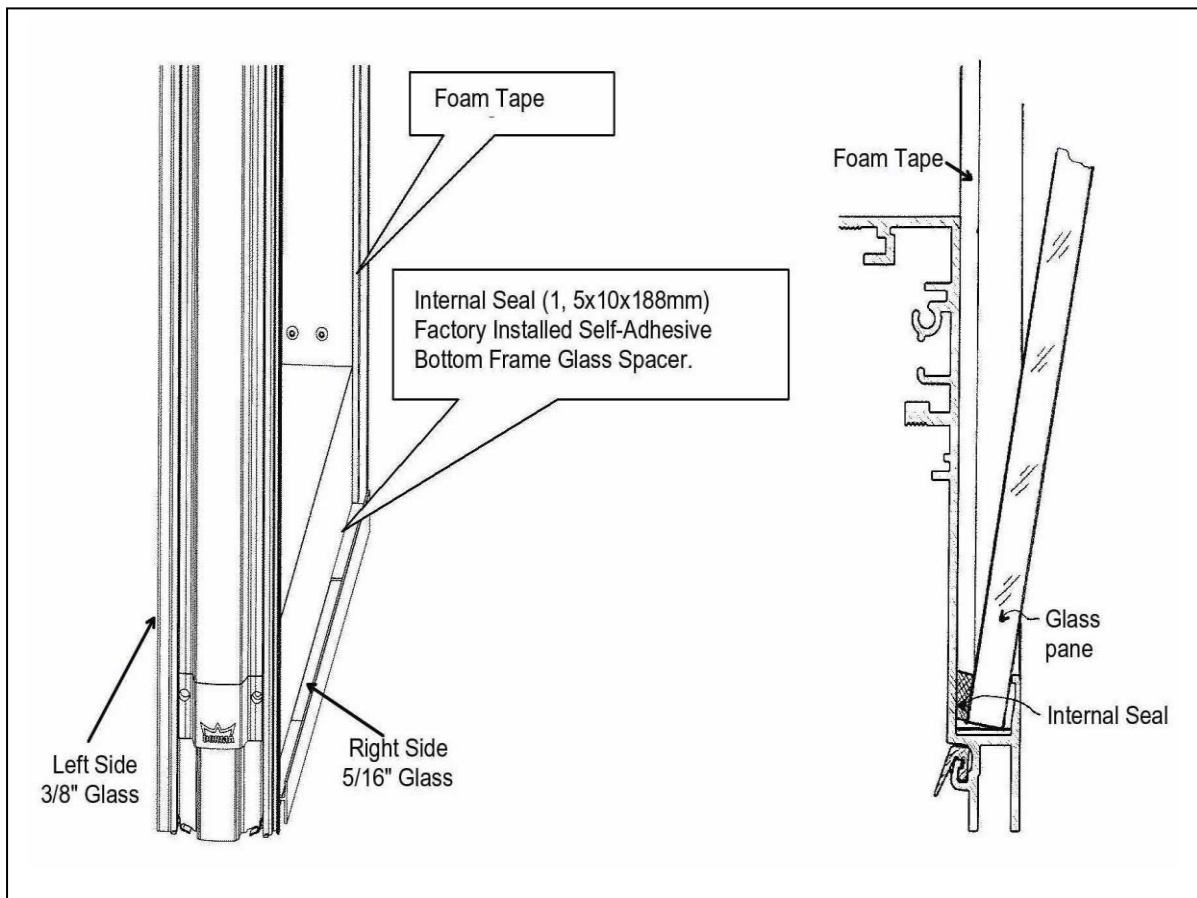
Assembly Installation for Acousti-Clear Automatic® Glass

Note: Acousti-Clear Automatic® Glass panels must consist of (1) 5/16" & (1) 3/8" Glass Panes.

PRE-GLASS FACTORY INSTALLATION:

On the left side with **3/8"** glass: **1/8" GRAY FOAM TAPE** IS FACTORY INSTALLED.

On the right side with **5/16"** glass: **3/16" BLACK FOAM TAPE** IS FACTORY INSTALLED.



Note: The frame and the glass panes must be checked and cleaned before assembly.

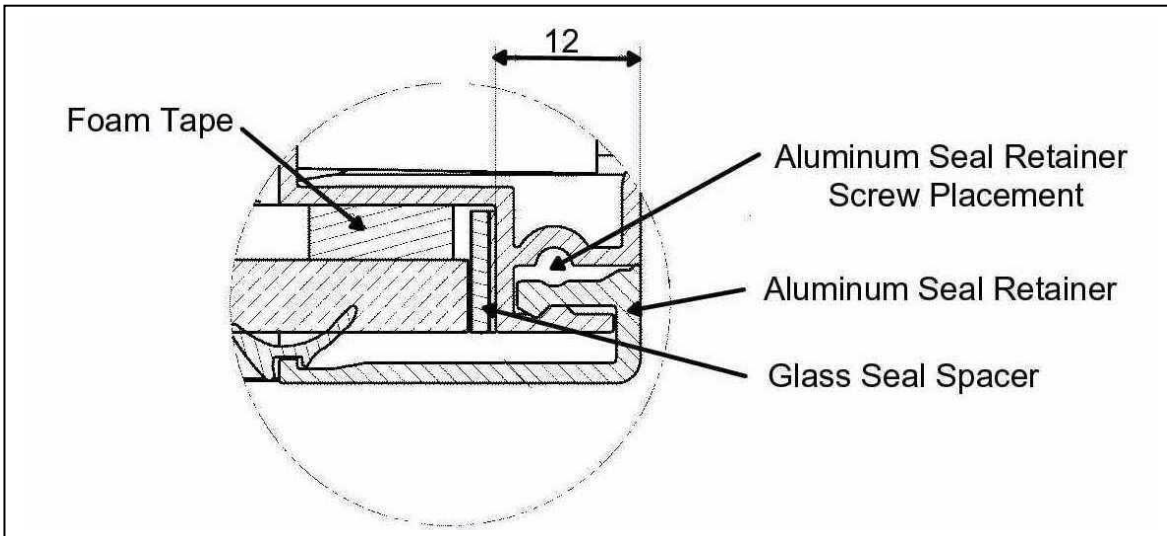
The glass panes are put in the frame and are secured with the Aluminum Seal Retainer and Glass Seal. The gap between the frame and the glass pane be filled in on the sides with the Glass Seal Spacer (self-adhesive).

The following steps should be taken after each pane of glass is placed in the panel:

#1. Insert the Aluminum Top Seal Retainer.

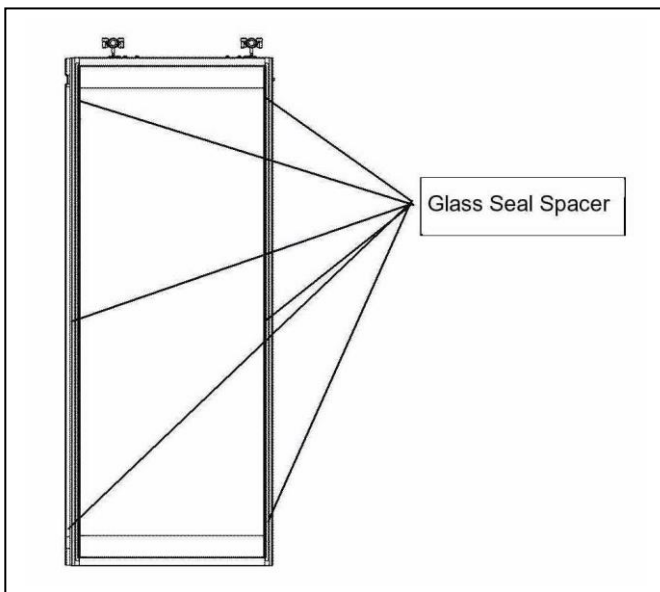
#2. Center the glass evenly with the following combination of glass spacers:

0,5x10x100mm (Glass Seal Spacer self-adhesive)



1,5x10x100mm (Glass Seal Spacer self-adhesive)

The glass seal spacer (self-adhesive) should be adhered to the frame in each case at the bottom, on top, and in the middle.



Note: # of Seal Spacers used will vary depending on fit of glass to the frame.

Please make sure that the glass is square to the frame.

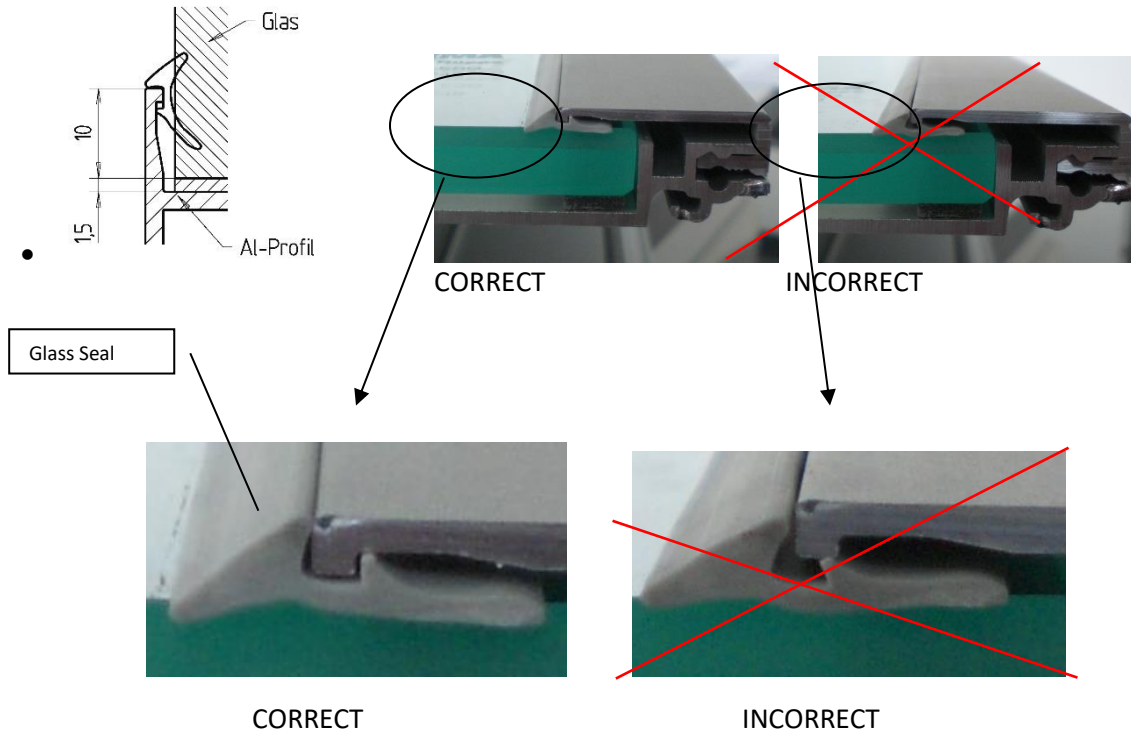
#3. Insert remaining aluminum vertical seal retainers

#4. Slide in glass seal. (Miter 45° on ends)

Insert Glass Seal at top. Then, while pushing in an upward direction, work seal under Aluminum Seal Retainer. Pushing upward should keep the seal from stretching.

#5. Insert screws into the bottom edges of the Aluminum Seal Retainer to prevent seals from slipping. (See illustration on Page 17) (4-Places)

Note: Glass seal must be inserted as shown in picture below to fully secure glass panel.



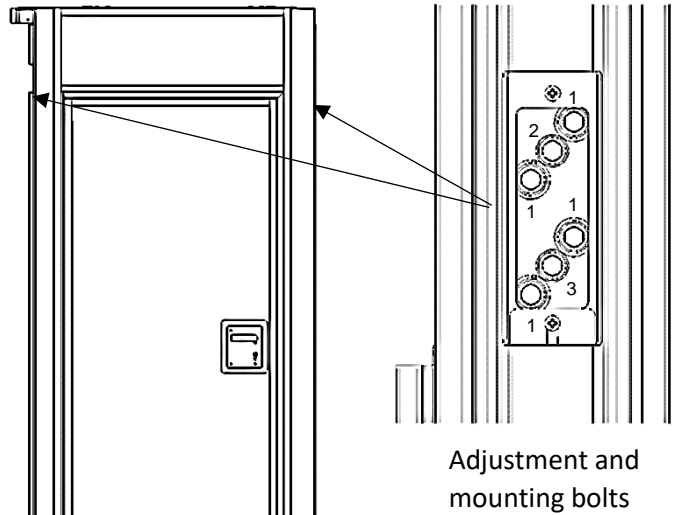
Note: Spraying Windex on glass before attempting to install will let glass seal slide easier.

Installation of Single Glass Pass Door

#1. Leg Adjustment

If the panel legs do not appear square the legs can be adjusted to square up the panel.

1. Remove adjustment hatch covers
2. Begin by loosening the leg mounting bolts marked by the number 1.
3. If the bottom of the leg needs moved inward back out the lower adjustment bolt, marked by number 3, and thread the upper adjustment bolt, marked by number 2, in until the leg is in its desired position.
4. If the bottom of the leg needs to move outward do the same but back the upper bolt, item 2, out and thread in the lower bolt, item 3, to the desired position.
5. Once the leg is adjusted hand tighten all the mounting bolts and the secondary adjustment bolt. Then tighten down the mounting bolts to 45 ft/lbs.
6. Repeat these steps for both sides until they are square with the door.



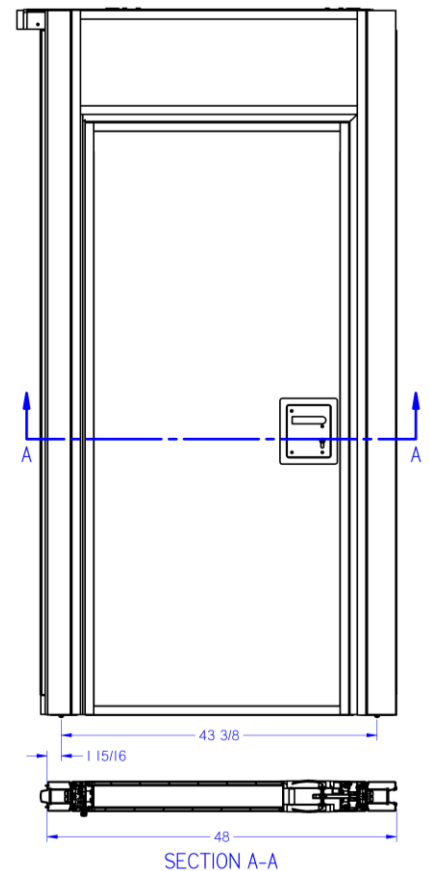
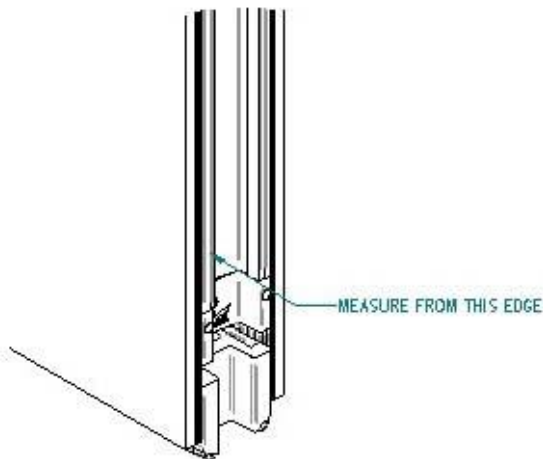
#2. Prior to opening the door, Legs should be adjusted, and the two adjacent panels **must** be in place.

#3. Install floor sockets.

Floor Socket Installation for Pass Doors

Measure 1-15/16" (1.94 inches) from the previous panel's vertical rail. For the second hole measure over 43-3/8" (43.38 inches) from the previous panel's vertical rail.

Drill 1-inch holes in diameter, and using grout, insert floor socket.

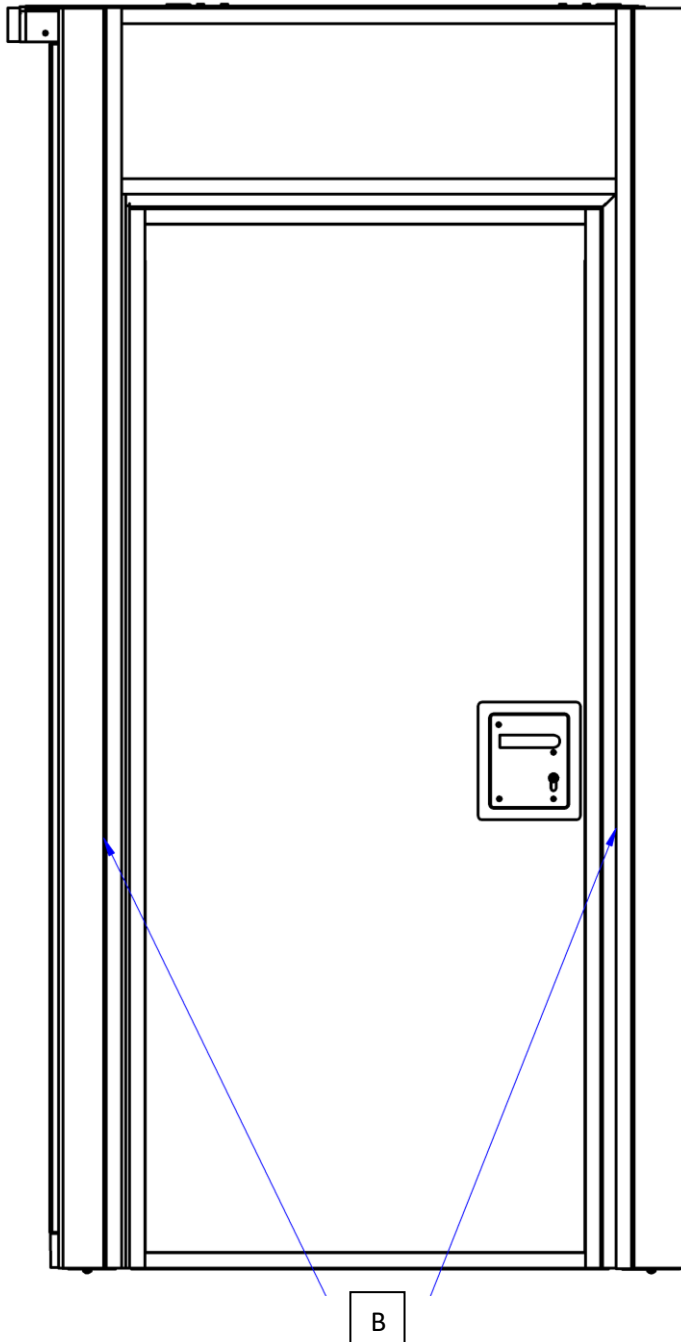


Installation of Single Pass Door – Continue

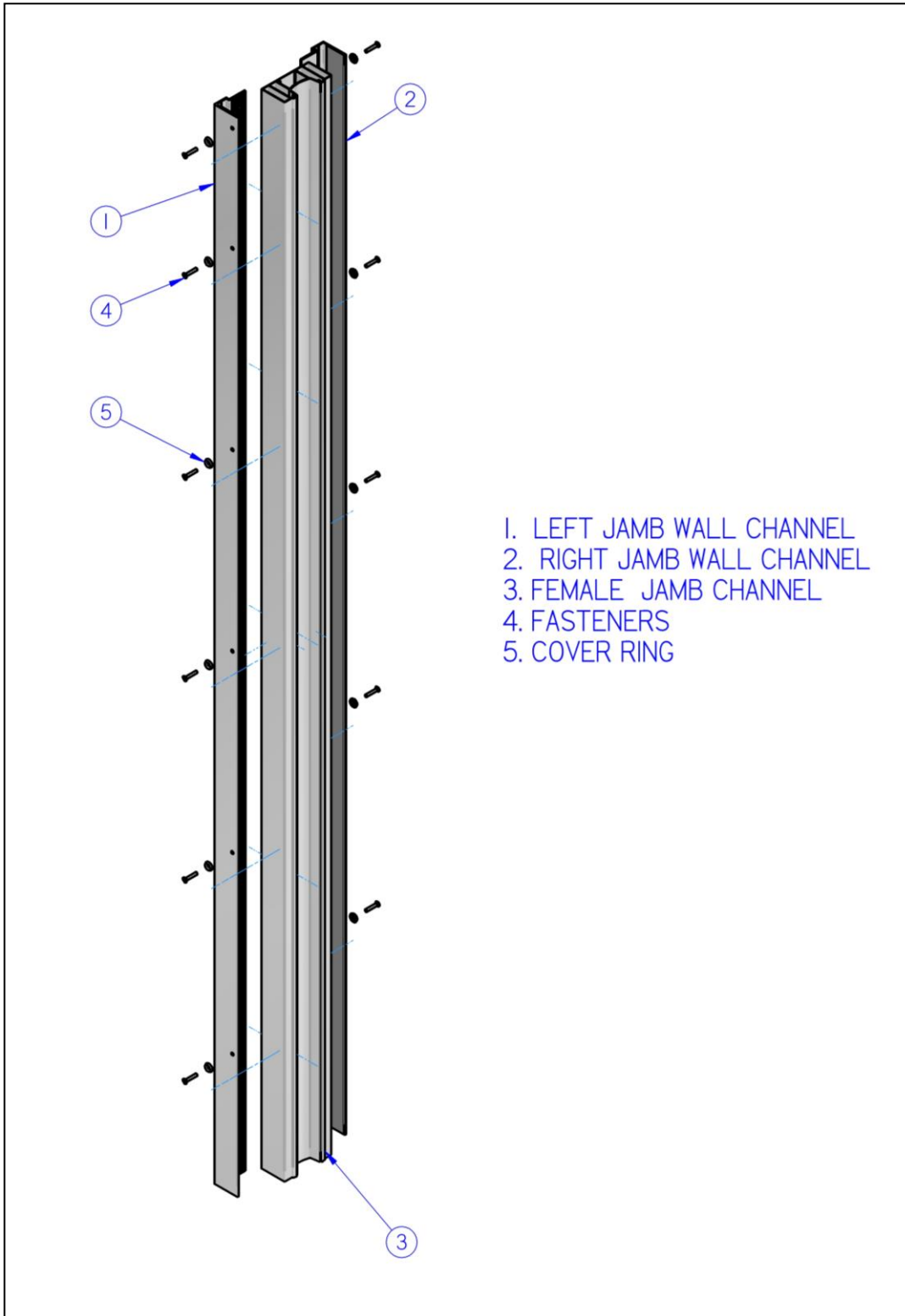
#3. Open door leaf 90°

#4. Insert the crank into Leg Seal access hole (B) located approx. 3 ft from the bottom of the panel

#5. Crank the leg down until the mechanism engages the floor socket. Give ¼ turn after engagement. Be careful not to over crank on lower or raise.



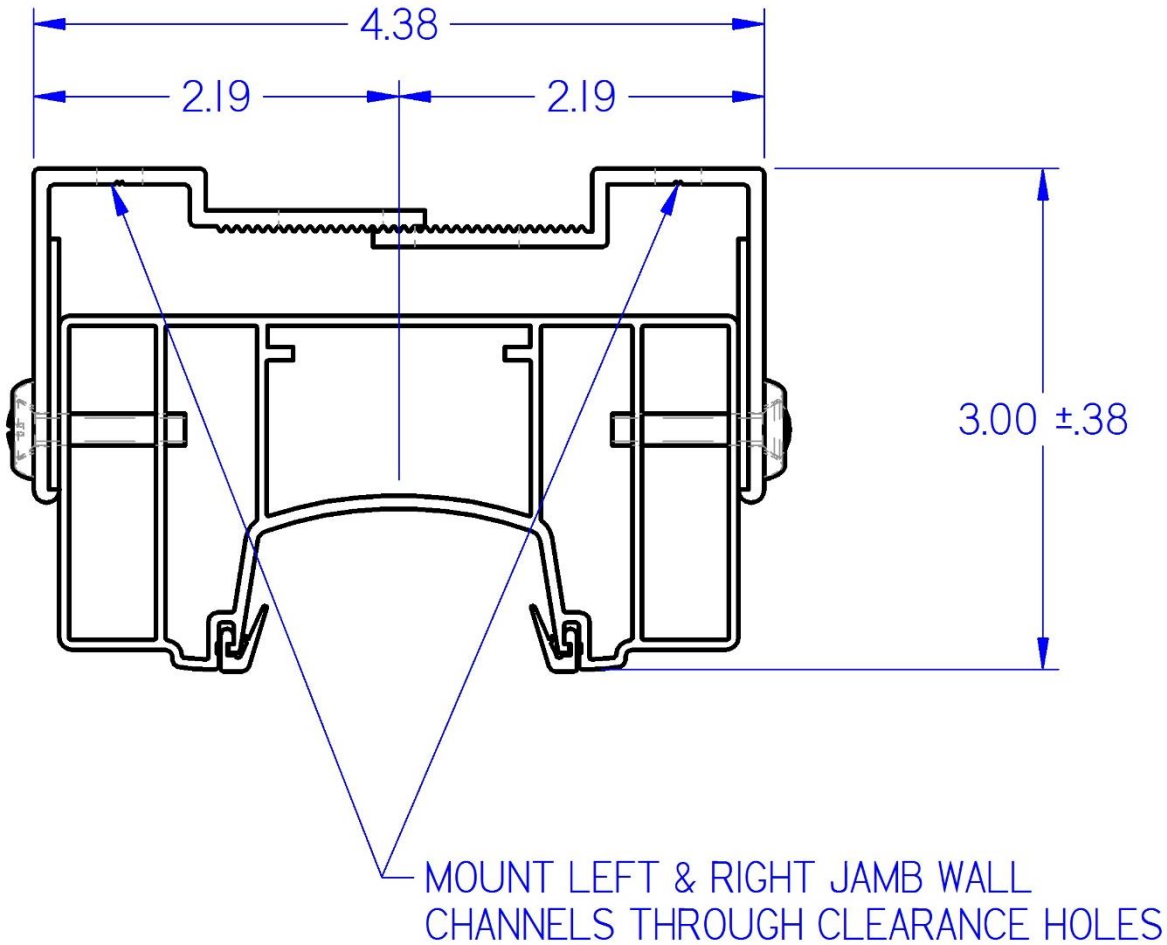
Step 3- Adjustable Lead Jamb



Installation of Adjustable Lead Jamb - Continue

To Install (See Details A & B):

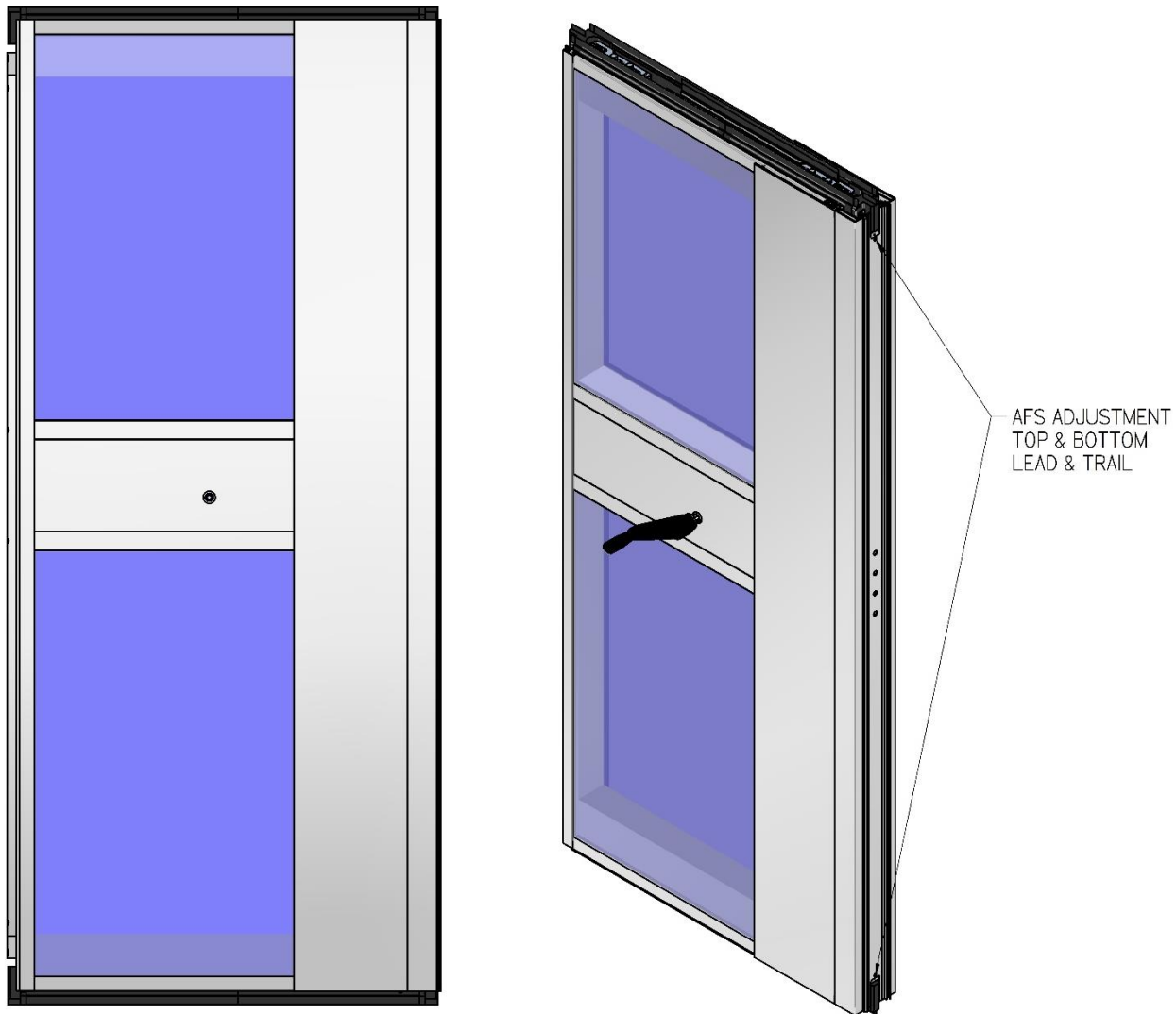
1. Using the center of the track as a guide and mark the location of the (1) Left & (2) Right Jamb Wall Channel.
2. Mount (1 & 2) Jamb Wall Channels to the existing wall.
3. Slide Female Jamb Channel into Jamb Wall Channels. Place against the back edge.
4. The Female Jamb Channel should be secured with the provided fasteners (4) and Cover Ring (5) after adjustable depth is determined. See Detail below for adjustable range.



Step 4- Closure Options – Glass Expandable & Glass Pivot Door

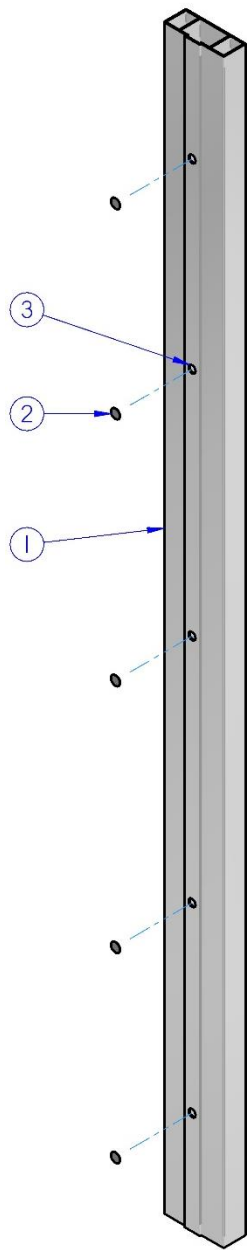
Glass Expandable Closure

The Glass Expandable Closure consists of a glass intermediate panel with an expandable nose.



Notes:

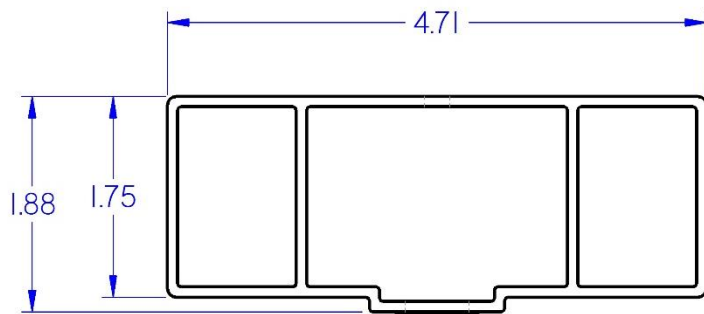
1. Glass Expandable Base Panel Minimum Width = 28.00"
Glass Expandable Base Panel Maximum Width = 48.00"
2. Glass Expandable Stroke is Variable from 4.00" to 7.75"
3. Glass Expandable Retracted Width = Base Panel + 2.75"
4. AFS Top & Bottom Seals are preset to nominal .875"



- 1. TRAIL JAMB
- 2. FAST CAP
- 3. CLEARANCE FOR #8 SCREW

Trail Jamb Installation:

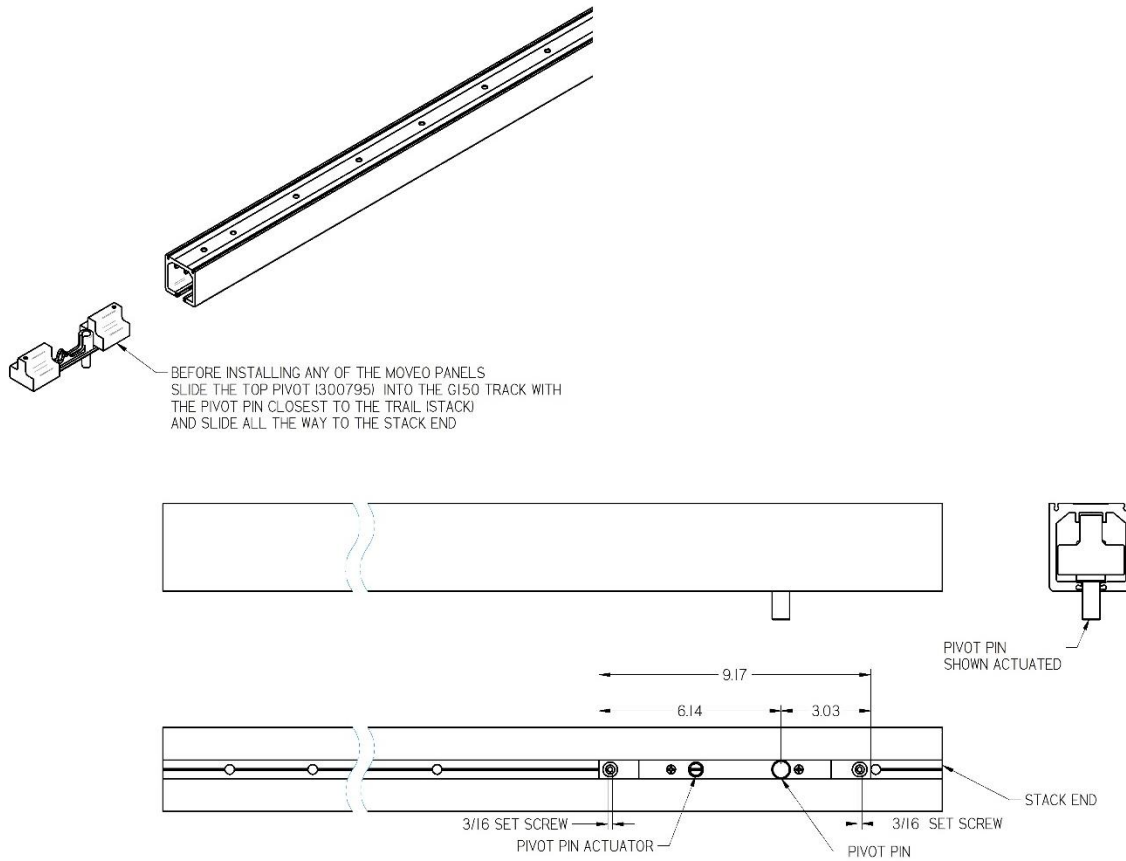
1. Using the center of the track as a guide and mark the location of the (1) Trail Jamb.
2. Mount (1) Trail Jamb Wall to the existing wall. Clearance for #8 screws has been provided.
3. Cover clearance holes with provided fast caps (2)



Glass Pivot Door

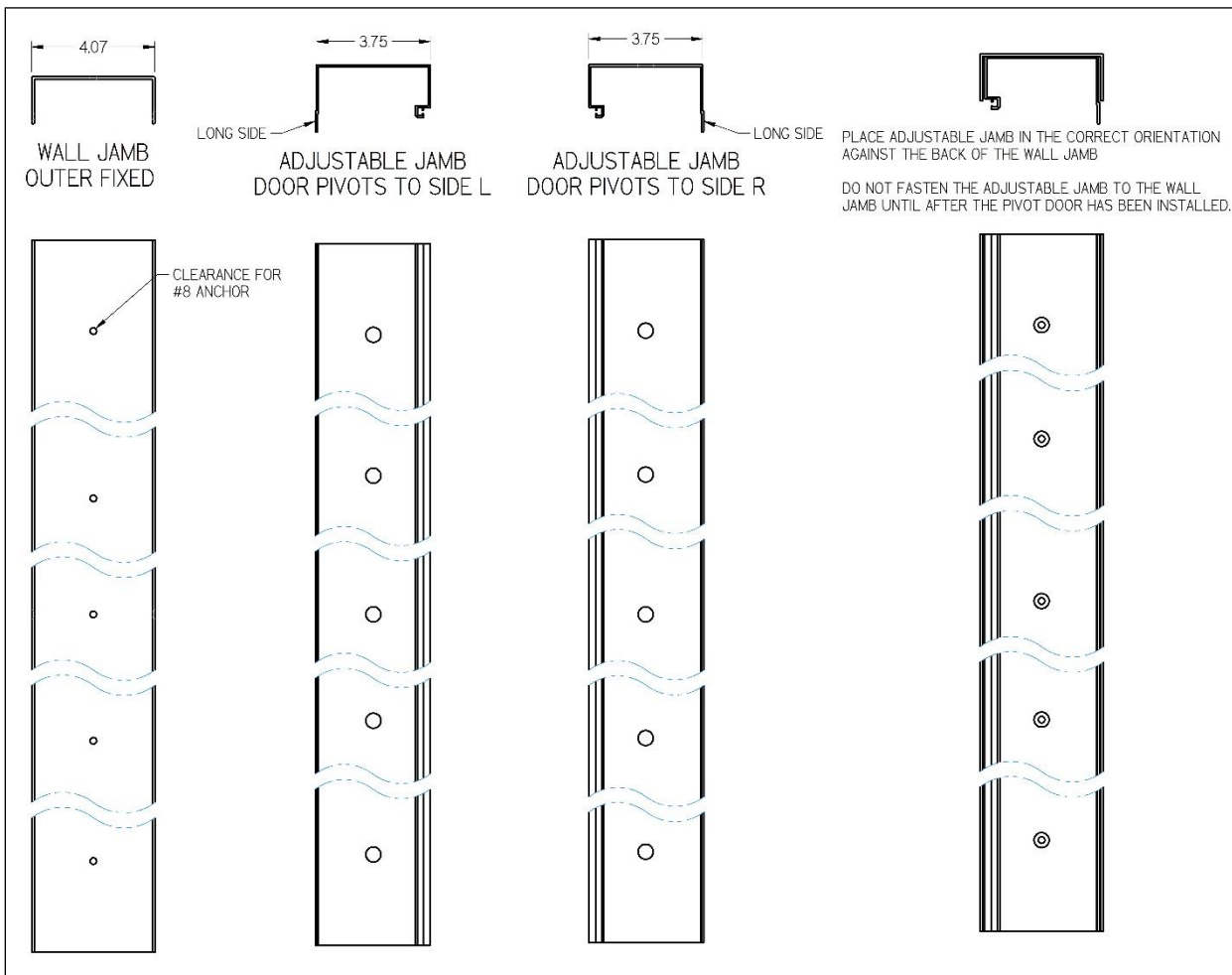
Installation of the Glass Pivot Door

- A.** Install the Top Pivot by sliding the assembly into the G150 Track.
This must be done while installing the preliminary.



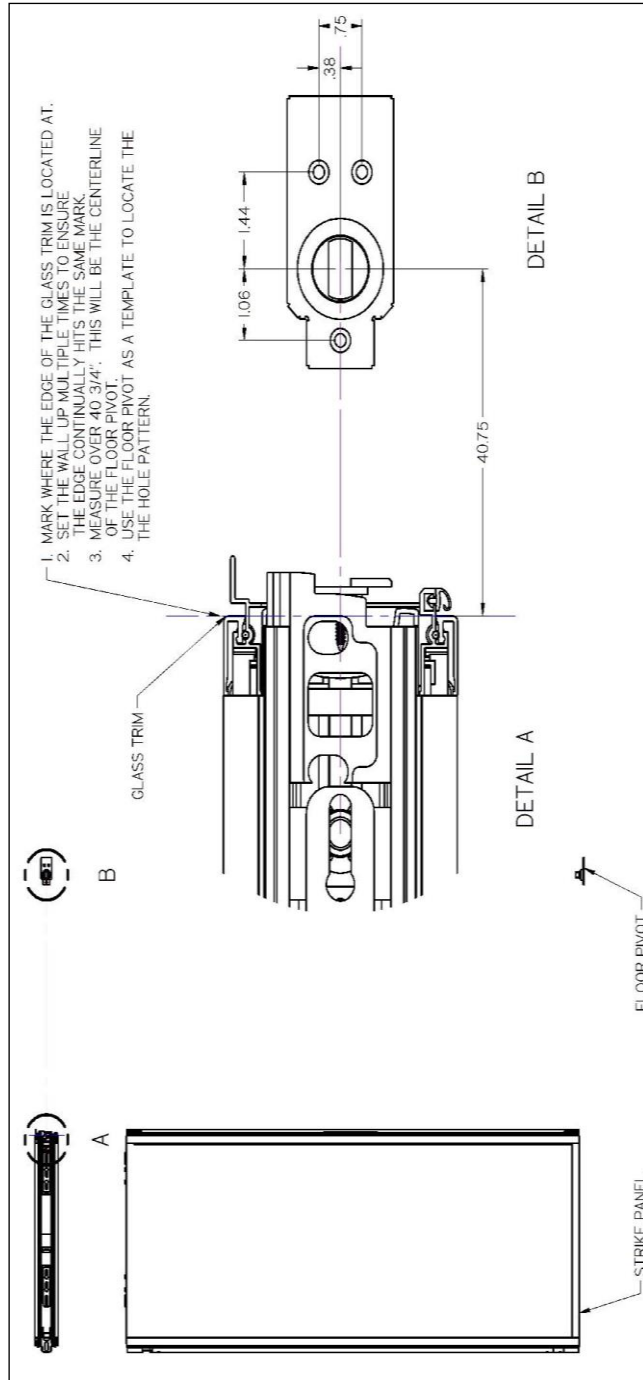
B. Install the Adjustable Jamb

- a. Attach the Wall Jamb to the fixed wall. Clearance holes for #8 Anchors are provided on the centerline of the extrusion.
- b. Place the Adjustable Jamb in the correct orientation against the back of the Wall Jamb. **DO NOT FASTEN THE ADJUSTABLE JAMB TO THE WALL JAMB UNTIL AFTER THE PIVOT DOOR HAS BEEN INSTALLED.**



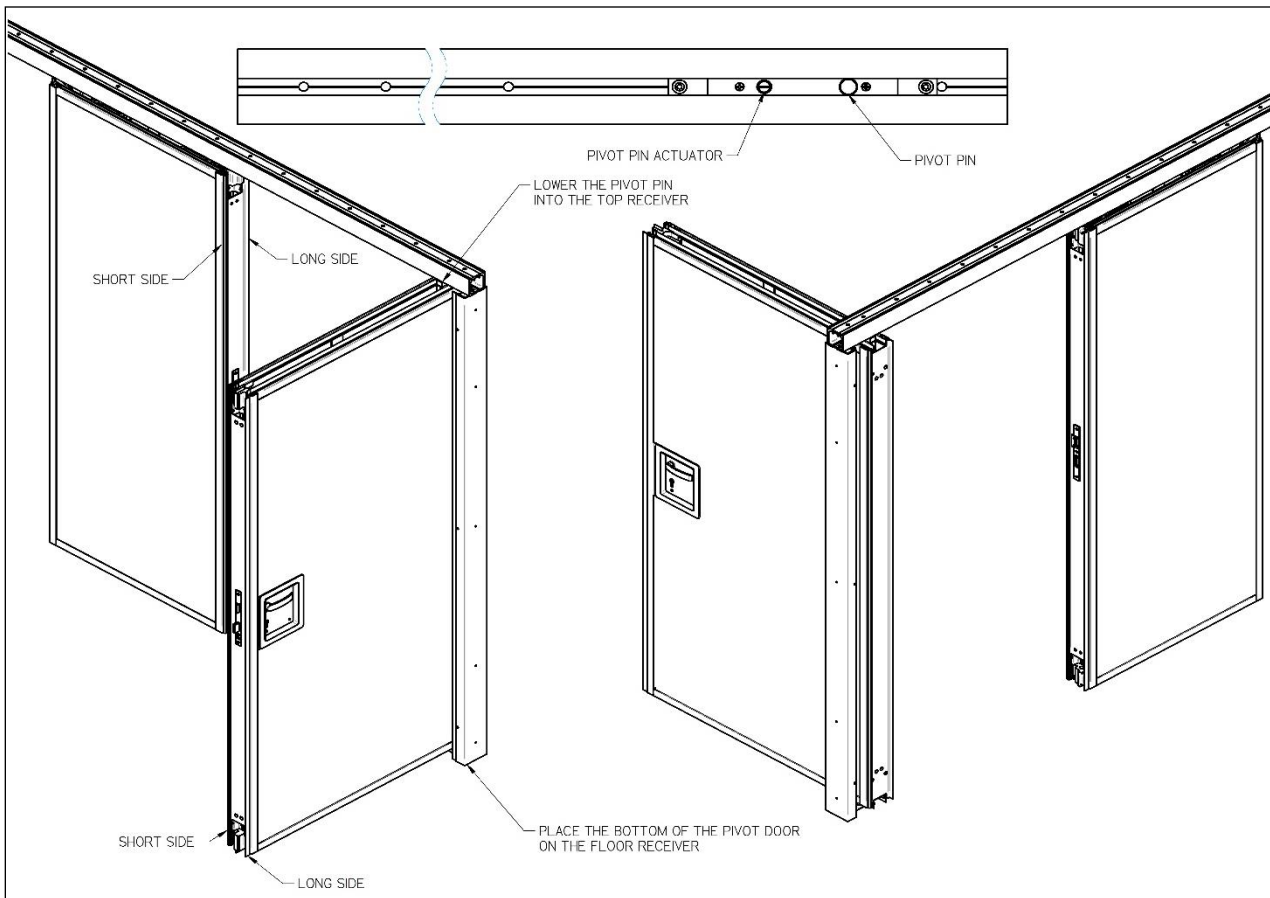
C. Installing the Floor Pivot

- a. Mark the Edge of the Glass Trim.
- b. Set the Wall up multiple times to ensure the glass edge continually hits the same mark.
- c. Measure over 40 3/4" to mark the centerline of the Floor Pivot.
- d. Use the Floor Pivot as a guide to mark the mounting hole locations.
- e. Mount the Pivot with the provided hardware.

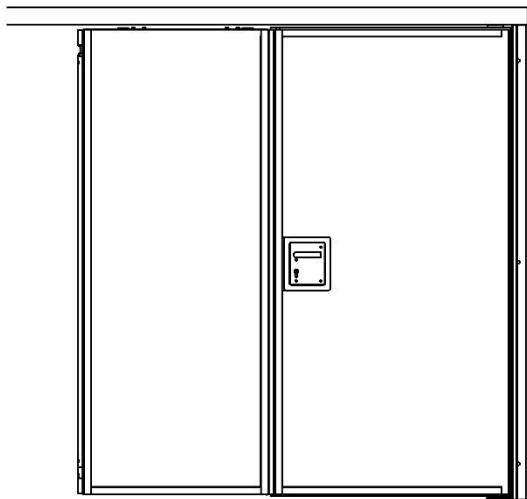
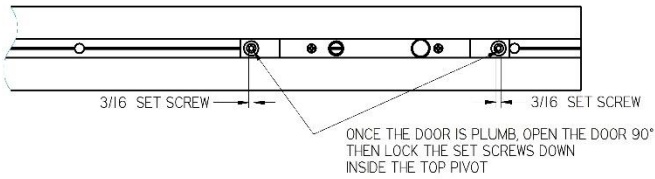


D. Installing the Pivot Door

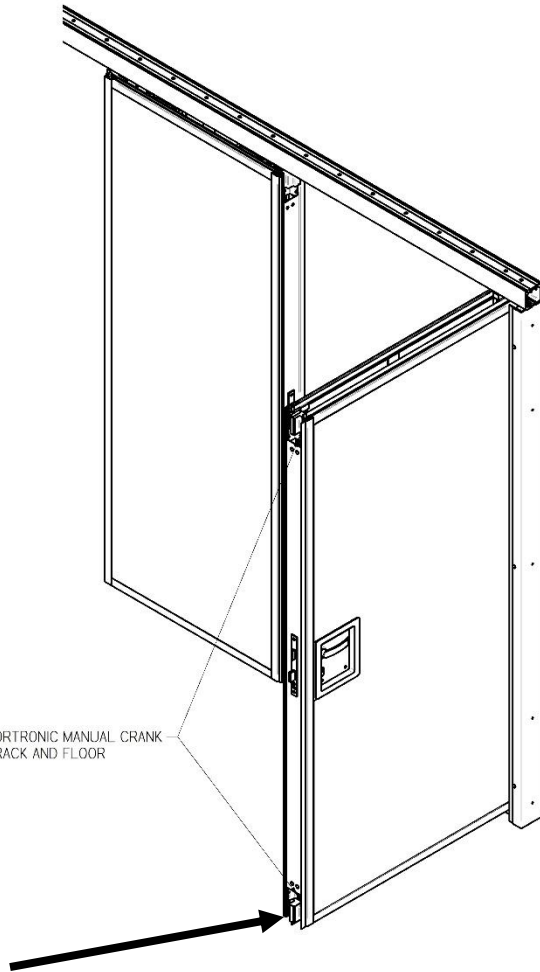
- a. The Pivot Door, Adjacent Panel, and Adjustable Trail Jamb all have similar extrusions with a Long Side and Short Side. The Pivot Door should be installed where the short side passes by the Adjacent Panel short side and seals against the Adjacent Panel long side.
- b. The Centerline of the Floor Pivot should align with the Top Pivot Pin. Slide the Top Pivot over and lock the set screws down.
- c. The Floor Pivot fits into a pivot receiver mounted to the bottom of the Pivot Door. Carefully align the two and stand the Pivot Door up.
- d. Lower the Pivot Pin into the Block located in the Door by turning the Pivot Pin Actuator with a flat head screw driver.



- e. To Plumb the Door, open the Door 90°, raise the Pivot Pin out of the Pivot Block, and slide the Top Pivot accordingly. Once the Door is plumb, lock the 4mm Set Screws down. **Note the Door must be supported while the Pin is out of the Pivot Block.**
- f. Actuate the Top and Bottom Seals by using the Comfortronics Manual Crank. Crank the Drop Seals until the seals brush against the track and floor.



CRANK THE DROP SEALS WITH THE COMFORTRONIC MANUAL CRANK UNTIL THE SEALS BRUSH AGAINST THE TRACK AND FLOOR

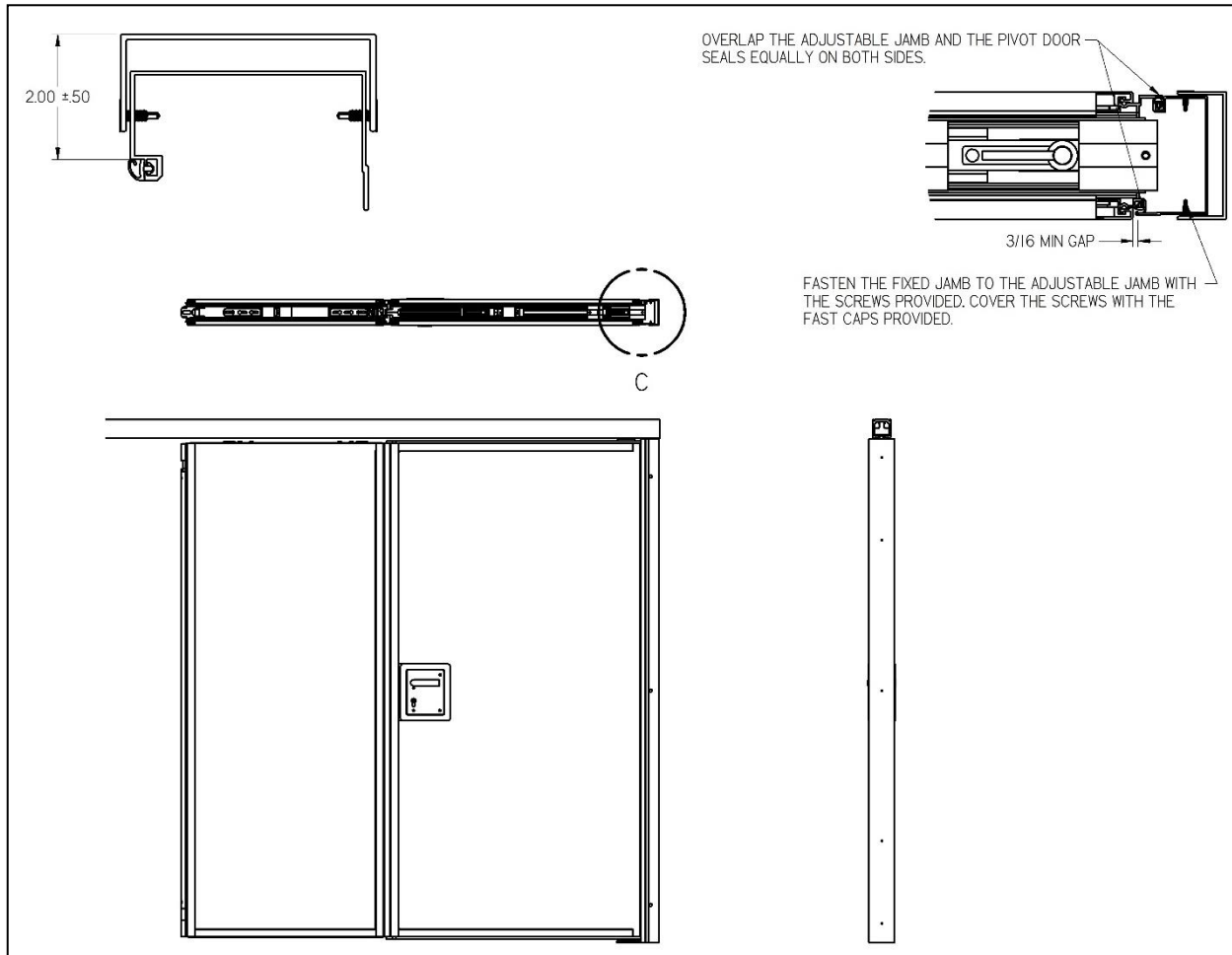


Note:

Top/Bottom Seal End Caps can be trimmed to ensure they seal off against the adj. panel end cap and don't interfere with the aluminum rail.

E. Finishing the Adjustable Jamb Installation

- a. Overlap the Adjustable Jamb Seal and the Pivot Door Seal equally on both sides. You should have a 3/16" minimum gap.
- b. Fasten the Fixed Wall Jamb to the Adjustable Jamb by using the screws provided.
- c. Cover the Flat Head Screws with the Fast Caps provided.



Step 5 – Maintenance

By maintaining your installation after it is complete, you can keep its operation and appearance in good condition for many years.

Track Maintenance

Tracks should be cleaned and inspected yearly. Use a rag dampened with mineral spirits, to thoroughly clean the inside surfaces of the entire layout. After cleaning, apply a light coat of petroleum jelly (Vaseline) to the entire surface upon which the trolley runs.

After the first and third years, check the track for proper level and readjust as necessary. This is particularly important on long spans, as truss deflections generally show up within the first three years.

Panel Maintenance

The panels should be periodically checked for damage and repaired as necessary. Regularly inspect all seal mechanisms and operate the closure. Any adjustments necessary should be made and/or any damaged or inoperable parts should be replaced.

After the first and third years of operation, panel vertical edges should be checked for plumb, and if necessary, plumbed again by adjusting the trolleys. (This can also be a result of header deflection.)

Cleaning

Regular cleaning of the partition is a housekeeping procedure that your customer should perform. However, during installation and operation, the panels can also get soiled or marked.

- Clean the laminate surfaces using a damp cloth or sponge and a mild soap. For more on cleaning more difficult stains go to wilsonart.com for instructions.
- Clean the vertical profiles using only a weak soap solution.
- Use a standard glass cleaner when cleaning the Acousti-Clear Automatic® glass

IDENTIFICATION FOR THE DISTRIBUTOR

This label with the appropriate numbers applied is installed on the top of the panel assembly. It can help you later, if this partition should ever need repairs.

ORDER # _____ LEAD →
PARTITION: _____

IDENTIFICATION FOR THE END USER

Installer Information
Company: _____
Install Date: _____
Job # _____





215 West New Road
Greenfield, IN 46140

Toll Free: 800.869.9685

email: info@modernfold.com

www.modernfold.com

A Dormakaba Group Company

www.dormakaba.com

Form No. 8202

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Manufacturer reserves the right to change design or specifications at any time without notice.

Please contact your local Modernfold distributor for further assistance, or visit our website at www.modernfold.com