

Installation Manual

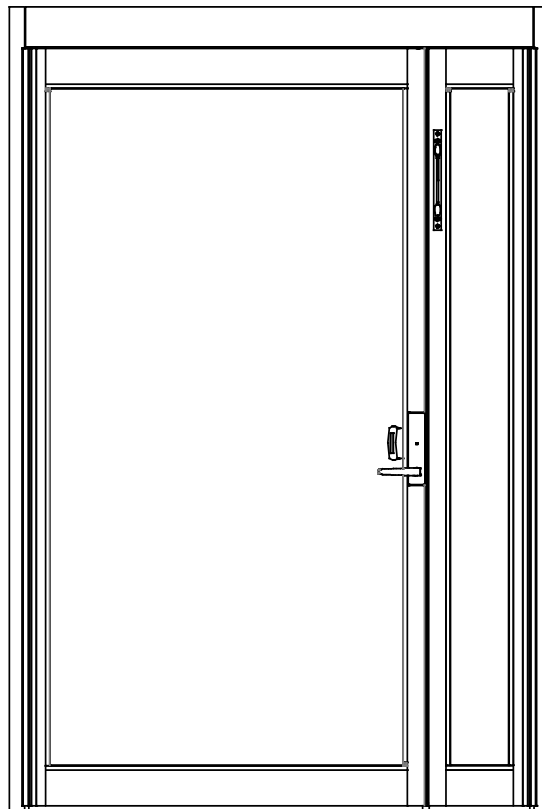
VersaMax™

ICU Swing Package

ASSA ABLOY

ASSA ABLOY Entrance Systems

The global leader in
door opening solutions



Complies with applicable sections of NFPA 101 Life Safety Code and the IBC, for Manually Operated Pedestrian Doors

1016380

Issue 1-30-2017

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Revisions

The following pages have been revised:

Page	Revision
-----	This is the first version of the VersaMax ICU Swing Door Installation Manual, No. 1016380, Issued 1-30-2017



CAUTION

Improperly adjusted doors can cause injury and/or equipment damage.
Inspect door operation using Functional and Visual Inspection information in Owner's Manual.
Safety devices must be in place and operational where applicable.

In this manual, the word:

CAUTION - Means that personal injury or property damage can result from failure to follow instructions.

NOTE! - Means that there is additional helpful information directly relevant to the subject matter.

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Important Information

Important Safety Instructions for Use



WARNING!

It is important for the safety of persons to follow these instructions. (Save these instructions.)

Safety Precautions

To avoid bodily injury, material damage and malfunction of the product, the instructions contained in this manual must be strictly observed during installation, adjustment, repairs and service etc. Training is needed to carry out these tasks safely. Only ASSA ABLOY Entrance Systems-trained technicians should be allowed to carry out these operations.

CAUTION!

Improperly adjusted doors can cause injury and equipment damage.

Adjust doors for proper operation in accordance with manufacturer's instruction and adherence to Complies with applicable sections of Life Safety Code (NFPA 101), for Manually Operated Pedestrian Doors and/or AHJ "Authority Having Jurisdiction" for manually Operated Pedestrian Doors.

Service/Maintenance

Regular inspections shall be made according to national regulations and product documentation by an ASSA ABLOY Entrance Systems-trained and qualified technician. The number of service occasions should be in accordance with national requirements and product documentation. This is especially important when the installation concerns a fire-approved door or a door with an emergency opening function.

Note!

The glazing material in all unframed swing doors shall comply with the requirements in the Performance Specifications and Methods of Test for Safety Glazing Material Used in Buildings, ANSI Z97.1. Glazing materials for other pedestrian doors shall also comply with ANSI Z97.1, except that single strength or heavier glass may be used for those portions of doors involving a glazed area of less than 1 sq. ft. and having no dimension greater than 18".

Environmental Requirements

Please act according to your local regulations and dispose of your old product(s) and packaging properly. The correct disposal will help prevent potential negative consequences for the environment and human health.

Introduction

This manual contains the necessary details and instructions for the installation, maintenance and service of the manual swing door package, VersaMax ICU Swing Package.

The VersaMax ICU Swing Package is designed for an overhead-concealed installation between two vertical jambs supported by the surrounding structure.

Models

VersaMax ICU Swing packages can be Equal Panel, Unequal Panel or Single Panel.

Naming Conventions Table

Model	Explanation
VMSWS	Single Panel Smoke Certified / Non-Smoke Certified
VMSWEP	Equal Panel Smoke Certified / Non-Smoke Certified
VMSWUP	Unequal Panel Smoke Certified / Non-Smoke Certified

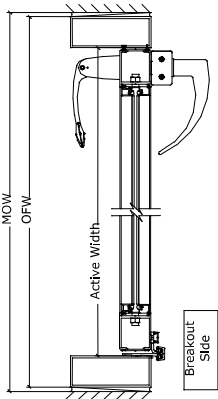
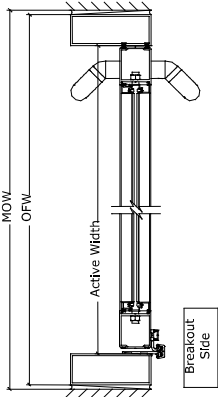
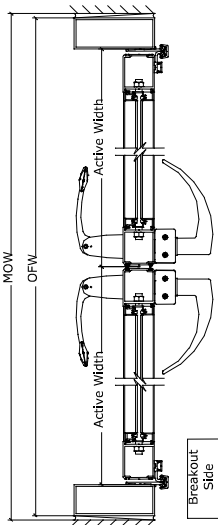
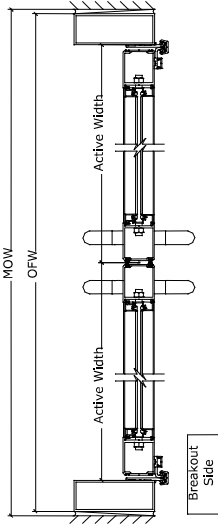
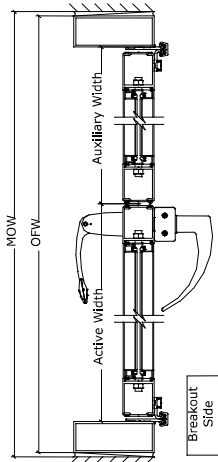
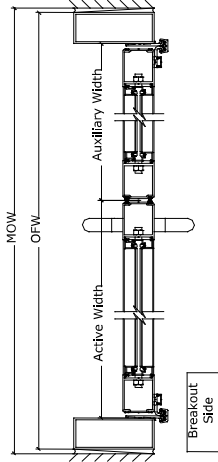
Standard Panel Width Table

Model	OFW	Act. Width	Aux. Width	CDO	MOW
VMSWS	39 1/2 (1003.3)	36 (914.4)	NA	33 1/2 (850.9)	40 (1016.0)
	45 1/2 (1155.7)	42 (1066.8)	NA	39 1/2 (1003.3)	46 (1168.4)
	51 1/2 (1308.1)	48 (1219.2)	NA	45 1/2 (1155.7)	52 (1320.8)
VMSWEP	75 1/2 (1917.7)	36 (914.4)	NA	67 (1701.8)	76 (1930.4)
	87 1/2 (2222.5)	42 (1066.8)	NA	79 (2006.6)	88 (2235.2)
	99 1/2 (2527.3)	48 (1219.2)	NA	91 (2311.4)	100 (2540.0)
VMSWUP	63 1/2 (1612.9)	36 (914.4)	24 (609.6)	55 (1397.0)	64 (1625.6)
	69 1/2 (1765.3)	42 (1066.8)	24 (609.6)	61 (1549.4)	70 (1778.0)
	75 1/2 (1917.7)	48 (1219.2)	24 (609.6)	67 (1701.8)	76 (1930.4)

Glass Size Table

Panel Type		Width	Height	
			ICU Header	Low Profile Header
Active	Single	OFW- 8 3/4" (222.3)	OFH- 14 5/16"(363.5)	OFH- 11 5/16" (287.3)
	Equal	OFW/2- 6 15/16" (176.2)		
	Unequal	Panel Width- 4 3/4" (120.7)		
Auxiliary		Panel Width- 4 3/4" (120.7)	OFH- 14 5/16"(363.5)	OFH- 11 5/16" (287.3)

Models – Continued

 Smoke Certified Single RH Panel Shown (LH Opposite)	 Non Smoke Certified Single RH Panel Shown (LH Opposite)
 Smoke Certified Equal Panel	 Non Smoke Certified Equal Panel
 Smoke Certified Unequal RH Panel Shown (LH Opposite)	 Non Smoke Certified Unequal RH Panel Shown (LH Opposite)

Installation Requirements

Fastening Requirements

Base door / wall material	Minimum Anchor Material Thickness Minimum fastener size #14 or 1/4"
Steel	3/16" (5 mm)*
Aluminum	1/4" (6 mm)*
Reinforced concrete	min. 2" (50 mm) from the edge
Wood	2" (50 mm)
Brick wall	Expansion-shell bolt, min. (1/4" x 3 1/2"), min. 2" (50 mm) from the edge

* ASSA ABLOY Entrance Systems minimum recommended requirements. Consult local building code.

Tools required

- Carpenter's level (4 foot)
- Tape rule
- Straight edge
- Power drill and set of drill bits, Unibit, Hammer drill
- Metric hex key set 6, 5, 4, 2.5 mm and 3mm
- Flat blade screw driver (small/medium/large)
- Chalk line
- #2 Phillips screw driver
- Center punch
- String
- Plumb bob
- Silicone sealant
- Pencil

Additional mounting hardware (not supplied - see [Fastening Requirements](#) above)

Door Installation Process

The door installation process incorporates, unpacking and mechanically preparing the door before installation by attaching certain door features.

Unpacking Process

It is important that all packing is removed from the door package so that it will not, later interfere with the operation of the door package.

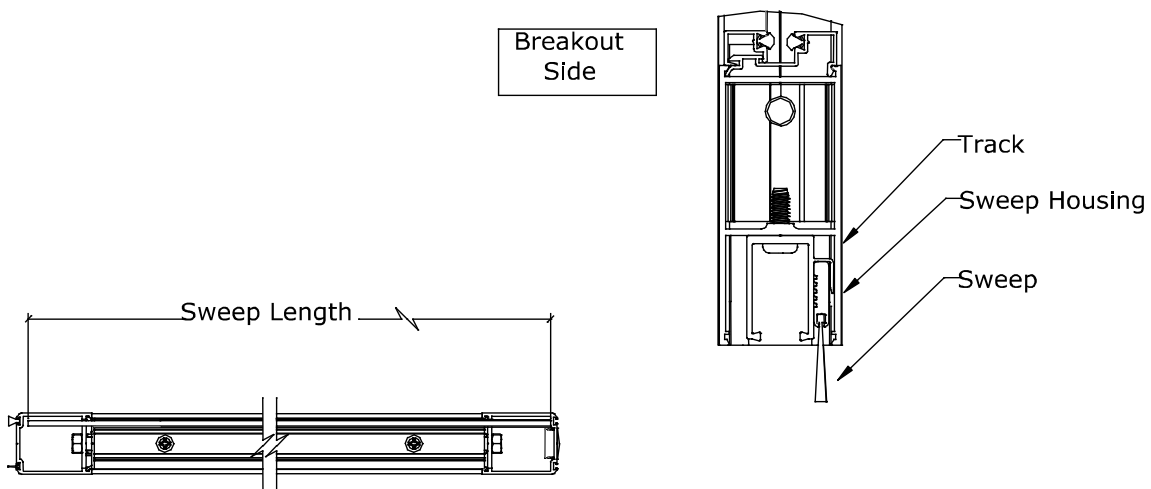
Door packing materials and your old product(s) should be disposed of as required by your local regulations. Correct disposal helps prevent potential negative consequences for the environment and human health.

Mechanical Preparation of Door Prior to Installation

After the door package is unpacked, additional hardware must be installed to the doors prior to installation.

Sweep Installation

1. Trim Sweep to size so that it spans from inside face to inside face of the vertical rails.
2. Insert Sweep into Sweep Housing.
3. Insert Sweep Housing into track in bottom horizontal until assembly bottoms out in track.

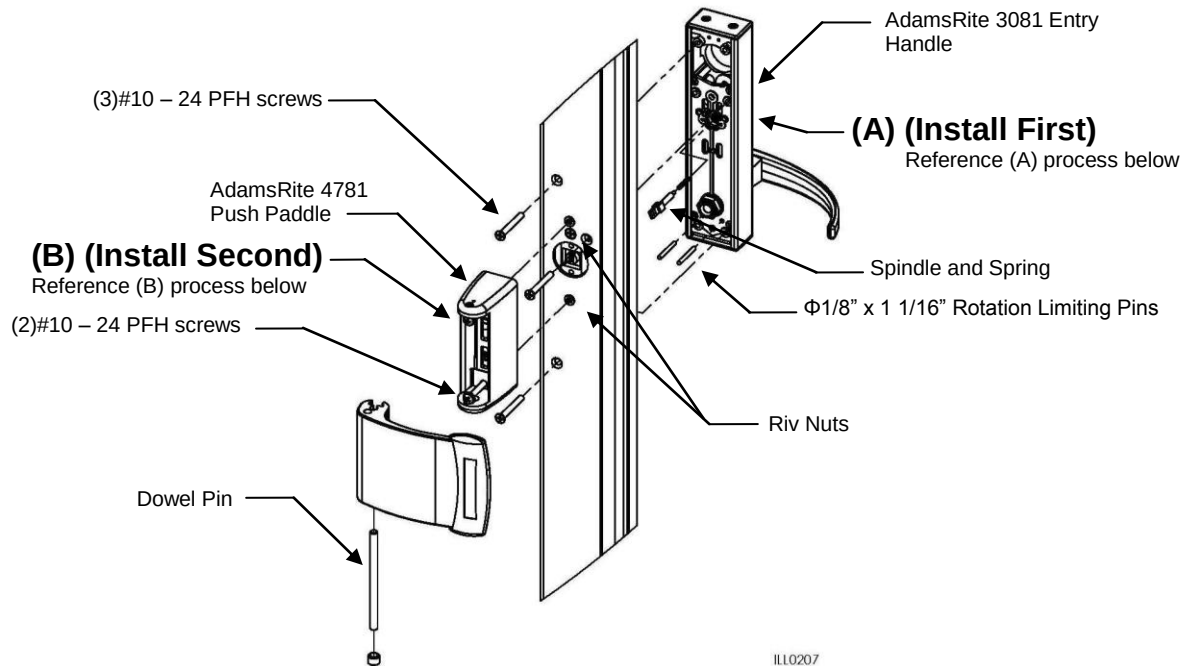


Note!

The Sweep assembly will be adjusted and fastened into place once the doors are attached to the frame. See section titled, ["Sweep Adjustment"](#).

Handle Installation – Smoke Certified Packages

The door is shipped with the lock rod and guide mechanisms mounted and assembled inside the rail. However, the handles are to be field mounted.

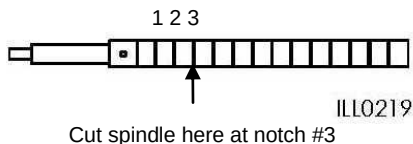


(A) Installing the 3081 Curved Entry Handle (Exterior or Breakout side of Active Panel)

1. Turn the lever to the correct position as the hand of the door dictates. (The handle is shipped non-handed.)
2. Cut the spindle to size as shown.
3. Assemble the Rotation Limiting Pins, Spindle, and spring as shown.
4. Attach handle to door using three PFH screws provided.
5. Check handle to ensure engagement and disengagement of the lock rod.

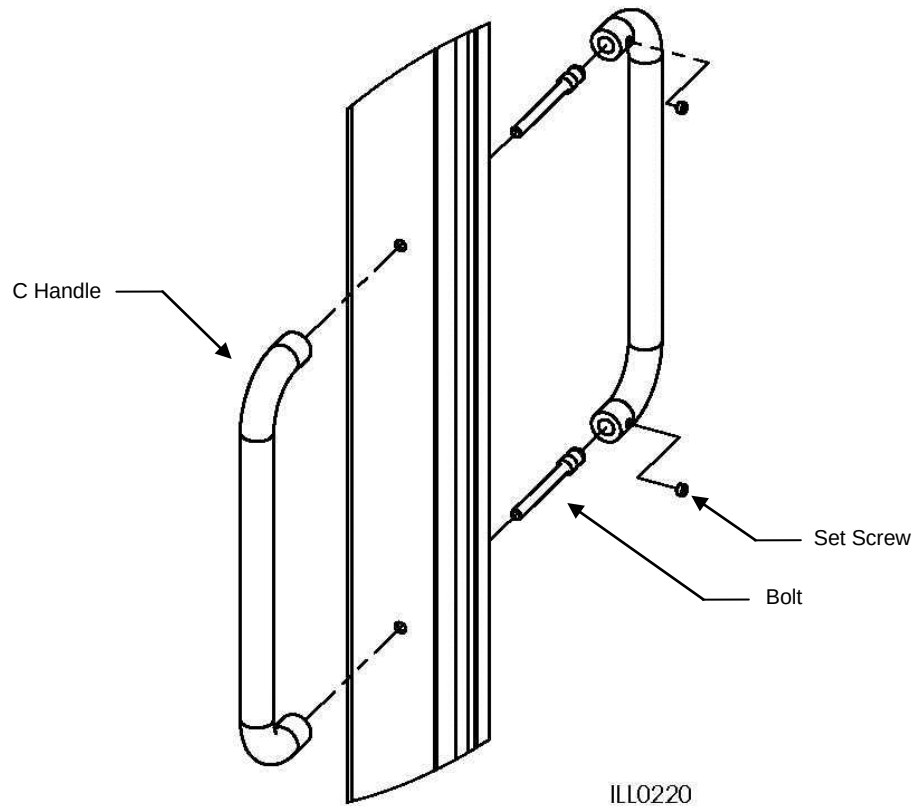
(B) Installing the 4781 Push Paddle Device (Interior of Active Panel)

1. Orient base as shown where the two PPH screws line up with the threaded insert and attach.
2. Attach paddle to base using the long dowel pin.
3. Inset set screw and tighten.
4. Check paddle to ensure engagement and disengagement of lock rod.
5. After installation, check both devices for proper operation. ([For adjustments see Latch Adjustment.](#))



Handle Installation – Non Smoke Certified Packages

1. Insert bolt completely through door rail until flush with rail and thread into opposing C handle and tighten.
2. Repeat this procedure for second bolt.
3. Align holes in other C handle with bolt heads and slide handle on to bolts until handle is flush to rail.
4. Insert and tighten set screws.



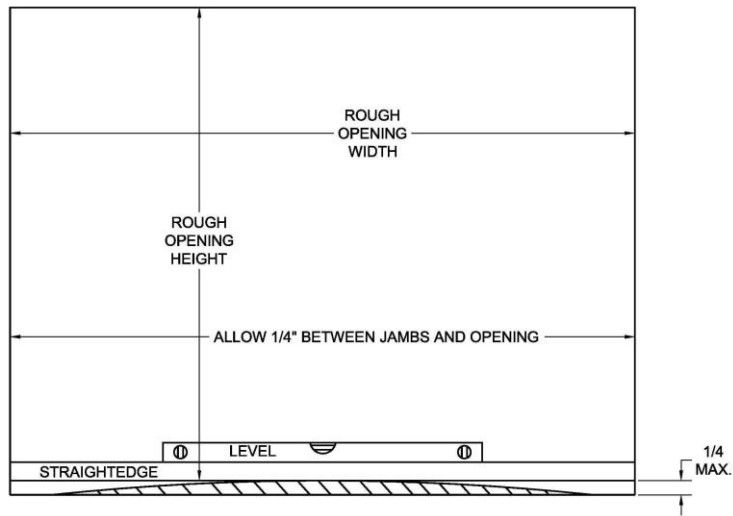
Header and Jamb Installation Process

Preliminary Installation Process

The rough opening must be plumb and square and the finished floor must not vary by more than $\frac{1}{4}$ " from the highest to the lowest point. If necessary, have the floor leveled before attempting to install the door system.

It is important to check that the floor is level within the travel and path of the doors in break out mode. The doors must not encounter any obstruction when broken out. Ideally, the floor should be level or slope away from the wall on the breakout side of the door.

Verify that the Rough Opening Width (ROW) is $\frac{1}{2}$ " wider than the overall frame width of the sliding door system, and that the rough opening height is $\frac{1}{4}$ " higher than the overall frame height. For example, the overall frame height would be $89\frac{3}{4}$ ", requiring a Rough Open Height (ROH) of 90" measured from the highest point of the floor in the opening between the jambs ($96\frac{1}{2}$ (ROW) x 90 ROH).



Jamb Preparation

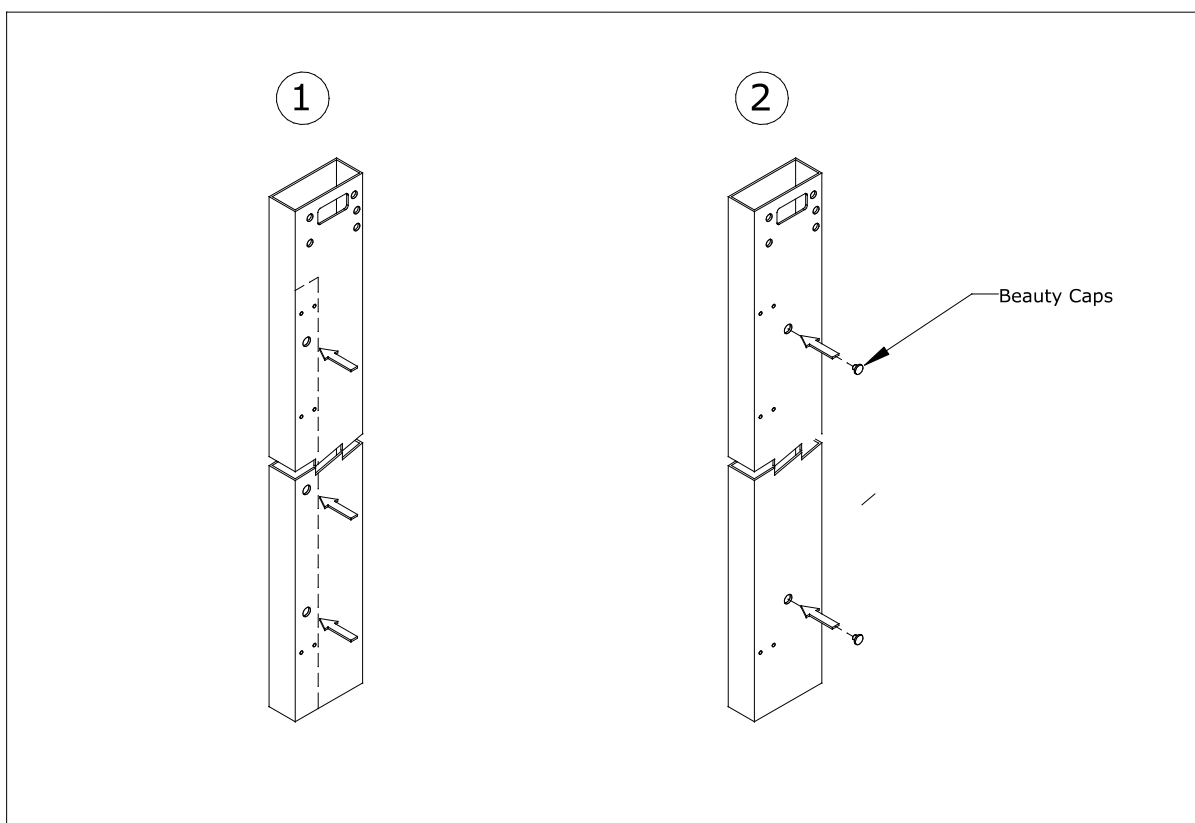
The jambs that are to be secured to the opening will need to be prepped. Use one of the following 2 methods for attachment such that the screw holes are not exposed. (See graphic below.)

1. Countersink the holes on the exterior jamb walls in line with the door panel such that the door panel covers the holes when installed. (These holes should be drilled at the top, middle and bottom of the jambs.) See graphic 1 below.)

Note!

This method requires that the continuous hinge be removed prior to drilling and attaching to the opening.

2. Drill a $\frac{1}{4}$ " hole, centered on the face of the jamb, at the top, middle and bottom of the jamb, adjusting for site conditions that may require the holes to be at a certain height. (This hole should pass through both faces of the jamb.) Then drill out the holes on the front face to $\frac{1}{2}$ ". (This method requires that the factory provide the beauty caps to be installed once the frame is fastened.) See graphic 2 below.

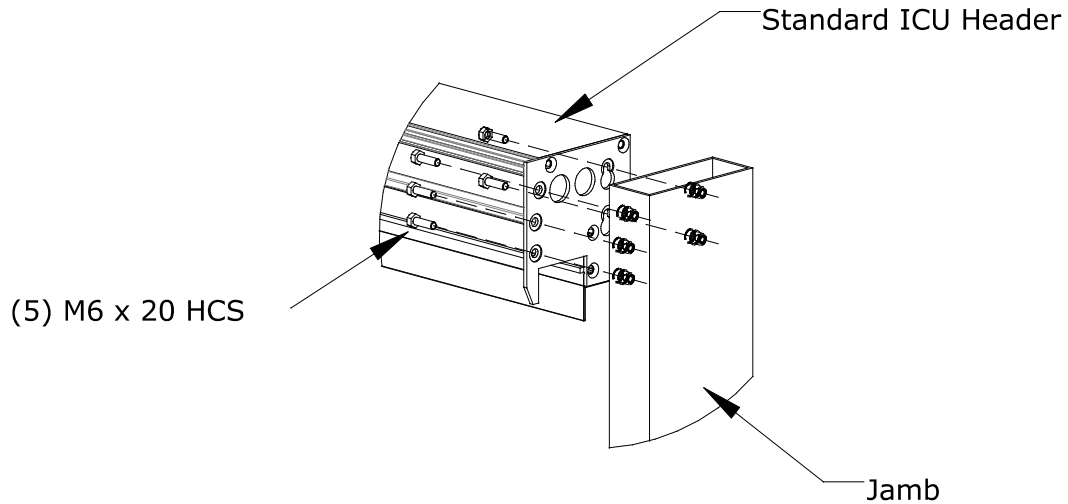


Header to Jamb Installation

The continuous hinges have been factory assembled to the jambs, however, the jambs and header will require attachment. Depending on header selection, the frame assembly will vary slightly.

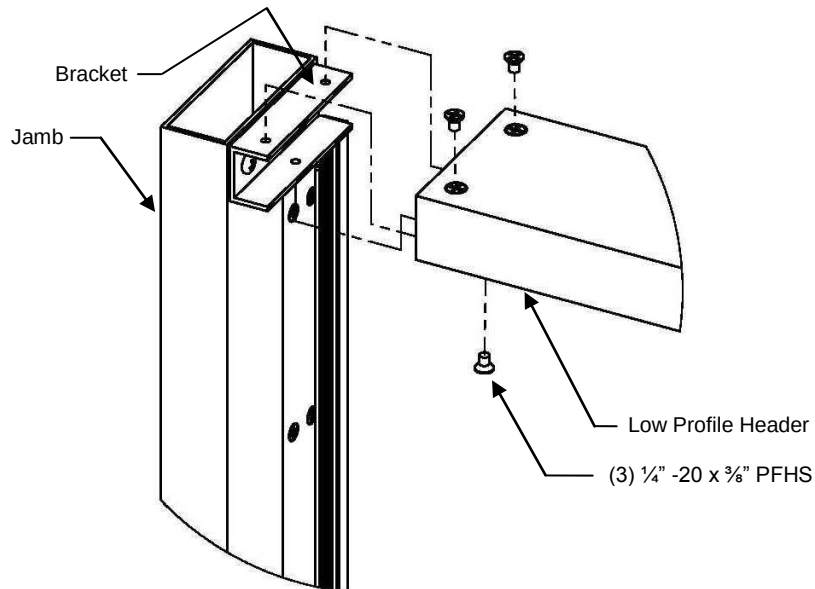
For Standard ICU Header

1. Attach jambs to Standard ICU Header using the screws provided.



For Low Profile Header

1. Slide Low Profile Header into bracket located at top of jamb.
2. Connect bracket to tube by installing screws provided.

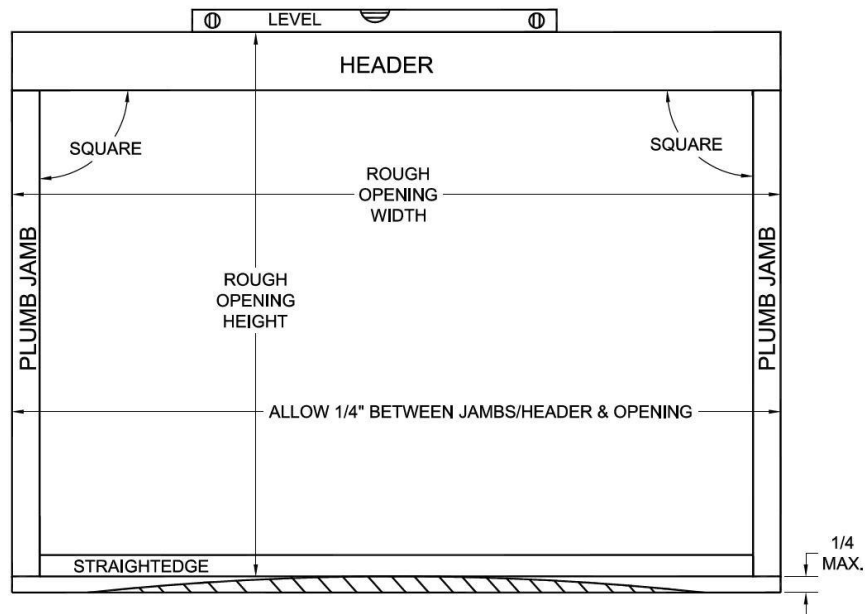


Installing the Frame

Note!

The header and jambs must be installed plumb, square and level to ensure proper door operation.

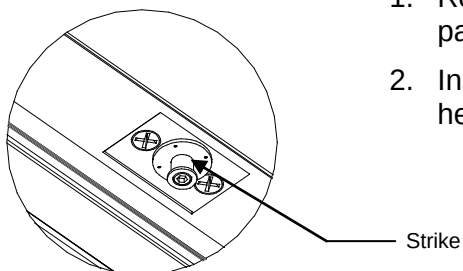
1. Check rough opening for plumb, level and square.



2. Tilt header/jamb assembly up into rough opening.
3. Insert shims between jambs and attachment point as required, accommodating any uneven conditions.
4. Check header and each jamb for plumb and square.
5. Secure frame to opening using appropriate fastener depending on substrate material. (See [Fastening Requirements](#).)
6. Install beauty caps if required.

Header Strike Installation – Smoke Certified Packages

1. Remove the strike that is packaged with the 4781 push paddle device.
2. Insert strike(s) into the pre-drilled hole(s) found in bottom of header and tighten with a 4mm hex wrench.

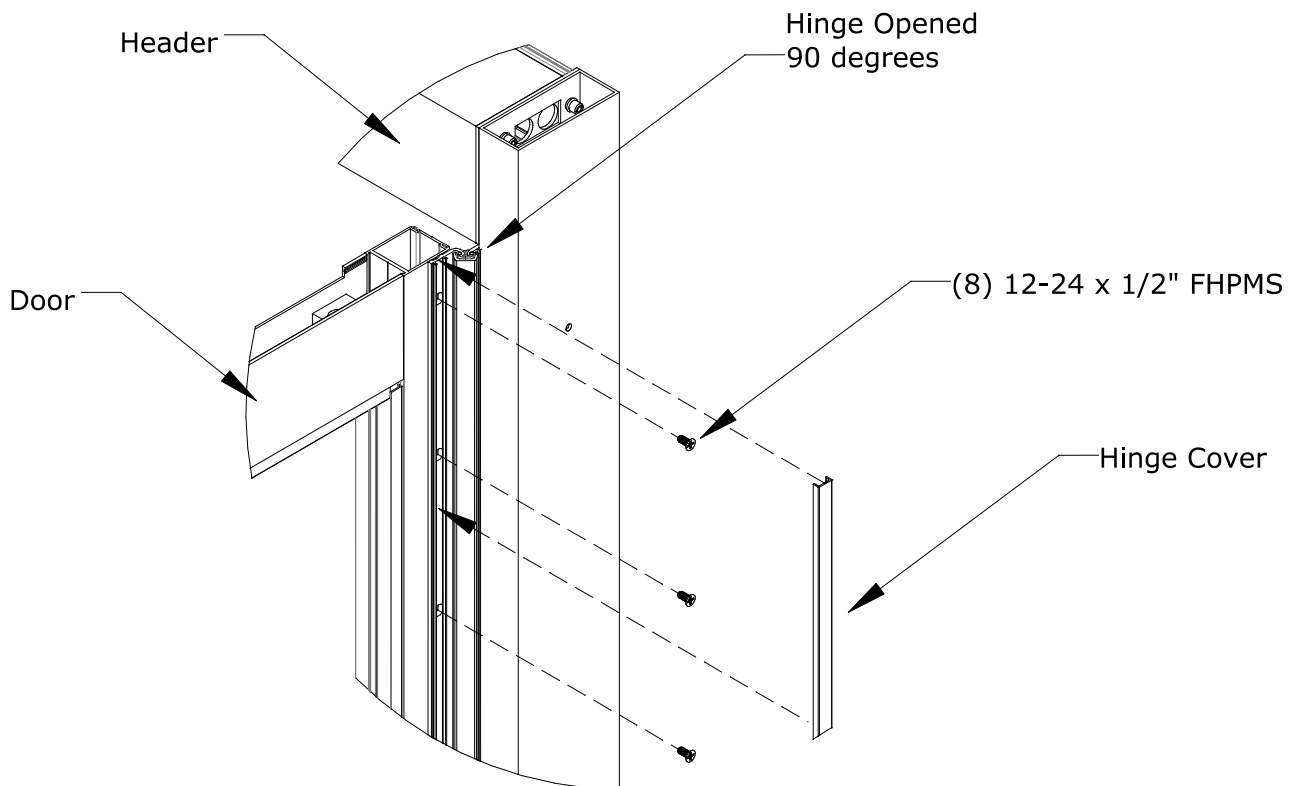


Door Installation

1. Open hinge on jamb to 90 degrees.
2. Remove hinge cover.
3. Slide door under header and rotate 90 degrees to the face of header so that the face of door is aligned with the face of the hinge.
4. Shim door up approximately 13/16" or until the holes in door line up with holes in hinge.
5. Install screws provided. (To adjust door, see [Door Adjustments](#).)
6. Re-install hinge cover

Caution!

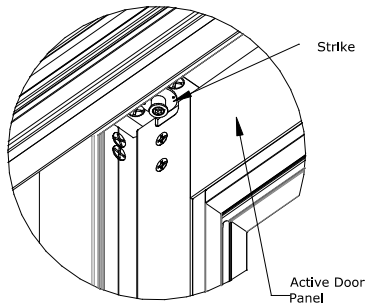
Be sure to lower the torque setting on the drill so as to not strip the screws.



Adjustments

Door Adjustments – Smoke Certified Packages

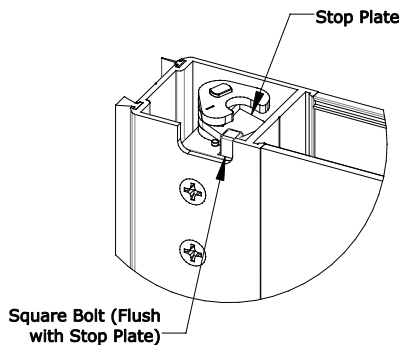
Fig. A



Latch Adjustment

1. After the door is glazed, slowly close door and adjust the strike until it lines up and engages with the top bolt actuator assembly. See Fig. A. (Door strike is located in bottom of header, and top bolt actuator is located in the top of the door. The Strike should be adjusted in a manner that allows the door to be pulled tight across the entire width of the seal.)

Fig. B

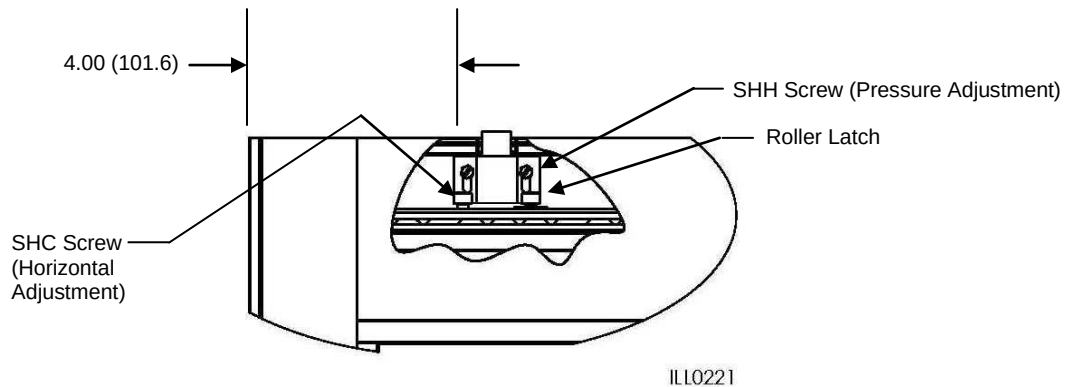


Top Bolt Actuator Assembly

2. If for some reason the door doesn't lock when closed, open the door and check the Top Bolt Actuator assembly located in the top of the door. Adjust Actuator assembly to the locked position. See Fig. B. (In this position, the end of the square bolt should engage the stop plate as shown. (See Fig. B) The square bolt must be flush with the top of the stop plate to 1/16" max. below flush. If adjustment of the top bolt is needed, remove the actuator assembly and adjust the bolt up or down as required and re-install assembly.)

Latch Adjustment – Non-Certified Packages

1. After door is glazed, slowly close door and check the engagement of the roller latch.
2. Check breakout and closing forces and ensure they comply with applicable codes.
3. If pressure adjustment is necessary, loosen the two slotted hex head screws and adjust upwards or downwards as needed. Be sure that the metal housing that surrounds the roller wheel doesn't hit the top seal angle when opening or closing.
4. Horizontal adjustments can also be made by loosening the two socket head cap screws.



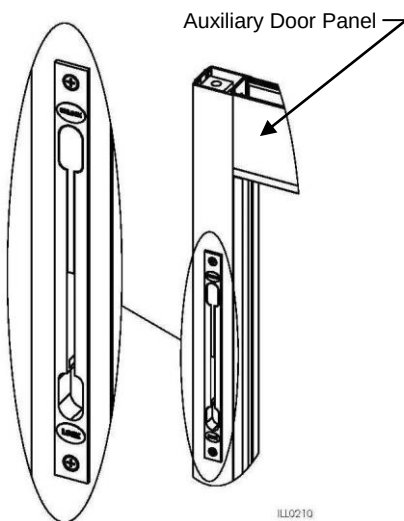
Flush Bolt Adjustment

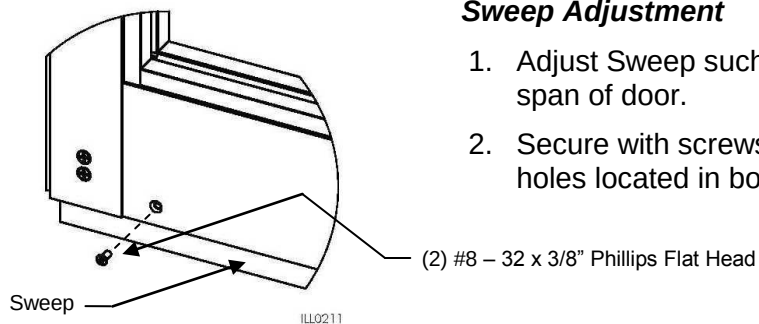
The flush bolt assembly is factory installed and adjusted, however, operation and function should be checked.

Note!

The flush bolt is only found on the auxiliary panel of Unequal panel packages.

1. Check operation by moving lever between the "LOCK" to "UNLOCK" positions several times. The lever should move freely without binding.
2. Move lever to the UNLOCK position, and check location of pin in relation to door stile. (The pin should not extend beyond end of the door stile.)
3. Move lever to the LOCK position and measure extension of pin beyond door stile. (The pin should extend from 3/8" to 1/2" beyond door stile.)





Sweep Adjustment

1. Adjust Sweep such that it just touches floor across entire span of door.
2. Secure with screws supplied using the two counter sunk holes located in bottom of interior side of door.

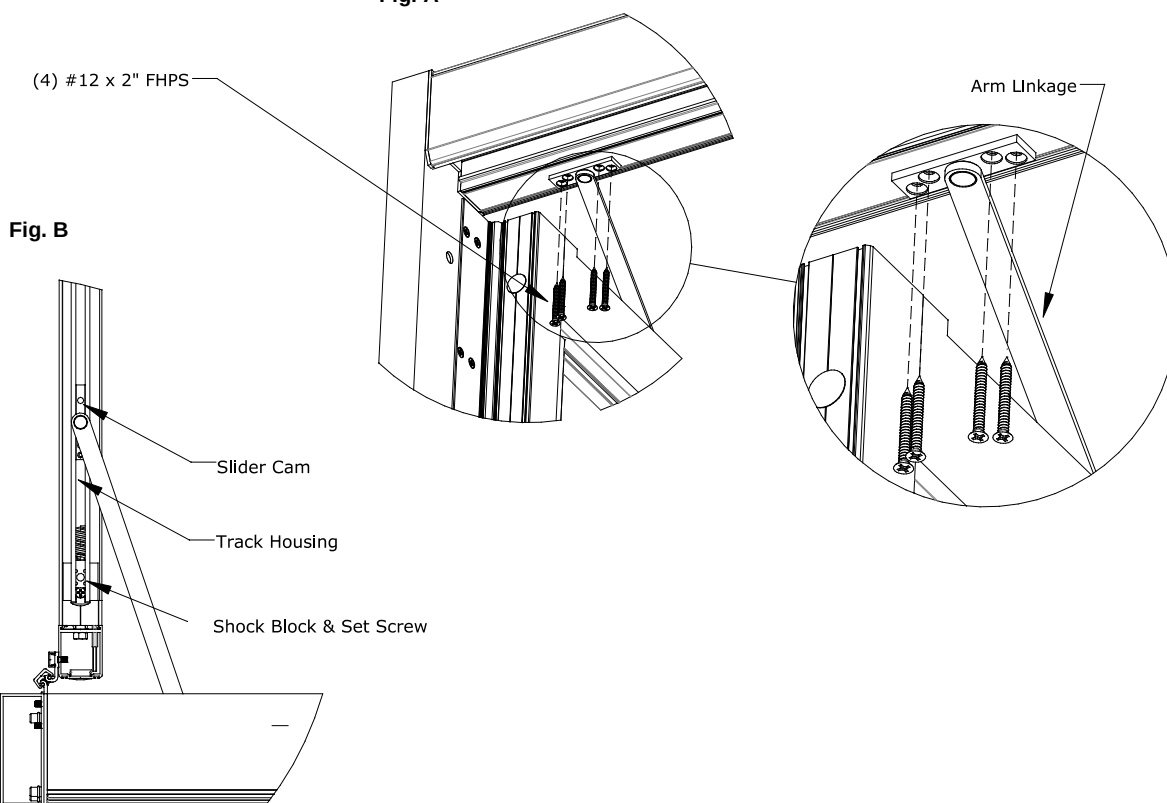
Field Installed Options

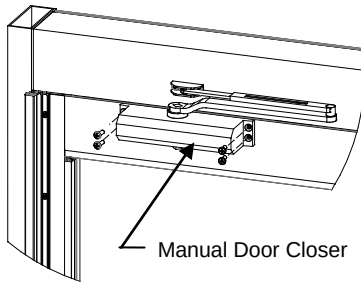
Overhead Door Stops

The door is shipped with the overhead door stop assembled inside the top rail of the active leaf panel.

1. Once door is hung and secured to hinge, open door to 90 degrees.
2. Attach rectangular bracket located at end of Arm Linkage to bottom of header using screws provided. (See Fig. A)
3. Set door to desired opening by sliding Shock Block against Slider Cam and tighten set screw. (The Shock Block is located in the track housing in the top of the door.) (See Fig. B)

Fig. A



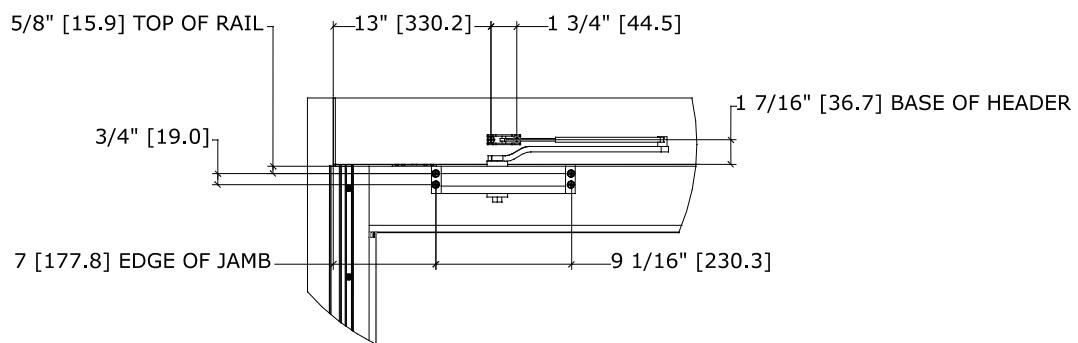


Manual Door Closer

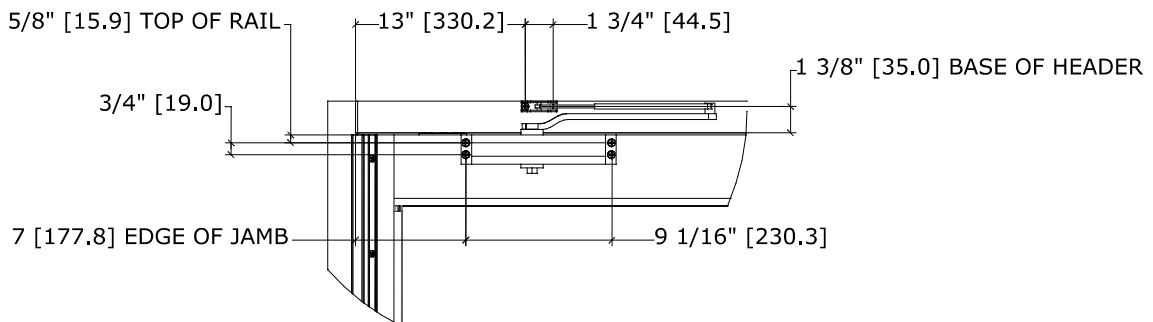
Manual door closers are field prepped and assembled.

1. Refer to the templates below to prep for the closer, depending on header type.
2. Drill each hole using a #7 drill bit, then tap for a 1/4" – 20 screw.
3. Install using the 1/4" – 20 – 3/4" POHMS provided with the closer.

IMPORTANT! Do not prep per Manufacture's Template.



ICU Header

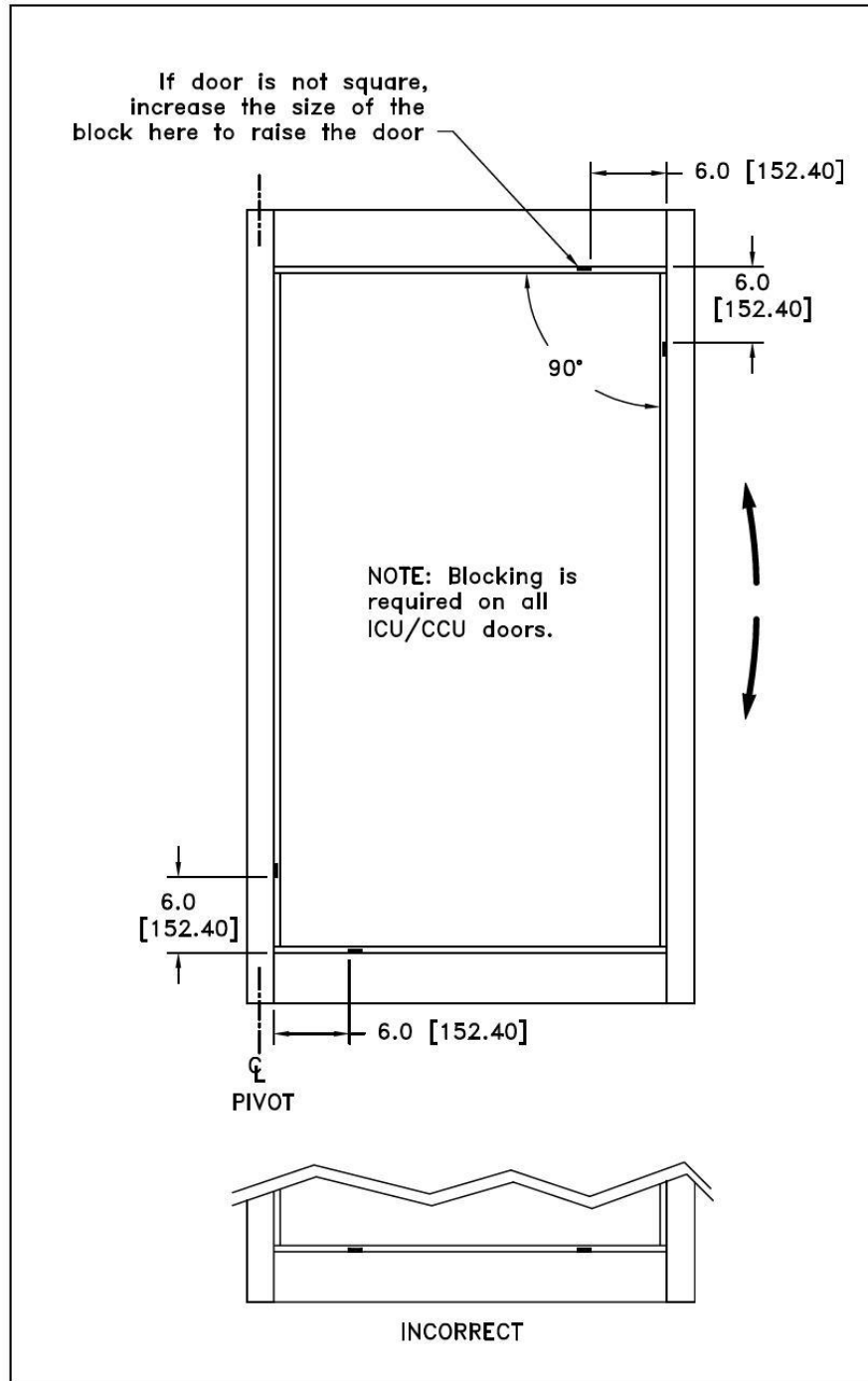


Low Profile Header

4. Assemble and adjust closer to door and header per manufacturer's instructions.
5. Ensure the force required to open the door does not exceed 30 lbs.

Glazing and Blocking

Install glass using the proper glazing tools. Glass blocks are installed by door manufacturer. Please verify that glass block locations match graphic below. Observe standard glazing techniques when installing glass.



CAUTION: If doors are not square, possible malfunction of doors and alignment issues may occur.

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