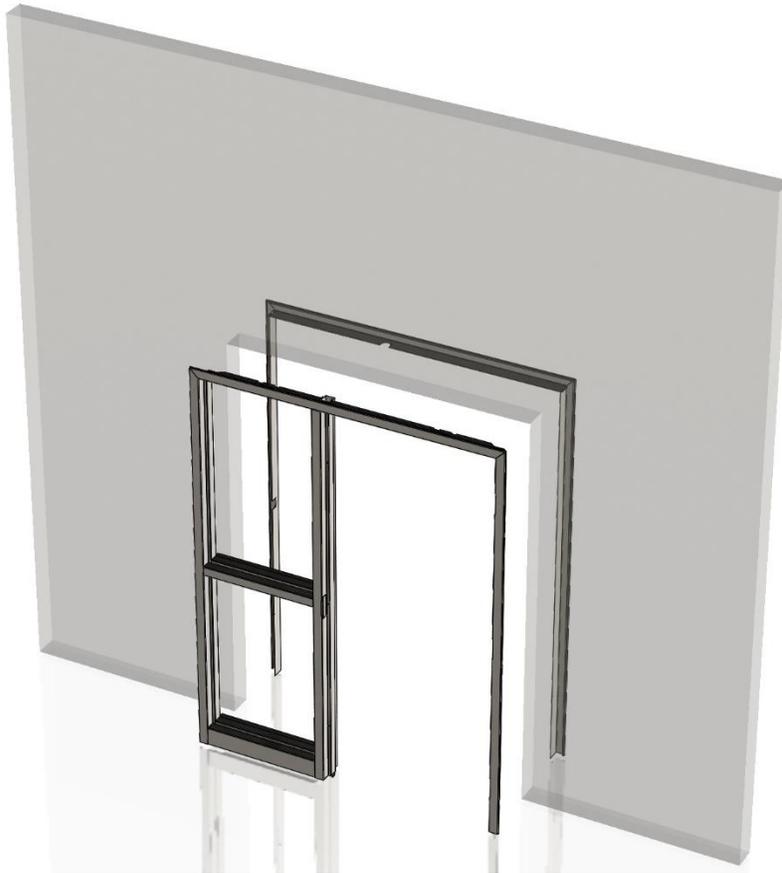


DE LA FONTAINE

Imagine. We realize.

SPLIT FRAME INSTALLATION INSTRUCTIONS



Revised 2014/09/29
Guillaume Gauthier, Eng.
Product Manager

RECEIPT OF MERCHANDISE	2
INSTALLATION	2
SPLIT FRAME COMPONENTS	3
TOOLS, HARDWARE AND PARTS	4
ROUGH OPENING	5
SPLIT FRAME INSTALLATION	6
ADDITIONNAL INSTRUCTIONS ON BORROWED LITE INSTALLATION	12
APPENDIX A - SPLIT FRAME WITH VERTICAL MULLION AND SILL	13
APPENDIX B - SPLIT FRAME WITH MECHANICAL SPLICE.....	15
Figure 1 : Split Frame Components.....	3
Figure 2: Profile and nomenclature	3
Figure 3 : <i>Rough opening and frame measure</i>	5
Figure 4 : <i>Unwrapping the split frame</i>	6
Figure 5 : <i>Removing the shipping screws</i>	6
Figure 6 : <i>Placing the frame into the opening</i>	7
Figure 7 : <i>Tightening the first jamb anchor</i>	8
Figure 8 : <i>Screwing the strap anchor</i>	8
Figure 9 : <i>Bending and attaching the tab</i>	9
Figure 10 : <i>Add one screw in the center of each wall anchor</i>	10
Figure 11 : <i>Placing sandpaper on trim section</i>	10
Figure 12 : <i>Removing the trim with a crowbar and rubber mallet</i>	11
Figure 13 : <i>Borrowed lite installation</i>	12
Figure 14 : <i>Mullion floor anchor</i>	13
Figure 15 : <i>Mullion Floor anchor alignment</i>	13
Figure 16: <i>Positioning the mullion on floor anchor</i>	14
Figure 17 : <i>Overview of a mechanical splice</i>	15
Figure 18 : <i>Top view of the frame and trim parts taken apart</i>	15

RECEIPT OF MERCHANDISE

1. Material must be handled and stored in compliance with NAAMM HMMA 840 (Guide Specifications for Installation and Storage of Hollow Metal Doors and Frames) or SDI 122 (Installation & Troubleshooting Guide for Standard Steel Doors and Frames).
2. The installer must complete a thorough verification of products upon receipt or before installation.

INSTALLATION

The qualified installers must have a minimum of 3 years' experience in installing commercial steel doors, steel frames and hardware.

Before installing

1. Understand and apply the installation instructions of NAAMM HMMA 840 (Guide Specifications for Installation and Storage of Hollow Metal Doors and Frames), SDI ANSI A250.11 (Recommended Erection Instructions of Steel Frames) or SDI 122 (Installation & Troubleshooting Guide for Standard Steel Doors and Frames). The installation of fire-rated frames and doors must comply with NFPA 80 (Standard for Fire Doors and Other Opening Protectives).
2. Inspect the product and make sure you have all the parts you need before you begin the installation.
3. Confirm product compliance with the approved door/frame/hardware schedule. Verify the door opening number, opening type, handing, width, height, and hardware prep (*is it the right product, in the right place?*). If this is not done, de La Fontaine will not assume any responsibility or back charges.
4. If you encounter any problems, contact your supplier.
5. Make sure the frame is in good condition.

If you have any questions concerning the frame installation, please contact your representative for assistance.

SPLIT FRAME COMPONENTS

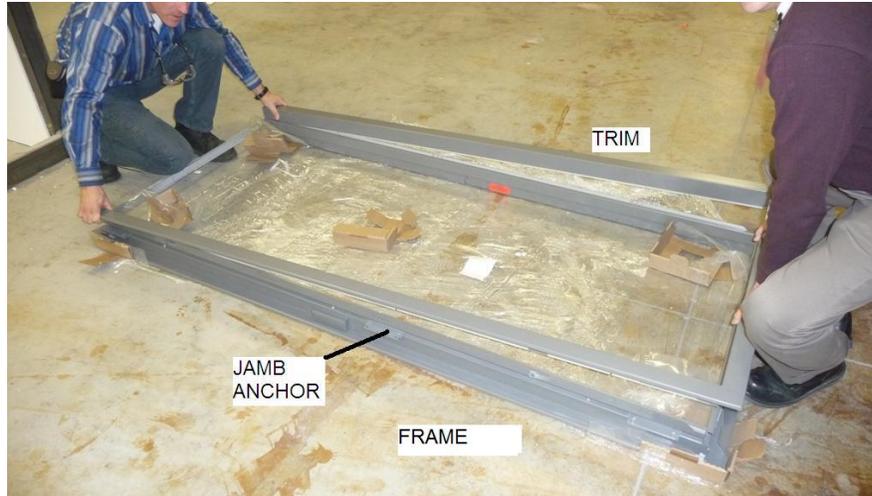


Figure 1 : Split Frame Components

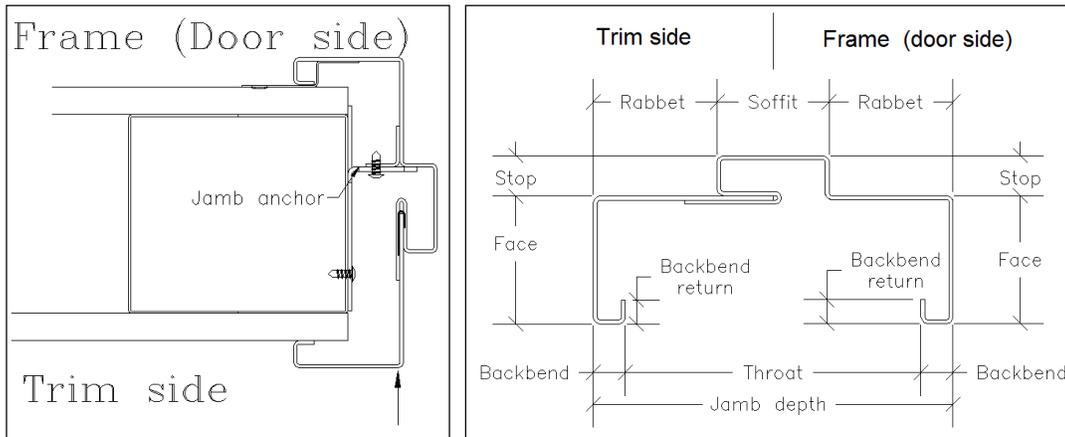


Figure 2: Profile and nomenclature

TOOLS, HARDWARE AND PARTS

1. Tools for split frame installation

Drill		Measuring tape	
Soft rubber mallet		Pliers	
Level		Bar clamp	
Utility knife		Bit driver extension (for thick walls)	
Phillips bit driver			

2. Hardware and parts for split frame installation (supplied by de La Fontaine)

PART #	DESCRIPTION	IMAGE
01	3/4 inch (19 mm) self-drilling screws (for drywall installation)	
03	Sandpaper roll to be cut in 1-1/4 inch (31.8 mm) pieces	

Note: Screws for masonry installation by others

ROUGH OPENING

1. Three-sided frames, transom frames, Borrowed lites sitting on floor or sidelite frames
It is the installer's responsibility to make sure the opening is suitable for the frame installation. The installer must check the following points:

- a. Wall thickness compares to frame jamb throat.
- b. Make sure the opening is free of debris and other material that could compromise the installation.

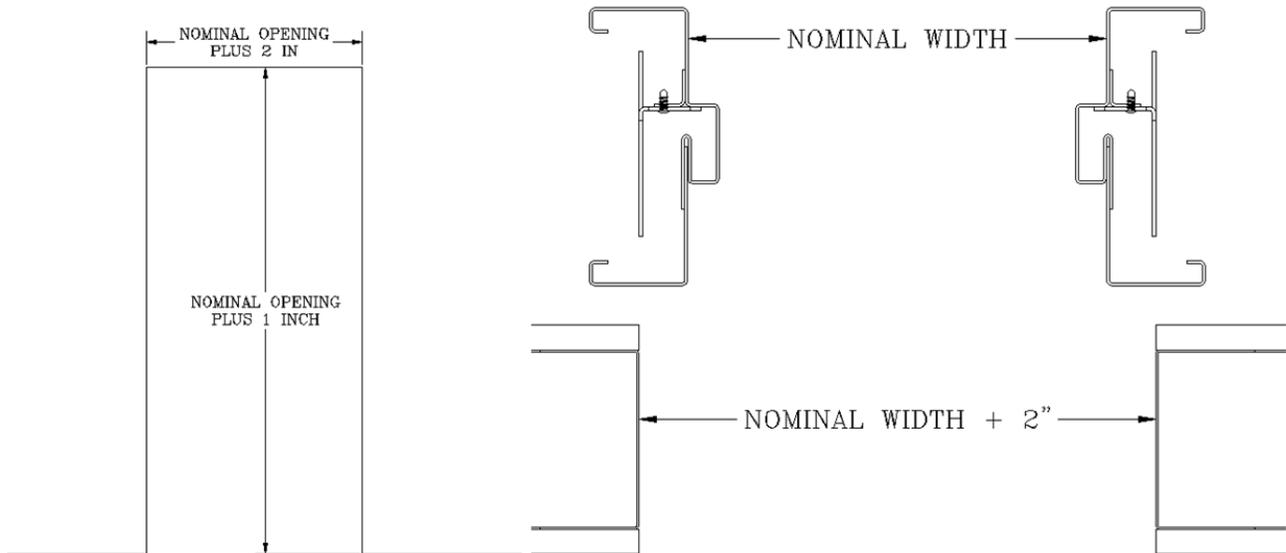
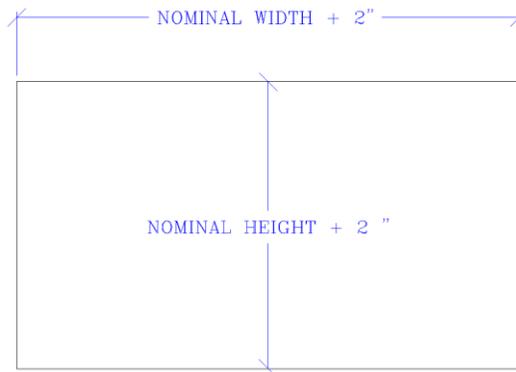


Figure 3 : Rough opening and frame measure

2. Borrowed lites

Width and height of the rough opening should be 1 inch larger per side on height and width.



SPLIT FRAME INSTALLATION

1. Unpacking the frame

- a. Lay the frame on the floor, on the door side.
- b. Unwrap the frame, using a utility knife on the throat side of the frame. Leave the wrapping material under the frame.



Figure 4 : Unwrapping the split frame

- c. Remove the cardboard protection corners and dispose of them properly. The material can be recycled.
- d. Once the frame is unwrapped, remove the shipping screws and dispose of them properly.



Figure 5 : Removing the shipping screws

- e. Take the trim off the frame and place it in a secure area, ideally leaning on its unfinished side.
- f. Raise the frame and place it in a secure area, ideally leaning on its unfinished side.
- g. Dispose of the packaging material properly according to your local regulations.

2. Setting the frame in the opening

*for side lights or mechanical splices, see appendix A and B



Figure 6 : *Placing the frame into the opening*

- a. Place the frame in the opening. To make sure the frame slides correctly, make sure the jamb anchors are retracted fully against the jambs.
- b. While holding the frame, use a bar clamp on the hinge jamb to temporarily secure the frame in the opening.
- c. Using a level, make sure the hinge jamb and head are plumbed, squared and leveled. Shim if necessary (fire-rated openings must have steel shims).

3. Securing the hinge jamb in the opening

- a. Secure the hinge jamb using ONE jamb anchor (intermediate anchor is strongly suggested).
- b. Make sure to loosen the two (2) A screws (Picture 7, step 1). Screw the anchor to the wall using two (2) B screws (part # 01) (Picture 7, step 2).
- c. While lightly prying the anchor against the wall, tighten the two (2) A screws (Picture 7, step 3). Be careful not to screw with excessive force. Check the level again, to make sure nothing has moved.

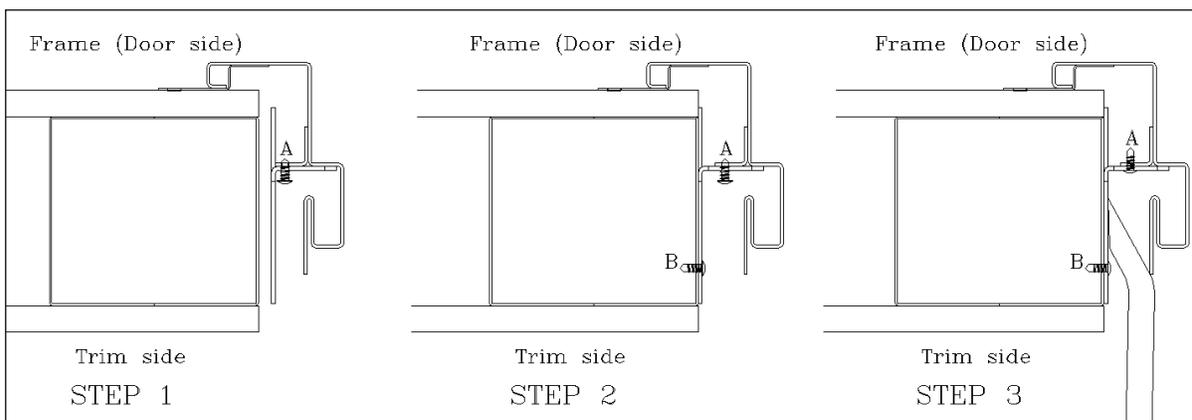


Figure 7 : Tightening the first jamb anchor

- d. Screw the strap anchor of the hinge jamb into the wall, using the proper fasteners for your application (drywall, masonry, other). This fastener is not supplied with the frame. Make sure it does not interfere with the base board installation.



Figure 8 : Screwing the strap anchor

- e. Screw the remaining hinge jamb anchors, following instructions 3 a, b, and c.

- f. Once the hinge jamb anchors are all secured, use the pliers to bend the tabs (one tab per anchor) to have them leaning against the anchor (have the pliers placed correctly on the tab and just twist the tab). (Picture 9) Then, screw the tab to the anchor with two (2) 3/4 inch (19 mm) self-drilling screw (part #01);

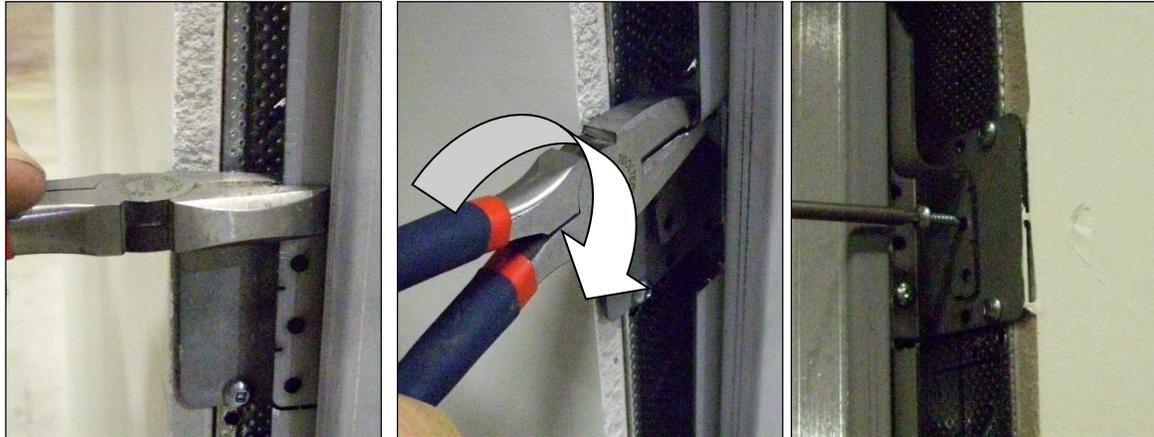


Figure 9 : Bending and attaching the tab

The door can either be installed now or later. If the door is available, install it now and use it as a template for the clearances.

4. Door installation

- a. Hang the door and use it as a template for the net opening size.
- b. Remove the custom spreader bar. Unscrew the fasteners and tilt the bars up and down to break the micro-joints at both ends.
- c. Make sure to have the proper opening width and the proper clearances. Use shims if necessary. Metal shims must be used on fire rated opening.

NOTE: The spreader bar should keep the opening at the optimal width if the door is not available.

5. Securing the strike jamb in the opening

- a. Secure the strike jamb anchors the same way as for the hinge jamb anchors. Refer back to step 3 and follow each instruction.

By now, the anchors are all in position and secured. The door and frame assembly is operational. Check for installation quality and solidity. Make sure the final measurements and clearances are accurate. Also, make sure the frame is plumbed, squared and leveled.

Once it is done, screw the one screw (see picture 10) in the center of each wall anchor, to make sure the anchors will remain in place during the frame lifetime.

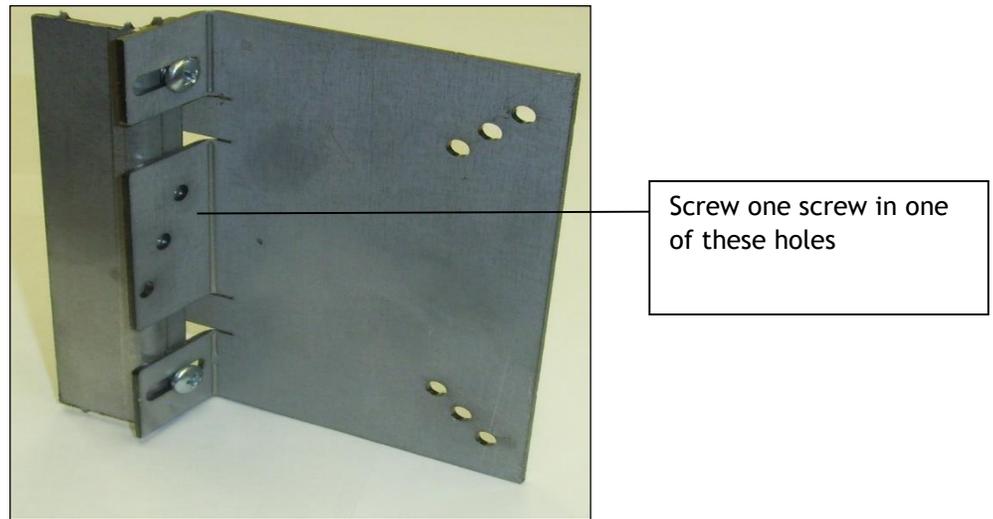


Figure 10 : Add one screw in the center of each wall anchor

6. Trim installation

- a. Cut small pieces of sandpaper (part #03). Roll provided is 3" (76.2 mm) wide, so cut 1" (25.4 mm) x 3" (76.2 mm) pieces (use one piece per jamb anchor).
- b. Place the sandpaper on the edge of the trim section, just beside the paint line (1/4" (6.5mm) from the side) with the surplus on the back side. Align them height-wise with the jamb anchors.

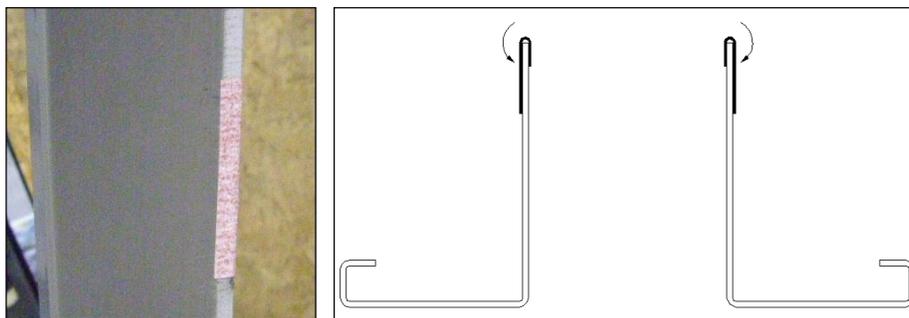


Figure 11 : *Placing sandpaper on trim section*

- c. Insert the trim in the frame by pushing on it. When it is inserted all around, use the rubber mallet to position the backbend return against the wall.

Note: Once the trim is installed, it can be removed, but rarely without scratching the wall. If ever you should remove it, use a crowbar and the rubber mallet. Insert the crowbar between the wall and the trim section. Hit the rabbet of the trim with the rubber mallet. By gentle vibration, remove the trim section.

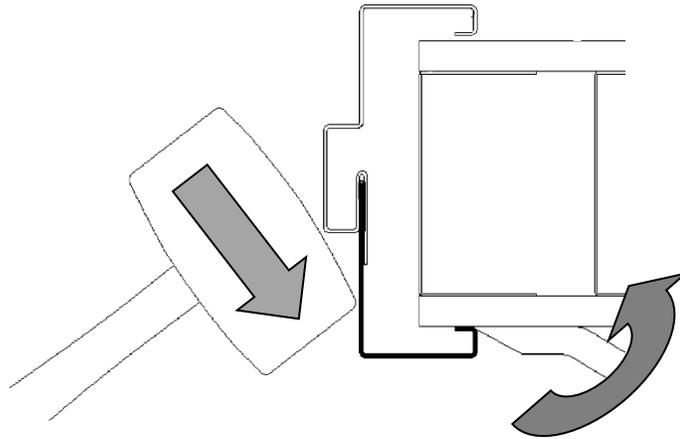


Figure 12 : Removing the trim with a crowbar and rubber mallet

ADDITIONNAL INSTRUCTIONS ON BORROWED LITE INSTALLATION

The same steps shall be followed for the installation of a borrowed lite. However, the installers should be advised that:

- a. Borrowed lite split frames do not have strap anchors at base of frame (Ref. Figure 8)
- b. They will receive extra anchors at base and head.
- c. Rough openings should be 2" wider and higher than nominal (order or rabbet to rabbet) size
Ex: 18" Wide x 22" High rough opening will suit a 16" x 20" frame.
- d. The following sequence should be followed when securing anchors:
 - i. Attach anchors of one vert jamb
 - ii. Attach anchors of the other vert jamb.
 - iii. Attach base anchor
 - iv. Attach head anchor
 - v. Remove shims at bottom if used (wood shims not allowed in fire rated wall).

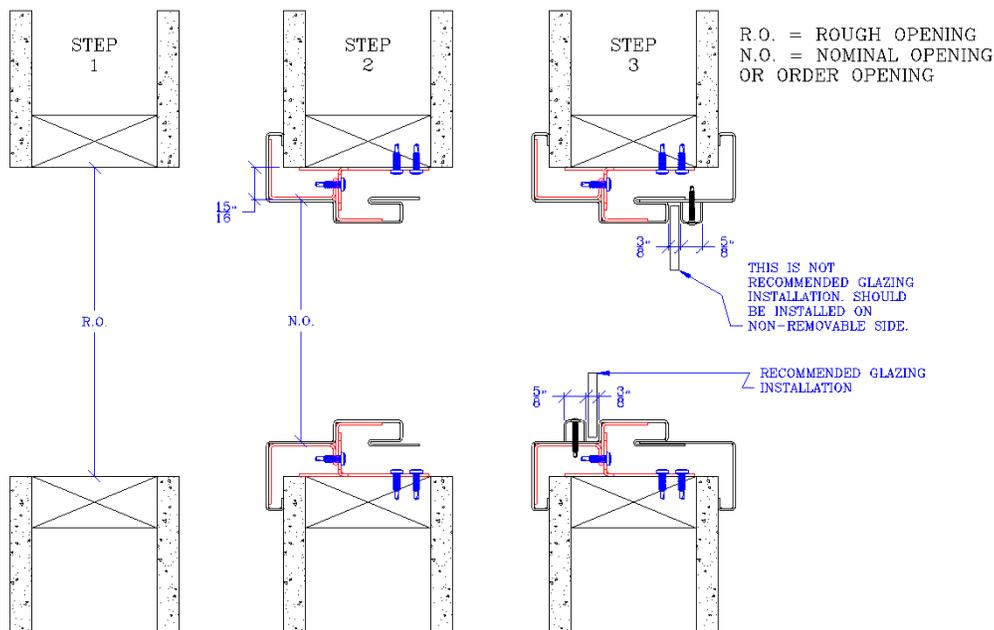


Figure 13 : Borrowed lite installation

APPENDIX A - SPLIT FRAME WITH VERTICAL MULLION AND SILL

The mullion and sill of a split frame side light are face welded to the door side (frame). It is not shipped separately and does not need any field welding. The only additional operation to be done is to install a floor anchor before setting the frame in the opening. The following steps are done just before the frame is set in the opening.

1. Additional tools/hardware required

Necessary tools for proper anchoring to the floor (either ramset or screwed), mullion floor anchor (supplied) and fasteners

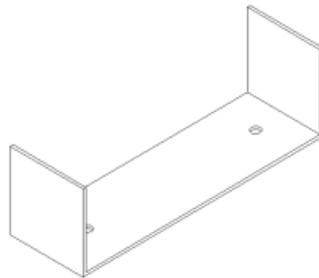


Figure 14 : Mullion floor anchor

2. Setting the anchor in the opening.

- a. Using the wall as guide, draw a line from one side of the opening to the other (on active door side)
- b. Measure the position where the anchor should be located.
- c. Place the mullion anchor at this position, but move it forward $\frac{7}{16}$ " and attach it to the floor.

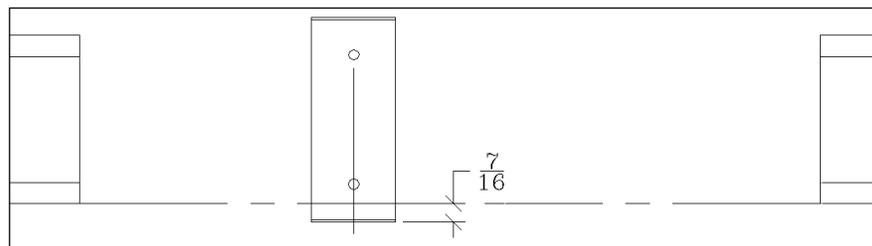


Figure 15 : Mullion Floor anchor alignment

- d. Insert the frame, bottom first, and then tilt into the opening.

It is also possible to use the frame as template. Then follow these next steps instead of a to d.

- a. Place the side light in the opening; hold it in place and make sure the mullion is aligned with both jambs, using a level or a straight edge. Use the bottom of the mullion as a template to mark the floor with a pen
- b. Move back the elevation and place it in a secure area.
- c. Center the mullion floor anchor inside the marks and attach to the floor.

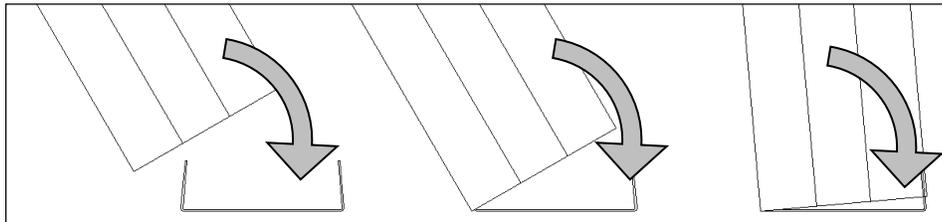
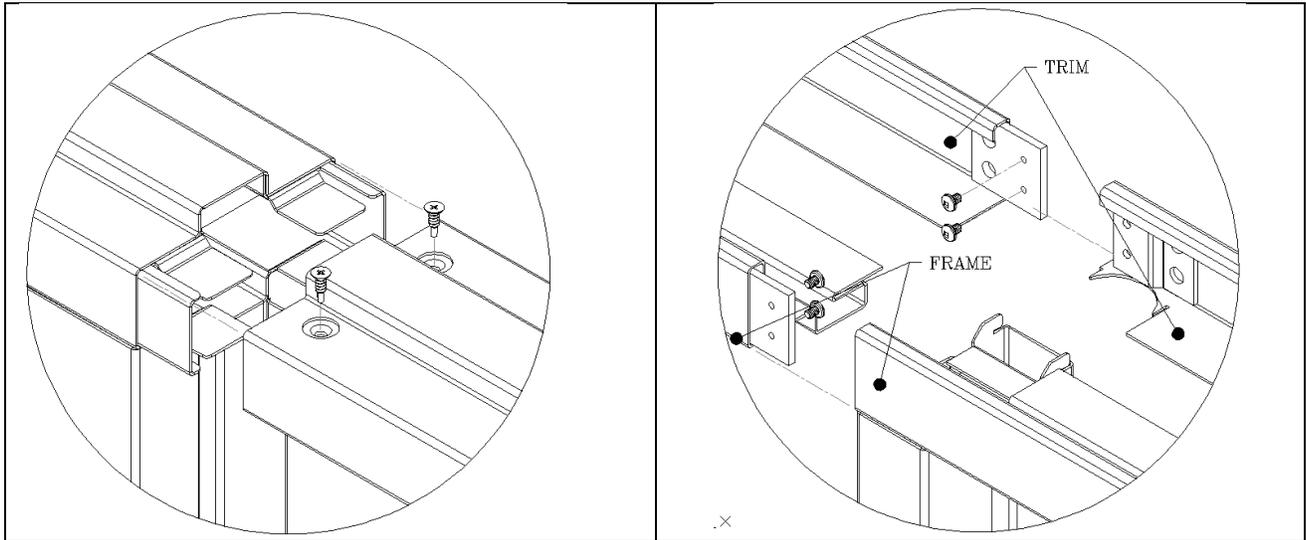


Figure 16: Positioning the mullion on floor anchor

Continue the installation following the standard frame procedure (step 3).

APPENDIX B - SPLIT FRAME WITH MECHANICAL SPLICE

The use of a mechanical splice on a split frame is almost the same as for a regular frame. Once the frame is unpacked, follow these steps for correct installation of the frame/sidelight/borrowed light.



Mechanical splice of a mullion (also used on base)

Mechanical splice of a header (also used on jamb)

Figure 17 : Overview of a mechanical splice

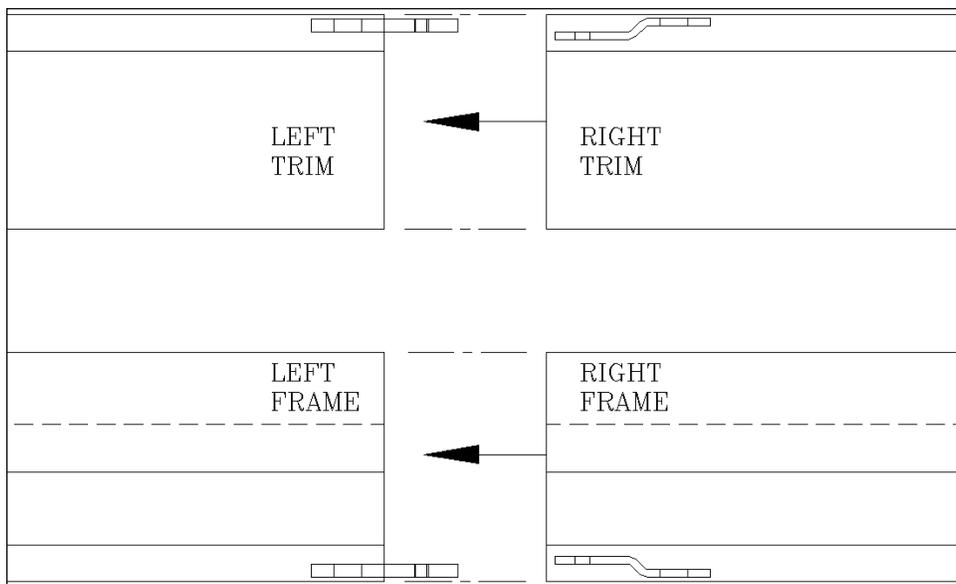


Figure 18 : Top view of the frame and trim parts taken apart

- B-1. Lay the trim parts on the floor. Attach both trims parts together using the mechanical screws provided. Make sure alignment is good before tightening the screws. Place the assembled trim in a secure area.
- B-2. Lay the frame parts on the floor. (Welded frame may contain welded mullions). Join together the two parts of the frame assembly, including mullions, bases and headers. Make sure the alignment of all the frame components is good before screwing the self drilling screws.
- B-3. Steel plugs are provided with mullion/bases mechanical splice preparation. Insert them into the round hole when the fastening operation is over for a neat and aesthetic appearance.
- B-4. Resume the installation the same way as a regular frame (from step #2, page 6)