

INSTALLATION INSTRUCTIONS

Heavy Wall Applied Stop Tube Frame and Door Installation

IMPORTANT: Read all instructions before beginning installation.

These instructions are provided to help prevent installation problems caused by most common errors. They are strictly recommendations and are not intended to be a step-by-step, foolproof installation checklist suitable for every situation. There are many variations of installations not covered in these instructions that Special-Lite assumes are general construction knowledge to an experienced installer.

Selection of an experienced installer is the sole responsibility of the project owner or responsible party. **Failure to follow good practice in installation will void the warranty on Special-Lite products.**

If you have any questions about installation techniques for your particular project, please call 1-800-821-6531 and ask for a Special-Lite Customer Service Representative or Training Manager.

This and other Installation Instructions can be found on Special-Lite's web site at www.special-lite.com.



Tube Frame and Door Installation

CHECK NEW FRAME COMPONENTS

1. It is important to mark all parts and pieces that are removed from the framing when unpacking. Snap stops are shrink wrapped to their proper locations and should be marked to make sure they are reinstalled in the same position.
2. Check work orders or prints for proper inside or outside glazing. Verify that all frame components are oriented in the same direction.

NOTE:

The Special-Lite standard is to glaze from the exterior side of frame.

3. Measure the new frame and door(s) to make sure everything is sized and located correctly. This is especially important in retrofit situations *before* demolition of an old opening.

MARK FASTENER HOLE LOCATIONS

NOTE:

Special-Lite does not provide the following: mounting holes, mounting fasteners or mounting shims.

4. Frame mounting fasteners in the jamb should be located beneath door stops or drilled through the fixed glass stops (Figure D). First mark the position of the door stop on the door jamb, and remove the door stop. Door stops are reapplied after frame installation is complete.

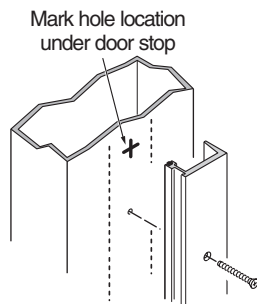


FIGURE A

5. Position each tube in the opening. First mark mounting hole locations approximately 4" from both ends of vertical tubes. Then mark additional mounting locations on the frame. Mounting holes should be spaced no more than 24" apart.

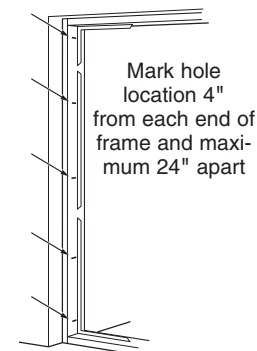


FIGURE B

6. Mark mounting hole locations in header.

IMPORTANT:

A minimum of (2) mounting fasteners are required per header, with additional fasteners spaced no more than 24" apart. Be sure to place a header mounting fastener as close as possible to both sides of each vertical frame member.

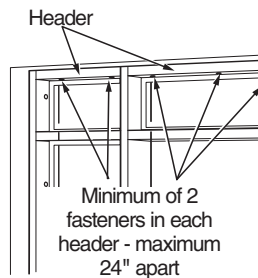


FIGURE C

DRILL MOUNTING HOLES

IMPORTANT:

Proper installation requires mounting holes to be drilled through glass stops. There is no need to remove glass stops.

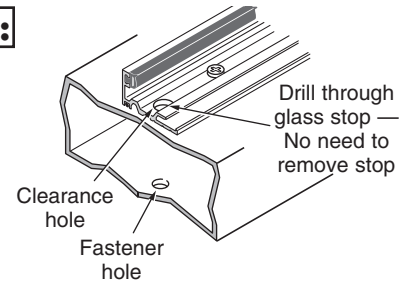


FIGURE D

7. Drill through-holes 1/16" inch larger than thread diameter of mounting screws at all mounting hole locations marked on frame. Mounting screws must be 1/4" or larger.

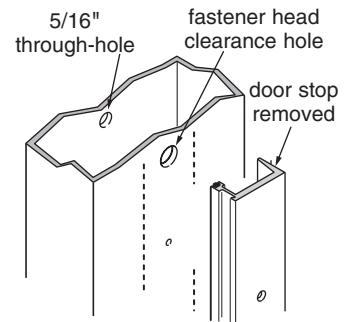


FIGURE E

8. Drill clearance holes large enough for fastener heads and driver to pass through to frame interior at all mounting hole locations.

ASSEMBLE AND CAULK THE FRAME

IMPORTANT:

During assembly, frame components must be carefully caulked at all joints.

NOTE:

Be sure to use a colored caulk. Do not use clear caulk (clear allows light to leak through frame).

9. Remove factory-installed clip screws. Apply caulk around frame clips

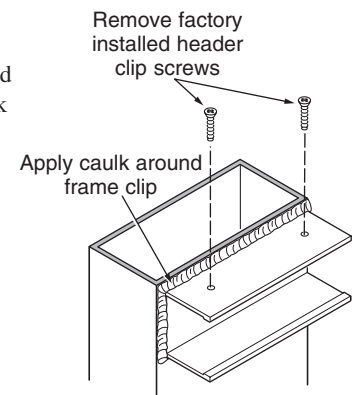


FIGURE F

Tube Frame and Door Installation

- 10.** Slide horizontal frame members onto frame clips and reinstall clip screws. Wipe off excess caulk.

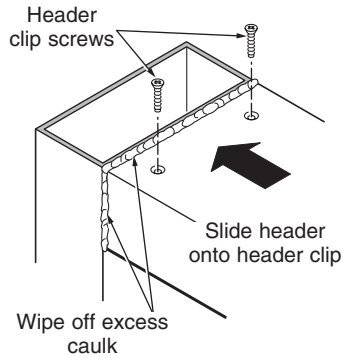


FIGURE G

NOTE:

On long frame units you may want to snap a chalk line on the top and bottom rough opening surfaces, making sure to maintain plumb, to aid in positioning the frame.

- 11.** When floor clips will be used, install clips exactly in line with frame position at this time. **Special-Lite only provides floor anchors for sill heights more than 2" and free standing vertical frame members.**

IMPORTANT:

Do not use steel floor clips due to potential for corrosion between dissimilar metals.

- 12.** When fully assembled and caulked, tip the frame assembly upright into the opening, making sure it is properly positioned on floor anchor clips or chalk marks in rough opening.

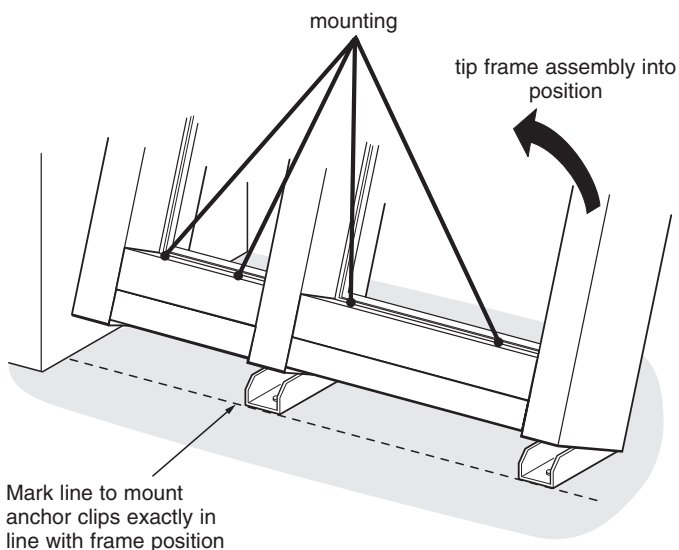


FIGURE H

ADJUST FRAME ASSEMBLY ALIGNMENT

- 13.** Place the threshold across the door opening (or use some other type of support the same length as the header) to keep the latch jamb and hinge jamb parallel.
- 14.** Use shims to secure frame assembly in the opening. Use tapered wood or composite shims to shim frame assembly into the opening.

NOTE:

Shims not provided by Special-Lite.

- 15.** With a level, make sure the door jambs are plumb and the header is level.
- 16.** Shim frame at top and bottom corners only at this time.

IMPORTANT:

Do not rely upon a visual check or a tape measure for accurate frame alignment. Using a professional-grade level is recommended.

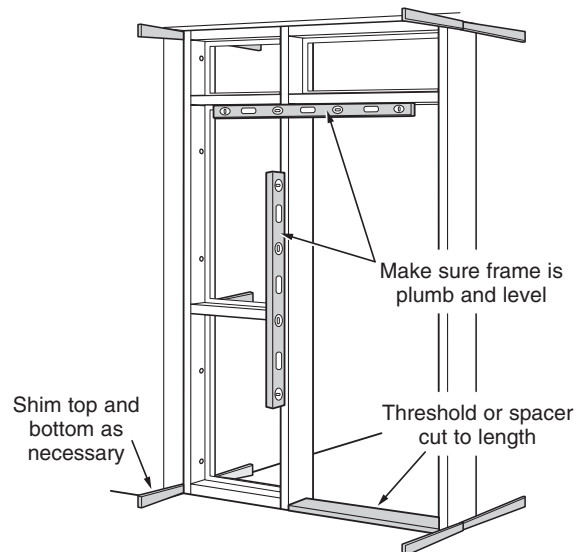


FIGURE I

IMPORTANT:

Do not install any mounting fasteners at this point. Doors must first be installed to allow proper door in frame adjustment.

Tube Frame and Door Installation

HANG THE DOOR(S)

NOTE:

Door installation instructions apply to all door models.

- 17.** After removing the door from the box, remove the screw pack that is placed under the hinge leaf. After doing so, be sure to open the hinge leaf and replace the screw that was holding the pack in place. If the hinge was not installed at the factory, install the hinge to the door now.

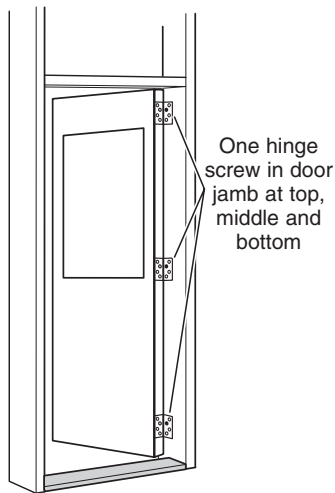


FIGURE J

- 18.** Hang door(s) in the frame with (3) screws in hinge jamb — one screw at top, middle and bottom.

- 19.** Close door and check for Special-Lite recommended clearances:
- 1/8" at strike jamb on single doors
 - 3/16" at mating stiles
 - 1/8" at header. Adjust as needed.

NOTE:

Pairs of doors are installed in the same manner.

If a meeting brush is used with pairs of doors, be sure to pull the string that holds the meeting brush rigid for shipping.

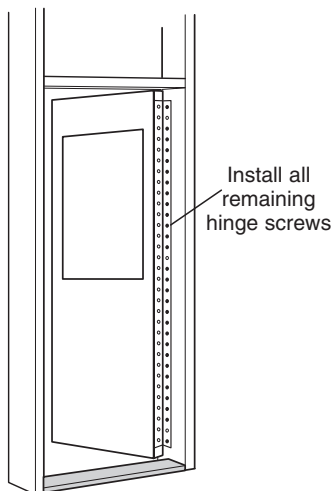


FIGURE K

- 20.** Check for alignment and make any adjustments to the frame to get the doors to align properly.

- 21.** Install remaining hinge screws. Consult hinge manufacturer instructions for proper installation.

MOUNT FRAME ASSEMBLY

- 22.** Place shims behind each frame-mounting hole location.

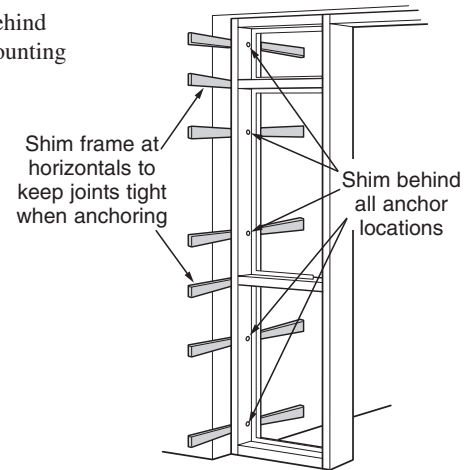


FIGURE L

NOTE:

Do not over tighten shims.

- 23.** Drill anchor holes for the fasteners into the subframe (rough opening) through the mounting holes already drilled in the frame.

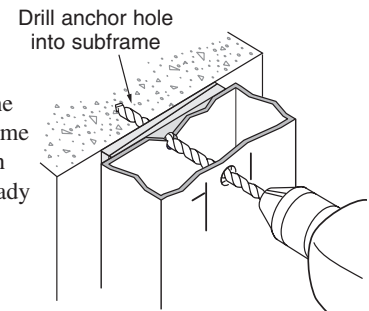


FIGURE M

- 24.** Anchor the frame assembly using minimum 1/4" diameter fasteners that penetrate at least 1" into the rough opening.

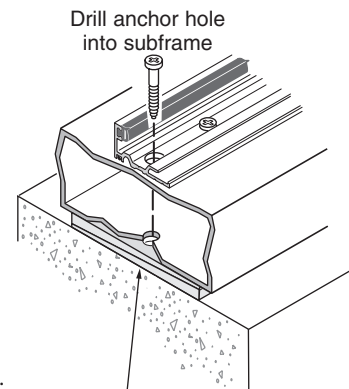


FIGURE N

NOTE:

Squeeze caulk into sill frame mounting holes before installing fasteners.

- 25.** When all anchor screws are installed, trim the shims flush to the frame.

Tube Frame and Door Installation

26. Reapply the door stops removed earlier.

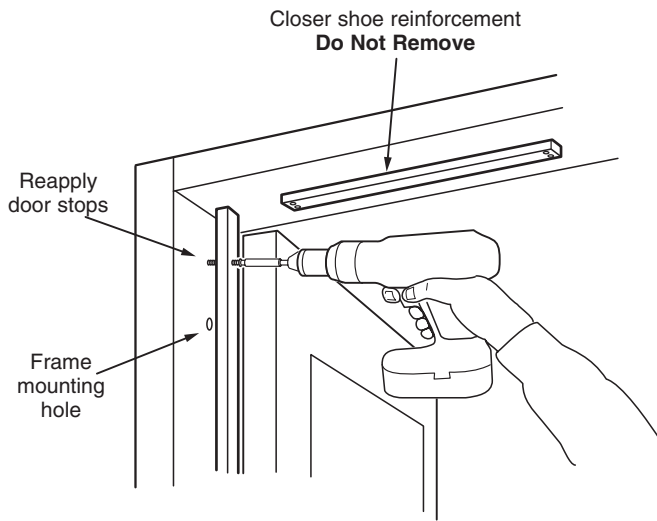


FIGURE O

SEAL FRAME PERIMETERS

27. Apply caulk along the interior and exterior frame edges.

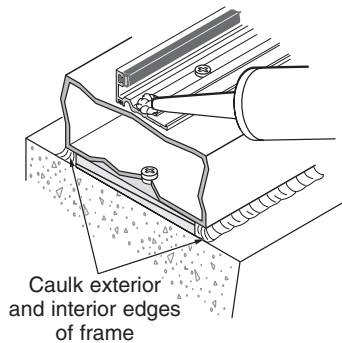


FIGURE P

28. Seal clearance holes in the sill with caulk before glazing.

29. If a threshold is required, place in position and check for proper door clearance. Be sure to set threshold in caulk to prevent threshold from leaking. Secure threshold with appropriate fasteners. If you have an un-level threshold condition you may want to use Special-Lite's SL-301 Adjustable Bottom Brush.

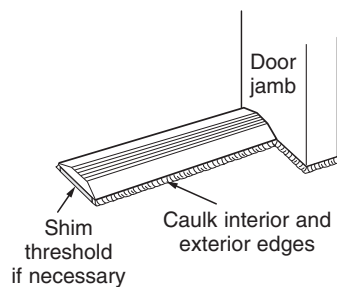


FIGURE Q

HARDWARE INSTALLATION

30. Locate, mark, and install any door hardware that has not already been installed at the factory.

IMPORTANT:

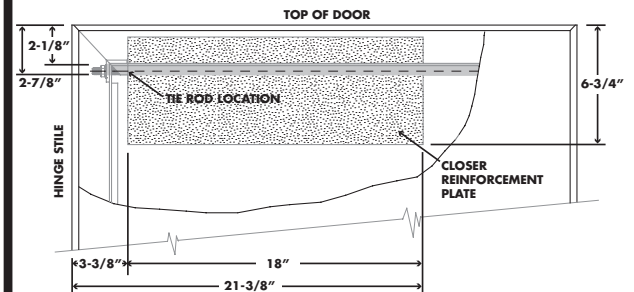
Do not drill closer mounting holes through tie rod in door. Observe cautions on door sticker (see example below).

NOTE:

Do not use Tek screws on top closer fasteners, but instead use standard 1/4-20 x 2" machine screws drilled and tapped.

CAUTION

Be careful when drilling for closer mounting screws. Do not drill any hole deeper than 9/16 of an inch at tie rod location. Refer to illustration below or installation instructions for location of tie rod and closer reinforcement plate.



Caution Sticker applied to all flush doors

31. Field adjustments may be necessary. All hardware must be field adjusted after door is hung, for proper function. (Strikes, closers, pivots, mullions, etc.)

Glass and Panel Installation

FRAME GLAZING PROCEDURE

- 32.** Apply a small amount of sealant at all four joints of the glazing gasket. (All openings).
- 33.** Sort all snap stops for each opening to reinstall where removed. Each opening will have a removable snap stop at the sill with weep slots.

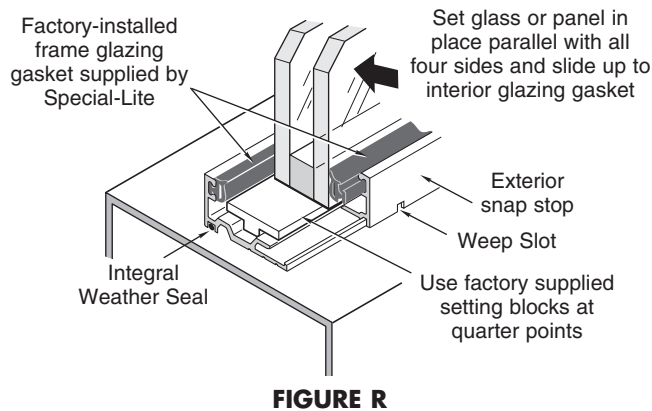


FIGURE R

- 34.** Install glazing gasket into snap stops. Compensate for shrinkage by compressing as much excess gasket as possible into the retaining channel and trim to length.
- 35.** Apply caulk at inside corners of glass stops. Promptly remove any excess caulk from gasket channel.

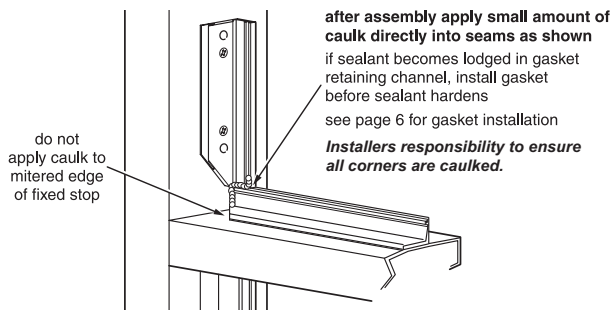


FIGURE S

- 36.** Install factory supplied setting blocks at quarter points.
- 37.** Place glazing or panel in position on setting blocks, centered side to side.
- 38.** Install snap stops using proper techniques shown in Figure T. Start with the top horizontal piece, then the weep-slotted sill piece. Install remaining vertical snap stops.

NOTE:

When removing glass or panels from applied stop framing it is recommended that rubber glazing be removed prior to removing snap stops. Have new rubber glazing on hand.

- 39.** If Special-Lite class "A" fire-rated skins on architectural panels are used, rated side of the panel is marked with a sticker indicating the interior side ONLY. Any pebble grain architectural panel or SL-17 flush door with Class A sheeting must be used on the interior side. If exposed to direct sunlight, Class "A" skin colors may discolor.
- 40.** Remove all exposed production stickers from door(s) and frames after installation.

NOTE:

For future door reference, do not remove *hinge side production sticker*.

INSTALLATION TIPS

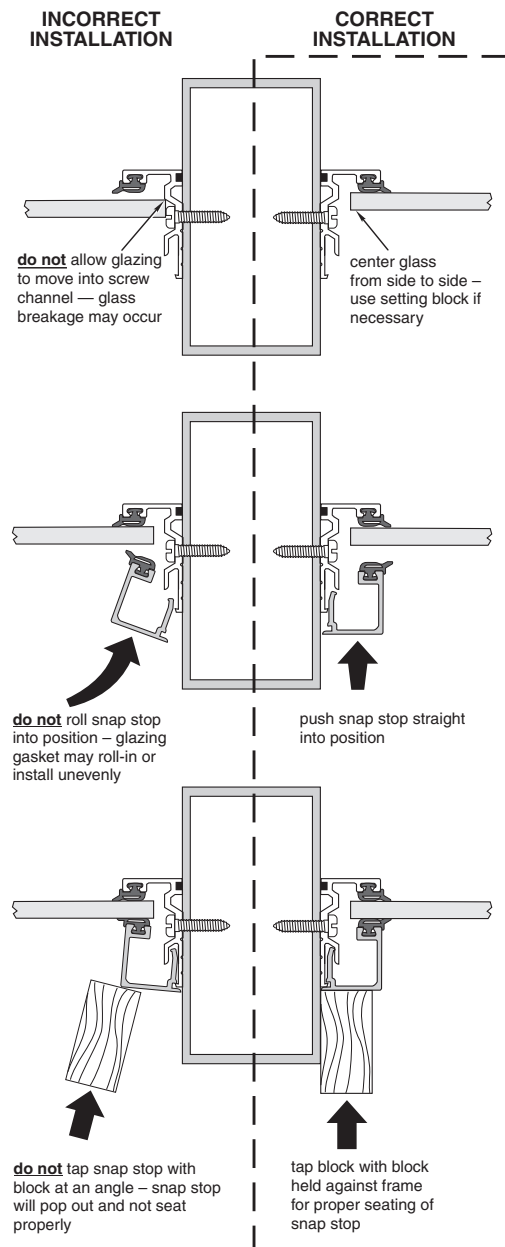


FIGURE T

Glass and Panel Installation

DOOR GLAZING PROCEDURE

NOTE:

Special-Lite provides panel or glass sizes for all openings. Refer to the illustrations below for specific glazing applications. The glazing procedure is as follows:

1. Remove the interior glazing kit.

This may include a glazing gasket, snap stop or kit with fasteners.

2. Apply glazing tape.

Glazing tape is supplied by Special-Lite. The tape will vary in width according to glazing specifications.

3. Install setting blocks.

Setting blocks are provided by Special-Lite.

4. Fasten glass in position.

Set glass into opening and reinstall interior glazing kit, snap stop or glazing bead. Tighten all fasteners.

FLUSH DOOR WITH 1/4" TO 1" GLASS

Glass size for 1/4" and 1" glass is daylight opening plus 1".

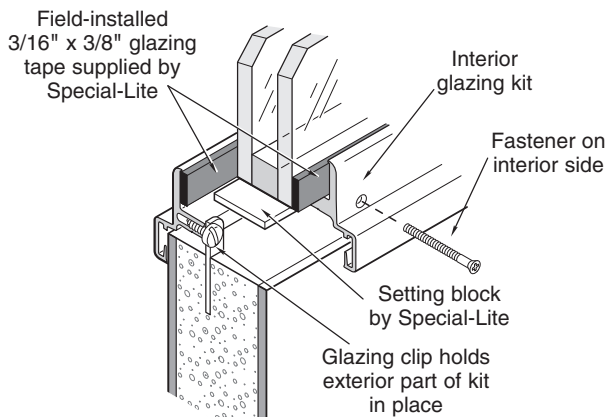


FIGURE U

NOTE:

Field-installed glazing seal should be applied to 3 sides on exterior of kit (not on bottom) and along bottom and 3" up sides on interior of kit.

MONUMENTAL DOOR WITH 1/4" GLASS

Glass size for 1/4" glass is daylight opening plus 9/16" (see illustration in next column).

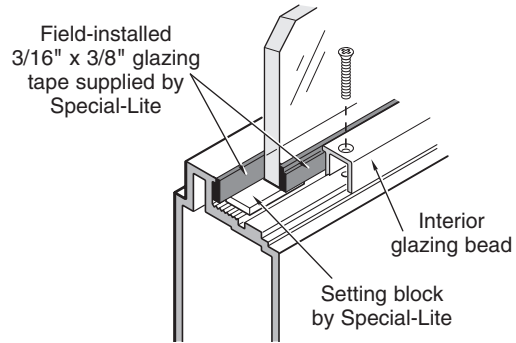


FIGURE V

MONUMENTAL DOOR WITH 1/4" GLASS AND SURFACE-APPLIED MUNTIN BARS

Glass size for 1/4" and 1" glass is daylight opening plus 1".

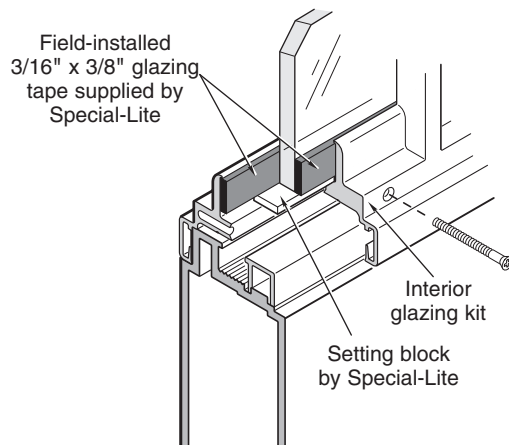


FIGURE W

MONUMENTAL DOOR WITH 1" GLASS

Glass size for 1" glass is daylight opening plus 7/8".

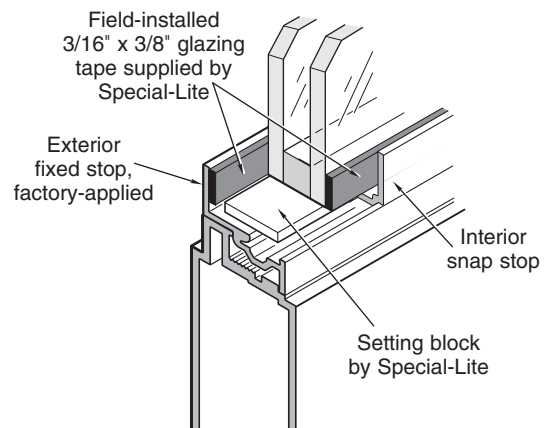


FIGURE X

Additional Reference

NOTE:

Installation instructions are available on our website for this and our other products at special-lite.com.