



INSTALLATION INSTRUCTIONS

Flush Glazed Framing 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.



Flush Glazed Framing 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.

NOTE:

All door frame material comes standard with 1/8" tube wall thickness.

MARK FASTENER HOLE LOCATIONS

NOTE:

For SL-450 framing (1/4" glazing) or .125 intermediate door frames follow steps 4-8.

For SL-450T or SL-600T framing, use pre-punched holes for mounting. Skip to "Assemble and Caulk the Frame" section.

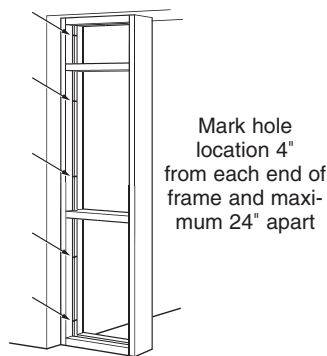


FIGURE A

4. Frame mounting fasteners in door jamb should be located beneath door stops. First mark the position of the door stop on the door jamb and remove the door stop. Door stops are reappplied after frame installation is complete.

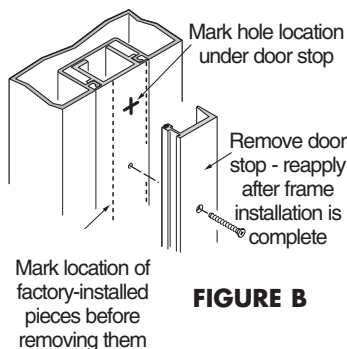


FIGURE B

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.

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.

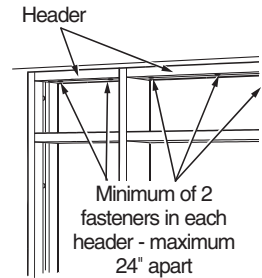


FIGURE C

DRILL MOUNTING HOLES

7. Drill a through-hole 1/16" to 1/8" larger than the screw diameter of the mounting screw at all mounting hole locations marked on frame. Mounting screws must be 1/4" or larger.
8. Drill clearance holes large enough for fastener heads and driver to pass through to frame interior at all mounting hole locations.

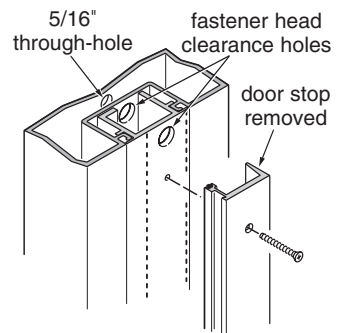


FIGURE D

IMPORTANT:

Do not drill through the door stop. Remove the door stop before drilling clearance and mounting holes. Reapply door stop after installation is complete.

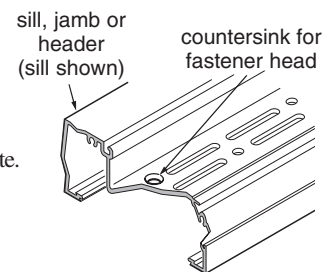


FIGURE E

IMPORTANT:

When attaching sills to floor, countersink flathead mounting holes in glass channel to allow fastener head to sit flush with glass channel. This allows the water diverter to sit properly in place and not interfere with glass installation.

ASSEMBLE AND CAULK THE FRAME

IMPORTANT:

During assembly, frame components must be carefully caulked at all joints. Sub-assemblies assembled at the factory have been caulked.

NOTE:

Be sure to use caulk of same color as framing. Do not use clear caulk.

9. You will need to install loose frame pieces to subassemblies assembled at the factory. Shear blocks, if used, are installed at the factory. Screw spline mounting holes, if used, are drilled at the factory. Follow the instructions for shear block or screw spline joints as appropriate for the installation.

Flush Glazed Framing and Door Installation

SHEAR BLOCK JOINTS

10a. Remove factory-installed screws in shear blocks. Apply caulk around shear blocks so that attaching horizontal frame members will be caulked entirely around mating surfaces.

11a. Slide horizontal frame members onto the shear blocks and install the shear block screws. Wipe off excess caulk.

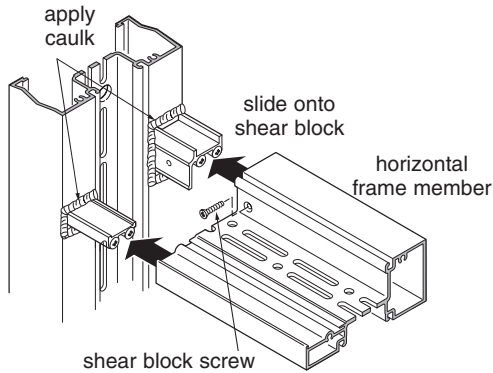


FIGURE F

SCREW SPLINE JOINTS

10b. If assembly of factory cut horizontals and verticals is required, remove factory-installed screw spline screws from the horizontals.

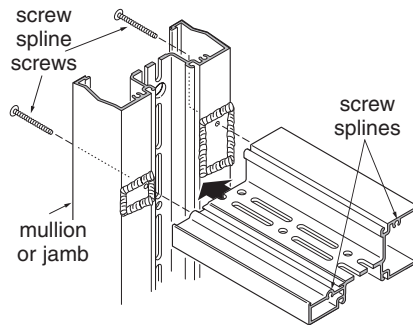


FIGURE G

11b. Place horizontal frame members into position and insert screw spline screws into splines.

snap mullion halves together

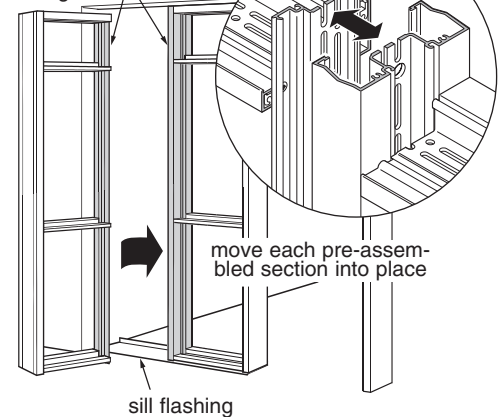


FIGURE K

SILL FLASHING

NOTE:

End dam is used at end of flashing where flashing meets the subframe.

12. Remove protective strip from the double sided tape on end dam.

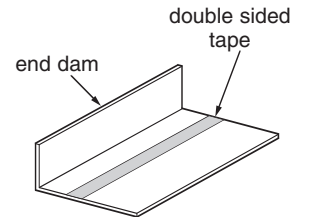


FIGURE H

13. Press end dam in position against sill flashing. Apply caulk as shown between the end dam and sill flashing.

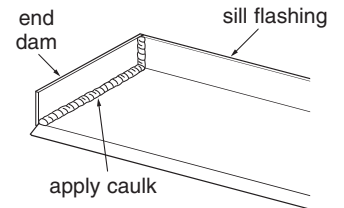


FIGURE I

14. Snap a line on the floor for sill flashing location. Apply caulk around interior edge and both ends of the sill flashing/end dam assembly. Firmly press in place.

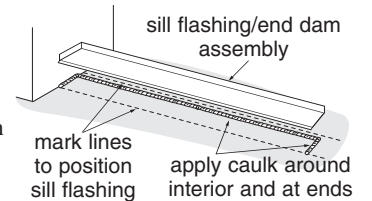


FIGURE J

15. From one end, move each sub-assembly into position. At all vertical mullions, push the two mating pieces together until they snap in place.

Flush Glazed Framing and Door Installation

ADJUST FRAME ASSEMBLY ALIGNMENT

16. 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.

17. Use tapered wood or composite shims to shim frame assembly into the opening.

NOTE:

Shims not provided by Special-Lite.

18. With a level, make sure the door jambs are plumb and the header is level.

19. 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.

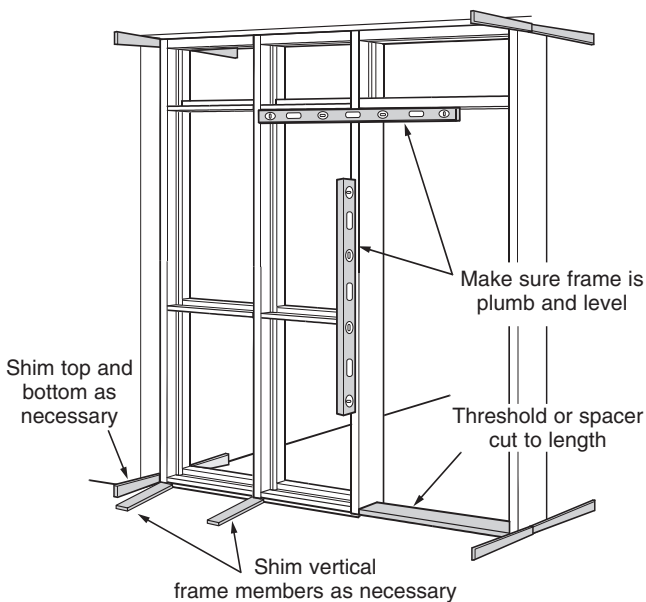


FIGURE L

IMPORTANT:

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

HANG THE DOOR(S)

20. 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.

21. Consult hinge manufacturer instructions for proper installation.

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

23. 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.

24. Check for alignment and make any adjustments to the frame to get the doors to align properly.

25. Install remaining hinge screws. Consult hinge manufacturer instructions for proper installation.

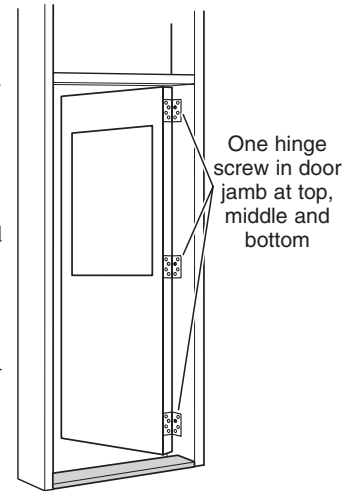


FIGURE M

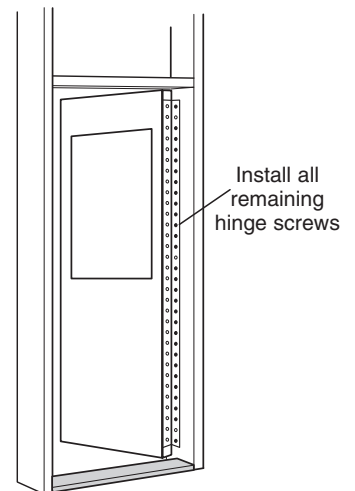


FIGURE N

Flush Glazed Framing and Door Installation

MOUNT FRAME ASSEMBLY

- 26.** Drill anchor holes for the fasteners into the subframe (rough opening) through the holes already punched in the frame.

NOTE:

Do not over tighten screws. Over tightening of the mounting screws could result in making the unit difficult to glaze.

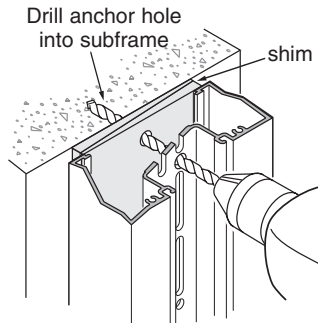


FIGURE O

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

NOTE:

Do not over tighten shims.

Shim frame at horizontals to keep joints tight when anchoring
Shim behind all anchor locations

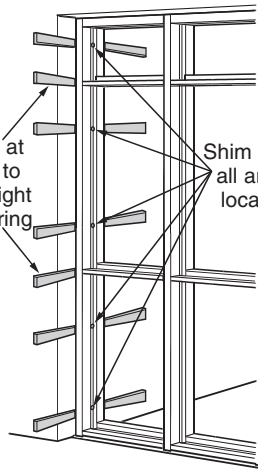


FIGURE P

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

NOTE:

Do not over tighten the mounting fasteners.

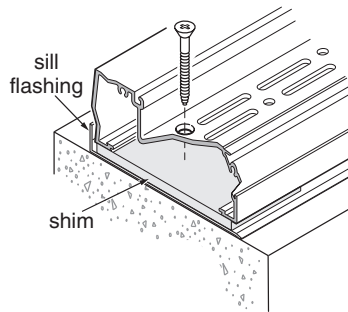


FIGURE Q

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

- 30.** Reapply the door stops that may have been removed earlier for drilling of mounting holes.

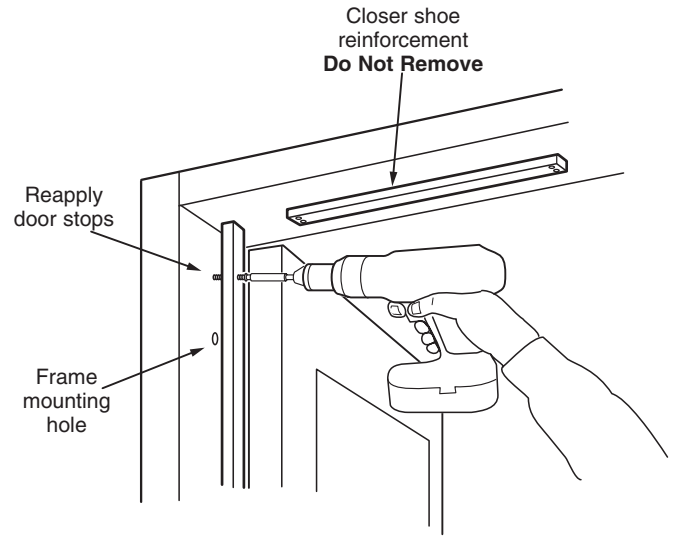


FIGURE R

SEAL FRAME PERIMETERS

- 31.** Apply caulk along the interior and exterior frame edges.

Allow small gaps at the bottom of each vertical frame member for water to weep.

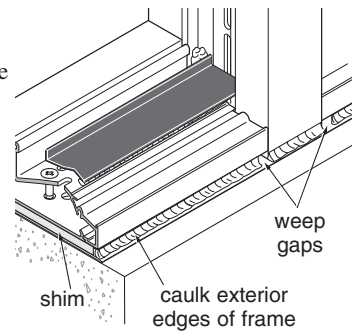


FIGURE S

- 32.** 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.

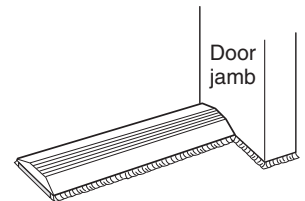


FIGURE T

Flush Glazed Framing & Door Installation/Glass and Panel Installation

HARDWARE INSTALLATION

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

IMPORTANT:

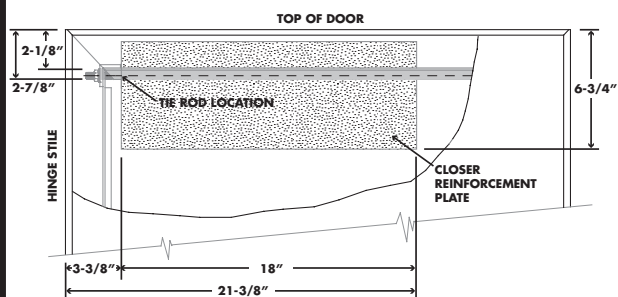
Do not drill closer mounting holes through tie rod in door. Observe cautions on door sticker (see example below).

NOTE:

Do not use tech screws on top closer fasteners, 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

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

FRAME GLAZING PROCEDURE

- 35.** On horizontal frame members, apply caulk along each end and the full length of the frame member along the exterior edge where the water diverter will rest. Also apply caulk at the vertical joint in the glass/panel channel. Press the water diverter into the caulk and position it for approximately 1/8" gap between the end of the water diverter and the vertical glass/panel channel at each end. (A water diverter is not used on transom door header frame members or sills.)

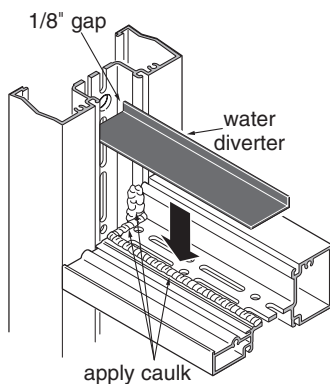


FIGURE U

- 36.** Install glazing gasket in all glass stops on interior side of framing. Compensate for shrinkage by compressing as much gasket as possible into the retaining channel and trim to length.

- 37.** Sort all snap stops for each opening. Each opening will have a removable snap stop at the sill and horizontal intermediate frame members.

Size for glass or panel is daylight opening plus 7/8". (1" glass shown.)

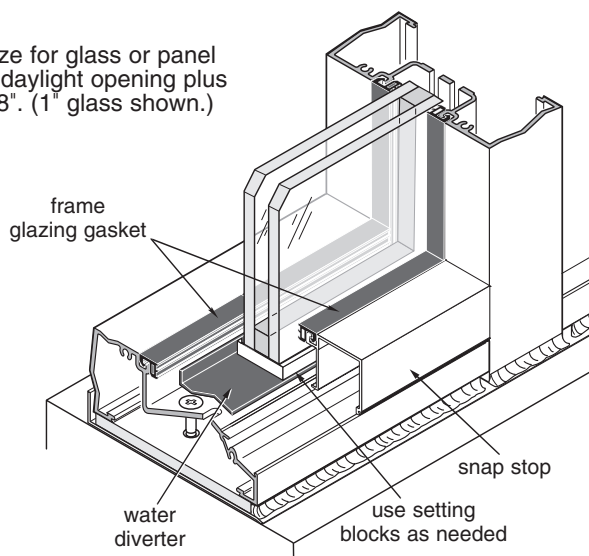


FIGURE V

Typical transom header above door openings

Size for glass or panel is daylight opening plus 7/8". (1" glass shown.)

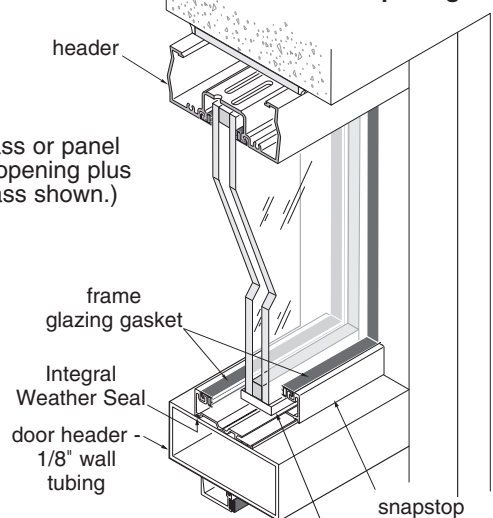


FIGURE W

Glass and Panel Installation

38. Install setting blocks at quarter points as needed.
39. Properly place glass or panel in position on setting blocks, centered side to side.
40. Install snap stops and remaining glazing gasket material.
41. Install gasket in snap stops. Compensate for shrinkage by compressing as much excess gasket as possible into the retaining channel and trim to length.
42. 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 finish 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.
43. Remove all exposed production stickers from door(s) and frames. Be sure to leave production stickers to hinge side of door(s) and frames for future reference if needed.

NOTE:

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

DOOR GLAZING PROCEDURE

NOTE:

Special-Lite provides panel or glass sizes for most 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".

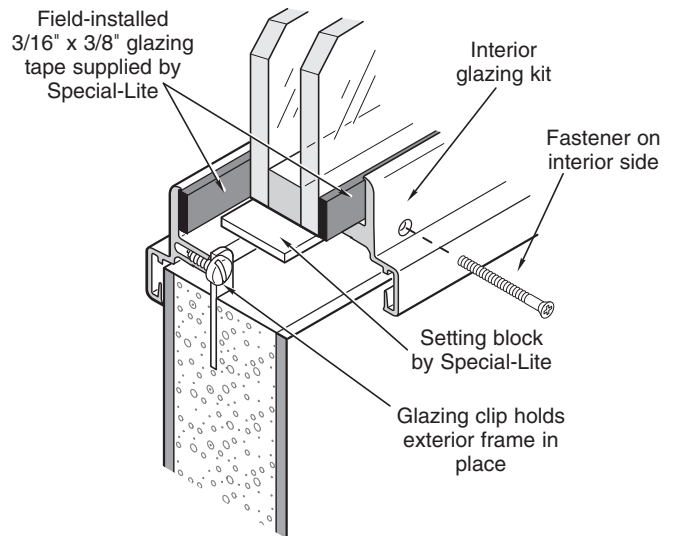


FIGURE X

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).

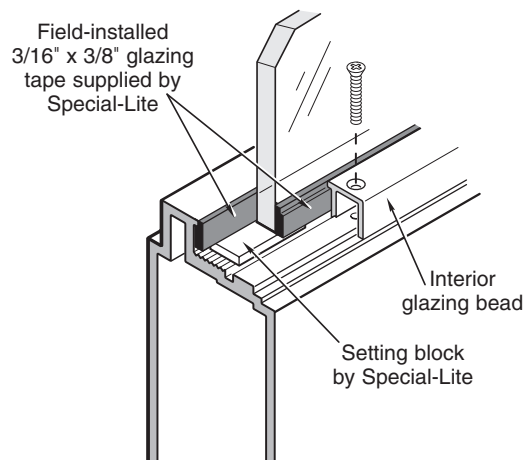


FIGURE Y

Glass and Panel Installation

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

NOTE:

Installation instructions are available on our website for this and our other products at <http://www.special-lite.com/techdata/installation.htm>

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

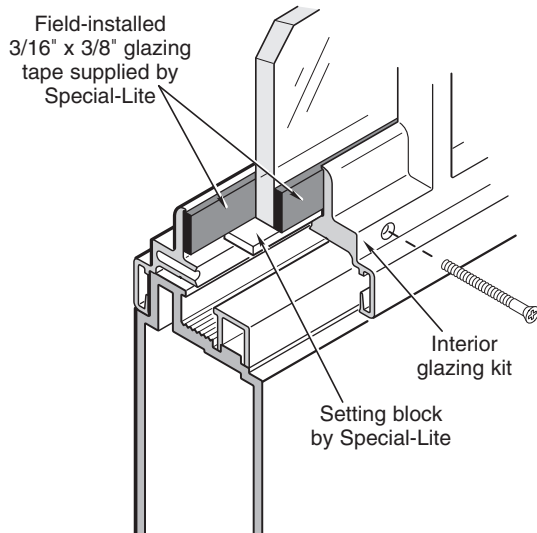


FIGURE Z

MONUMENTAL DOOR WITH 1" GLASS

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

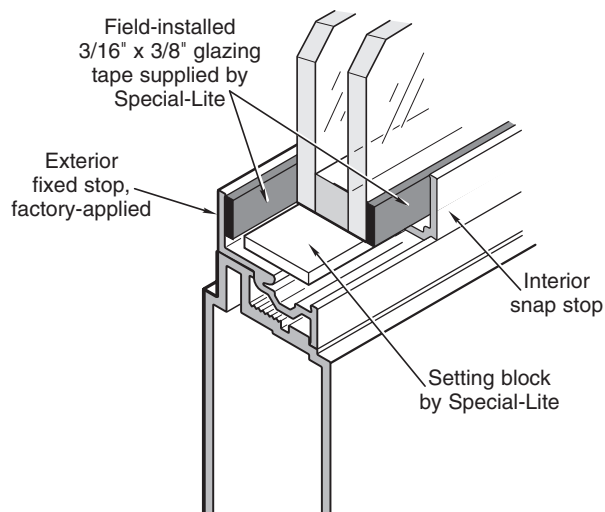


FIGURE AA