

# 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.



## 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

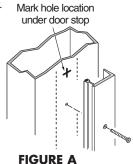
## NOTE:

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.
- 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.



Mark hole location 4" from each end of frame and maximum 24" apart

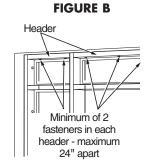


FIGURE C

## **DRILL MOUNTING HOLES**

## **IMPORTANT:**

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

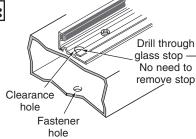
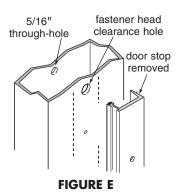


FIGURE D

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.



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

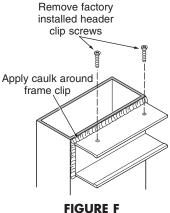
## **IMPORTANT:**

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



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

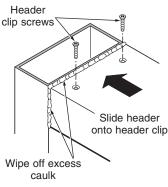


FIGURE G

## **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.

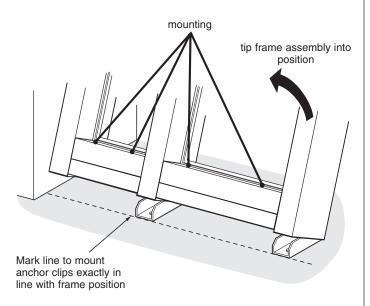


FIGURE H

## **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.

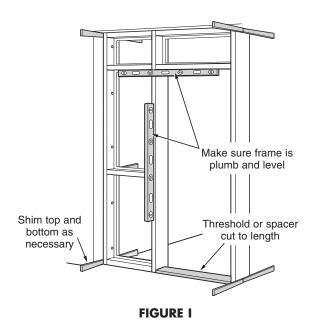
## **NOTE:**

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.



## **IMPORTANT:**

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

## 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.

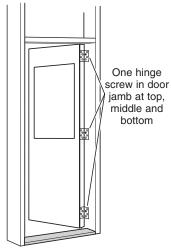


FIGURE J

- **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.

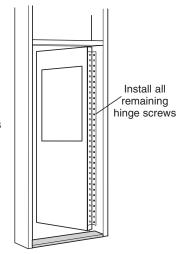
## **NOTE:**

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.

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



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

to align properly.

FIGURE K

## **MOUNT FRAME ASSEMBLY**

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

**NOTE:** 

Do not over

tighten shims.

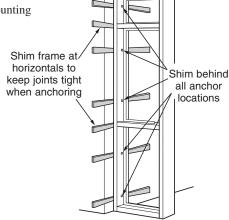
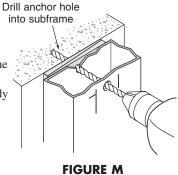


FIGURE L

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

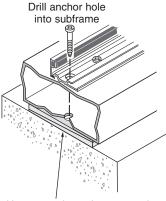


**24.** Anchor the frame assembly using minimum 1/4" diameter fasteners that penetrate at least 1" into

the rough opening.

## **NOTE:**

Squeeze caulk into sill frame mounting holes before installing fasteners.

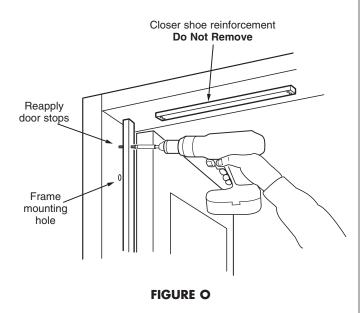


Use tapered wood or composite shims behind all fasteners to support frame tubing

FIGURE N

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

**26.** Reapply the door stops removed earlier.



## **SEAL FRAME PERIMETERS**

- **27.** Apply caulk along the interior and exterior frame edges.
- **28.** Seal clearance holes in the sill with caulk before glazing.

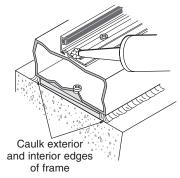


FIGURE P

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.

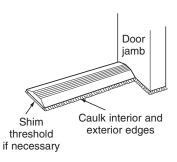


FIGURE Q

## HARDWARE INSTALLATION

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

## IMPORTANT:

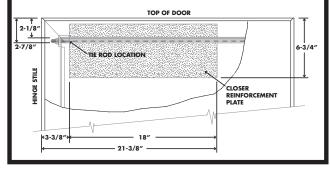
Do not drill closer mounting holes through tie rod in door. Observe cautions on door sticker (see example below).

## **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.



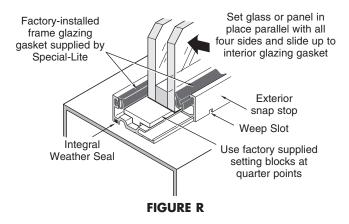
Caution Sticker applied to all flush doors

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

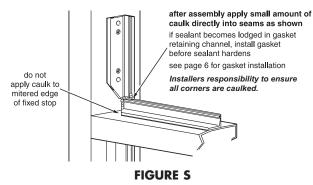
# Glass and Panel Installation

## 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.



- **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.



- **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**

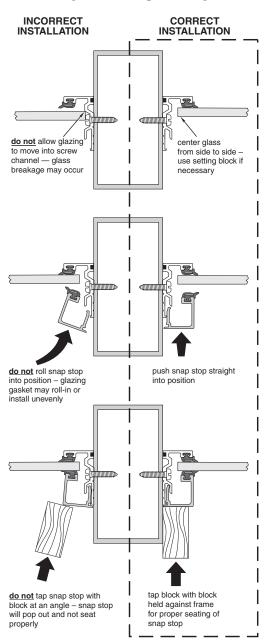


FIGURE T

# **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".

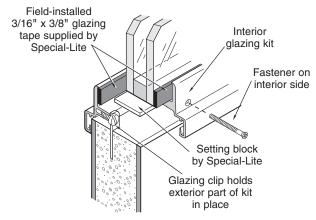


FIGURE U

## **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).

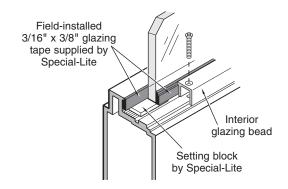
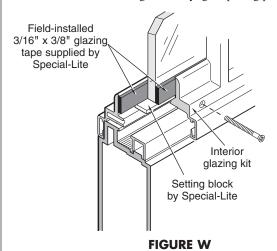


FIGURE V

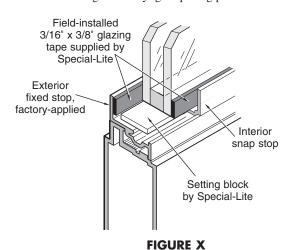
# MONUMENTAL DOOR WITH 1/4" GLASS AND SURFACE-APPLIED MUNTIN BARS

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



## **MONUMENTAL DOOR WITH 1" GLASS**

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



# **Additional Reference**

## **NOTE:**

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





# SL-21, 22, 23 Fire-Rated Door

## Supplement to Flush Door Installation Instructions

The Special-Lite Fire-Rated Door must be installed in fire-rated framing, and only fire-rated hardware devices, mullions, vision lite kits and glass can be used to maintain fire-ratings for the opening.

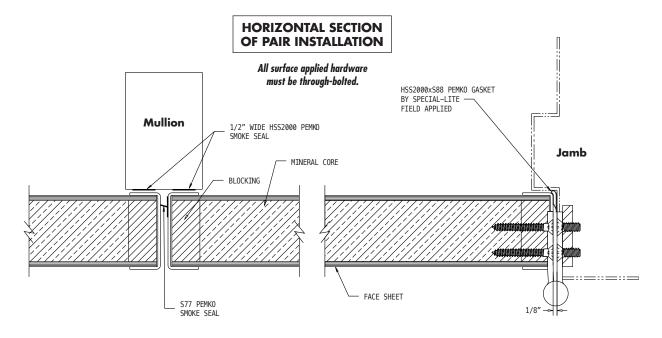
If hinges were installed by Special-Lite, the doors should be hung following the instructions provided in the Flush Doors Installation Instructions.

If hinges were not installed on the door by Special-Lite they should be installed at this time using the 410 Stainless #12 Phillips Flat Head 11 threads/inch "A" point screw -1.5" long fasteners (SL-SC-109) supplied by Special-Lite to secure the hinge to the door. A #26 drill must be used to drill the pilot holes in the door. It is critical that the hinge be secured to the door using the fasteners supplied by Special-Lite, and not the fasteners provided by the hinge manufacturer. The manufacturer's fasteners may be used to secure the hinge to the frame jamb. If vision lites were not installed by Special-Lite they should be installed at this time. With fasteners and

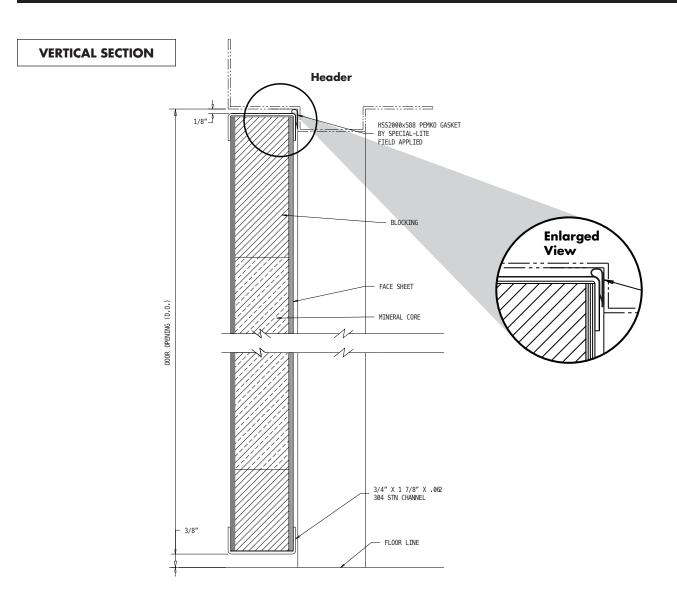
glazing tape supplied by Special-Lite, apply tape to both halves of the vision lite kit on surface that touches the glass. Install frame half of vision kit into cutout. Install glass and ensure it is seated squarely against the glazing tape on the frame half. Install second half of vision lite kit and then install screws, **being careful not to over tighten them.\*** Following hinge and/or vision lite installation on the door, the door should be hung following the instructions in the Flush Doors Installation Instructions.

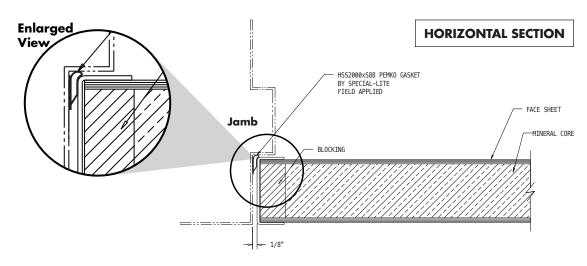
After the door is installed into the frame the gaskets and smoke seals supplied by Special-Lite must be installed on the full length of jambs and headers and must be installed per manufacturer's instructions. Both the S88 Pemko Gasket and HSS2000 Pemko Smoke Seal must be installed to preserve fire-rated status for the opening. The diagrams below detail the installation locations for the gasket and smoke seals on jambs, headers, mullions, and between pairs of doors. If glass is to be installed in vision lites in the field, the glazing tape provided should be used.

\*Uneven tightening, or over tightening can cause glass breakage.



# Fire Door Installation Instructions continued





**Special-Lite, Inc.** P.O. Box 6 • Decatur, MI 49045





# Flush Glazed Framing and Door Installation

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## CHECK NEW FRAME COMPONENTS

- 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.
- 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

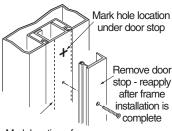
## **NOTE:**

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.

- 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 reapplied after frame installation is complete.
- 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.





Mark location of factory-installed pieces before removing them

FIGURE B

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.

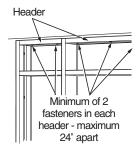


FIGURE C

## **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.

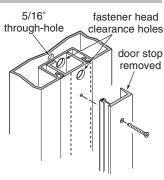


FIGURE D

## **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.

# sill, jamb or header (sill shown) countersink for fastener head

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.

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.

## **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.

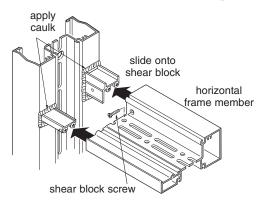


FIGURE F

## **SCREW SPLINE JOINTS**

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

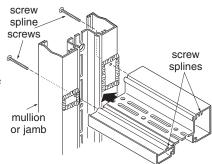


FIGURE G

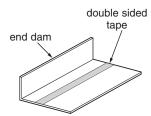
**11b.** Place horizontal frame members into position and insert screw spline screws into splines.

## **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.



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



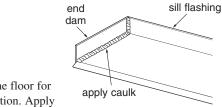


FIGURE I

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.

**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.

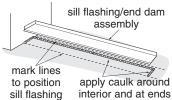
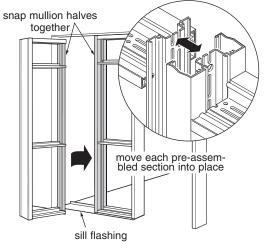


FIGURE J



**FIGURE K** 

## **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.

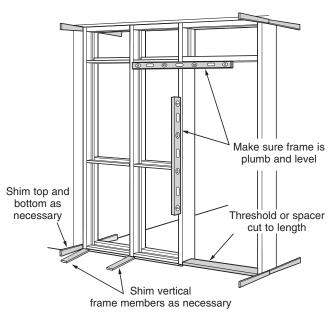
## **NOTE:**

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.



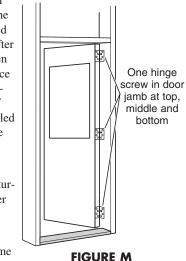
## FIGURE L

## **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.

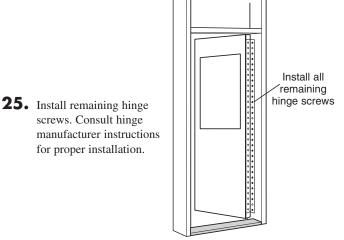


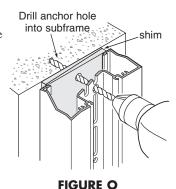
FIGURE N

## **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.



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

## **NOTE:**

Do not over tighten shims.

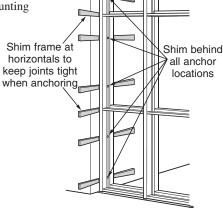
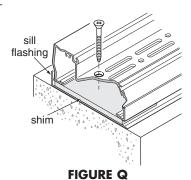


FIGURE P

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

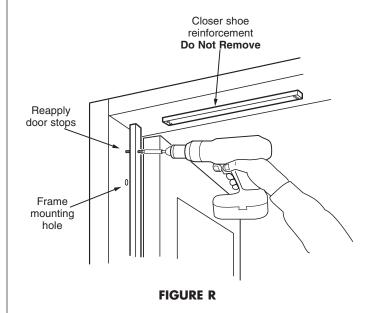


## **NOTE:**

Do not over tighten the mounting fasteners.

**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.



## **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.

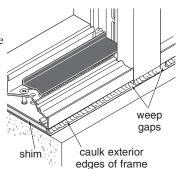


FIGURE S

**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 unlevel threshold condition you may want to use Special-Lite's SL-301 Adjustable Bottom Brush.

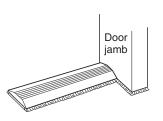


FIGURE T

## Flush Glazed Framing & Door Installation/Glass and Panel Installation

## HARDWARE INSTALLATION

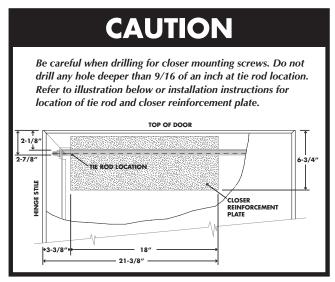
**33.** Locate, mark, and install any door hardware that has not already been installed at the factory.

## **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.



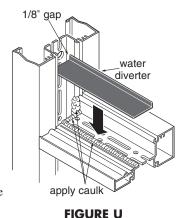
Caution Sticker applied to all flush doors

**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

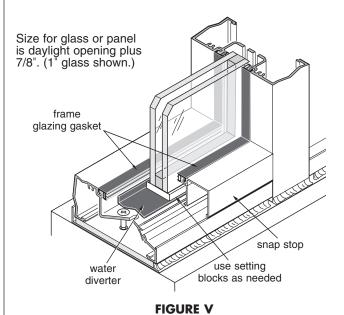
**35.** On horizontal frame members, apply caulk along each end and the full length of the frame member along the

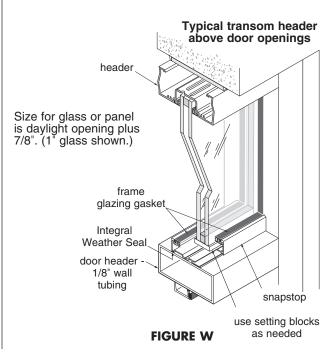
exterior edge where the water diverter will rest. Also apply caulk at the vertical joint in the glass/panel channel. Press the water diverter into the caulk and position it for approximately 1/8" gap between the end of the water diverter and the vertical glass/panel channel at each end. (A water diverter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



**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.





# **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.

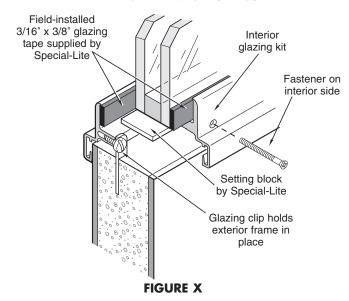
Setting blocks are provided by Special-Lite.

## **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".

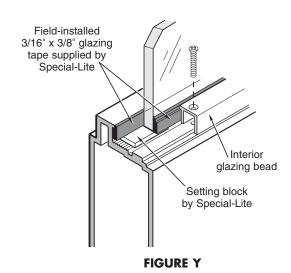


## **NOTE:**

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

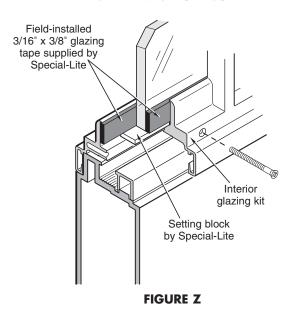
Glass size for 1/4" glass is daylight opening plus 9/16" (see illustration in next column).



# **Glass and Panel Installation**

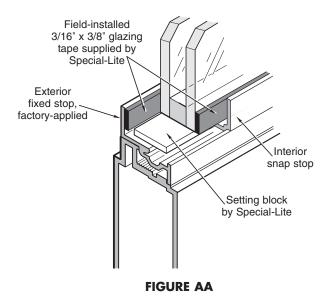
# MONUMENTAL DOOR WITH 1/4" GLASS AND SURFACE-APPLIED MUNTIN BARS

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



## **MONUMENTAL DOOR WITH 1" GLASS**

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



## **NOTE:**

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





# **Insert Frame and Capping**

## 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.

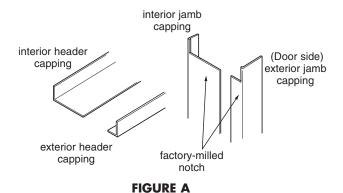
This and other Installation Instructions can be found on Special-Lite's web site at www.special-lite.com.



# **Exterior Capping/Insert Frame Installation**

## **NOTE:**

The 1030 framing system can be used with or without capping. If you are not using capping, skip to "Insert Frame Assembly Installation", step 7. The installation procedure for installing the Insert Frame is the same with or without capping. All capping pieces are sent long so they can be trimmed to length in the field. Jamb and header pieces are different. Jamb pieces have a factory-milled notch at the top.



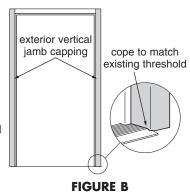
## **EXTERIOR CAPPING INSTALLATION**

## **IMPORTANT:**

Exterior jamb capping extends under the insert frame and MUST be applied first. Interior capping is applied after insert frame and door

installation.

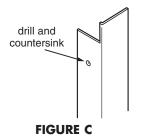
Cut exterior jamb capping to the length of the exposed old jamb, to the top of the header. If the old threshold is to be used, do not remove, but cope capping around the threshold. If a new threshold is to be used, run the capping to the floor, then install the new threshold.



**2.** Drill and countersink mounting holes. These holes will not be exposed because they will be underneath the insert frame.

### **NOTE:**

Use a #6 or #8 flat head screw for mounting. Three mounting holes (top, middle, bottom) are needed. Special-Lite does not provide the mounting fasteners for insert frame or capping.



- **3.** Install both exterior jamb capping pieces.
- **4.** Cut the exterior header to length.

## **IMPORTANT:**

This cut needs to be exact! Use a power miter saw for a clean, square cut.

**5.** Drill and countersink mounting holes. These holes will not be exposed because they will be underneath the insert frame.

# exterior header capping

FIGURE D

## **NOTE:**

Use a #6 or #8 flat head screw for mounting. There should be a minimum of 2 fasteners in each header capping - no more than 16" apart.

**6.** Install the exterior header.

## **INSERT FRAME ASSEMBLY**

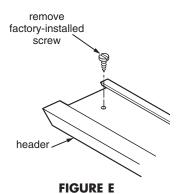
## **IMPORTANT:**

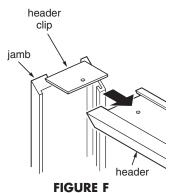
The existing door frame must be structurally sound.

## **NOTE:**

The Insert Frame package should include the materials necessary for the 1030 frame only. This includes two (2) side jambs, one (1) header, plus a bag of shims. Special-Lite does not provide the mounting fasteners for insert frame or capping.

- **7.** Remove the header-clip screws installed in the header.
- **8.** Assemble the 1030 frame by inserting the factoryinstalled header clips on the jamb pieces into the header.

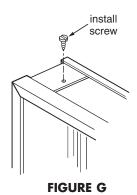




# **Insert Frame Installation**

## **INSERT FRAME ASSEMBLY**

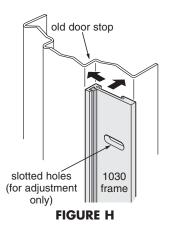
**9.** Install a header-clip screw in each clip to complete the 1030 frame assembly.



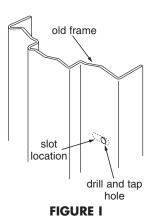
## **INSERT FRAME ALIGNMENT**

- **10.** Set the 1030 frame assembly into the existing door opening.
- **11.** Hold the frame firmly against the old door stop and with the header level, mark the slotted hole locations on the old door frame.

After marking slot locations, set 1030 frame aside.



12. Drill and tap holes for the adjusting screws in the old door frame. 1/4 x 20 flat head machine screws should be used (Special-Lite does not provide mounting screws). These holes need to be drilled toward the exterior of the slot for maximum adjustability.



**13.** Place the 1030 insert frame assembly back into the opening.

14. Start an adjusting screw in each slot. Place factory-supplied shims between old frame and the 1030 frame where necessary to plumb and square frame. The shims have a slot that will slide around the adjusting screw.

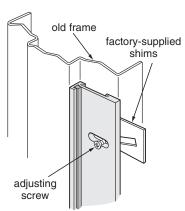
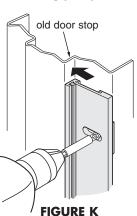


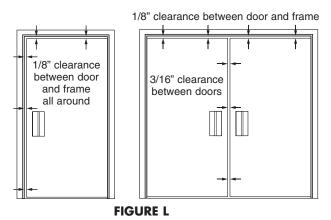
FIGURE J

- **15.** Slide the 1030 insert frame back against the the old door stop and tighten the adjusting screws. Place a level on the hinge jamb and shim frame as necessary by adding or removing shims to plumb the hinge jamb.
- **16.** Repeat this process on the latch jamb.



## HANG THE DOOR(S)

**17.** If butt hinges are used, fasten with one screw in each hinge. If a continuous hinge is used, fasten with three screws (top, middle, bottom) along the hinge.

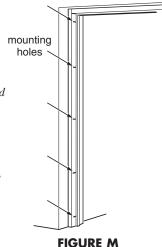


- **18.** Close door and check for 1/8" clearance between door and frame and 3/16" clearance between doors.
- **19.** Check for alignment with 1030 insert frame. If adjustment is needed, loosen the adjustment screws and adjust frame for proper alignment.
- **20.** Tighten adjusting screws.

# **Insert Frame/Interior Capping Installation**

## **INSERT FRAME INSTALLATION**

- **21.** Doors with butt hinges may remain in position, but a door with a continuous hinge must be removed at this point.
- **22.** Drill and countersink holes for mounting screws for jambs and headers.



## **NOTE:**

Drilled mounting holes need to be for a minimum 1/4 x 20 flat head machine screw (Special-Lite does not provide mounting screws). Holes need to be approximately 2-1/2" from top and bottom and no more than 16" apart. Do not place mounting holes through the hinges. Mounting holes should be placed into the existing old frame at the most secure places (like hinge reinforcement areas) when possible.

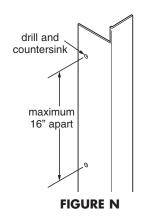
- **23.** Install mounting screws, but do not tighten.
- **24.** Place provided shims behind mounting holes as required to maintain proper clearance.
- **25.** Tighten mounting screws.

## INTERIOR CAPPING INSTALLATION

- **26.** Cut interior jamb capping to the length of the exposed old jamb, to the top of the header. If the old threshold is to be used, do not remove, but cope capping around the threshold. If a new threshold is to be used, run the capping to the floor, then install the new threshold.
- **27.** Drill and countersink mounting holes.

## **NOTE:**

Use a #6 or #8 flat head screw for mounting (Special-Lite does not provide mounting screws). Holes need to be approximately 2-1/2" from top and bottom and no more than 16" apart. Space evenly for best appearance.



- **28.** Install both interior jamb capping pieces.
- **29.** Cut the interior header to length.

## **IMPORTANT:**

This cut needs to be exact! Use a power miter saw for a clean, square cut.

**30.** Drill and countersink mounting holes.

## **NOTE:**

Use a #6 or #8 flat head screw for mounting. There should be a minimum of 2 fasteners in each header capping no more than 16" apart.

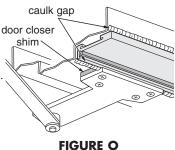
**31.** Install the interior header.

# HARDWARE ATTACHMENTS AND CAULK (INSERT FRAME ONLY)

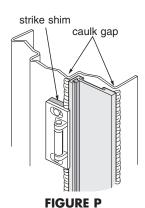
## **NOTE:**

Follow these instructions for installations without capping. For installations with capping, skip to step #34. caulk gap

**32.** Install hardware attachments (i.e., door closer shoe or exit device strike). Special-Lite does not supply shim material for hardware attachments. Use aluminum bar stock for shim material.



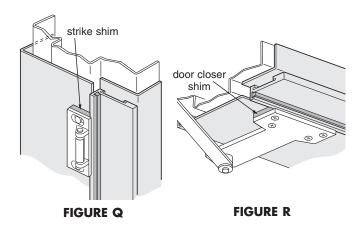
33. Caulk the gap between the existing frame and the 1030 frame. This gap may be larger in some places because during alignment the frame may have had to be moved away from existing old frame. Caulk both the interior and exterior edges.



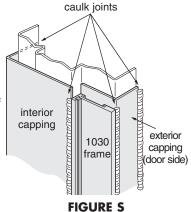
# **Insert Frame Installation**

# HARDWARE ATTACHMENTS AND CAULK (INSERT FRAME AND CAPPING)

**34.** Install hardware attachments (i.e., door closer shoe or exit device strike). Special-Lite does not supply shim material for hardware attachments. Use aluminum bar stock for shim material.



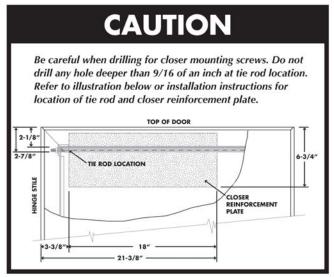
**35.** Caulk transitions from capping to existing walls or frame as necessary, and between insert frame and capping as shown.



**36.** Caulk the threshold interior and exterior.

## **IMPORTANT:**

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



Caution Sticker applied to all flush doors

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





# SL-60 and SL-60E (electric) Removable Mullion Keyed and Non-Keyed

## 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.

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

## INSTALLATION OF TOP BLOCK

### NOTE:

The door frame must be installed and doors hung with proper clearances.

The door frame MUST be a minimum 4-1/2" deep.

- 1. If Special-Lite frames are used and the top block has been factory installed, move to step #10.
- **2.** Mark the exact center of the door opening on the door header and door stop. **FIG-A**
- **3.** If door stops are removable, mark the front edge of door stop on header, as shown on **FIG-B** and remove door stop.
- **4.** If door stops are non-removable, mount the top block directly to the door stop, centered, 9/32" behind front edge of door stop as shown in **FIG-C.**

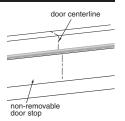


FIGURE A

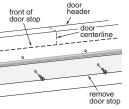
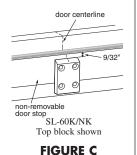


FIGURE B



## INSTALLATION OF TOP BLOCK cont.

- **5.** With removable stops, center top block at marked center of header, 9/32" behind marked front edge of door stop as shown in **FIG-D**. Next mark fastener hole locations as well as electrical connection hole if SL-60E is used.
- **6.** Drill and tap holes for 12-24 flat head machine screws. Screws are not supplied by Special-Lite. When using machine screws and attaching to metal, use a liquid thread locking compound.
- **7.** For SL-60E top block, drill minimum clearance hole of 1-3/16" diameter for electrical connector.
- **8.** Electrical connections to back of top block must be made before block is installed.
- **9.** When mounting to non-removable door stops, top block may hang over back side of door stop. Provide a support shim under back side of top block in this condition. **FIG-E** (shim by customer)

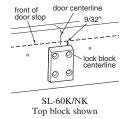
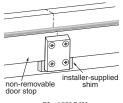


FIGURE D



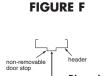
SL-60K/NK Top block shown

FIGURE E

## MEASURING FOR MULLION LENGTH

**10.** At the mullion location on the header, measure between the header and the floor, for the length of the mullion as shown in FIG-F for removable door stops.

> For frames with non-removable door stops, measure from the door stop to the floor as shown in FIG-G.



Dimension

FIGURE G

# Dimension

locking bolt hole

FIGURE H

## **IMPORTANT:**

If the shim block is to be used, an additional 1/2" must be subtracted from dimension A in FIG-F or dimension B in FIG-G before cutting the mullion to length. See Step 11 & FIG-H

**11.** If mullion is being installed prior to finished floor coverings or tiles, the optional (supplied by Special-Lite) 1/2" shim block MUST BE USED. FIG-H

## **CUT MULLION TO LENGTH**

- **12.** For SL-60E, remove electrical cord and restraint by removing screw as shown in FIG-I & J.
- **13.** Mark dimension "A" or dimension "B" on the mullion post from the BOTTOM UP and trim the TOP off the mullion post. FIG-K

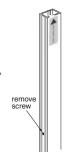


FIGURE J

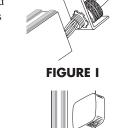


FIGURE K

## **INSTALL BOTTOM BLOCK**

- **14.** Close both doors and mark the floor at center of gap between doors.
- **15.** Slide mullion onto top block and set bottom in approximate position with or without shim as required and open one door.
- **16.** Align center line of mullion on center line of door gap and mark all four sides of the mullion post, on the floor, Remove mullion and set aside. FIG-L

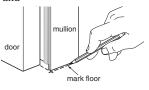


FIGURE L

## **IMPORTANT:**

**17.** Lock block must be installed with locking bolt hole orientated to interior side of opening. Align lock block (and shim block if needed) centered between marks on floor and even with marked mullion front edge. Mark fastener hole locations and drill fastener holes. Mount bottom block to floor, with or without shim as required.

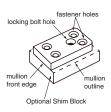


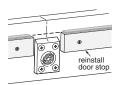
FIGURE M

## **INSTALLING MULLION**

- **18.** If mullion locking cylinder is not supplied by Special-Lite, a 1" to 1-1/8" mortise cylinder with Adams Rite cam must be used. FIG-N
- **19.** Place mullion over top block and slide bottom of mullion over floor lock block, check for fit and operation of locking mechanism.
- **20.** Reinstall door stops on header by trimming just enough of the door stop off to allow the mullion to slip through freely. FIG-O
- **21.** For SL-60E, reinstall the electric cord and bracket assembly from the top of the mullion, making sure the screw hole in the bracket is facing the weather strip on the mullion. Reinstall screw holding bracket in position. FIG-P
- **22.** Make a loop in the electric cord and place excess cord into top of mullion. FIG-Q
- **23.** Stand the electric mullion near the header block. Line up the keyway in the connector, thread connector nut in place and install mullion and lock in place. FIG-R
- **24.** Install electrical hardware. Have a qualified electrician make all necessary electrical connections. Special-Lite is not responsible for any electrical connections.



FIGURE N (Adams Rite Cam actual size)



SL-60E Lock block shown

FIGURE O



FIGURE P



FIGURE Q



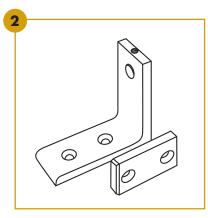
FIGURE R



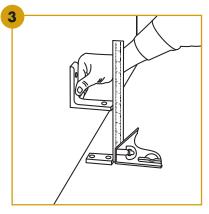
# **MK-60 Mullion Storage Kit**

# Instructions for installation of kit

## 1 Select a suitable location for mullion storage out of normal traffic flows.



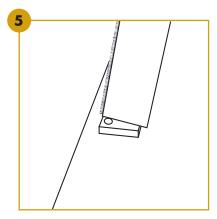
Kit includes bracket (part #163) & block (part #100). Note that mullion stores upside-down.



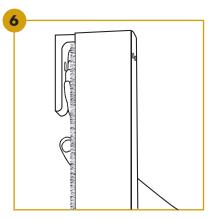
Locate block on floor using bracket against wall. Mark block position. Screw down block.



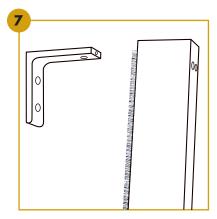
Position top bracket on rod to check fit.



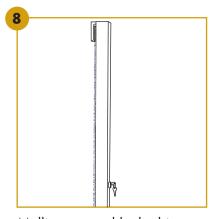
Set mullion on block.



Square mullion to floor (side to side). Mark bracket position. Screw on bracket.



Check function and fit with bracket.



Mullion set and locked in place.



Mullion removed.

Bracket is fabricated to accept bolt of keyed mullion and set screw for non-keyed mullion.

Clear or Dk. Bronze finish for set.

(Anchors not included)





## **SL-61 Keyed Removable Center Post**

## 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.

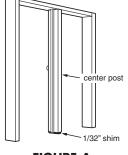
If you have any questions about installation techniques for your particular project, please call 1-800-821-6531 and ask for a Special-Lite Customer Service Representative or Training Manager.

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

## **NOTE:**

Unless otherwise specified, center posts are manufactured to match the door opening height. The height of the center post cannot be altered in the field. Door header lock block is installed at factory.

1. Mark the floor where center post will rest. When installing door frame, use center post plus 1/32" shim under center post as height gauge. Leave center post in position and check for proper alignment throughout installation of the frame and doors.

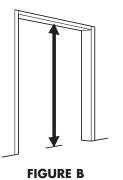


### FIGURE A

## **NOTE:**

The plus 1/32" additional height will allow for easier removal and re-install of the center post.

- 2. If center post installation is not possible during the door frame installation, measure the distance between door header and floor at lock block locations (not including blocks). This measurement MUST be the center post height plus 1/32". Shim frame as necessary to obtain center post height plus 1/32". DO NOT alter length of center post.
- 3. If center post shimming is necessary, shim should be aluminum and same size as the center post tube, so the center post tube rests on the shim.
- 4. After doors and frame are in their final position, mark the location of center post on the floor and frame header. Remove center post.



lock block installer-supplied

FIGURE C

- Position lock block in proper location and mark floor and frame for mounting screws. Use 12-24 flat head screws for securing lock block. Attach lock block (and shims if necessary) to floor and frame. Screws are not supplied by Special-Lite. When using machine screws and attaching to metal, use a liquid thread locking compound.
- Slide removable center post into position from exterior side of door opening and check fit. Turn locking mechanism to lock center post in place.



If mullion locking cylinder is not supplied by Special-Lite, a 1" to 1-1/8" mortise cylinder with Adams Rite cam must be used. FIG-E

**7.** If installation has threshold, cope threshold to fit around center post or hold individual thresholds 1/32" from center post. Be sure to leave enough clearance between threshold and center post so center post will slide easily.

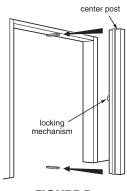


FIGURE D



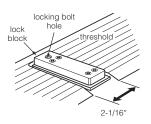


FIGURE F



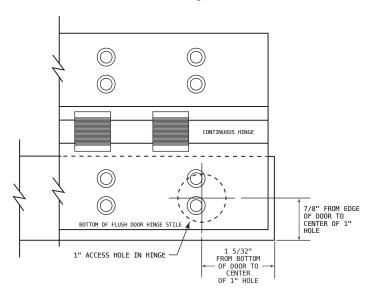


# FIELD INSTALLATION INSTRUCTIONS

# SL-301 Adjustable Bottom Brush for Monumental Doors

## Step #1

**Remove door and hinge(s) from frame,** and lay flat on suitable supports. If but hinges are used, skip to step #2. If a continuous hinge is used, with hinge on door, mark center lines for a 1" hole through the hinge to provide access to the bottom brush adjusting screws, as shown in Figure 1. Remove hinge, drill and de-burr hole, and set hinge aside.



LAYOUT 1" ACCESS HOLE ON HINGE BEFORE REMOVING IT FROM DOOR. DRILL HOLE AFTER REMOVAL

## FIGURE #1

## Step #2

**Remove any existing sweeps.** Remove any surface-applied sweeps from door.

## Step #3

Trim SL-301 unit to length. Remove the endplate from the brush unit. It is not used when installed in monumental doors. Measure the maximum width of the door (to the high bevel side) and record. Deduct 1/4" for each beveled stile, and 1/8" for each square stile, to determine the overall length for the unit. Cut unit to length and de-burr.

## Step #4

## Drill mounting and adjuster access holes.

<u>Lock Stile:</u> Referencing Figure 2, mark centerlines for holes in lock stile for mounting screws and drill two 1/4" holes and de-burr inside of stile. Countersink holes for #10 flat head screws provided.

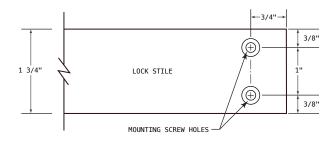


FIGURE #2

<u>Hinge Stile:</u> Referencing Figure 3, mark centerlines on hinge stile for holes for mounting screws and access holes for adjusting screws on unit. Drill two 1/4" holes for mounting screws and de-burr inside of stile. Countersink holes for #10 flat head screws provided. Layout centerlines and drill two adjustment screw access holes with 1/4" bit, and enlarge holes to 3/8". De-burr inside of stile.

A fixture is available from Special-Lite to speed up drilling of these holes if multiple doors are to be retrofit (order drill fixture 301-M54).

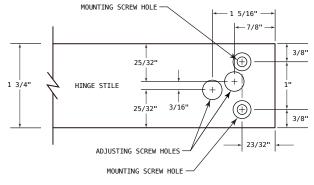


FIGURE #3

# Field Installation Instructions continued

## **SL-301 Adjustable Bottom Brush for Monumental Doors**

## Step #5

Fit unit into bottom rail. If door is equipped with a flush bolt, remove bolt and guide bracket now. The adjusting screws on the unit protrude into the access holes in the hinge stile, so unit should be inserted into bottom rail cavity adjusting end first. Test fit unit and adjust length if necessary.

## Step #6

Flush Bolt Prep. Skip this step if door is not equipped with flush bolts. If door has flush bolts, use the old guide bracket as a template for prep shape and backset. Hand machine a "D" shaped hole through the brush carrier extrusion of the unit, and drill a 5/8" clearance hole through the top housing extrusion. Use the bolt to check final size of the prep and clearance hole alignment.

## Step #7

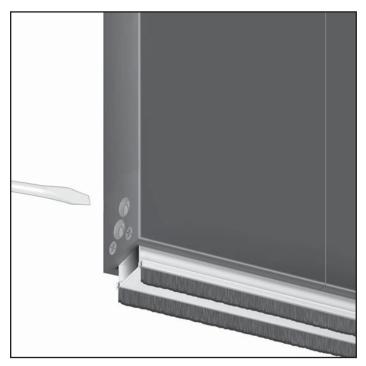
Secure unit in door. Install unit into cavity in bottom rail. Use four #10 flathead screws provided through stiles to secure the unit to the door. Locate center support screw access hole, which is slightly off center in middle of unit and drill through bottom web of rail with a #21 or 11/64" drill. Install the 10-16 x 1 phillips pan head screw provided into the bottom web of the rail at center support location.

## Step #8

Install dual brushes. With unit in door, turn adjusting screws counterclockwise to extend the brush carrier out for installation of dual brushes. Cut two brushes to length of slots in bottom of unit. Slide the brushes into slots and secure by crimping the reglet at both ends of brush with pliers or side cutters. If door is equipped with flush bolts, reinstall to original depth. Return brushes back to the fully retracted position before reinstalling door.

## Step #9

Reinstall door and adjust brush height. After reinstalling door, close door and inspect brush clearance above threshold to estimate required brush extension. Each full turn of the adjusting screws equals 3/64" movement. Open door to access the adjusting screws and turn counterclockwise to lower the brushes. Close the door to check clearance and repeat the process until the brushes show slight flexing but little resistance to closing. Also check for light coming in under the brush, and add slightly more pressure if needed.



Adjustment of bottom brush on hinge side of door



# FIELD INSTALLATION INSTRUCTIONS

# SL-301 Adjustable Bottom Brush for Flush Doors

## Step #1

**Remove door and hinge(s) from frame.** Lay flat on suitable supports. If but hinges are used, skip to step #2. If a continuous hinge is used, with hinge still on door, mark center lines as shown in Figure 1 for a 1" hole through the hinge to provide access to the bottom brush adjusting screws. Remove hinge, drill and de-burr hole, and set hinge aside.

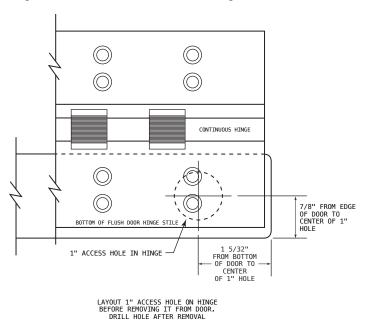


FIGURE #1

## Step #2

**Remove any existing sweeps.** Remove any surface-applied sweeps. To remove an existing bottom weather bar, locate the prick-punched staking that keeps the brush bar in place, customarily two or three stakes along both bottom edges of the bottom rail. Drill a 3/16" hole into each stake dent, just far enough to relieve the stake. If the door is equipped with a flush-bolt, remove it now. Remove the weather bar. A hammer and screwdriver may be required. If door is equipped with a kickplate, mounting screws may need to be shortened to avoid interference with the SL-301 unit.

## Step #3

**Remove plastic foam injection gate.** Use a wood chisel to first remove the wedge locking the injection gate into place, and then cut through the gate horizontally and vertically, attempting to chop it into quarters. Chisel underneath the gate to sever the four injection nozzles, and remove the gate in pieces. Clear away any excess foam or debris from the rail channel, allowing a clear path for insertion of the SL-301.

## Step #4

**Prepare hinge stile for unit insertion.** For convenience, move the door into a door holder, with the hinge stile up. Following the template in Figure 2, mark centerlines for the two corner holes for enlargement of the cutout at the bottom of the hinge stile. Drill two 5/16" holes. Draw lines tangent to the holes as shown in Figure 2, and cut out excess material with a jigsaw and finish with a flat file. Relieve web in hinge stile as required to allow unit to be flush with low bevel side of door edge to avoid interference with continuous hinge. A sharp wood chisel can be used for this operation. File to clean and de-burr the opening.

A fixture is available from Special-Lite to speed up drilling of the pilot holes if multiple doors are to be retrofit (order drill fixture 301-F70).

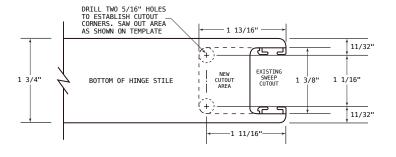


FIGURE #2

# Field Installation Instructions continued

## **SL-301 Adjustable Bottom Brush for Flush Doors**

## Step #5

Trim SL-301 unit to length. Measure the maximum width of the door (to the high bevel side) and record. Deduct 1/4" for a beveled or radius stile, and 1/8" for a square stile, to determine the overall length for the unit. An alternate method is to slide the unit all the way into the bottom rail, mark where it protrudes beyond the hinge stile on the low bevel side, and transfer that dimension to the other end of the unit for cut-off. Cut unit to length and de-burr. Slide unit into door to check length.

## Step #6

Flush Bolt Prep. Skip this step if door is not equipped with flush bolts. If door has flush bolts, remove the unit and reference the back set and prep shape on the old weather bar to reproduce this feature on the new unit. Hand machine a "D" shaped hole through the brush carrier extrusion of the unit, and drill a 5/8" clearance hole through the top housing extrusion. Use the bolt to check final size of the prep and clearance hole alignment.

## Step #7

Secure unit in door. Slide unit into channel in rail with adjustment screws toward hinge side of door. The unit is adequately held in place by a continuous hinge and Step #8 can be skipped. Reinstall continuous hinge, omitting any screws that would interfere, and check access to adjusting screws. For doors with butt hinges, the unit must be secured by screws through the lock stile as detailed in Step #8.

## Step #8

Secure unit in door with butt hinges. Using dimensions in figure #3, mark centerlines for two holes through the lock stile for screws to secure the unit in place. Drill two 1/4" holes and counter sink for the #10 flat head screws provided. Slide unit into bottom rail and install the two securing fasteners.

A fixture is available from Special-Lite to speed up drilling of these holes if multiple doors are to be retrofit (order drill fixture 301-F70).

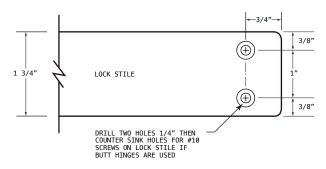


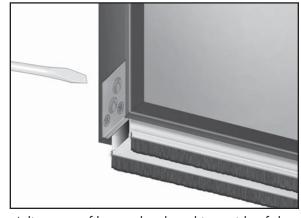
FIGURE #3

## Step #9

**Install dual brushes.** With unit in door, turn adjusting screws counter clockwise to extend the brush carrier out for installation of dual brushes. Cut two brushes to length of slots in bottom of unit. Slide the brushes into slots and secure by crimping the reglet at both ends of brush with pliers or side cutters. If door is equipped with flush bolts, reinstall to original depth. Return brushes back to the fully retracted position before reinstalling door.

## **Step #10**

Reinstall door and adjust brush height. Reinstall door, and close door to inspect brush clearance above threshold to estimate required brush extension. Each full turn of the adjusting screws equals 3/64" movement. Open door to access the adjusting screws and turn counterclockwise to lower the brushes. Close the door to check clearance and repeat the process until the brushes show slight flexing but little resistance to closing. Also check for light coming in under the brush, and add slightly more pressure if needed.



Adjustment of bottom brush on hinge side of door



# **All-Fiberglass Doors & Frames**

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





# **ALL-FIBERGLASS SERIES DOORS & FRAMES**

# CHECK NEW FRAME & DOOR COMPONENTS

- 1. It is important to field inspect all cartons and crates for damage as well as contents of package for damages.
- **2.** If frame is factory welded or assembled do not remove any banding tape prior to removing from box.
- **3.** Check work orders or a print to ensure proper material has been shipped before starting job.
- **4.** Measure the new framing and door(s) to make sure everything is sized and located correctly. This is especially important in retrofit situations before demolition of an existing opening is commenced.

# ROUGH OPENING AND EXISTING CONSTRUCTED WALL INSPECTION

- **5.** Review existing wall construction to determine type of construction
  - Masonry
  - Stud and drywall
  - CMU
- **6.** Check plans for swing and location of jambs in structure.
- **7.** Measure all framing.
- **8.** Measure the opening to verify it is ½" larger in width and ¼" taller in height.
- **9.** Check all existing constructed walls and headers for plumb and level.
- **10.** Check the top of the opening and floor to make sure they are level.
- **11.** Determine high side of floor.

## **NOTE:**

Use a level and straight edge to determine the high side of the floor.

# ASSEMBLE THE FRAME (skip step if pre-assembled)

**12.** Slide head onto jamb legs. Install the provided #12 x <sup>3</sup>/<sub>4</sub>" stainless steel sheet metal screws in the rabbets at the top of the frame legs (4 places)

## **NOTE:**

If pre-assembled remove shipping spreader bars.

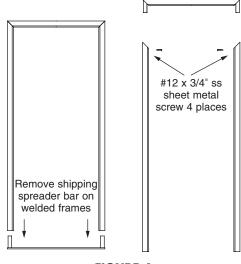


FIGURE A

## NOTE:

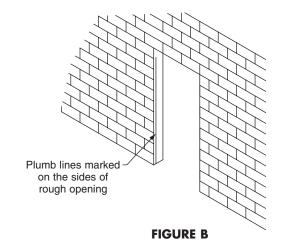
If installing new frame into a new masonry wall skip to step #17."

## **SET FRAME IN OPENING**

## **NOTE:**

The door frame may be set flush with one side of the wall, recessed, or centered.

**13.** Upon determination of frame location, set frame into position.



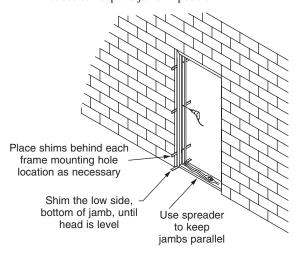
# **ALL-FIBERGLASS SERIES DOORS & FRAMES**

# ANCHORING FRAME INTO ROUGH OPENING (existing masonry construction)

## **NOTE:**

An Installation Kit (optional) can be ordered which consists of

- 16 EZ-Shims
- 8 4" EMF810 tap-con (Crete Flex) #3 Phillips Head S.S. anchors.
- **14.** When frame is in place, place the threshold or a spreader bar the same length as the door opening to keep the strike and hinge jamb parallel.
- **15.** Use tapered shims while centering the frame in the opening making sure the door jambs are plum and level, and shim under the jamb if necessary to level the head.
- **16.** Drill the mounting holes with a 7/32" x 5-1/2" masonry bit in the rough opening through the dimples on the hinge jamb. As the fasteners (Tap Con #14 Phillips Flat Head) are installed in the hinge jamb with a #3 Phillips bit, the jamb may move out of plumb or square. Shims can be added, removed, or adjusted as needed to keep the jamb in position.



### FIGURE C

## **NOTE:**

If the door is on site then the installer might find it easier to hang the door after the hinge jamb is fastened to the wall. Then close the door into the opening and adjust the frame as needed to maintain an even margin (1/8") across the top of the door by placing shims at the bottom of the strike jamb to hold it in place. The strike jamb is installed in the same manner as the hinge jamb by using shims to maintain a 1/8" latch jamb clearance.... Make sure that the head is still level and then the strike jamb is installed in the same manner as the hinge jamb.

# INSTALLING FRP DOOR FRAMES IN NEW MASONRY CONSTRUCTION

## "T" Anchor for Grouted Frames

**17.** Assemble frame as described in step 12 (figure A) and set in required location. Level the head shimming under the jamb if necessary and square jambs to head. Set spreader/threshold and fasten to floor through base anchors provided. Temporary bracing might be required to hold the frame in place. Brace head to floor or to a structure above.

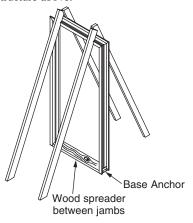


FIGURE D

**18.** Use second spreader at midpoint of the frame to maintain door opening dimension.

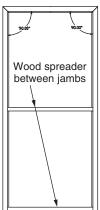
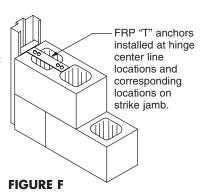


FIGURE E

19. While block courses are laid up, install anchors and add grout while continually checking plumb and square.



# **ALL-FIBERGLASS SERIES DOORS & FRAMES**

## HANG THE DOOR(S)

## Installation of doors with butt hinges

## **NOTE:**

The stile edge of the doors and rabbet of the frames are provided prepped for butt hinges. Use only the stainless steel sheet metal screws provided. Do not use machine screws, self drilling, and self tapping or combination screws! Hinge screws are best installed with a drill or screw gun that has an adjustable clutch set at the lowest setting to seat the screw.

- **20.** Install the hinges to the door using the stainless steel sheet metal screws provided.
- **21.** Hang door(s) in frame with 3 screws in hinge jamb-one at top, middle and bottom.
- **22.** Close door and check for Special-Lite recommended clearances:
  - 1/8" at strike jamb on single doors
  - 1/4" at meeting stiles
  - 1/8" at head. Adjust as needed.

## **NOTE:**

Shimming behind hinges and adjusting the frame may be required to maintain the recommended clearances.

**23.** Install remaining hinge screws in frame.

## Installation of doors with continuous hinge

## **NOTE:**

If the stile edge of the door and rabbet of the frame have been sized for a continuous hinge, use only stainless steel sheet metal screws provided. Do not use machine screws, self drilling and self tapping or combination screws! Hinge screws are best installed with a drill or screw gun that has an adjustable clutch set at the lowest setting to seat the screw.

- **24.** If the hinge needs to be prepped in the field, use the hinge manufacture's recommendations and pre-drill the screw holes with a 5/32" drill bit.
- **25.** Using a # 3 Phillips power bit drive the screw in part way, reverse all the way out and repeat until screw is seated all the way. This may take 2-3 cycles. Remember you are creating a threaded hole in the fiberglass reinforcement.

- **26.** Hang door(s) in frame with 3 screws in hinge jamb-one at top, middle and bottom.
- **27.** Close door and check for Special-Lite recommended clearances:
  - 1/8" at strike jamb on single doors
  - 1/4" at meeting stiles
  - 1/8" at head. Adjust as needed.

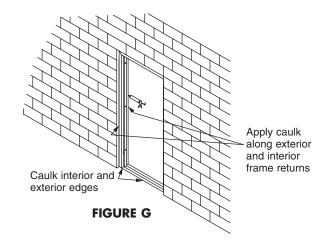
## **NOTE:**

Shimming behind hinges and adjusting the frame may be required to maintain the recommended clearances.

**28.** Install remaining hinge screws in frame.

## **SEAL FRAME PERIMETERS**

- **29.** Apply caulk along the interior and exterior frame return edges.
- **30.** 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 proper fasteners.



# **ALL-FIBERGLASS SERIES DOORS & FRAMES**

#### HARDWARE INSTALLATION

**31.** Consult manufacturer for proper and or appropriate use and installation.

#### 32.

#### a. AF Pultruded Door (AF-100)

Butt and continuous hinges to be mounted using stainless steel sheet metal screws (provided).

Mount surface hardware using stainless steel sheet metal screws, wood screws or thru-bolts.

#### **NOTE:**

Do not use machine screws, self drilling or self tapping combination screws!

#### b. AF Composite Door (AF-200, AF-217, AF-220)

Butt and continuous hinges to be mounted using stainless steel sheet metal screws (provided).

Surface hardware to be thru-bolted.

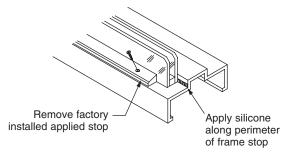
#### **NOTE:**

Do not use machine screws, self drilling or self tapping combination screws!

### FRAME GLAZING PROCEDURE

(transoms, side-lites, borrowed lites)

- **33.** Remove glazing applied stop from frame opening. Along the perimeter of the frame stop apply a bead of clear silicone.
- **34.** Install glass and secure in place with applied stop and stainless steel sheet metal screws provided.



#### FIGURE H

#### DOOR GLAZING PROCEDURE

- **35.** Remove glazing applied stop from lite kit opening. Along the perimeter of the glazing stop apply a bead of clear silicone.
- **36.** Install glass and secure in place with applied stop and stainless steel sheet metal screws provided.

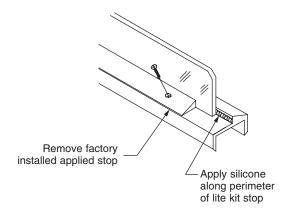


FIGURE I

#### **CLEAN AND INSPECT DOOR & FRAMES**

- **37.** Wipe down surface with mild soap and water.
- **38.** Check door for nicks and scratches.
- **39.** Touch up kit for painted products provided for minor imperfections.





# **INSTALLATION INSTRUCTIONS**

### **FR-Series Doors & Frames**

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# **FR-SERIES DOORS & FRAMES**

# CHECK NEW FRAME & DOOR COMPONENTS

- **1.** It is important to field inspect all cartons and crates for damage as well as contents of package for damages.
- **2.** Framing is always K.D.
- **3.** Check work orders or a print to ensure proper material has been shipped before starting job.
- **4.** Measure the new framing and door(s) to make sure everything is sized and located correctly. This is especially important in retrofit situations before demolition of an existing opening is commenced.

# ROUGH OPENING AND EXISTING CONSTRUCTED WALL INSPECTION

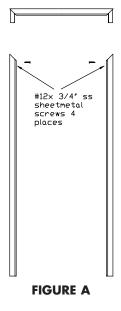
- **5.** Review existing wall construction to determine type of construction
  - Masonry
  - Stud and drywall
  - CMU
- **6.** Check plans for swing and location of jambs in structure.
- **7.** Measure all framing.
- **8.** Measure the opening to verify it is ½" larger in width and ¼" taller in height.
- **9.** Check all existing constructed walls and headers for plumb and level.
- **10.** Check the top of the opening and floor to make sure they are level.
- **11.** Determine high side of floor.

#### NOTE:

Use a level and straight edge to determine the high side of the floor.

#### **ASSEMBLE THE FRAME**

**12.** Slide head onto jamb legs. Install the provided #12 x 3/4" stainless steel sheet metal screws in the rabbets at the top of the frame legs (4 places)

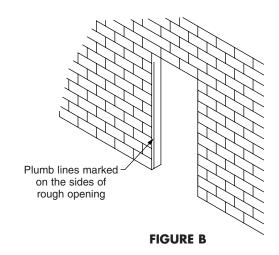


#### **SET FRAME IN OPENING**

#### **NOTE:**

The door frame may be set flush with one side of the wall, recessed, or centered.

**13.** Upon determination of frame location, set frame into position.



# FR-SERIES DOORS & FRAMES

# ANCHORING FRAME INTO ROUGH OPENING (existing masonry construction)

#### **NOTE:**

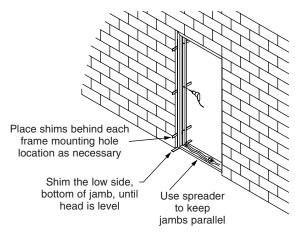
An Installation Kit (optional) can be ordered which consists of

- 16 EZ-Shims
- 8 4" EMF810 tap-con (Crete Flex) #3 Phillips Head S.S. anchors.
- **14.** When frame is in position, place the threshold or a spreader bar the same length as the door opening to keep the strike and hinge jamb parallel.
- **15.** Use fire-rated tapered shims while centering the frame in the opening making sure the door jambs are plum and level, and shim under the jamb if necessary to level the head.

#### **NOTE:**

Frames are factory punched and dimpled at each hinge location and corresponding location on the strike jamb. #12 packaging screws must be removed from top and bottom dimple of each jamb at this time.

**16.** Drill the mounting holes with a 7/32" x 5-1/2" masonry bit in the rough opening through the dimples on the hinge jamb. As the fasteners (Tap Con #14 Phillips Flat Head) are installed in the hinge jamb with a #3 Phillips bit, the jamb may move out of plumb or square. Shims can be added, removed, or adjusted as needed to keep the jamb in position.



#### FIGURE C

#### **NOTE:**

Anchors (Tap Con #14 Phillips Flat Head) must be at least 5" long in order to accommodate for the increase in face width when using a 4" head.

If the door is on site then the installer might find it easier to hang the door after the hinge jamb is fastened to the wall. Then close the door into the opening and adjust the frame as needed to maintain an even margin (1/8") across the top of the door by placing shims at the bottom of the strike jamb to hold it in place. The strike jamb is installed in the same manner as the hinge jamb by using shims to maintain a 1/8" latch jamb clearance.... Make sure that the head is still level and then the strike jamb is installed in the same manner as the hinge jamb.

#### HANG THE DOOR(S)

#### **Installation of butt hinges**

#### **NOTE:**

The stile edge of the doors and rabbet of the frames are provided field prepped for butt hinges. Use only the stainless steel sheet metal screws provided. Do not use machine screws, self drilling, and self tapping or combination screws! Hinge screws are best installed with a drill or screw gun that has an adjustable clutch set at the lowest setting to seat the screw.

- **17.** Install the hinges to the door using the stainless steel sheet metal screws provided.
- **18.** Hang door(s) in frame with 3 screws in hinge jamb-one at top, middle and bottom.
- **19.** Close door and check for Special-Lite recommended clearances:
  - 1/8" at strike jamb on single doors
  - 1/8" at meeting stiles
  - 1/8" at head. Adjust as needed.

#### **NOTE:**

Shimming behind hinges and adjusting the frame may be required to maintain the recommended clearances.

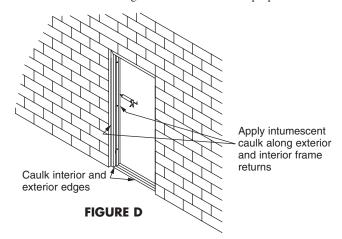
**20.** Install remaining hinge screws in frame.

#### **SEAL FRAME PERIMETERS**

**21.** Apply intumescent caulk along the interior and exterior frame return edges.

# **FR-SERIES DOORS & FRAMES**

**22.** 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 proper fasteners.



#### HARDWARE INSTALLATION

**23.** Consult manufacturer for proper and or appropriate use and installation.

#### **NOTE:**

Use only stainless steel sheet metal screws provided by Special-Lite or wood screws from the hardware manufacture. Do not use machine screws, self drilling and self tapping or combination screws! Closers and surface mounted hardware must be through bolted.

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

#### **CLEAN AND INSPECT DOOR & FRAMES**

- **25.** Wipe down surface with mild soap and water.
- **26.** Check door for nicks and scratches.
- **27.** Touch up kit for painted products provided for minor imperfections.

Special-Lite, Inc.

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Item 7315-R2

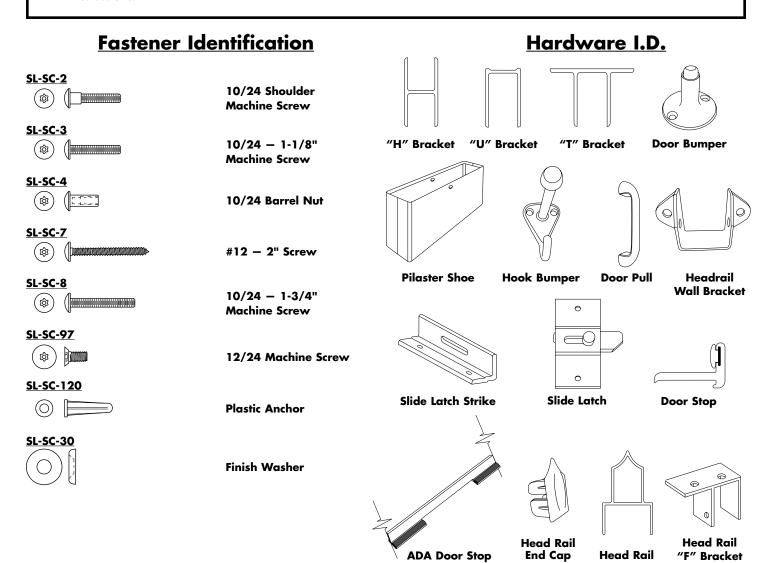


# **INSTALLATION INSTRUCTIONS**

# **Special-Lite® Restroom Partitions**

#### **IMPORTANT - BEFORE YOU START . . .**

- 1. Read through these installation instructions first to understand the order of work.
- 2. Check all components and hardware received against parts list and layout drawing provided by Special-Lite, Inc. Measure all panel, pilaster and door sizes and confirm against layout drawing. Measure room and check it to drawing.
- 3. Determination of locations for appropriate structural anchorage is the responsibility of the installer, and must be done at the layout stage, referencing the layout drawing provided.
- 4. Determine all potential interferences or significant out of plumb or square wall or floor conditions before the layout step to make appropriate allowances or modifications.
- 5. Locate masonry bit and T25 Torx bit and 12-24 tap provided, and all other drill bits required as noted in these instructions.



#### **Important Notes:**

- **A.** Do not assume any wall or floor surface is plumb or level. They seldom are. Use a level or plumb bob as required throughout the entire installation process for best results.
- B. It is important that Special-Lite Restroom Partition components be installed from the high point of the floor to the low point, typically from the edges of the space out toward the center of the room. It is recommended that several 12" wood blocks and a selection of shim wedges be used to help position panels at required heights during installation period.
- C. Special-Lite Restroom Partition doors, panels, and pilasters are not factory pre-drilled so that compensations can be made during installation to ensure a plumb and square installation.
- **D.** All mounting brackets are pre-drilled for anchor fasteners, and once positioned properly can be used as a drill jig or template to ensure proper hole alignment in panels and pilasters.
- **E.** Use the 1/4" masonry bits and plastic expanding anchors provided.
- **F.** The proper Torx bit (T25) has been provided for the tamper-resistant screws included.
- **G.** Use a 1/4" drill bit for all through-holes for barrel nuts.
- **H.** When using electric or cordless drills to install fasteners, set them on a low torque setting to avoid over tightening of fasteners that could deform panels, pilasters or brackets.

#### PARTITION SYSTEM INSTALLATION

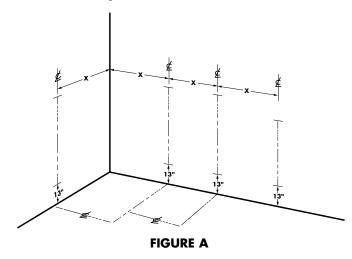
#### **Important Notes:**

- A. All layout dimensions are to centerline of panels, pilasters, and brackets. Some brackets have offset fastener hole locations as shown in FIGURE A.
- B. If cordless drills are used to run in through-bolts, be sure to set drill torque setting toward the lower end of the range to avoid over-tightening bolts and deforming panels.

# LAY OUT CENTERLINES OF PANELS AND PILASTERS ON WALLS AND FLOOR

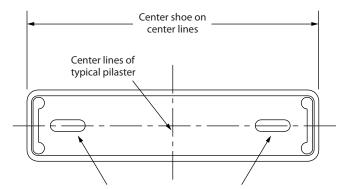
- 1. Confirm orientation of partitions in room and confirm all room dimensions against the layout drawing provided.
- Mark centerlines of panels and pilasters on walls using the drawing provided. Use a level or plumb bob to ensure accuracy.

3. Mark centerlines of panels and pilasters on the floor. Mark center lines of pilasters in both directions.



#### LAY OUT FLOOR ANCHOR HOLES

 Mark locations of floor anchor holes by centering the respective pilaster shoe in both directions. On the floor, layout pilaster locations. Using the shoe as a template, mark all elongated floor anchor holes directly on the floor as shown in FIGURE B.



Use shoe as a template and mark anchor holes on floor. Drill anchor holes in the center of the shoe slots for maximum lateral adjustment.

#### FIGURE B

#### **Important Note:**

The pilaster shoes used for installing Special-Lite Restroom Partitions allow for a range of vertical adjustment to provide a level and plumb installation. These ranges are shown in illustration FIGURE C accompanying the installation steps. Conditions falling outside these ranges will require that shims be used as required by the installer.

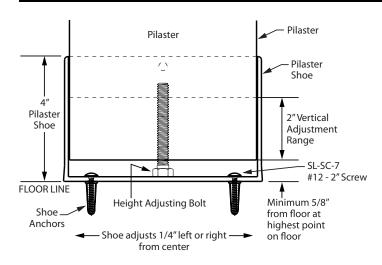


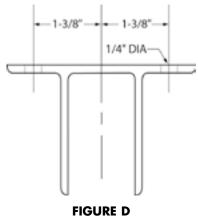
FIGURE C

#### **WALL BRACKETS**

 Using "U" brackets as a template, position brackets centered on the marked vertical centerlines on the walls, with the bottom of the bracket 13" up from the floor. Mark locations of predrilled holes along the centerline for location of wall anchor holes. Pilasters to be wall-anchored use the same brackets as panels.

#### Note:

Urinal screen wall brackets are installed in a similar manner using "T" brackets. Center the bracket on the centerline marked on wall, 13" up from the floor, and mark offset anchor hole locations using the bracket predrilled holes as a template as shown in FIGURE D.



**DRILL FLOOR & WALL ANCHOR HOLES** 

#### **Drill floor anchor holes**

1. Use the 1/4" masonry bit provided to drill holes 1-3/8" deep minimum into floor. Clean out holes, and tap in plastic inserts.

#### Drill wall anchor holes

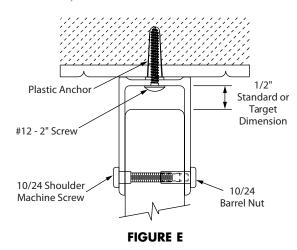
2. Use the 1/4" masonry bit provided to drill holes 1-3/8" deep minimum for wall anchors. Clean out holes and tap in plastic inserts. For wall conditions requiring different anchoring methods, fasteners are the responsibility of the installer.

#### **Important Note:**

The design of Special-Lite Restroom Partitions allows for a range of movement of the panels and pilasters within their mounting brackets to compensate for out-of-plumb or out-of-level wall and floor conditions.

#### **INSTALL WALL-MOUNTED PANELS**

- 1. Install wall anchor "U" or "T" brackets using the provided T25 driver bit and #12 2" screws.
- Support panels on suitable supports and shim as necessary to position bottom edge of panel 12" from floor, with the panel edge facing the wall, spaced 1/2" from inside edge of "U" bracket, as shown in FIGURE E.



#### **Important Note:**

All layout dimensions for Special-Lite partition systems include a 1/2" gap between panels and pilasters, and wall-mounted anchor brackets, so establishing this spacing is critical. It is recommended that a convenient spacer be fabricated to simplify maintaining this 1/2" spacing.

Panels are two inches taller (58") than wall brackets (56") to allow a nominal 1" projection beyond the bracket at top and bottom. This allows panels to be shifted vertically in brackets to maintain level from panel to panel.

- 1. Position panel in wall bracket maintaining 1/2" gap previously mentioned and drill top fastener through hole using bracket as a guide.
- 2. Secure panel with a barrel nut and a 10/24 shoulder machine screw in top hole location and tighten fastener finger tight.
- 3. Ensure panel is level and drill remaining fastener holes through pre-drilled bracket holes.

- 4. Install remaining fasteners and tighten all fasteners using the T25 driver bit provided.
- 5. Install all remaining wall-mounted panels in the same manner.

#### **INSTALL PILASTER SHOES AND PILASTERS**

#### **Important Note:**

Start installation of pilasters at the highest floor anchor location to ensure adequate adjustability to provide a level partition system installation. Determine the amount of drop, from highest to lowest pilaster shoe location. Where drop exceeds 2", shims must be used. Shims are the responsibility of the installer.

- 1. Install pilaster shoes on floor using #12 2" screws, positioned in middle of slots.
- 2. Adjust height of adjusting bolts to protrude 1/2" from bottom of pilaster at highest shoe location, and more as required for pilasters at lower floor locations.
- 3. For pilasters connecting to panels, position "U" bracket over panel edge, set pilaster in place in shoe, confirm proper positioning and height adjustment of pilaster, and mark location of "U" bracket on pilaster.
- 4. Remove pilaster and lay on saw horses. Reposition "U" bracket and mark screw hole positions in pilaster. Drill 1/4" holes through pilaster and through-bolt bracket to pilaster.
- 5. Reinstall pilaster in shoe and against panel, check for plumb, and drill 1/4" holes half way through panel from each side at predrilled bracket hole locations. Secure with through-bolts.

#### **Important Note:**

Pilasters that will have a self-closing hinge installed on them MUST be installed plumb in both directions to ensure proper function of the hinge.

 Continue installing pilasters in this manner working toward low point in floor, adjusting pilasters up to maintain a level installation.

#### Note:

When joining pilasters or panels with a butt joint, use a "H" bracket as show in FIGURE F.

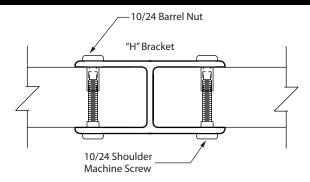


FIGURE F

- 8. Continue installation of remaining panels and pilasters, maintaining a plumb and level installation.
- 9. Confirm door openings to layout drawing, adjusting pilaster shoe positioning as necessary.

#### **Important Note:**

When installing through-bolts in the middle of panels – hand-tighten the bolts only!

#### **INSTALL HEAD RAILS**

- 1. Put head rail in position on pilasters and mark for length. Remove head rail and cut to length.
- 2. Mark locations for screw hole 3/8" up from bottom of flange. Use one shoulder machine screw and barrel nut centered on each side of pilasters under 12" in width, and two shoulder machine screws and barrel nuts on each side for pilasters over 12" wide, one inch in from each end.
- 3. Drill 1/4" clearance holes through head rail flange. Secure head rail with shoulder machine screws and barrel nuts, ensuring all door openings are at correct width.
- 4. Tap head rail end caps into place where needed.

#### **Important Note:**

For alcove units, headrail should be installed from center pilaster to wall, perpendicular to door. Use shoulder machine screws and barrel nuts to attach head rail "F" bracket to perpendicular headrail. To mount head rail to wall use head rail wall bracket.

#### **INSTALL DOOR STOPS**

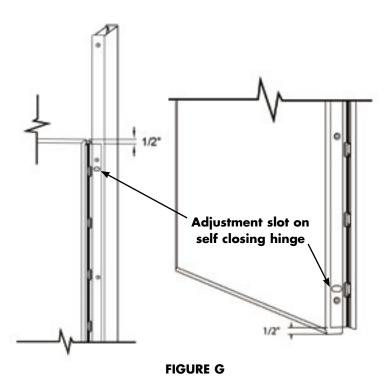
#### Note:

Door stops are 1/2" shorter than doors. To find door height, either bridge a straight edge across from panel to panel marking height on each side of door opening, or use a square from the side panels to mark door height on pilaster.

 Referencing layout drawing for door swing, position door stop against pilaster with top edge of stop 1/4" below top edge of panels. Mark locations of predrilled holes in stop on edge of pilaster, and remove stop. Drill holes with 3/16" drill and tap with 12/24 tap provided. Install door stop with 12/24 tap provided. Install door stop with 12/24 flat head machine screws.

#### INSTALLATION OF DOOR WITH NON SELF CLOSING HINGE

1. Lay hinge on edge of door 1/2" from the top and bottom and mark locations for pre-drilled holes in door edge. Drill holes with 3/16" drill and tap with 12/24 tap provided.



- 2. Position hinge on pilaster at the appropriate height and mark locations for pre-drilled holes. Drill holes with 3/16" drill and tap with 12/24 tap provided.
- 3. Install hinge on door and then on pilaster using 12/24 flat head machine screws.

#### INSTALLATION OF DOOR WITH SELF CLOSING HINGE

- 1. Lay hinge leaf on edge of door ½" from the bottom of the door. Mark the oval slot near the top and bottom of the hinge. Drill a hole in the center of each slot with a 3/16" drill and tap with 12/24 tap provided.
- 2. Position hinge on pilaster ½" below mark for top of doors and mark the oval slot near the top and bottom of the hinge. Drill a hole in the center of each slot with a 3/16" drill and tap with 12/24 tap provided.

- 3. Install hinge on the door and then on the pilaster using 12/24 flat head machine screws at the adjustment slots. Do not over tighten screws.
- 4. Test for proper function of the hinge by opening the door 90 degrees and releasing. The door should swing to the fully closed position. If it does, skip to step 6.
- 5. If the door does not swing to the fully closed position and eventually stay there, loosen the bottom screw that is holding the hinge to the pilaster. Pull bottom of door away from pilaster so that the screw is at the end of the adjustment slot and retighten screw. Test door again for proper functions.
- 6. Check to make sure that the door edge is making full contact with the door stop. If not, loosen one of the screws holding the hinge to the door and adjust the door position so that it makes full contact with the door stop. Retighten screws.
- Drill and tap remaining holes in the door and pilaster and install screws.

#### **Important Note:**

Pilasters that will have a self-closing hinge installed on them MUST be installed plumb in both directions to ensure proper function of the hinge.

# HARDWARE INSTALLATION INSTALL LATCHES AND LATCH STRIKES

#### **INSTALL LATCH AND STRIKE FOR IN-SWING DOORS**

 Mark horizontal line at the vertical centerline of the door at the latch location. Project that line across to the accompanying pilaster. Mark a vertical line 1-7/16" from the edge of the door for the latch centerline as shown in FIGURE H. Locate latch on lines and mark mounting hole locations on door. Drill 1/4" holes through door. Install latch with 10/24 shoulder screws and barrel nuts, oriented with bevel on latch bolt facing downward.

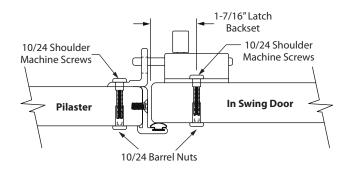


FIGURE H

2. Center the strike vertically on the projected pilaster line. Note that strike has a groove that aligns with the aluminum edge of the pilaster, providing proper back-set. Mark holes on pilaster, and drill 1/4" holes through pilaster and install strike with 10/24 shoulder screws and barrel nuts.

#### **INSTALL LATCH FOR OUT-SWING DOORS**

1. Repeat steps 1 and 2 above, but use 10/24 x 1-3/4" machine screw to secure door pull to opposite side of latch as shown in FIGURE I.

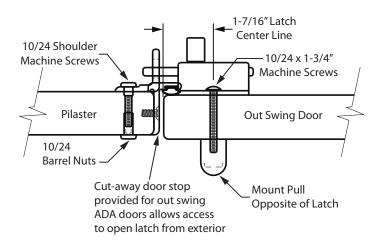
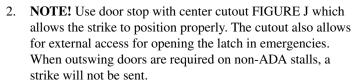
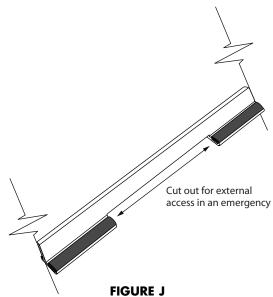


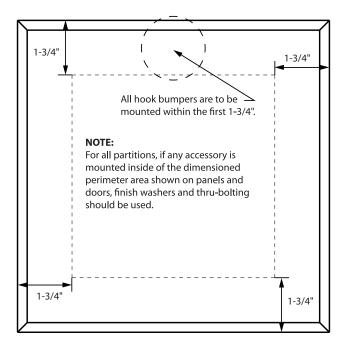
FIGURE I





#### **ACCESSORIES INSTALLATION**

Hook bumpers, grab rails and dispensers must be installed with through-bolts. It is recommended that finish washers be used in screw locations more than 1-1/2" from the edge of a panel or door to provide protection against screw head pull-through.



**FIGURE K** 





#### **RESTROOM PARTITION PANEL COMPOSITES**

