



# INSTALLATION INSTRUCTIONS

## Bullet-Resistant Fiberglass Doors & Frames

**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. This and other Installation Instructions can be found on Special-Lite's web site at [www.special-lite.com](http://www.special-lite.com).



**HARDWARE MUST BE THROUGH-BOLTED**

*See Page 4 - HARDWARE INSTALLATION for more information*



# BULLET-RESISTANT FIBERGLASS 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
  - CMU
6. Check plans for swing and location of jambs in structure.
7. Measure all framing.
8. Measure the opening to verify it is  $\frac{1}{2}$ " larger in width and  $\frac{1}{4}$ " 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:

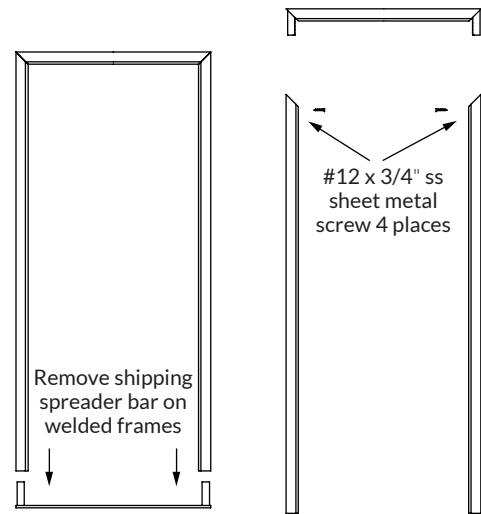
Use a level and straight edge to determine the high side of the floor.

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

12. Slide head onto jamb legs. Install the provided #12 x  $\frac{3}{4}$ " 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.

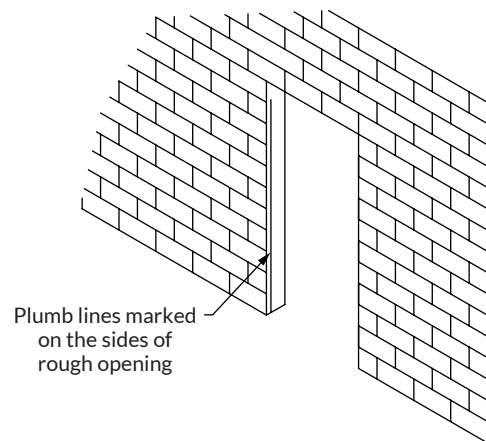


## SET FRAME IN OPENING

### 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.



# BULLET-RESISTANT FIBERGLASS DOORS & FRAMES

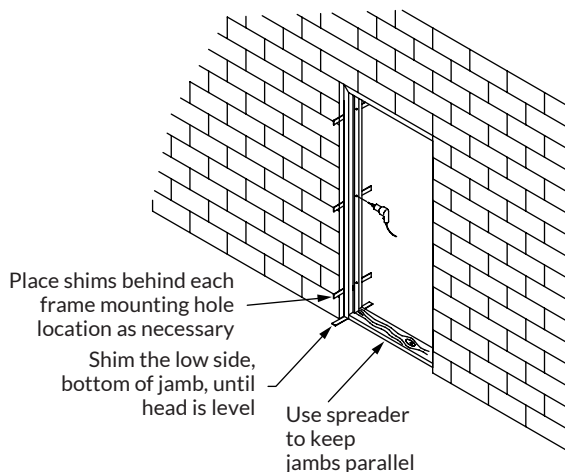
## ANCHORING FRAME INTO ROUGH OPENING (existing masonry construction)

### 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.



### 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.

## HANG THE DOOR(S)

### NOTE:

The stile edge of the doors and rabbet of the frames are provided field prepped for butt hinges or sized for a continuous hinge.

Use only the stainless steel sheet metal screws provided. AF-100BR<sup>3</sup> doors are provided with #12-11x1-1/2" stainless steel fasteners. AF Composite BR<sup>3</sup> doors are provided with #12-11x1" stainless steel fasteners.

**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.**

### Installation of doors with butt hinges

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 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.

### Installation of doors with continuous hinge

21. If the hinge needs to be prepped in the field, use the hinge manufactures recommendations and pre-drill the screw holes with a 5/32" drill bit.
22. 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.
23. Hang door(s) in frame with 6 screws in hinge jamb—two at top, middle and bottom.

# BULLET-RESISTANT FIBERGLASS DOORS & FRAMES

24. Close door and check for Special-Lite recommended clearances:
- 1/8" at strike jamb on single doors
  - 1/8" at head. Adjust as needed.

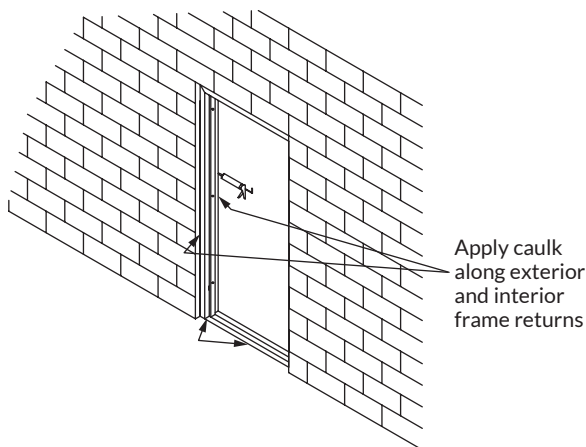
**NOTE:**

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

25. Install remaining hinge screws in frame.

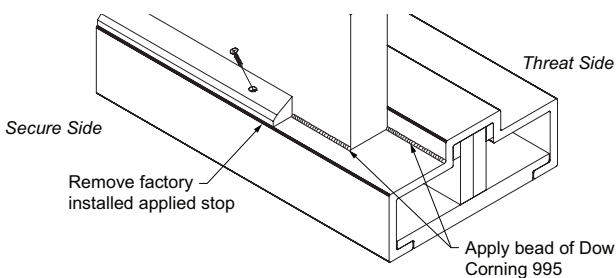
## SEAL FRAME PERIMETERS

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



## FRAME GLAZING PROCEDURE (Transoms, side-lites, borrowed lites)

28. Remove factory applied glazing stop and apply caulk at the glass or panel-facing surface of the frame stop.
29. Install glass or panel and secure in place with applied stop and stainless steel sheet metal screws provided.



## HARDWARE INSTALLATION

30. Consult hardware manufacturer for proper and or appropriate use and installation.

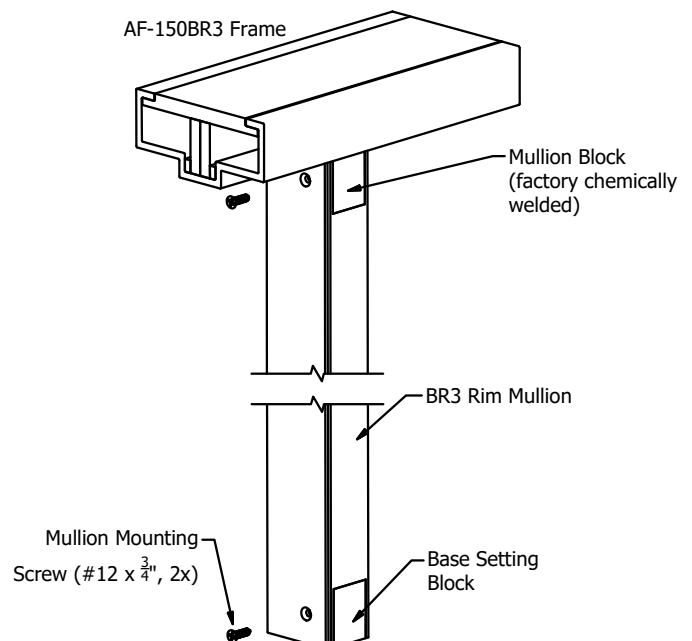
**NOTE:**

*All non-mating hardware must be through-bolted using stainless steel binding barrels and screws. Do not use machine screws, self drilling and self tapping or combination screws!*

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

## REMOVABLE MULLION INSTALLATION

32. Mullion block in frame is chemically welded and will arrive pre-installed as such.
33. Remove the four mounting screws at top and bottom of mullion (#12 screws, 3/4" in length).
34. Position mullion over top block. Plumb mullion to floor where base setting block will go and trace positioning.
35. Apply block to floor using stainless steel Tapcon fasteners
36. Slide mullion over block and install the two screws previously removed at the top/header and at the bottom where the base block has been applied to the floor.



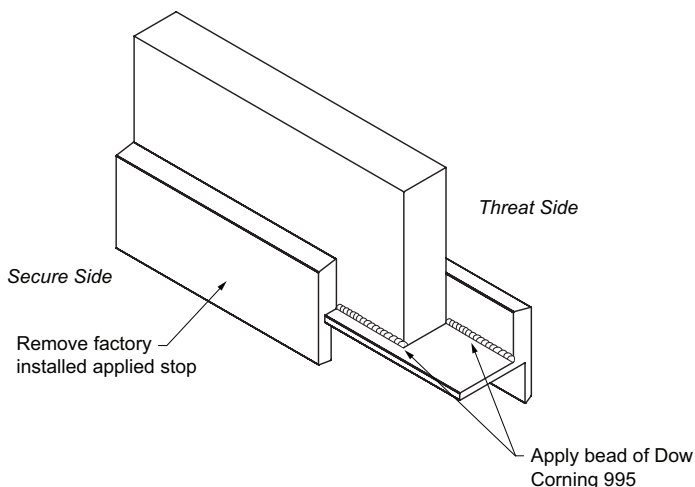
# BULLET-RESISTANT FIBERGLASS DOORS & FRAMES

## DOOR GLAZING PROCEDURE

### NOTE:

Must use Special-Lite AF-BR<sup>3</sup>LK with minimum 1" glazing bite. Exterior side factory installed and permanently affixed to door.

37. Remove SC-109 (#12-11x1-1/2" stainless steel flat head) screws from interior side of AF-BR<sup>3</sup>LK lite kit. Remove interior side of AF-BR<sup>3</sup>LK lite.
38. Apply bead of Dow Corning 995 (or equivalent) along perimeter of the lite kit stop.
39. Install 1-1/4" UL-752 Level 3 rated glazing material.  
Suggested material:
  - Palshield UL3-1250 Polycarbonate
  - LTI Smartguard BR3
40. Apply bead of Dow Corning 995 to groove of interior side of AF-BR<sup>3</sup>LK lite kit. Place the AF-BR<sup>3</sup>LK lite kit in its original position on the interior side of the door and re-install SC-109 (#12-11x1-1/2" stainless steel flat head) screws.



## INSPECT DOOR & FRAMES

41. Check door for nicks and scratches.
42. Touch up kit for painted products provided for minor imperfections.

## GENERAL CLEANING

43.
  - a. Thoroughly pre-rinse with warm water to loosen and wash away surface material, grit and grime.
  - b. Using a soft microfiber cloth or moist non-abrasive sponge, gently wash with a mild diluted soap or detergent.
  - c. Rinse thoroughly with lukewarm clean water. To prevent water spots, thoroughly dry the glazing with a dry soft cloth.

## COMPATIBLE CLEANERS

44. The following cleaning agents are compatible with Hygard polycarbonate sheet products when used according to the manufacturer's recommendations:
  - Top Job
  - Joy<sup>®</sup>
  - Palmolive Liquid<sup>®</sup>
  - Windex<sup>®</sup> Ammonia free