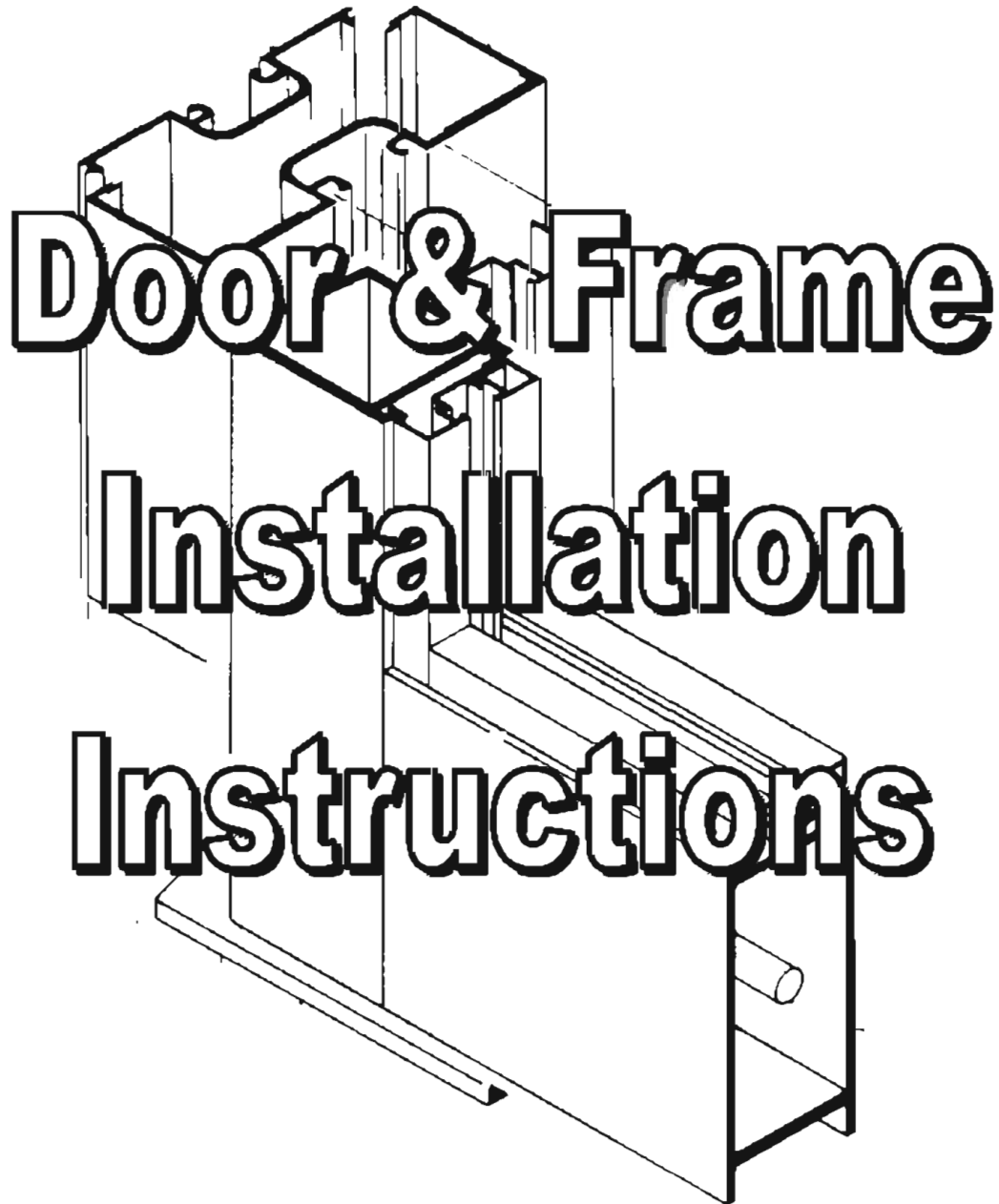


**TUBELITE**®

STOREFRONT, CURTAINWALL & ENTRANCES

*DEPENDABLE*





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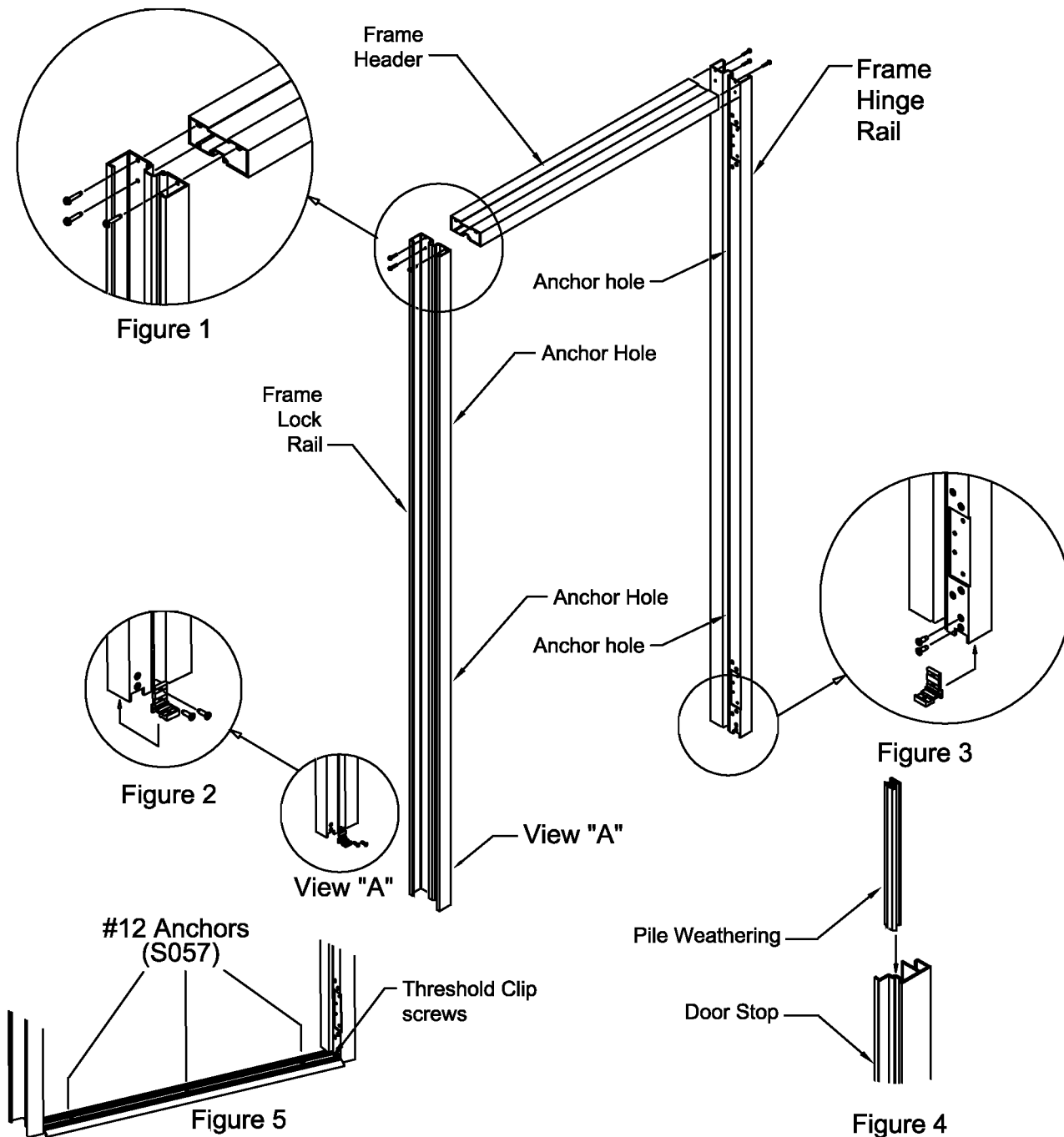
# Butt Hinge Frame Assembly

(Left Hand Shown)

Allow for 1/4" shim and sealant space at sides and top of door frame. Door opening must be plumb and square.

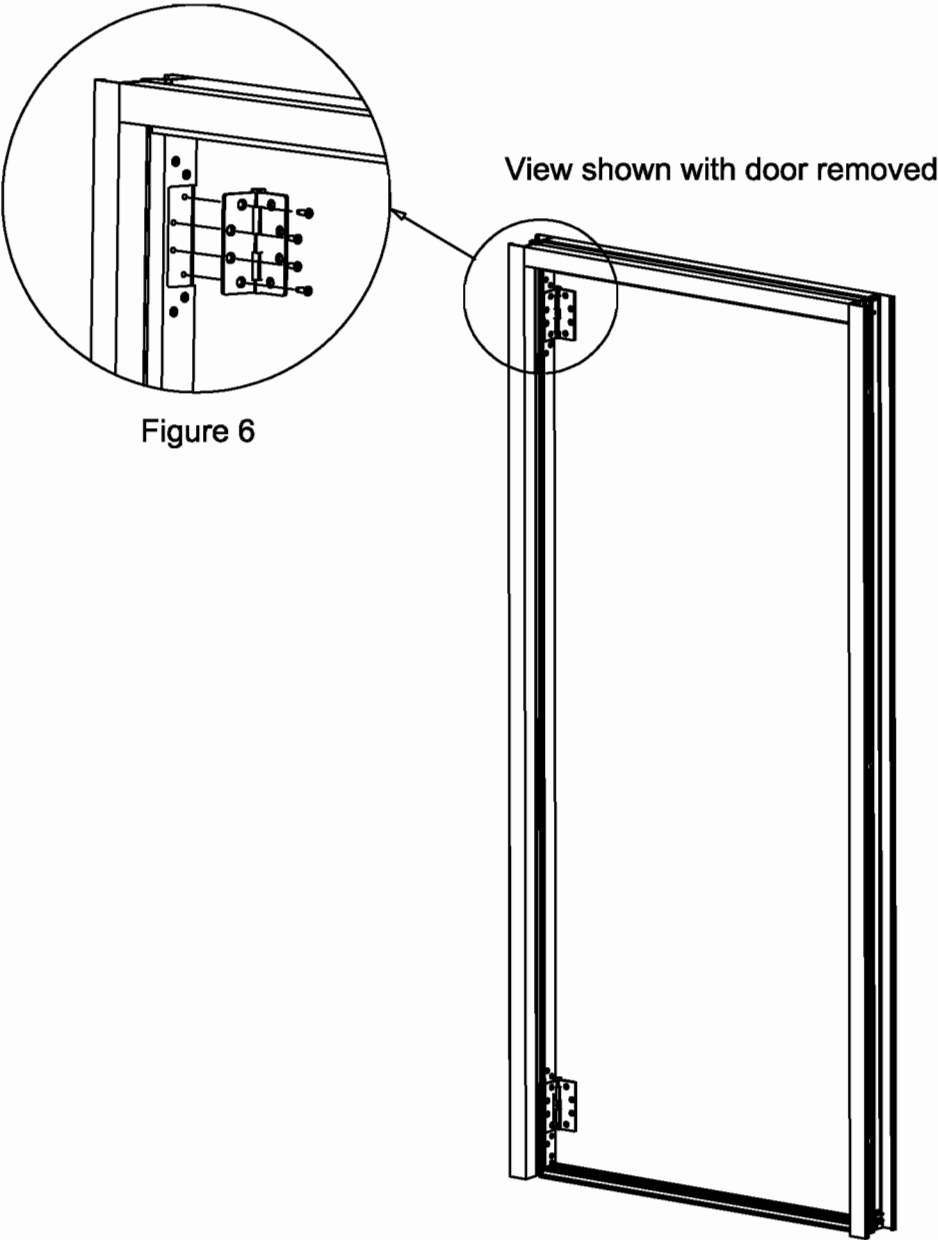
1. Attach header (and transom if required) with provided screws into the splines. See Figure 1.
2. Attach threshold clips with provided screws. See Figures 2 & 3.
3. Set frame into opening and ensure that it is plumb and square.
4. Drill anchor holes in glazing pocket of both vertical jambs as indicated by arrows, if no adjacent sidelight.
5. Secure vertical jamb to opening. (Screws not provided)  
(Tubelite recommends snap in backs for added support and stability, such as P1713, P1714 or P1715)
6. Install pile weathering into door stops. See Figure 4.
7. Install vertical door stops then install header door stop. (P503 filler can be installed at this time.)
8. Install backer rod or insulation between frame and building opening then seal.
9. Attach threshold, onto a bed of sealant, to floor using the #12 anchor screws provided. See Figure 5.

Ensure that the threshold is supported the entire length of threshold, if not shim as required.



# Butt Hinge Door Installation (Left Hand Shown)

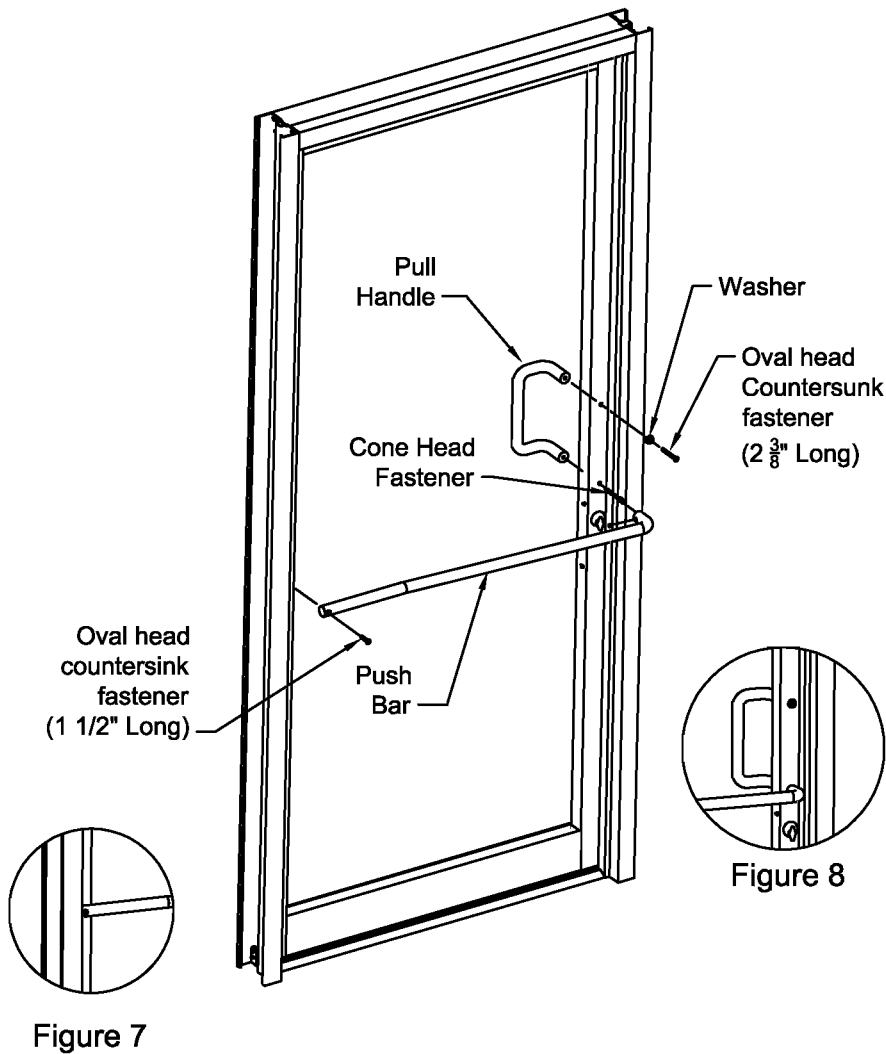
- 10. Support door and line up butt hinges and screw into place with screws provided. See Figure 6.  
Secure both top and bottom butt hinges.
- 11. Door should swing freely.



# Butt Hinge Door Push / Pull Installation

(Interior view of Left hand door)

12. Attach pull handle with washer and 2 3/8" long screw at top of pull handle, and attach the bottom of pull handle with conehead fastener.
13. Set pushbar onto conehead fastener and attach at hinge rail using the oval head countersunk 1 1/2" long fastener.
14. Insert set screw into pushbar at hinge rail and tighten.
17. See figures 7 & 8 for final push/pull assembly.
18. Attach surface closer per the closer manufactures instructions.



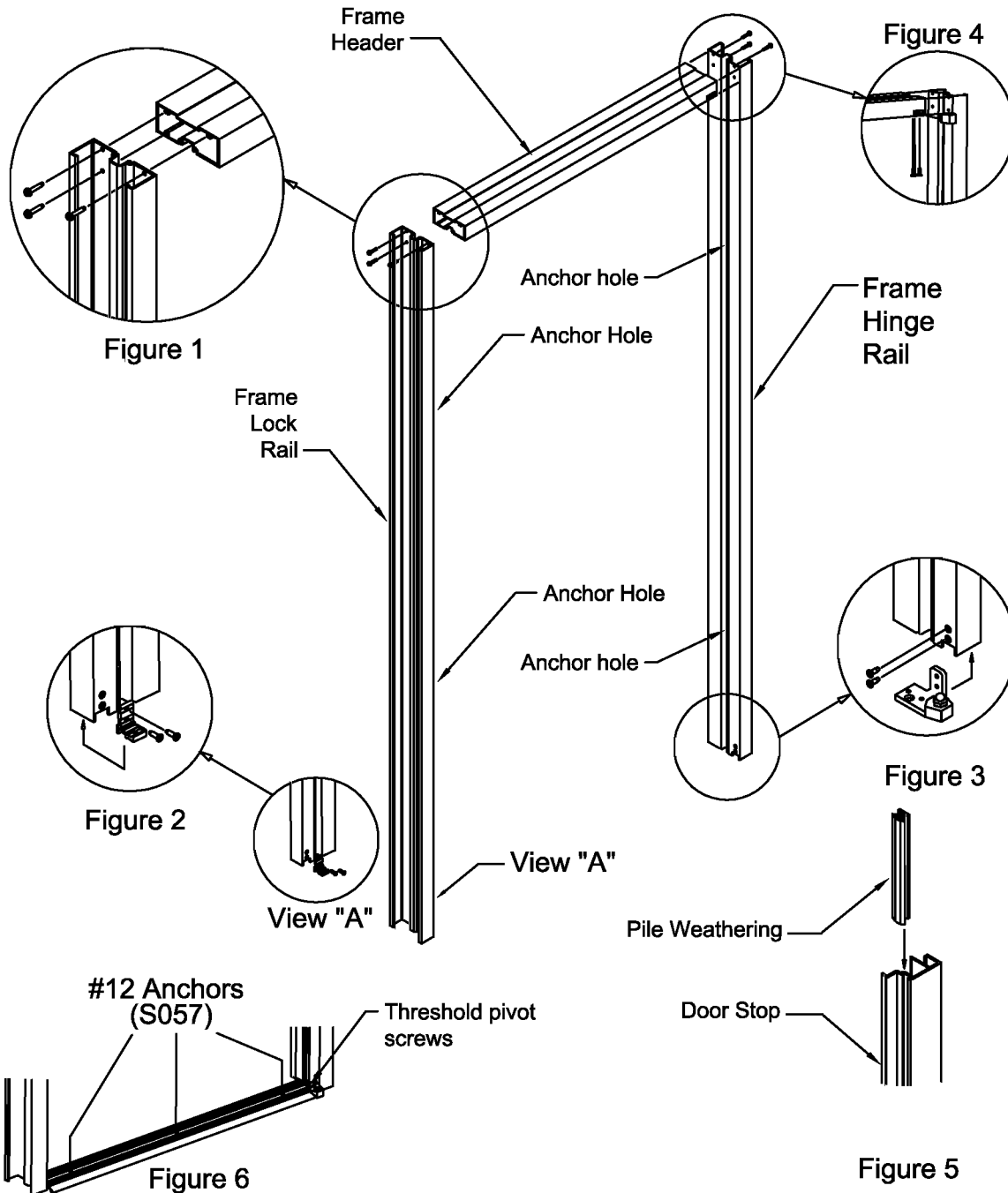
# Offset Pivot Frame Assembly

(Left Hand Shown)

Allow for 1/4" shim and sealant space at sides and top of door frame. Door opening must be plumb and square.

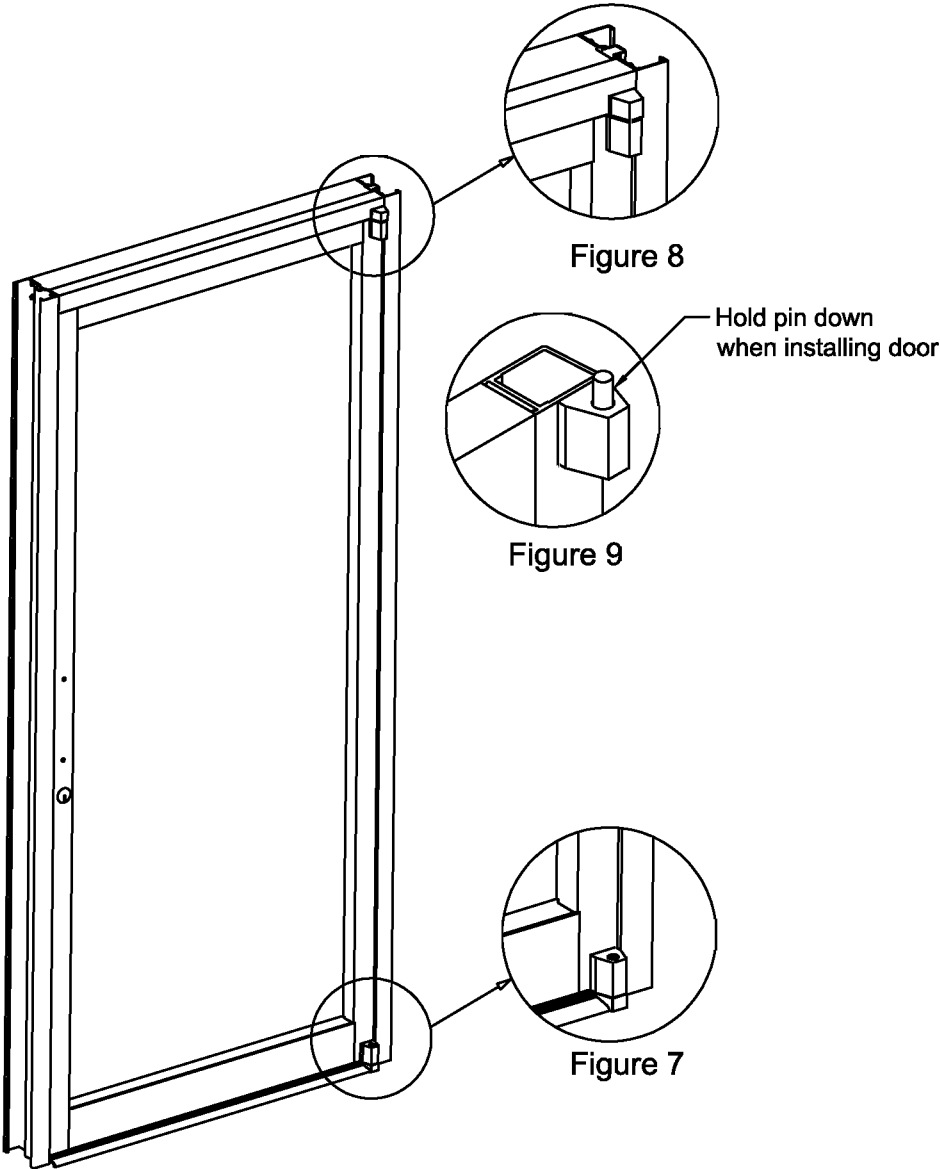
1. Attach header (and transom if required) with provided screws into the splines. See Figure 1.
2. Attach bottom pivot and threshold clip with provided screws. See Figures 2 & 3.
3. Set frame into opening and ensure that it is plumb and square.
4. Drill anchor holes in glazing pocket of both vertical jambs as indicated by arrows.
5. Secure vertical jambs to opening. (Screws not provided)  
(Tubelite recommends snap in backs for added support and stability, such as P1713, P1714 or P1715)
6. If bottom pivot is not supported by finished floor, shim underneath as required.
7. Install header portion of top pivot (screws provided with pivot). See Figure 4.
8. Install pile weathering into door stops. See Figure 5.
9. Install vertical door stops then install header door stop. (P503 can be installed at this time.)
10. Install backer rod or insulation between frame and building opening then seal.
11. Attach threshold, onto a bed of sealant, to floor using the #12 anchor screws provided. See Figure 6.

Ensure that the threshold is supported the entire length of threshold, if not shim as required.



# Offset Pivot Door Installation (Left Hand Shown)

- 12. Set bottom pivot on door over pin on bottom frame pivot. See Figure 7.
- 13. Hold top pivot pin down and tip door into place making sure pin pops into the frame pivot portion. See Figures 8 & 9.
- 14. Door should swing freely.



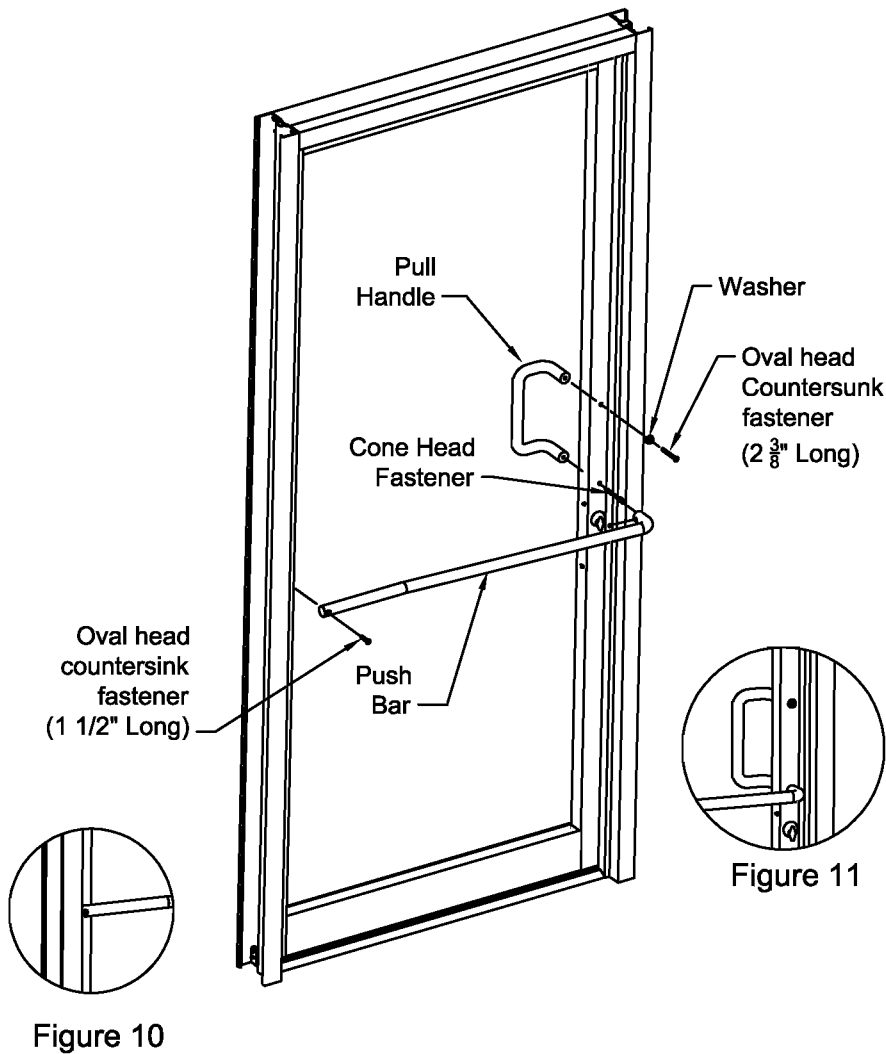


# Offset Pivot Door Push / Pull Installation

(Interior view of Left hand door)

15. Attach pull handle with washer and 2 3/8" long screw at top of pull handle, and attach the bottom of pull handle with conehead fastener.
16. Set pushbar onto conehead fastener and attach at hinge rail using the oval head countersunk 1 1/2" long fastener.
17. Insert set screw into pushbar at hinge rail and tighten.
18. See figures 10 & 11 for final push/pull assembly.
19. Attach surface closer per the closer manufactures instructions.

Prepare door for installing glass by removing key that is taped to inside rail. Trim gaskets at the end of glass stops and snap into place, and place glass supporting blocks into punched openings.

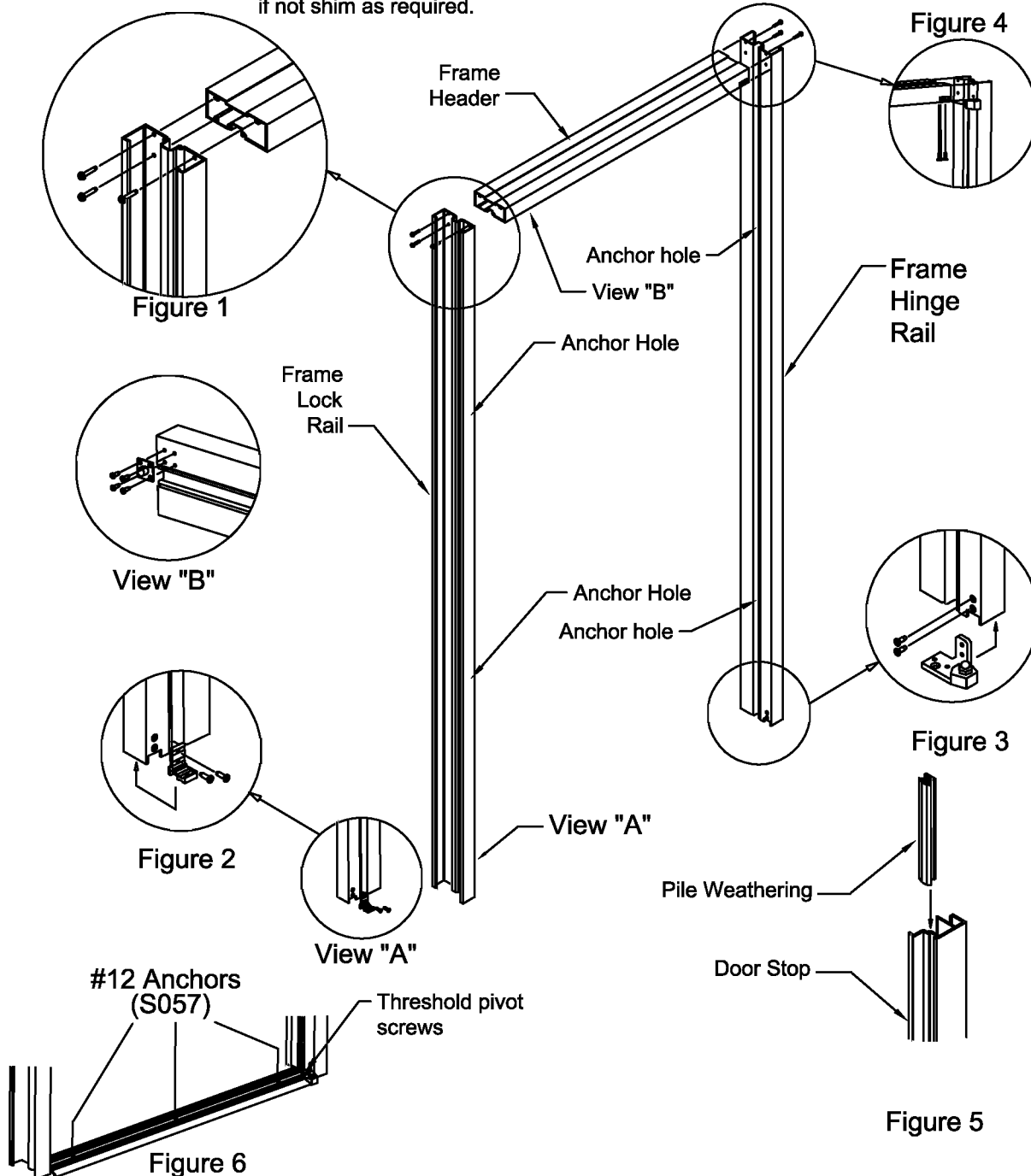


# Offset Pivot Frame Assembly with Panic device (Left Hand Shown)

Allow for 1/4" shim and sealant space at sides and top of door frame. Door opening must be plumb and square.

1. Attach header (and transom if required) with provided screws into the splines. See Figure 1.
2. Attach bottom pivot and threshold clip with provided screws. See Figures 2 & 3.
3. Set frame into opening and ensure that it is plumb and square.
4. Drill anchor holes in glazing pocket of both vertical jambs as indicated by arrows.
5. Secure vertical jambs to opening. (Screws not provided)  
(Tubelite recommends snap in backs for added support and stability, such as P1713, P1714 or P1715)
6. If bottom pivot is not supported by finished floor, shim underneath as required.
7. Install header portion of top pivot (screws provided with pivot). See Figure 4.
8. Install Top strike plate into prepunched holes (screws provided). See View "B".
9. Install pile weathering into door stops. See Figure 5.
10. Install vertical door stops then install header door stop. (P503 can be installed at this time)
11. Install backer rod or insulation between frame and building opening then seal.
12. Attach threshold, onto a bed of sealant, to floor using the #12 anchor screws provided. See Figure 6.

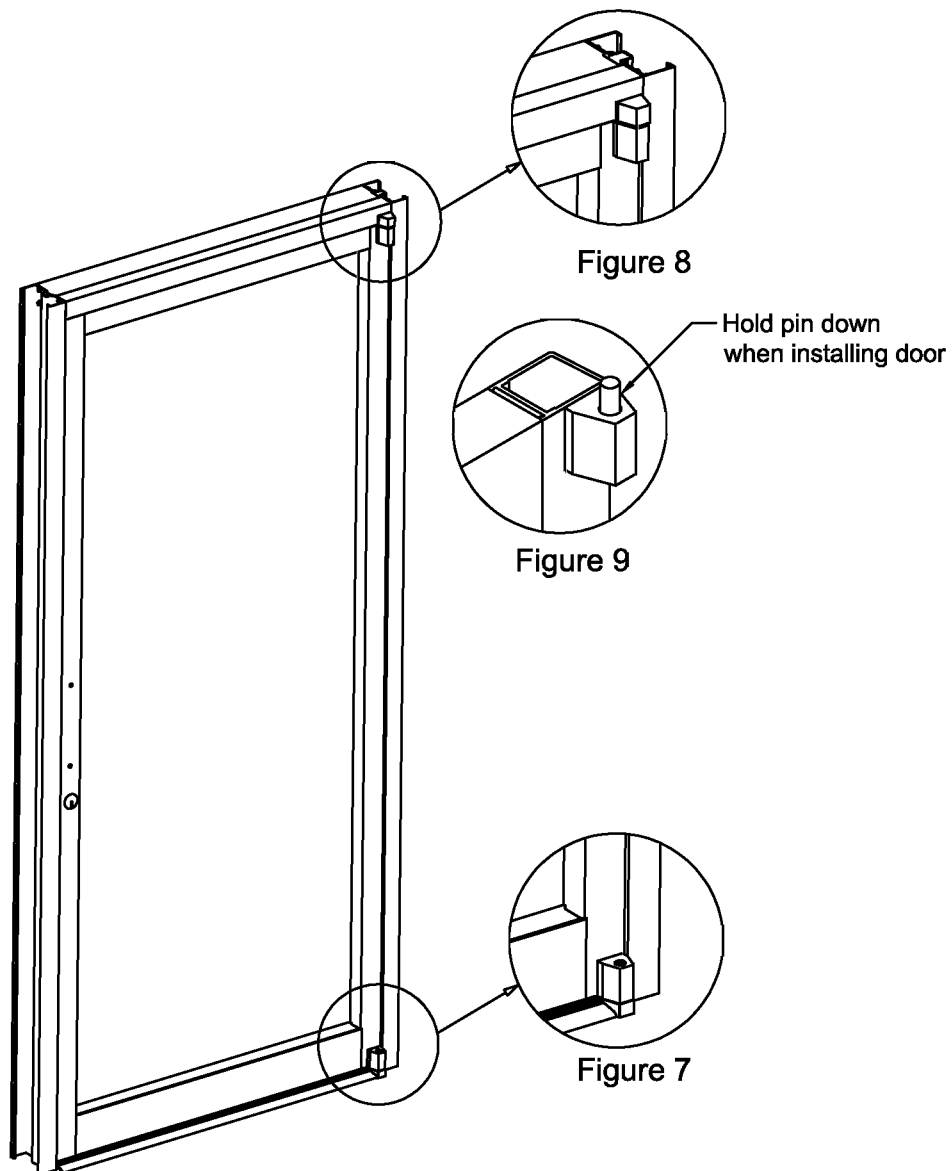
Ensure that the threshold is supported the entire length of threshold, if not shim as required.



# Offset Pivot Door with Panic device Installation

(Left Hand shown without panic device and pull)

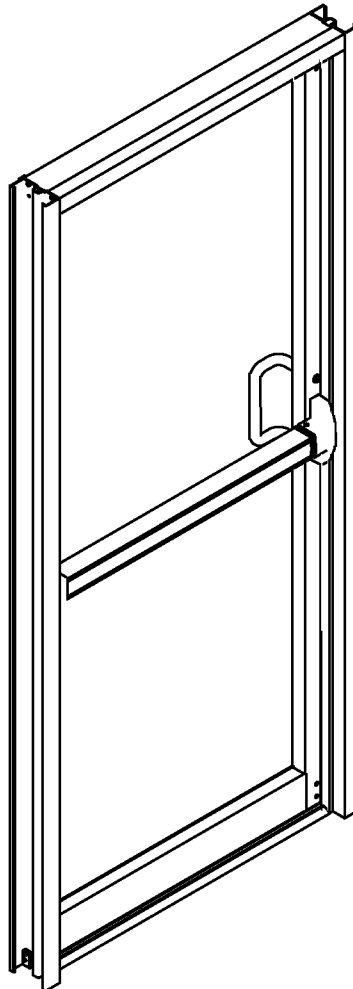
13. Set bottom pivot on door over pin on bottom frame pivot. See Figure 7.
14. Hold top pivot pin down and tip door into place making sure pin pops into the frame pivot portion. See Figures 8 & 9.
15. Door should swing freely.



## Offset Pivot Door with Panic device (Interior view of Left hand door)

16. Open and close door to ensure proper secure engagement of concealed vertical panic device. If panic does not engage properly refer to panic manufacture installation instructions.
17. Attach surface closer per the closer manufactures instructions.

Prepare door for installing glass by removing key that is taped to inside rail. Trim gaskets at the end of glass stops and snap into place, and place glass supporting blocks into punched openings.

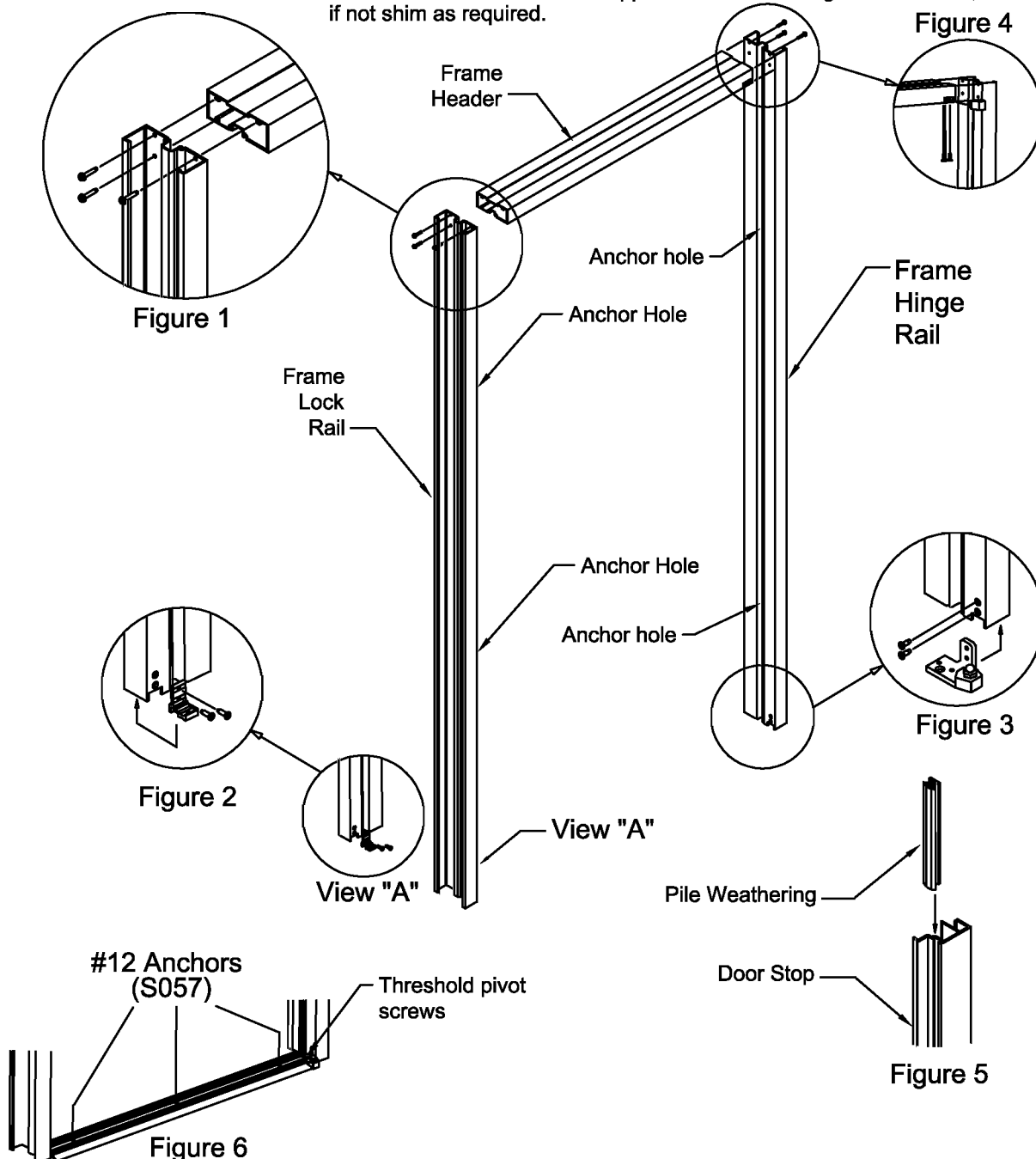


# Offset Pivot Frame Assembly with RIM Panic device (Left Hand Shown)

Allow for 1/4" shim and sealant space at sides and top of door frame. Door opening must be plumb and square.

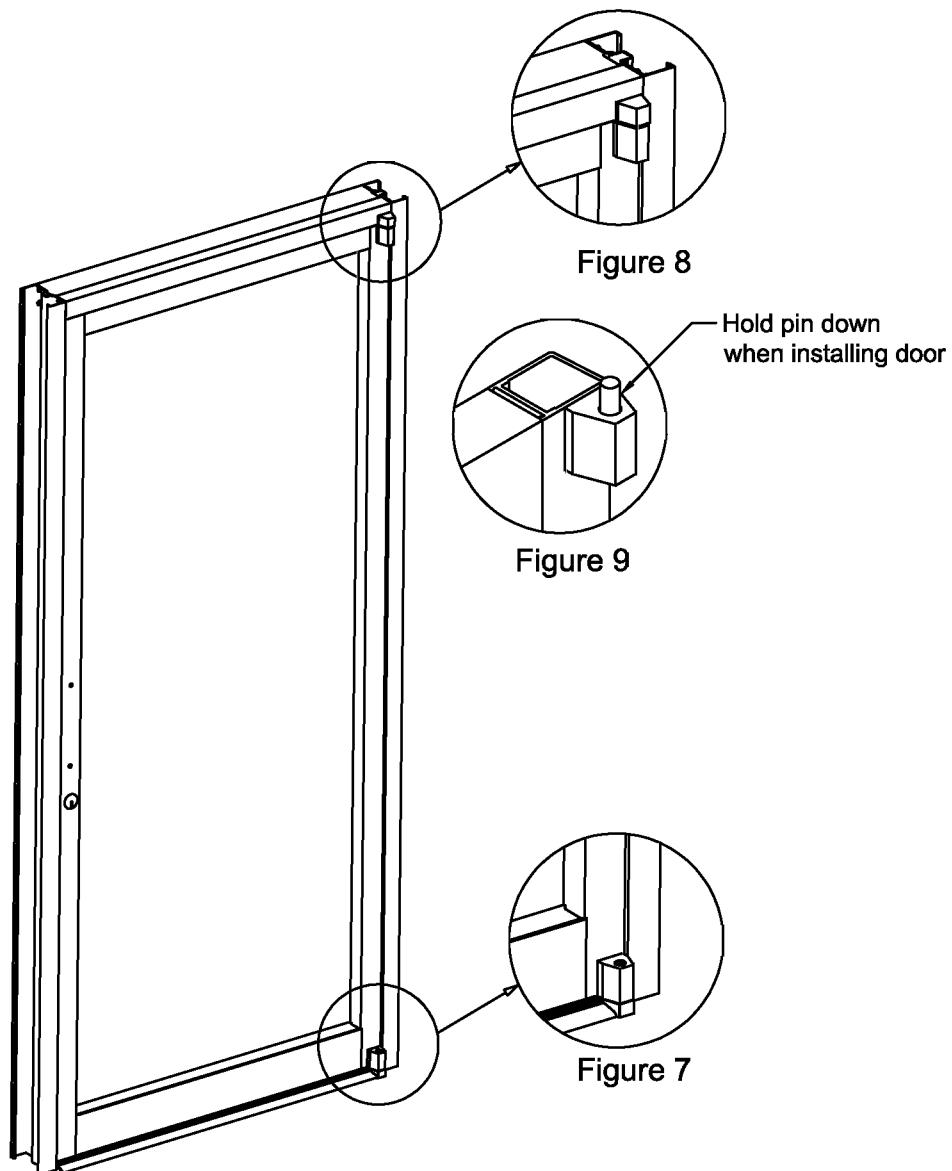
1. Attach header (and transom if required) with provided screws into the splines. See Figure 1.
2. Attach bottom pivot and threshold clip with provided screws. See Figures 2 & 3.
3. Set frame into opening and ensure that it is plumb and square.
4. Drill anchor holes in glazing pocket of both vertical jamba as indicated by arrows, if no adjacent sidelight.
5. Secure vertical jamba to opening. (Screws not provided)  
(Tubelite recommends snap in backs for added support and stability, such as P1713, P1714 or P1715)
6. If bottom pivot is not supported by finished floor, shim underneath as required.
7. Install header portion of top pivot (screws provided with pivot). See Figure 4.
8. Install pile weathering into all door stop pieces. See Figure 5.
9. Install hinge side vertical door stop then install header door stop. (Lock side door stop done later)  
(P503 can be installed at this time.)
10. Install backer rod or insulation between frame and building opening then seal.
11. Attach threshold, onto a bed of sealant, to floor using the #12 anchor screws provided. See Figure 6.

Ensure that the threshold is supported the entire length of threshold, if not shim as required.



# Offset Pivot Door with RIM Panic device Installation (Left Hand shown without RIM panic device and pull)

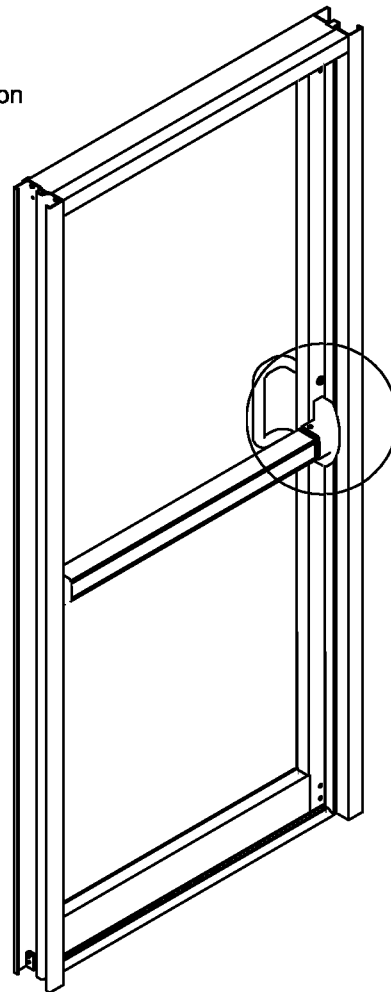
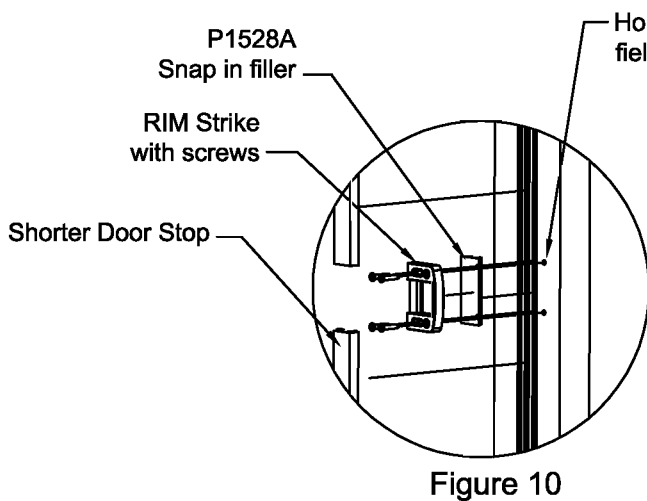
12. Set bottom pivot on door over pin on bottom frame pivot. See Figure 7.
13. Hold top pivot pin down and tip door into place making sure pin pops into the frame pivot portion. See Figures 8 & 9.
14. Door should swing freely.



## Offset Pivot Door with RIM Panic device (Interior view of Left hand door)

15. Snap on lower door stop first. Snap in the P1528A filler plate then snap in the longer door stop above filler. See Figure 10.
16. Screw on the strike plate with screws provided in predrilled holes.
17. Close door and ensure that panic latches into strike. If not, adjust strike by loosening screws and readjusting strike then re-tighten screws.
18. Once adjustment is made, interior side holes will have to be drilled with a .159 dia drill.
19. Screw into holes that were drilled and tighten.
20. Ensure that the door opens and closes securely.
21. Attach surface closer per the closer manufactures instructions.

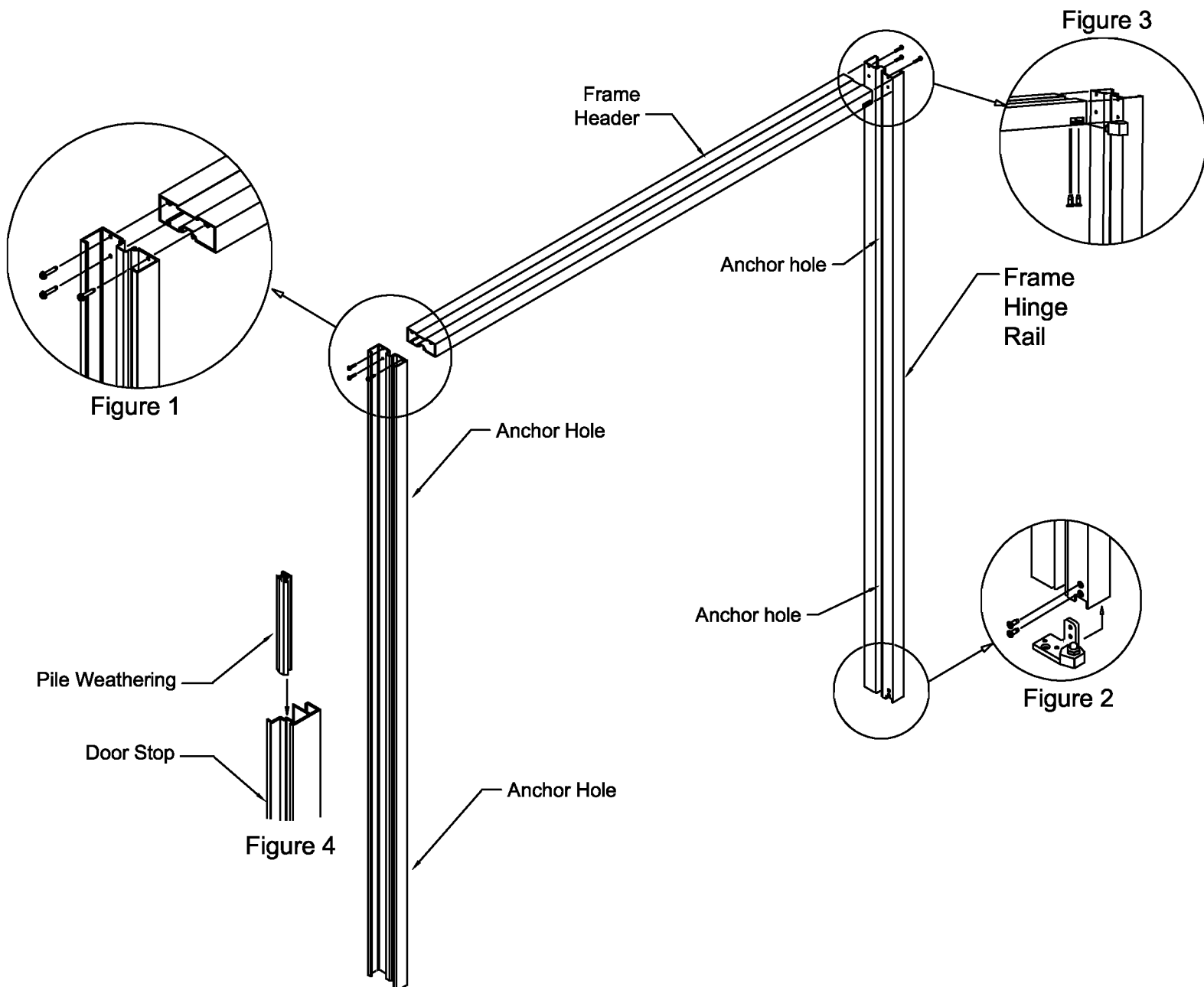
Prepare door for installing glass by removing key that is taped to inside rail. Trim gaskets at the end of glass stops and snap into place, and place glass supporting blocks into punched openings.



# Offset Pivot Frame Assembly with RIM Panic device and Removable Mullion for pair of doors

Allow for 1/4" shim and sealant space at sides and top of door frame. Door opening must be plumb and square.

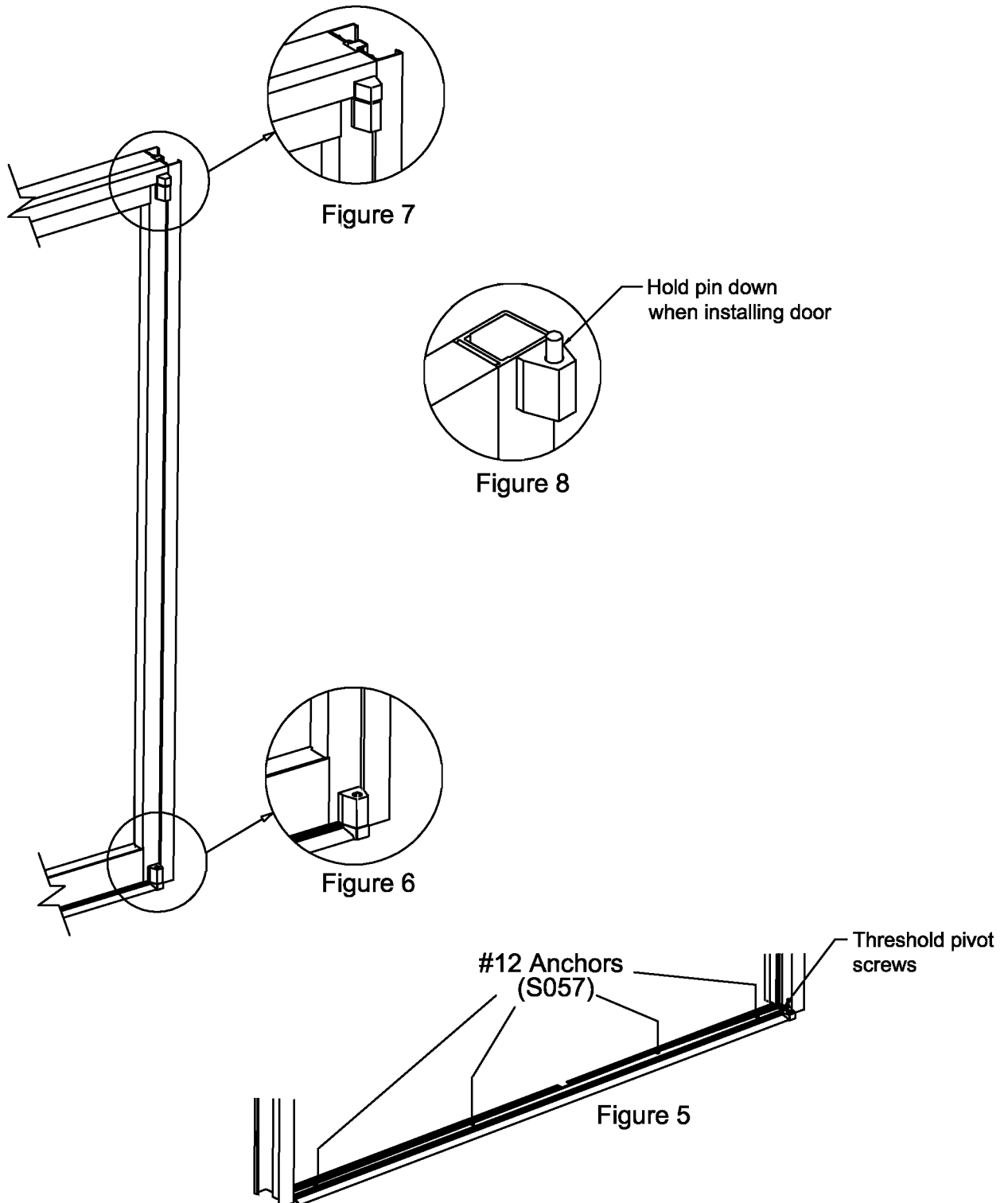
1. Attach header (and transom if required) with provided screws into the splines. See Figure 1.
2. Attach bottom pivots on both jambs with provided screws. See Figure 2.
3. Set frame into opening and ensure that it is plumb and square.
4. Drill anchor holes in glazing pocket of both vertical jambs as indicated by arrows, if no adjacent sidelight.
5. Secure vertical jambs to opening. (Screws not provided by Tubelite)  
(Tubelite recommends snap in backs for added support and stability, such as P1713, P1714 or P1715)
6. If bottom pivot is not supported by finished floor, shim underneath as required.
7. Install header portion of top pivots (screws provided with pivot). See Figure 3.
8. Install pile weathering into all door stop pieces. See Figure 4.
9. Install hinge side vertical door stops then install header door stop. (P503 can be installed at this time.)
10. Install backer rods or insulation between frame and building opening then seal.
11. Attach threshold, onto a bed of sealant, to floor using the #12 anchor screws provided. See Figure 5.  
Ensure that the threshold is supported the entire length of threshold, if not shim as required.





# Offset Pivot Door with RIM Panic device Installation (Left Hand shown without Panic device)

12. Set bottom of door over pin on bottom frame pivot. See Figure 6.
13. Hold top pivot pin down and tip door into place making sure pin pops into the frame pivot portion. See Figures 7 & 8.
14. Repeat above steps for other door.
15. Door should swing freely.



# Preparing frame for Removable Mullion installation

16. Install P541 shim block with two #10 self tapping screws to prep shown. See View "A"
17. Once the shim has been installed, you can now install the top clip. Drilling is required for #10 x 3/4" self tapping screws into the shim.
18. Once the shims and clips have been installed and secured, you can install the removable mullion. The Mullion may have to be cut to length per manufactures instructions.

*Slip band clip over mullion before installing over top and bottom clip.*

19. Tip the top of Removable mullion into the pockets of clip to allow clearance for the bottom of the mullion to slip over the pegs of the bottom clip. See Figure 9

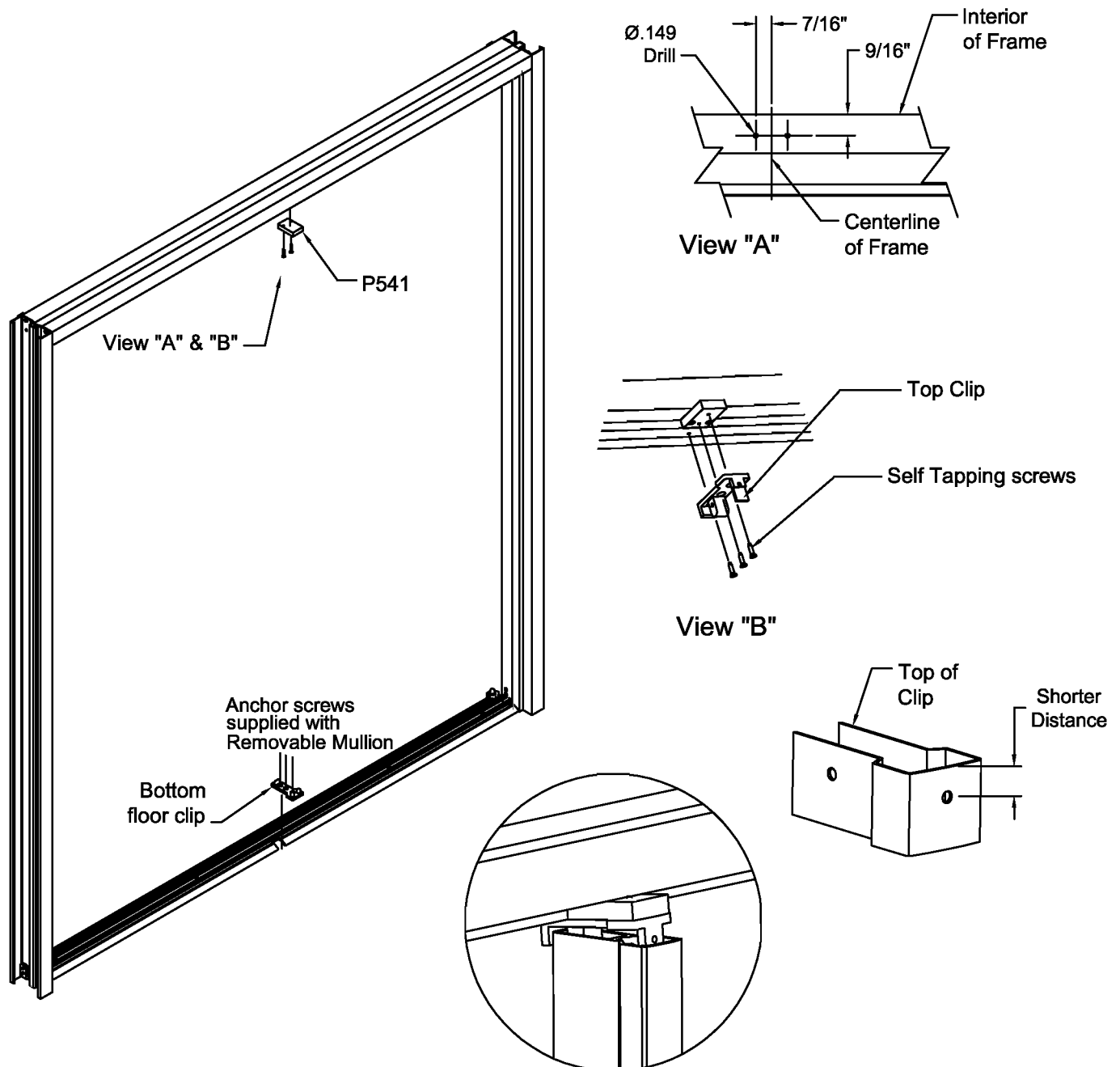
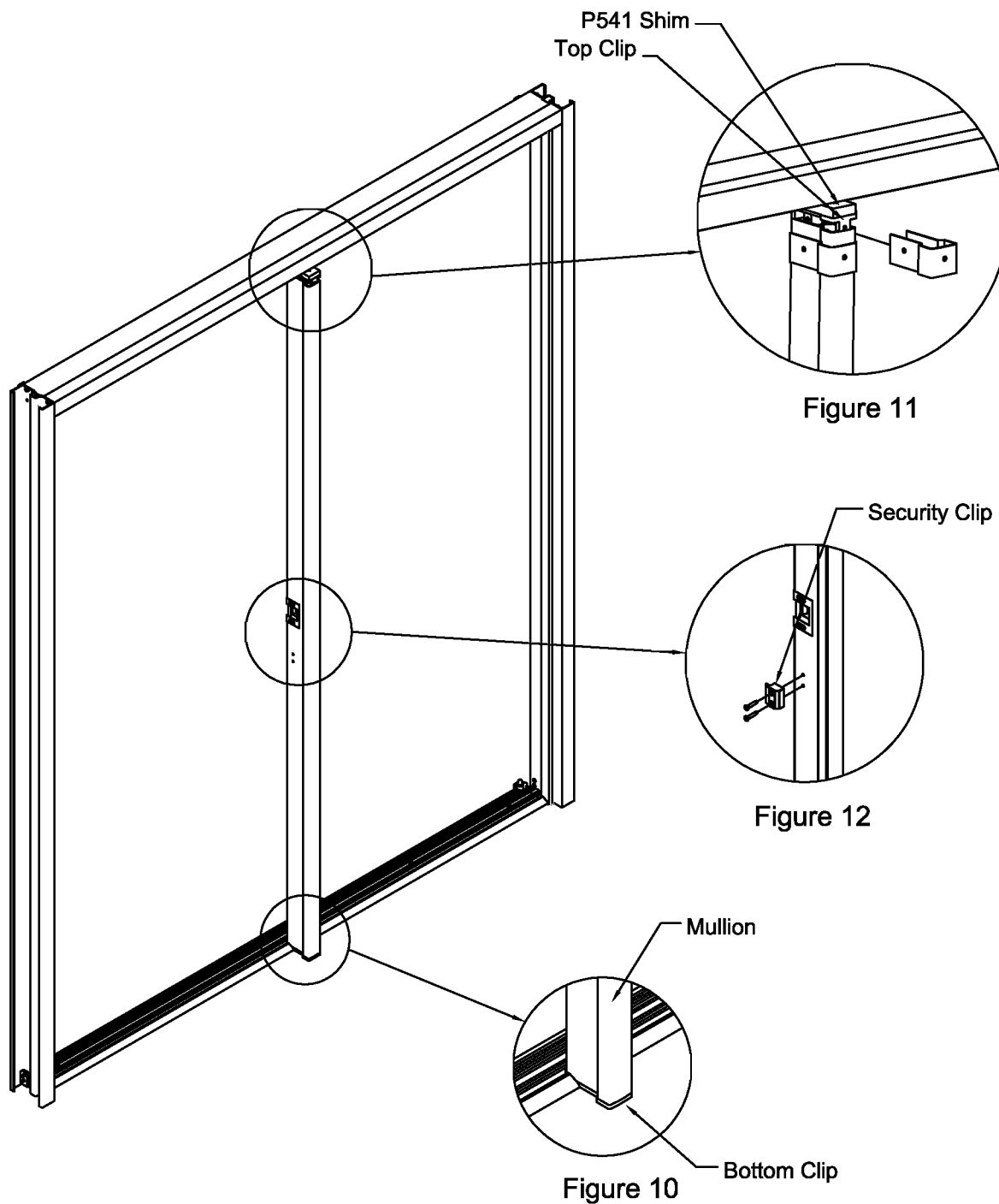


Figure 9

# Installation of Removable mullion for Offset Pivot doors RIM Panic device for pair of doors

(View shown without doors)

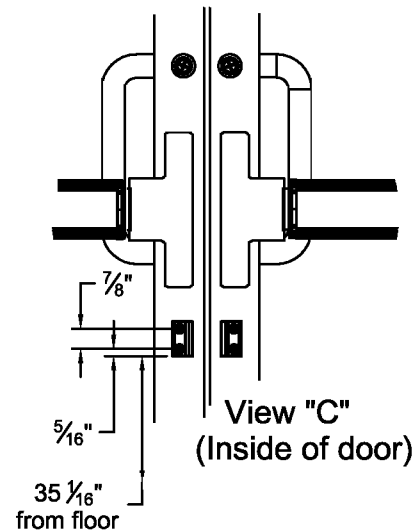
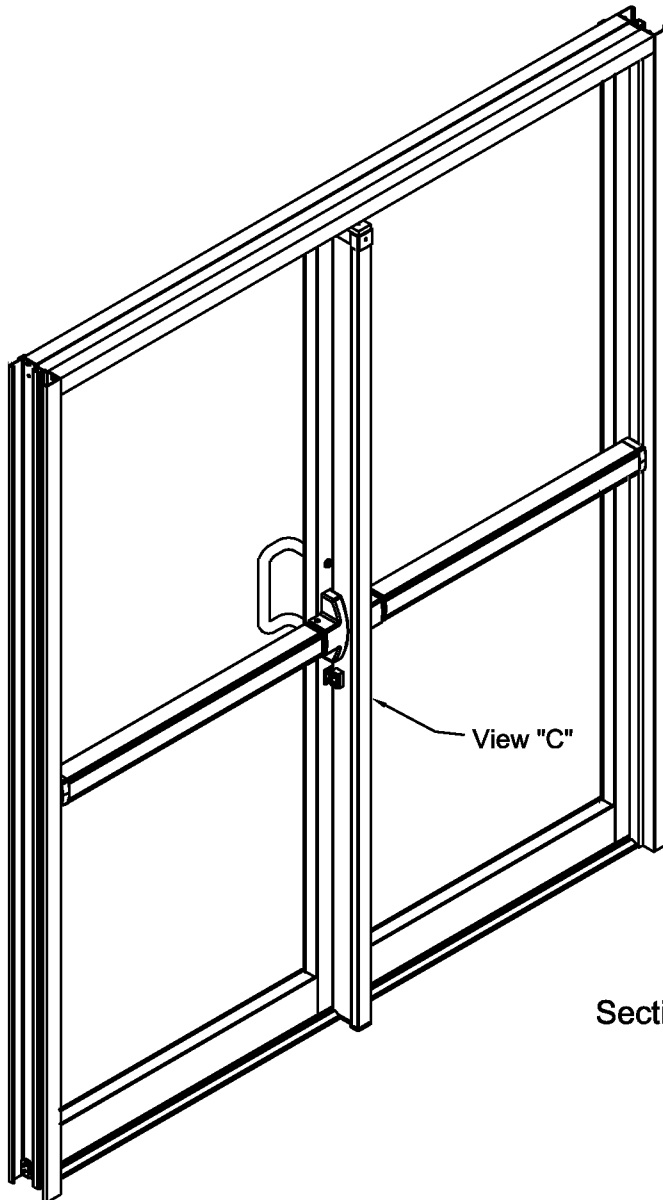
20. Be sure that the bottom of Removable mullion is locked into place over the bottom clip. See Figure 10.
21. Move top of mullion into place by catching the lip of clip with the mullion. See Figure 11.
22. Place band clip over mullion and secure in three places with screws provided.
23. Attach security clips to the removable mullion into predrilled holes with the #10-32 screws provided. See Figure 12.



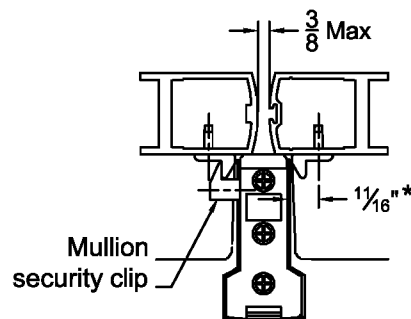
# Attaching security clips on doors and removable mullion

24. With doors in the closed position line up the security clips for the door and mark for drilling. See View "C"  
Ensure that the clip is under the mullion clip as shown in the section view.
25. Install closer per the manufactures instructions.

Prepare door for installing glass by removing key that is taped to inside rail.  
Trim gaskets at the end of glass stops and snap into place, and place glass supporting blocks into punched openings.



Section through mullion and door

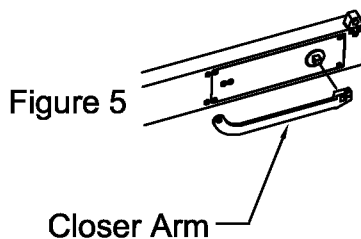
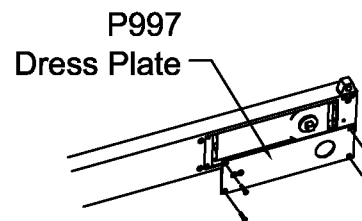
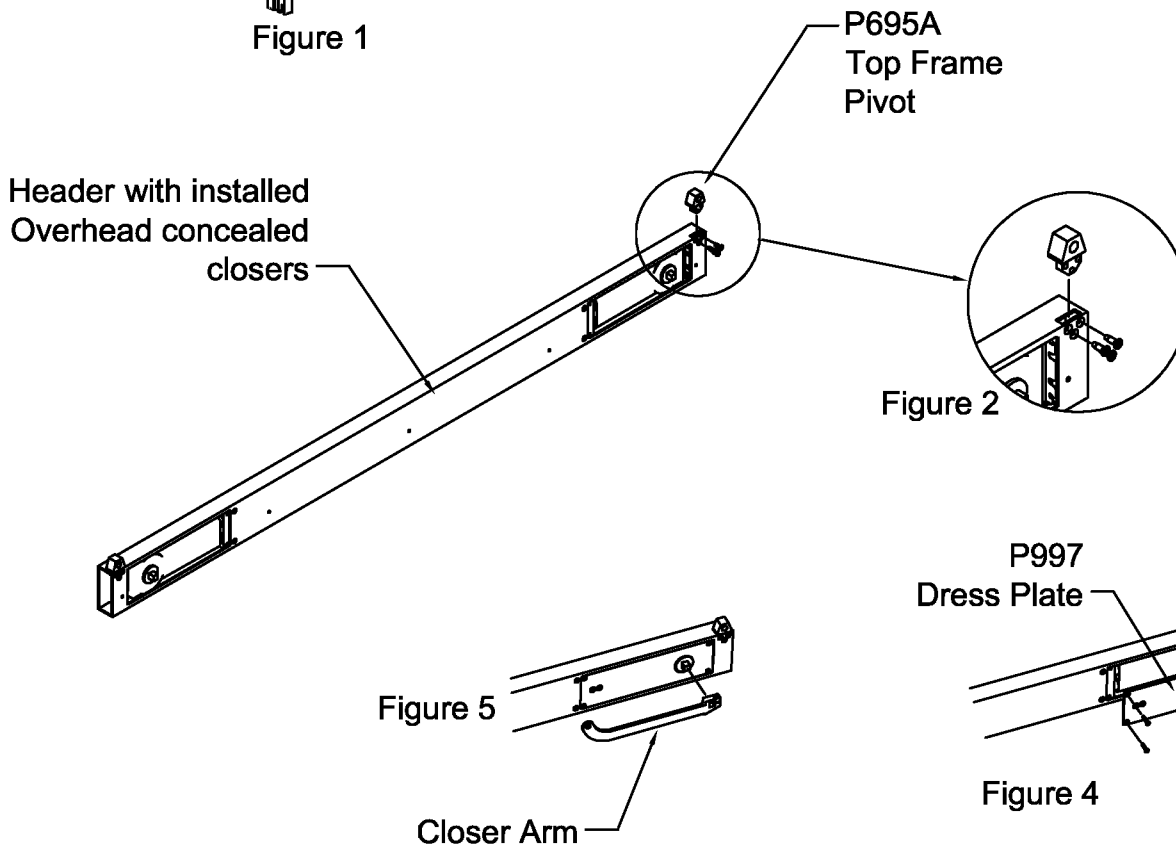
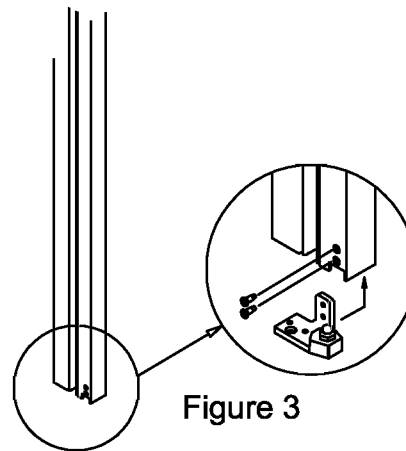
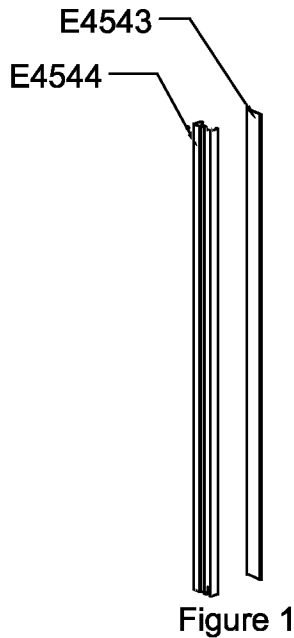


\* This dimension may vary slightly depending on gap between doors

# Frame Prep Work for Overhead Concealed Closer for doors with Butt hinges or offset pivots

Protect surfaces of anodized or paint extrusions from scratches

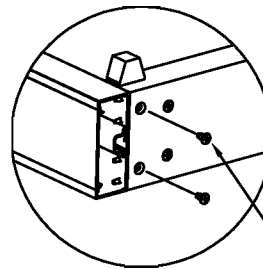
1. Snap together E4543 and E4544 for both vertical jambs. See Figure 1.
2. Lay header down to install the offset pivots. Protect header from scratches. See Figure 2.  
(Skip this step if installing for butt hung doors)
3. Install bottom floor pivot into verticals. Protect vertical jamb from scratches. See Figure 3.  
(Skip this step if installing for butt hung doors)
4. Attach dress plate over both closers with provided screws. See Figure 4.
5. Attach closer arm onto closer and tighten screw onto closer spindle. See Figure 5.



# Assembly of Frame with Overhead Concealed Closer for doors with Butt hinges or offset pivots

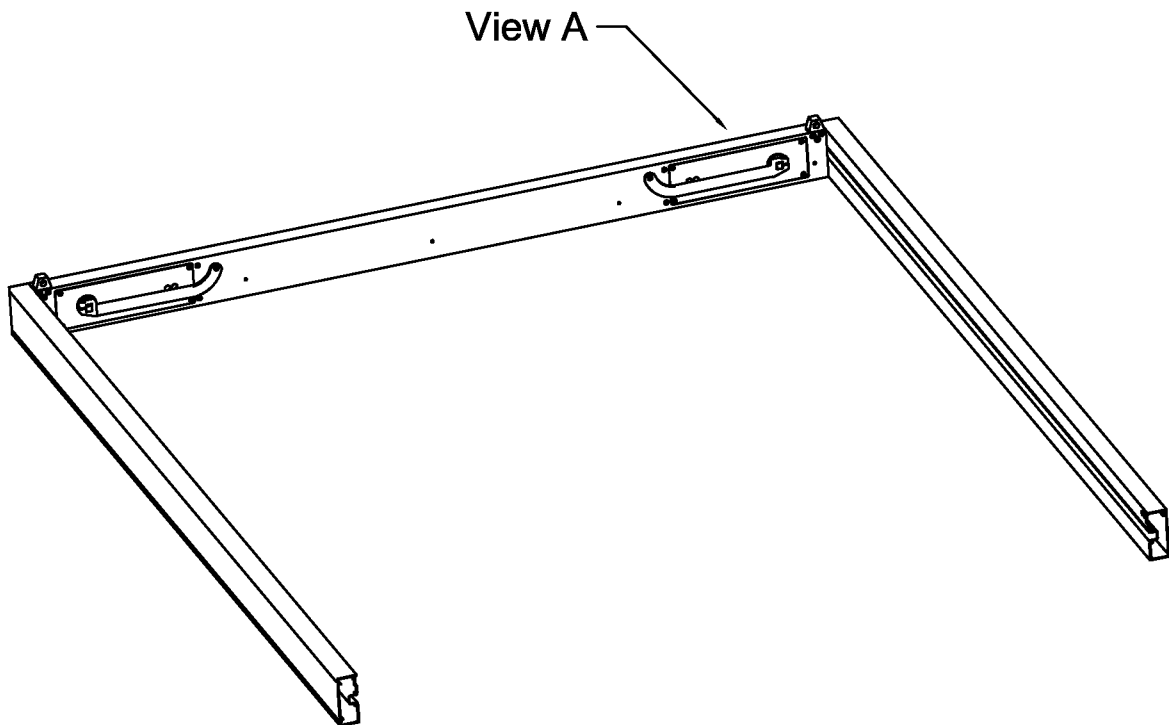
Protect surfaces of anodized or paint extrusions from scratches

6. Lay frame pieces on floor/ground as shown below so the verticals can be attached to the header .
7. Mount screws into holes provided to secure vertical and header. See View A.



S153 Screws

View "A"

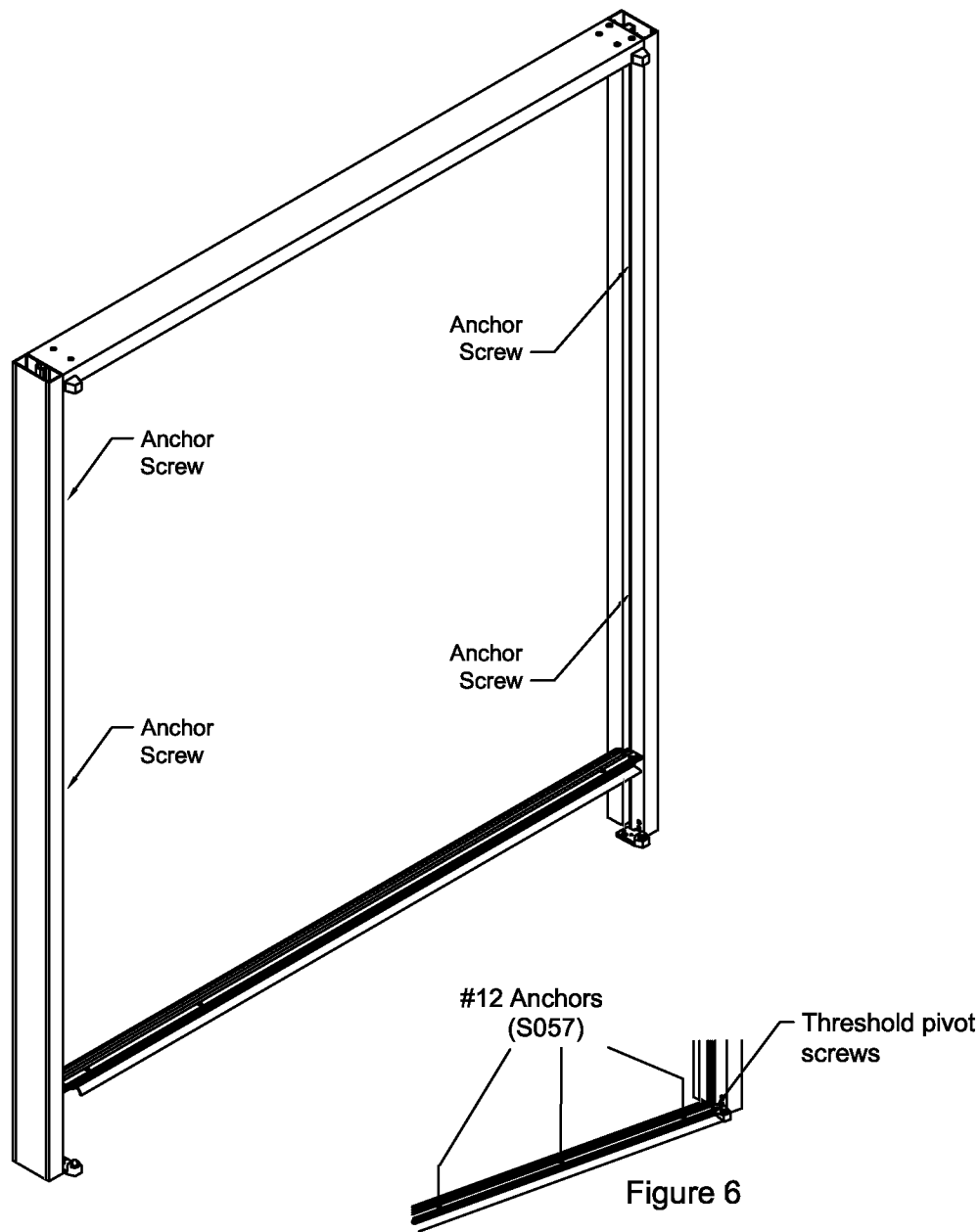


# Installing Frame into opening

8. Install threshold onto Offset Pivot and secure using screws provided. See Figure 6.
9. Tip frame into the opening and temporarily secure until fasteners are installed.  
(Tubelite does not provide masonry fasteners. Amount and size of fasteners depend on building loads)

**CAUTION: Frame is very top heavy use caution when placing back into opening and securing !**

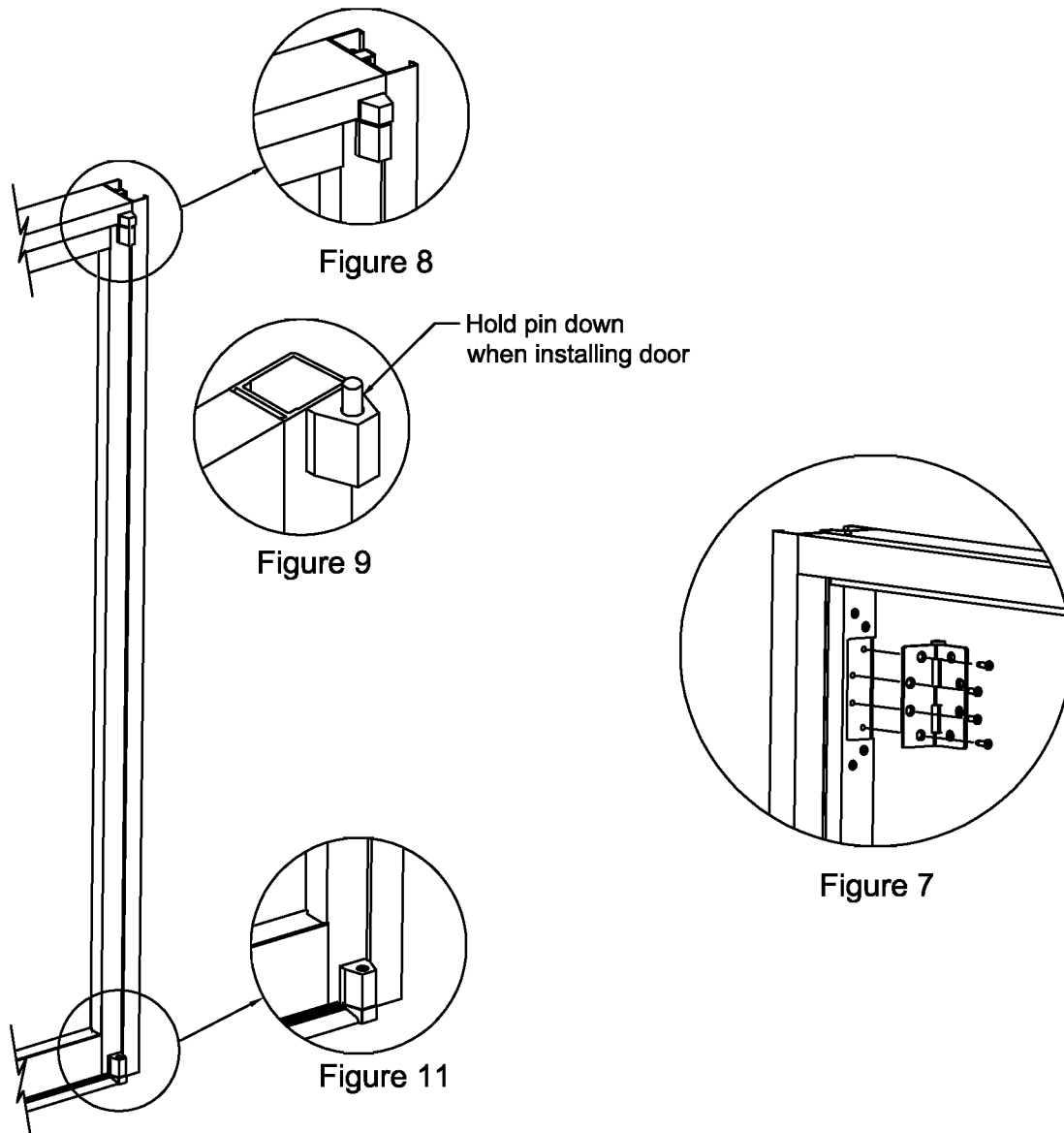
10. Locate and drill for masonry anchor screws through the threshold for the plastic anchor and screw (S056 & S057).
11. Remove frame from opening and clean all dirt from drilling into cement. Insert plastic anchors into holes just drilled.
12. Once dirt and debris is cleaned from area, place a bed of sealant down for threshold to set on to.
13. Place assembled frame back into opening. Temporarily secure until fasteners are installed.



# Installing Door into Frame with Overhead Concealed Closer for doors with Butt hinges or offset pivots

Allow for 1/4" shim and sealant space at sides and top of door frame. Door opening must be plumb and square.

14. To install Butt Hung doors go to step 16. To install Offset Pivot doors go to step 18.
15. Support door and line up butt hinges and screw into place with screws provided. See Figure 10. Secure both top and bottom butt hinges.
16. Door should swing freely.
17. For Offset Pivot Doors set bottom pivot on door over pin on bottom frame pivot. See Figure 11.
18. Hold top pivot pin down and tip door into place making sure pin pops into the frame pivot portion. See Figures 8 & 9.
19. Door should swing freely.



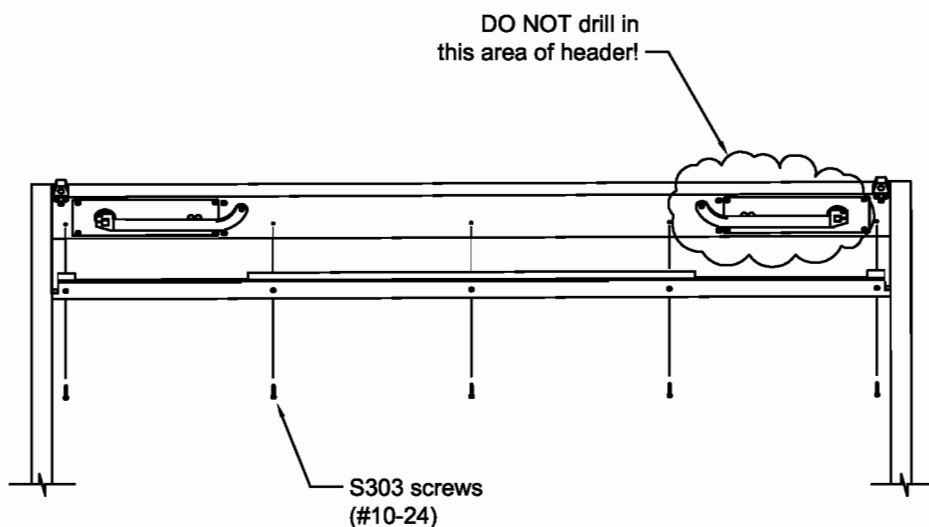


# Attaching the Overhead Concealed Closer arm to door

A set of vise grips will be needed for the next few steps.

20. Un-Install the track that is mounted on the door. Do not lose screws.
21. Pull overhead closer arm past the frame and secure the vise grip on the arm to hold arm in open position.
22. Take off the "E" ring on the track post and push post into hole in the closer arm.
23. Push the "E" ring back onto track post.
24. Line up track into top channel of door and remount with screws from step 20.  
Ensure all the screws are tight, but do not over tighten to prevent stripping of threads.
25. Install pile weathering into door stops and snap into side pockets. See Figure 12.
26. Mount upper door stop by drilling countersink hole in stop and drill holes (#25 Drill) in header.

**CAUTION:** Do not drill any holes in the closer area to prevent damage to closer!



View shown before attaching closer arm onto doors.

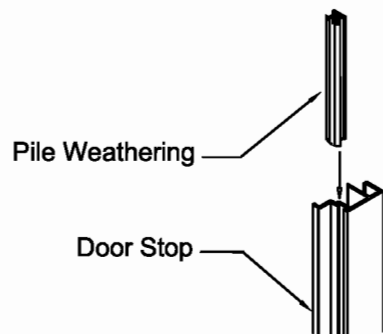
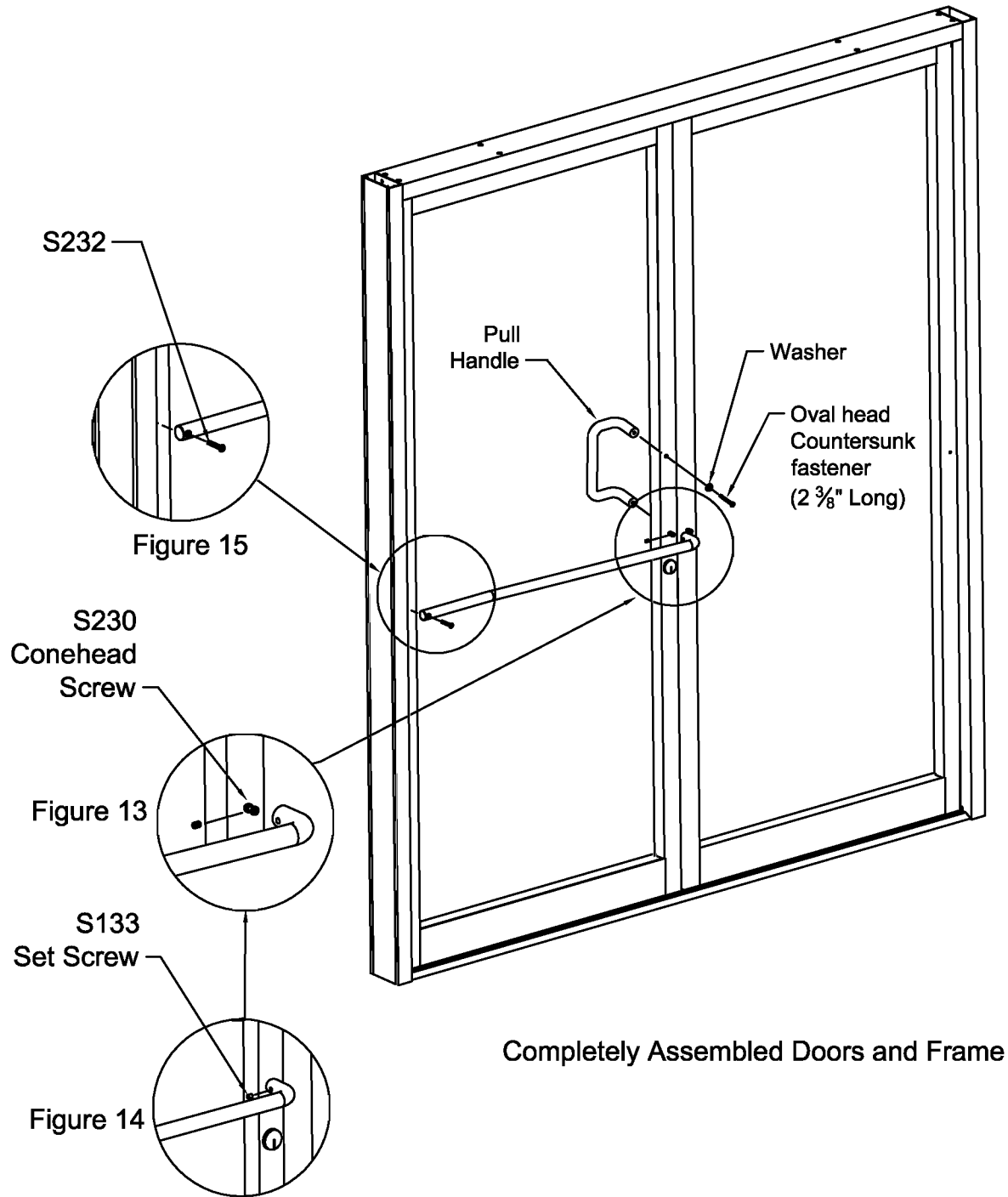


Figure 12

# Push / Pull Bar Installation

29. Install onto lock rail the S230 fastener by screwing into pull handle. See Figure 13.
30. Install upper mounting screw into pull handle with oval head screw and washer.
31. Set Push bar onto the S230 fastener and attach bar onto hinge rail with the S232 oval head screw. See Figure 15.
32. Secure pushbar at the lock rail with the S133 set screw and tighten. See Figure 14.
33. Repeat above steps for other door.

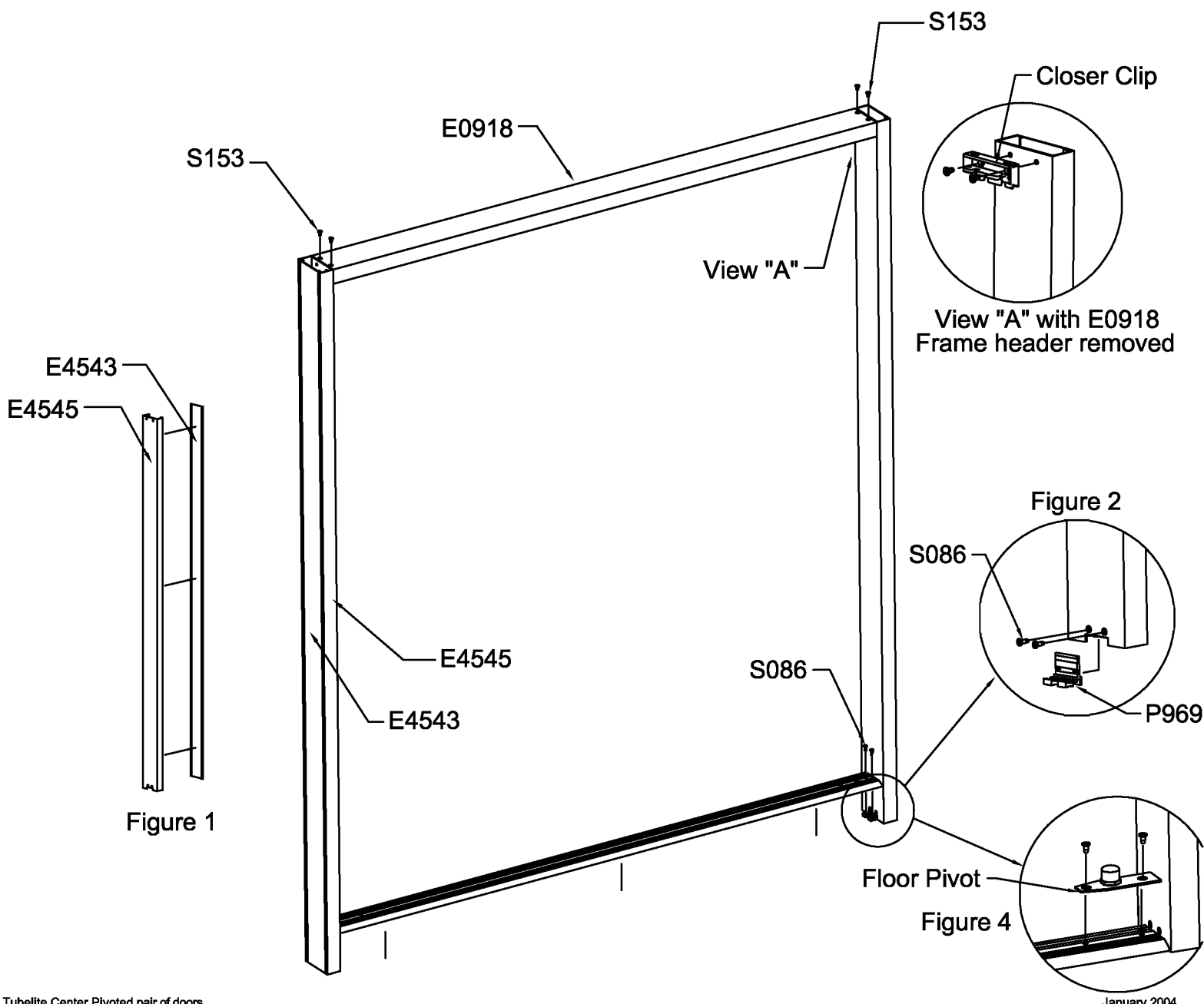
Prepare door for installing glass by removing key that is taped to inside rail.  
Trim gaskets at the end of glass stops and snap into place, and place glass supporting blocks into punched openings.



# Center Pivot Frame Assembly

Allow for 1/4" shim and sealant space at sides and top of door frame. Door opening must be plumb and square.

1. Snap together E4543 and E4545 for both vertical jambs. See Figure 1.
  2. Screw on the Overhead concealed closer clips onto E4545 in the tapped holes provided as shown in View "A"
  3. Screw on E0918 frame header to the closer clips using S153 screws.
  4. Install the threshold clip (P969) and attach with S086 screws in both vertical jambs. See Figure 2.
  5. Install threshold onto clips and secure using S086 screws.
  6. Tip frame into the opening and temporarily secure until fasteners are installed.
  7. (Tubelite does not provide masonry fasteners. Amount and size of fasteners depend on building loads)
  8. Locate and drill for masonry anchor screws through the threshold for the plastic anchor and screw (S056 & S057).
  9. Remove frame from opening and clean all dirt from drilling into cement. Insert plastic anchors into holes just drilled.
  10. Mount second closer clip onto closer as shown in Figure 3.
  11. Mount assembled closer into clip installed from View "A" diagram as shown in View "B".
  12. Hold closer in place and screw S153 screws as shown in Figure 5 from top of frame.
  13. Once dirt and debris is cleaned from area, place a bed of sealant down for threshold to set on to.
  13. Place assembled frame back into opening. Temporarily secure until fasteners are installed.
- CAUTION: Frame is very top heavy use caution when placing back into opening and securing !**



# Center Pivot Frame Assembly

14. Locate and mount screws through the vertical jambs with fasteners.  
(Tubelite does not provide masonry fasteners. Amount and size of fasteners depend on building loads)
15. Ensure that the threshold is supported the entire length of threshold, and secure with screws.  
(If threshold is not supported entire length, shim as required)
16. Mount bottom pivot onto threshold on both sides of jamb. See Figure 4.

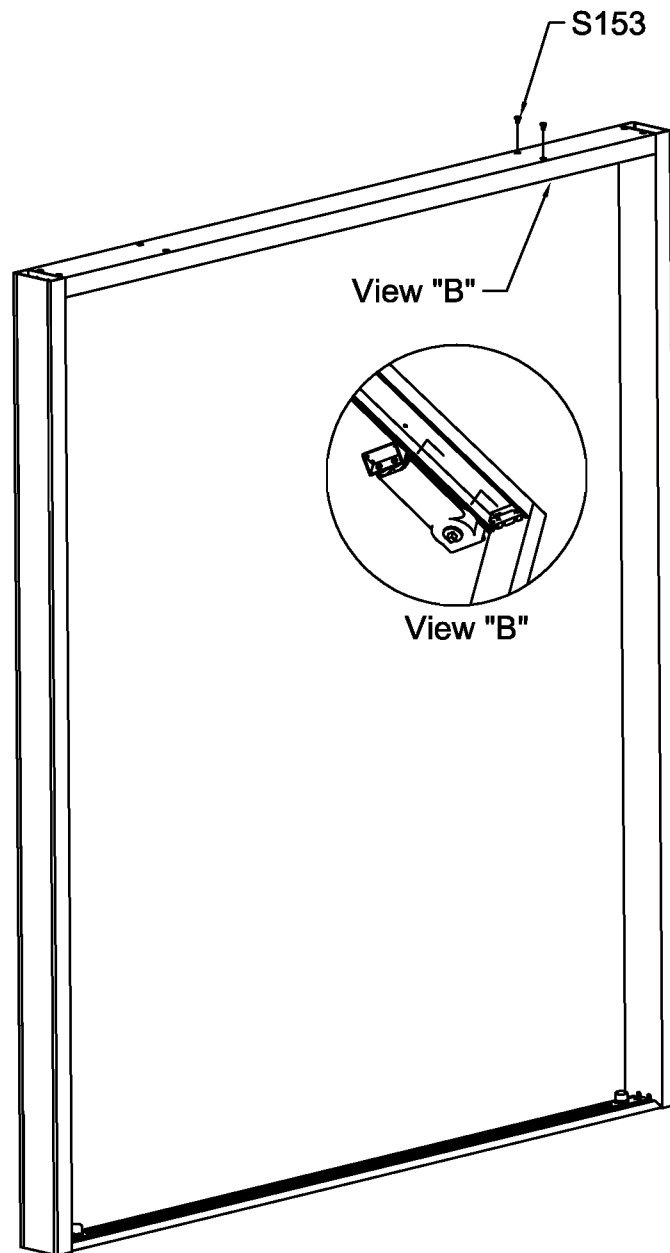


Figure 5

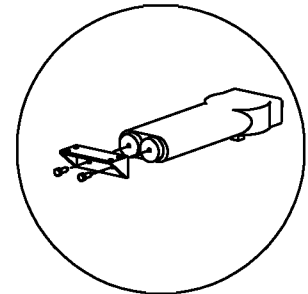
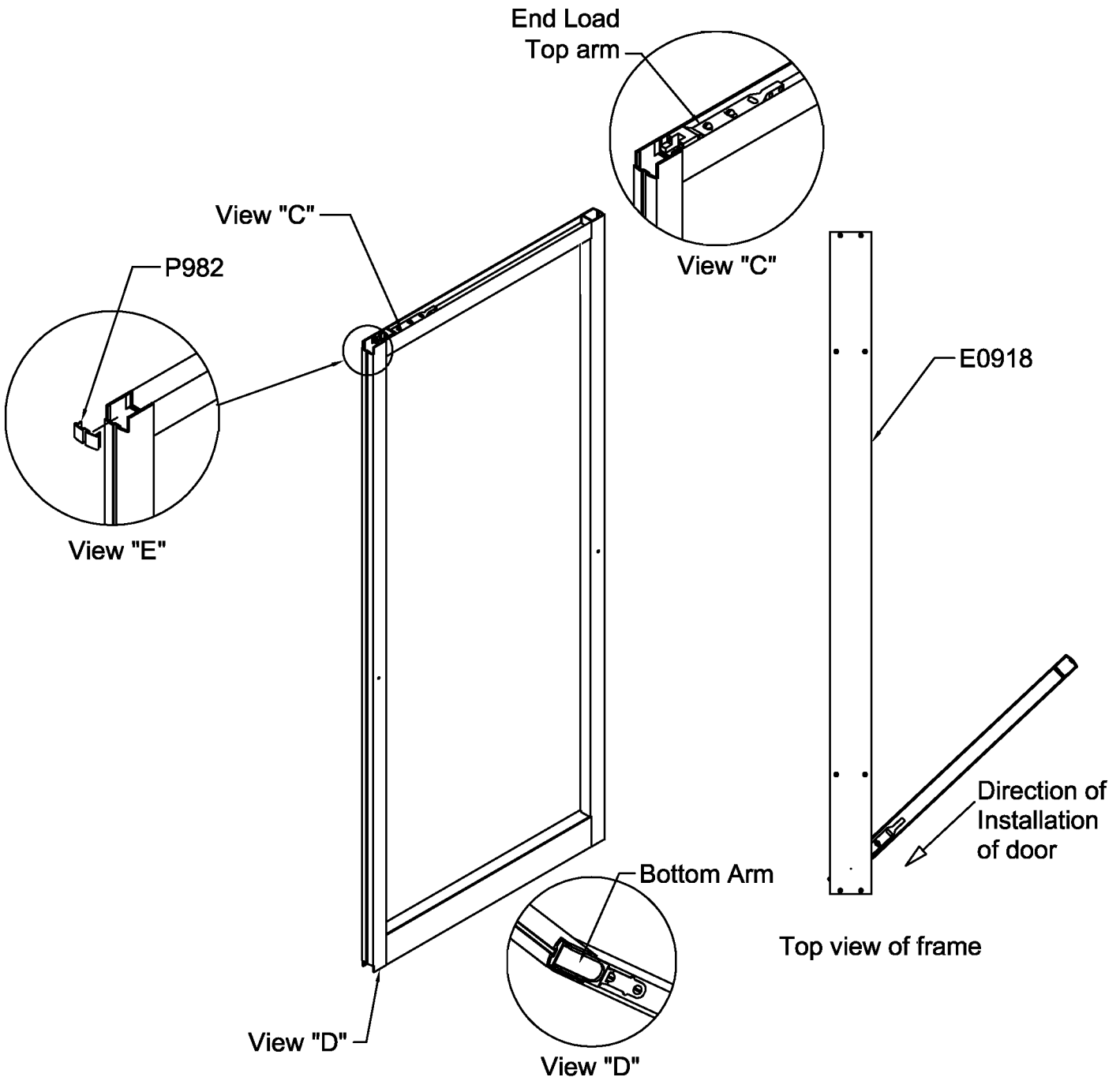


Figure 3

# Center Pivot Door Installation

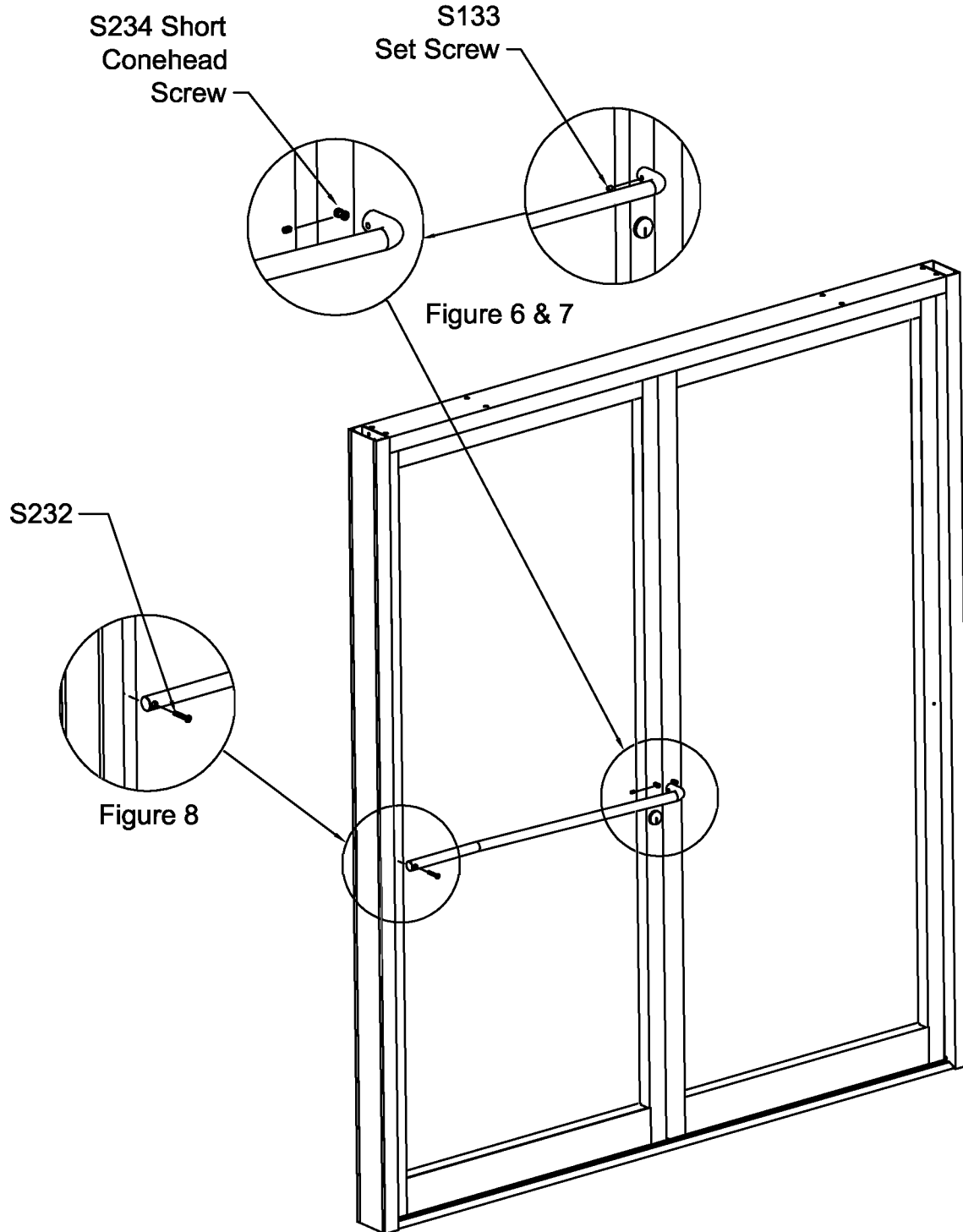
17. To install right hand, or inactive door (door without lock hole) make sure the end load top arm is up.
18. Slide door in direction of arrow shown in top view of frame. Ensure that the bottom arm on door slips onto the threshold floor pivot.
19. Holding door as vertical as possible, push door into closed position. This will allow you to guide the end load top arm onto overhead concealed closer square peg.
20. Once door is located onto the square peg on the closer, the keeper bar that is included with the overhead closer, can be installed and secured.
21. Cycle door in both directions to ensure that door moves properly.
22. Once you are sure the door operates correctly, open door until it locks in the open position and repeat the steps above for the other hand door.
23. Once all necessary adjustments are made then you can install the P982 Closer dress cap on the hinge rails at both top and bottom of both doors. See View "E".



# Center Pivot Push Bar Installation

Prepare door for installing glass by removing key that is taped to inside rail.  
Trim gaskets at the end of glass stops and snap into place, and place  
glass supporting blocks into punched openings.

24. Install onto lock rail the S234 fastener. See Figure 6.
25. Set Push bar onto the S234 fastener and attach bar onto hinge rail with the S232 flat head screw. See Figure 8.
26. Secure pushbar at the lock with the S133 set screw and tighten. See Figure 7.
27. Repeat above steps on both doors and both sides.



Completely Assembled Doors and Frame



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