



Model GT2300 ICU Manual Swing Door
Installation Manual
P/N C-00360 Rev 6-26-19

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Associated Manuals Part Numbers: Manual Door Owners Manual (P/N C-00189)
NABCO Price Book P/N 16-9244-30 (for Sensors, Switches, and Accessories)

WARNING

- Turn OFF all power to the Automatic Door if a Safety System is not working.
• Instruct the Owner to keep all power turned OFF until corrective action can be achieved by a NABCO trained technician. Failure to follow these practices may result in serious consequences.
• NEVER leave a Door operating without all Safety detection systems operational.

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## CHAPTER 1: WARNING LABELS

Warning labels are universal and used to alert an individual of potential harm to one's self or to others. The following warning labels are listed in a hierarchy order that defines the most potential danger first, and the least potential danger last. Please refer to this page in the event that a warning label is displayed within this manual and further definition needs to be explained.

**DANGER**

Indicates potentially dangerous situations. **Danger** is used when there is a hazardous situation where there is a *high* probability of severe injury or death. It should not be considered for property damage unless personal injury risk is present.

**WARNING**

Indicates a hazardous situation which has *some* probability of severe injury. It should not be considered for property damage unless personal injury risk is present.

**CAUTION**

Indicates a hazardous situation which *may result in a minor injury*. Caution should not be used when there is a possibility of serious injury. Caution should not be considered for property damage accidents unless a personal injury risk is present.

**Attention:** A situation where material could be damaged or the function impaired.

**Notice:** Indicates a statement of company policy as the message relates to the personal safety or protection of property. Notice should not be used when there is a hazardous situation or personal risk.

*Note:* Indicates important information that provides further instruction.

## CHAPTER 2: GENERAL SAFETY RECOMMENDATIONS

**WARNING**

Do not install, operate or service this product unless you have read and understand the General Safety Recommendations, Warning Labels, contained in this manual. Failure to do so may result in bodily injury, or property damage.

**WARNING**

Read, study and understand the installation and operating instructions contained in, or referenced in this manual before operating. If you do not understand the instruction, ask a qualified technician. Failure to do so may result in bodily injury, or property damage and will nullify all warranties.

**CAUTION**

If the door appears broken or does not seem to work correctly, it should be immediately removed from service until repairs can be carried out or a qualified service technician is contacted for corrective action.

**CAUTION**

Handle Glass with Care!!! Use caution when moving and installing the glass panels. These panels are designed to be assembled with tempered glass. Any sharp objects that come in contact with glass may cause the glass to shatter. NABCO Entrances is not responsible for glass that is broken during installation of this unit.

**Notice:** This manual, the owner's manual and all other associated manuals must be given to and retained by the purchasing facility or end user.

**Notice:** Advise the purchasing facility or end user to make regular safety checks and all other duties that may apply.

## CHAPTER 3: SCOPE

### SECTION 3.1: To the Installer

The purpose of this manual is to familiarize the installer and purchaser with the proper installation and operation of this system. It is essential that this equipment be properly installed and operational before the door is used by the public. It is the installer's responsibility to inspect the operation of the entrance system to be sure it complies with any applicable standards.

In the United States, the GT-2300 ICU Swing door is certified to have a Smoke and Air Infiltration NFPA-105 rating (for sprinklered buildings).

Instruct the building owners and operator on the essentials of the operation of the door and this device. The owner should follow these instructions to determine whether the door is operating properly and should immediately call for service if there is any malfunction. All installation changes and adjustments must be made by qualified, NABCO trained technicians.

### SECTION 3.2: Objective

The GT-2300 is designed to be installed in the frame of a door opening. The door function is controlled manually. Adhesive gaskets plus a continuous hinge help to provide smoke and air infiltration at ambient temperature. Two unequal door panels allow maximum CDO width, and incorporate NABCO's sturdy tie rod construction (accommodating 1/4 inch to 1 inch thick glass). A low profile Header allows greater CDO height in a low ceiling/frame height application. This manual offers step by step instructions.

#### CAUTION

**A pedestrian Door that does not have its glass sections installed at the Factory shall specify that the glazing material employed is to comply with the requirement in UL 325 par.30.5.1:**

**"The glazing material in both fixed and sliding panels of all sliding doors and in all unframed swinging doors shall comply with the requirements in the Performance Specifications and Methods of Test for Safety Glazing Material Used in Buildings, ANSI Z97.1. Glazing material for other pedestrian doors shall also comply with ANSI Z97.1, except that single strength or heavier glass may be used for those portions of doors involving a glazed area of less than 1ft<sup>2</sup> (0.9 m<sup>2</sup>) and having no dimension greater than 18 in (457 mm)".**

## CHAPTER 4: GETTING STARTED

### SECTION 4.1: Types of 2300 ICU Manual Swing Doors

The GT-2300 ICU Manual Swing door System can be ordered with Swing doors of equal width (Optional) or Swing doors of unequal width (Standard). For Swing doors of unequal width, the wider Swing door is the main means of egress and identified as the Active Panel. The narrow Swing door is used to provide additional egress for moving larger objects through the door opening. The narrow Swing door is identified as the Inactive Panel because it is normally fixed.

### SECTION 4.2: Standard Swing Door Configurations

*Note: Optional width of an Inactive Panel can be minimum 12 inches to maximum 48 inches.*

*Note: Optional width of an Active Panel can be minimum 24 inches to maximum 48 inches.*

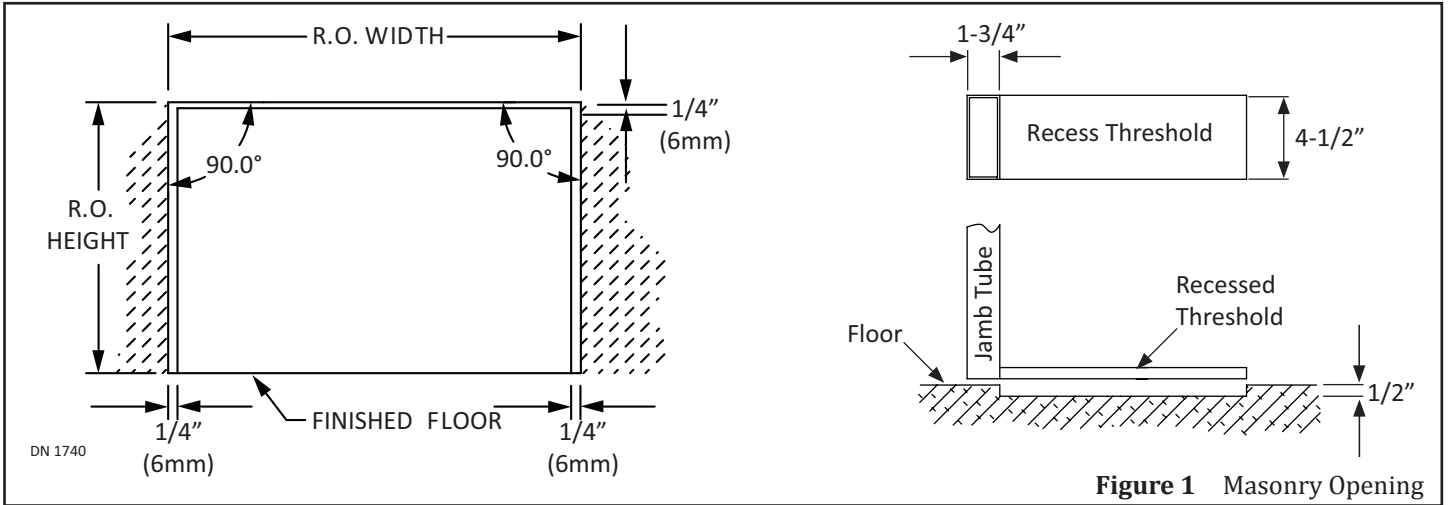
Rough Opening	Inactive Panel	Active Panel	Swing Opening
5 feet 3 inches	24 inches	36 inches	55 - 1/2 inches
5 feet 9 inches	24 inches	42 inches	61 - 1/2 inches
6 feet 3-1/2 inches	24 inches	48 inches	67 - 1/2 inches

## CHAPTER 5: INSPECT THE ROUGH OPENING

- Ensure the Rough Opening is correct size.
  - ▶ The width of the Rough Opening should equal: **PACKAGE WIDTH + 1/2 INCH (1/4 INCH ON EACH SIDE OF DOOR FRAME)**
  - ▶ The height of the Rough Opening should equal: **PACKAGE HEIGHT + 1/4 INCH**

*Note: Make allowances for tile or other existing materials that may change the floor height.*

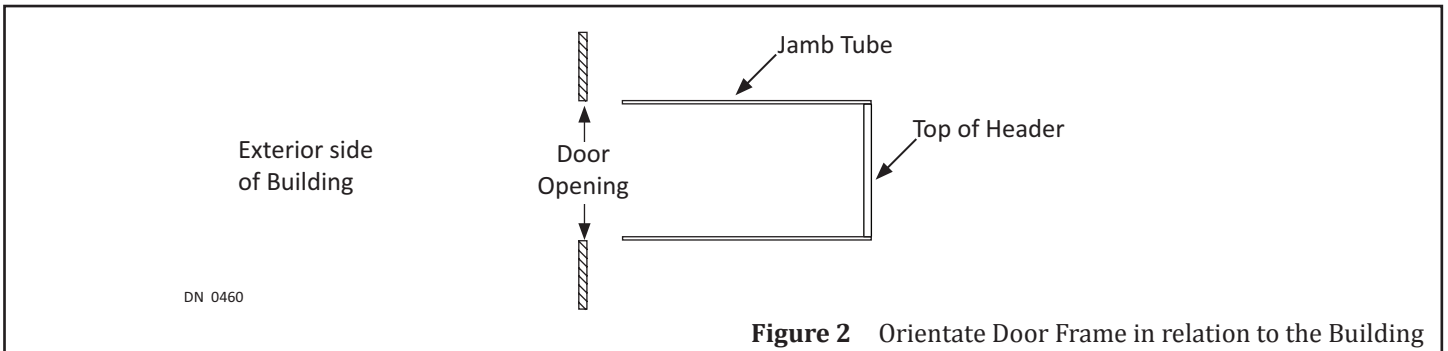
- Ensure the floor is level across the entire opening. If used, check recessed threshold across the door opening.



**Figure 1** Masonry Opening

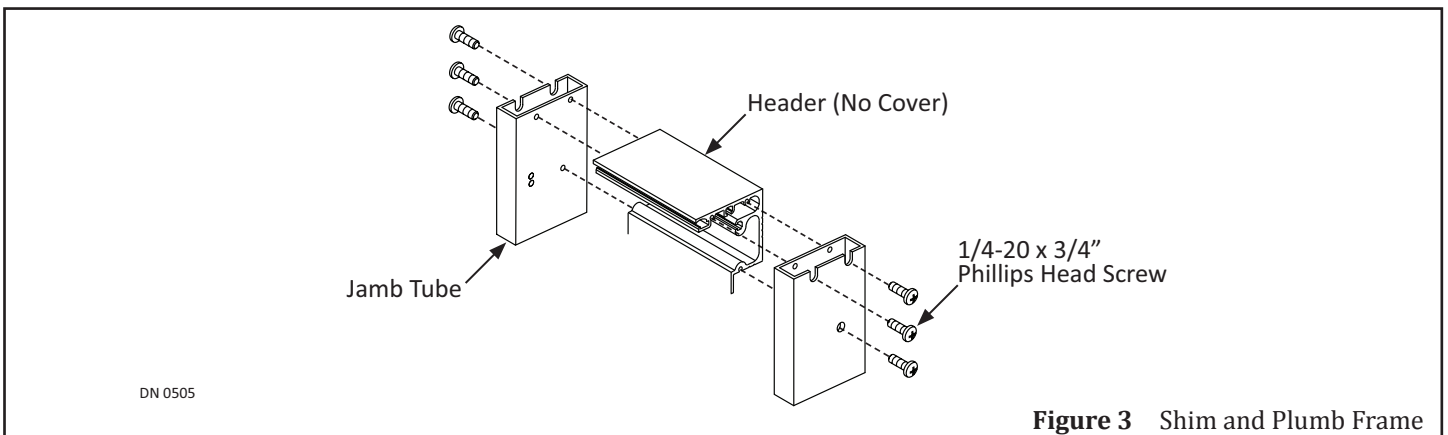
**CHAPTER 6: ASSEMBLE DOOR FRAME**

1. Position Jamb Tubes on either side of Header according to the instruction sticker located on each Jamb Tube, showing proper location and orientation.
2. Ensure the removable cover side of Header is facing up.
3. Orientate the Frame in relation to outside of building.



**Figure 2** Orientate Door Frame in relation to the Building

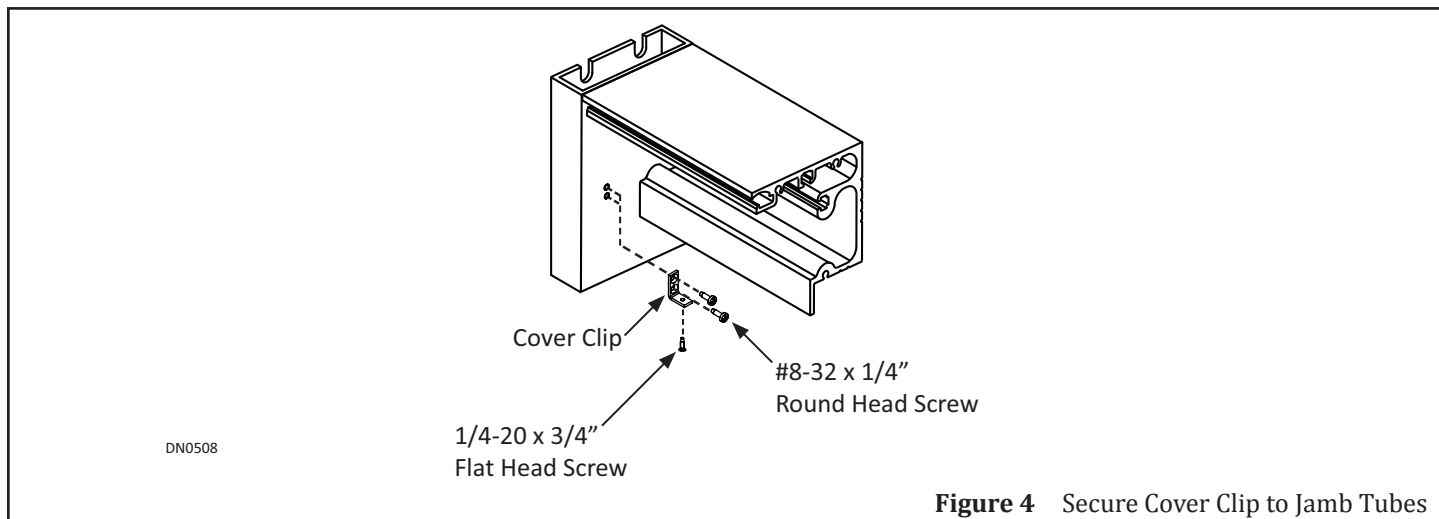
4. Obtain Parts Bag A-00485 provided by NABCO:
  - ▶ (6) 1/4-20 x 3/4 inch Large Phillips Head Screws (T-00326)
  - ▶ (2) L-Shaped Brackets (M-01049)
  - ▶ (4) 1/4-20 x 3/4 inch Phillips Flat Head Screws (T-00016)
  - ▶ (2) #8-32 x 1/4" Round Head Screws (T-00323)
5. Secure the Header to both Jamb Tubes with (6) 1/4-20 x 3/4 inch Large Philips Head Screws.



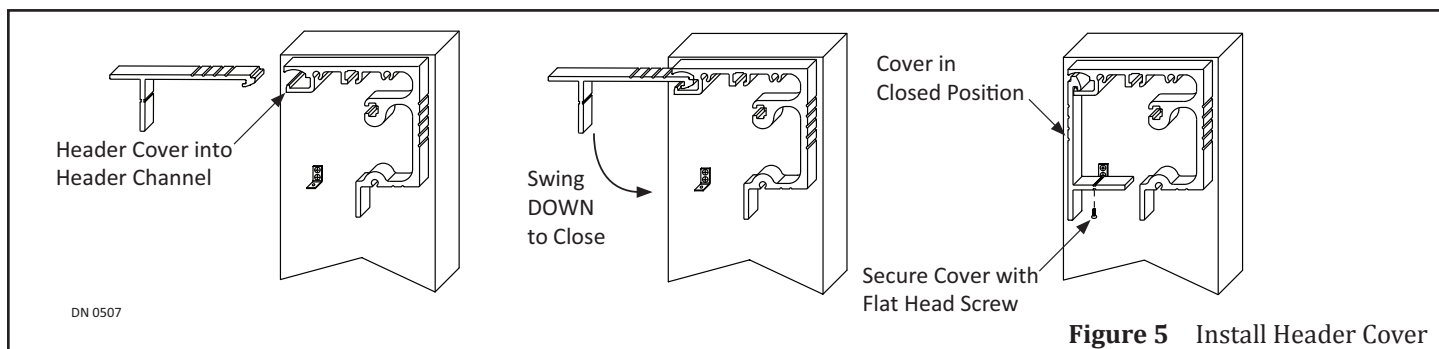
**Figure 3** Shim and Plumb Frame

## CHAPTER 7: INSTALL THE HEADER COVER

- Secure (1) Cover Clip to each Jamb Tube with (2) 1/4-20 x 3/4 inch Flat Head Screws.

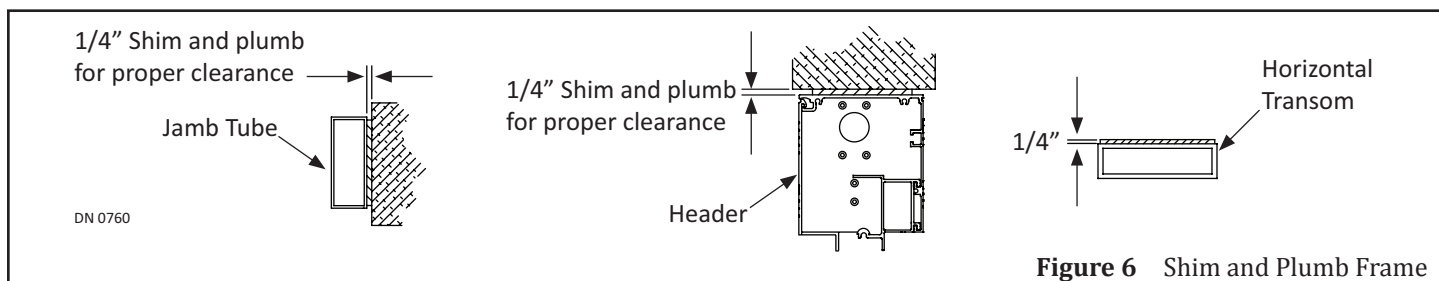


- Insert the Cover into the Header Channel, swing down to close.
- Secure the Cover to the Cover Clips with (2) Round Head Screws. .



## CHAPTER 8: SECURE DOOR FRAME TO BUILDING

- Lift to position the assembled Frame into the rough opening.
- Shim and Plumb Jamb Tubes in both planes to ensure the rough opening allows a 1/4 inch clearance for each side.
- Shim and plumb the Header at the top to ensure the rough opening allows a 1/4 inch clearance.



### SECTION 8.1: Anchor Placements

- ▶ Anchors are not provided by NABCO.
- ▶ Anchors must be appropriate for the type of structure being fastened to.
- ▶ Screw in anchors to secure the Frame (per manufacturer's specifications).

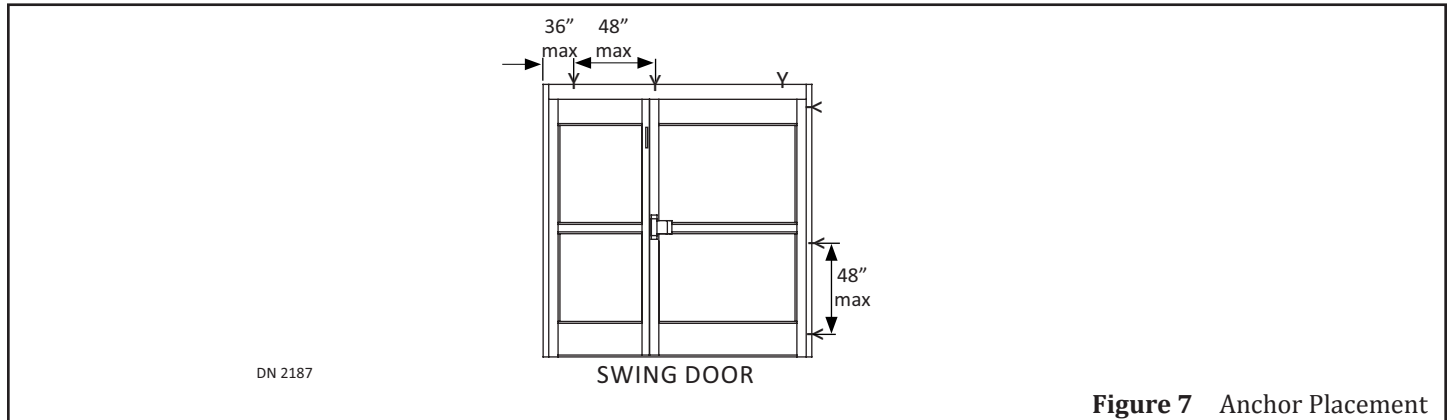


Figure 7 Anchor Placement

*Note: It is recommended to countersink holes as required to flush the surface.*

*Note: It is recommended to drill tap threads for 1/4 inch anchors in a steel or aluminum structure.*

*Note: Do not overtighten anchors to prevent deforming Jamb Tubes.*

### 8.1.1 Slick Jamb Tubes

Use 1/4 inch diameter anchors with a minimum of 3 per Jamb Tube, maximum is 48 inches on center. Drill 1/4 inch diameter holes in the face of Jamb and then countersink each hole.

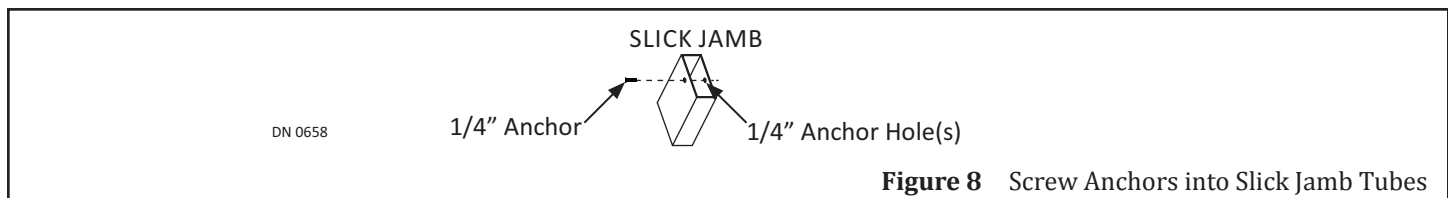


Figure 8 Screw Anchors into Slick Jamb Tubes

### 8.1.2 Header

To prevent Header sag, use 1/4 inch diameter anchors or 3/8 inch threaded rods, with a maximum 48 inches on center. First anchor maximum is 36 inches from each end of the Header. Drill 1/4 inch diameter holes inside the top of Header.

## CHAPTER 9: INSTALL THE SWING DOORS

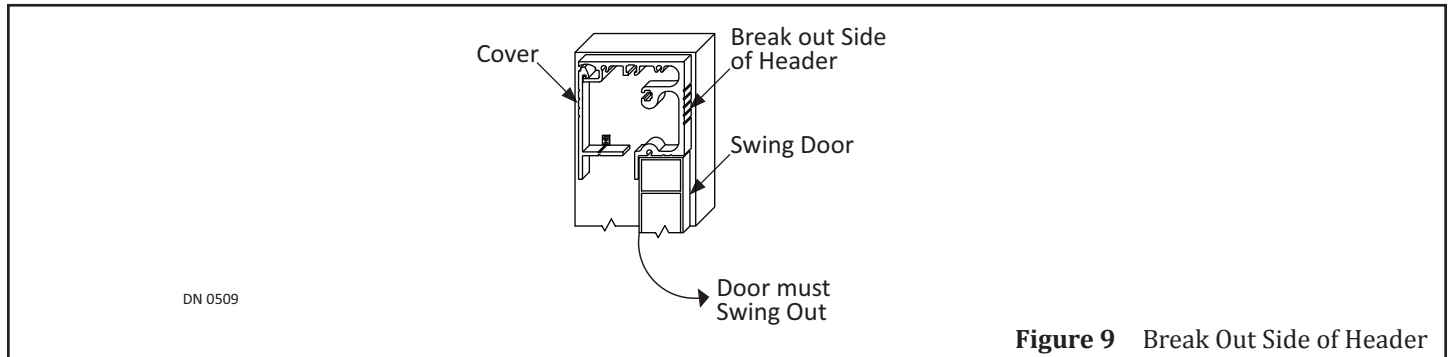
The GT-2300 ICU Manual Swing door System has been shipped with the following support equipment pre-installed at the NABCO factory:

- ▶ Continuous Hinge
  - Listed for fire applications up to 90 minutes without special preparation.
- ▶ Silicone Smoke and Draft Control Gaskets
  - Horizontally on Header, exterior of roller track.
  - Vertically between Swing door Panels and Jamb Tubes.
- ▶ Concealed Vertical Rod Mechanism
  - Used to lock the Active Swing door into position.
- ▶ Flush Bolt
  - Used to lock the Inactive Swing door into position.

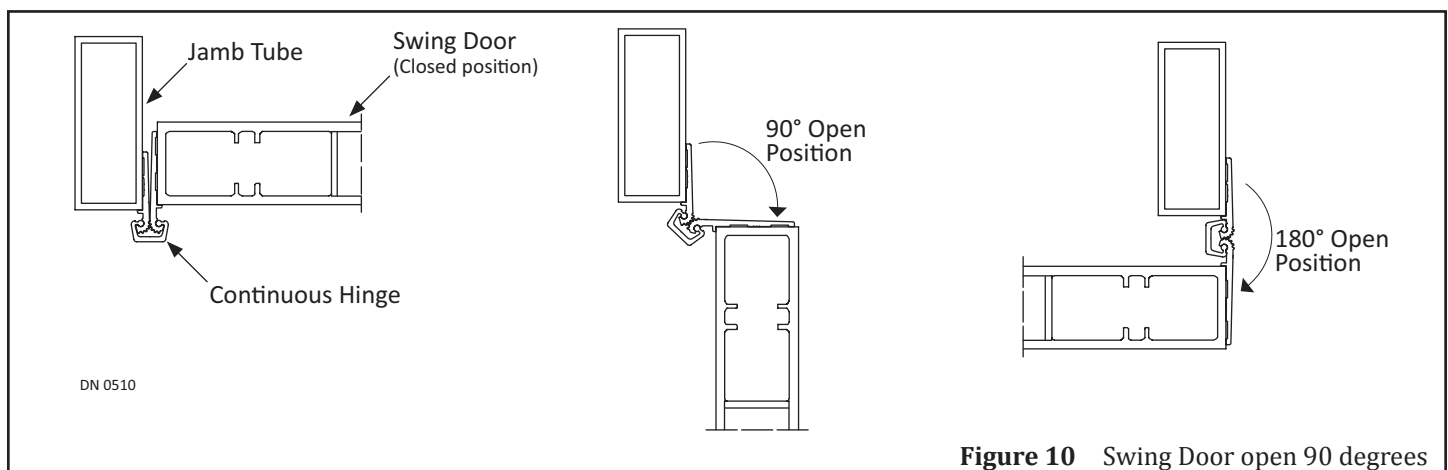
### SECTION 9.1: Secure Swing Doors to Jamb Tubes

*Note: Do Not cut Continuous Hinge from the top end. Resize Continuous Hinge at bottom end only.*

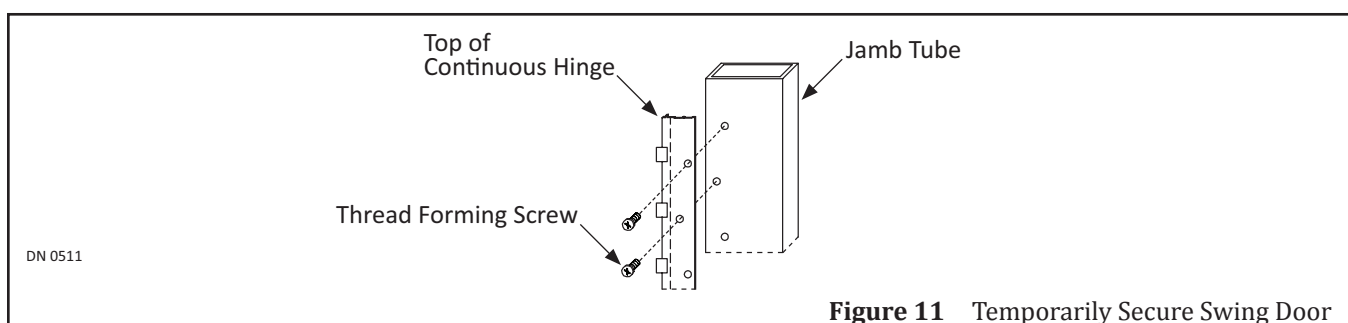
1. Obtain approximately (40) #12-24 x 7/16 inch thread forming screws provided by NABCO.
2. Place Swing door directly underneath the Break Out side of Header.
  - a. Ensure Swing door swings out in right direction.
  - b. If Continuous Hinge is too long, cut it shorter at the bottom only. Fill the gap with foam.

**Figure 9** Break Out Side of Header

3. Ensure the Swing door is square and the Continuous Hinge is properly aligned against the Jamb tube.
  - a. It is recommended to use a level.
4. Keep Continuous Hinge flush against Jamb tube while swinging out the door 90 degrees.
  - a. It is recommended to prop bottom of door with shims, so door will stay square and the Continuous Hinge will stay flush against the Jamb Tube.

**Figure 10** Swing Door open 90 degrees

5. Ensure the Continuous Hinge and Swing door are still square.
  - a. It is recommended to use a level.
6. Locate the (2) upper most, predrilled screw holes on the Continuous Hinge at the very top of Swing door.
7. Mark screw holes onto face of Jamb Tube.
8. Carefully place Swing door onto a flat surface.
9. Drill (2) #16 (0.177) screw holes onto face of Jamb Tube.
10. Obtain Swing door. Align (2) upper most, predrilled screw holes on the Continuous Hinge with drilled screw holes on face of Jamb tube.

**Figure 11** Temporarily Secure Swing Door

11. Temporarily secure the top of Continuous Hinge with (2) #12-24 x 7/16 inch thread forming screws. Do Not tighten down.
  - a. Screws must be removed at least one time before the Swing door installation is complete.



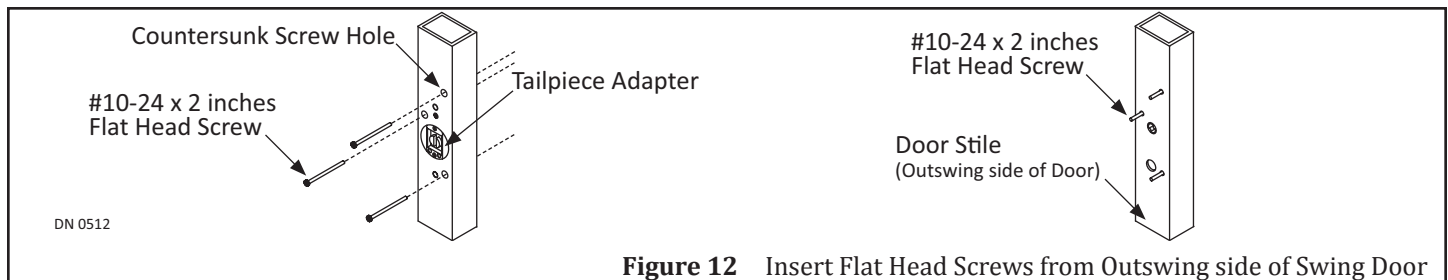
12. Plumb and Square the Swing door.
  - a. It is recommended to prop bottom of door with shims so door will stay square and the Continuous Hinge will stay flush against Jamb Tube.
13. Mark remaining screw holes onto the Jamb Tube.
14. Remove (2) #12-24 x 7/16 inch thread forming screws. Save screws for reinstallation.
15. Carefully place the Swing door back onto a flat surface.
16. Drill remaining #16 (0.177) screw holes onto face of Jamb Tube.
17. Obtain the Swing door.
18. Align all predrilled screw holes on the Continuous Hinge with drilled screw holes on face of Jamb tube.
19. Permanently secure the Continuous Hinge with #12-24 x 7/16 inch thread forming screws.
  - a. Do not overtighten screws to prevent deforming Continuous Hinge.
20. Repeat steps for second Swing door.

## CHAPTER 10: INSTALL ENTRY TRIM (ACTIVE SWING DOOR)

### SECTION 10.1: The Curved Handle

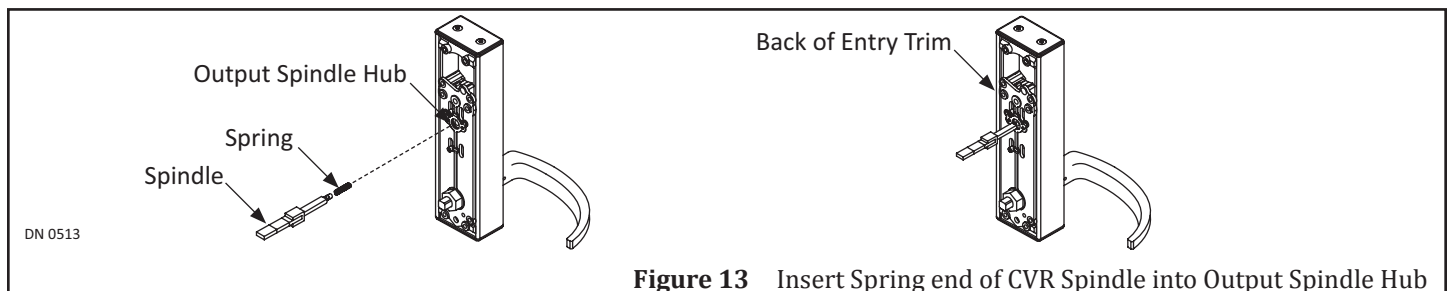
The Entry Trim is installed on the Outswing side of the Active Swing door. It is used to manually latch or unlatch the vertical rod (Same as Push Paddle). When unlocked and pulled, the Active Swing door swings out into the corridor.

1. Obtain (1) Entry Trim, (4) #10-24 x 2 inch Flat Head Screws, (1) CVR Spindle, (1) Spring, (1) Handle, (2) Washers, (1) Hex Nut and Installation Instructions provided by NABCO.
2. Go to Inswing side of the Door. Insert (1) #10-24 x 2 inch Flat Head screw through each predrilled countersunk hole located above and below the Tailpiece Adapter.
  - a. The inserted Flat Head screws will stick out through the Outswing side of door.



**Figure 12** Insert Flat Head Screws from Outswing side of Swing Door

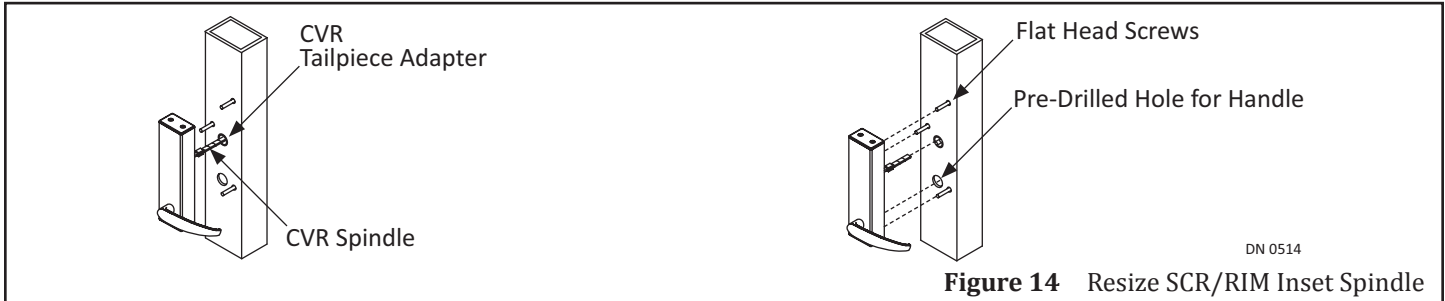
3. Obtain the Entry Trim that was assembled at the NABCO Factory.
  - a. If Entry Trim was not shipped assembled, please refer to the Installation Instructions that were provided by NABCO.
4. Go to the back side of Entry Trim. Locate the Output Spindle Hub that can be found in the middle of the Entry Trim Plate.
5. Obtain (1) CVR Spindle and (1) Spring.
  - a. The CVR Spindle was tested and cut according to the Swing door thickness at the NABCO Factory. There is no need to determine the correct CVR Spindle length.
6. Slide the Spring onto the round end of CVR Spindle, then inside the Output Spindle.



**Figure 13** Insert Spring end of CVR Spindle into Output Spindle Hub

7. Go to Outswing side of the door. Insert the flat metal end of the CVR Spindle into the CVR Tailpiece adapter.

8. Slide the Entry Trim onto the (3) Flat Head screws until it is flush with the face of Stile.
  - a. If the Entry Trim can not be flush against the face of Stile, remove the CVR Spindle to cut off excess notches.

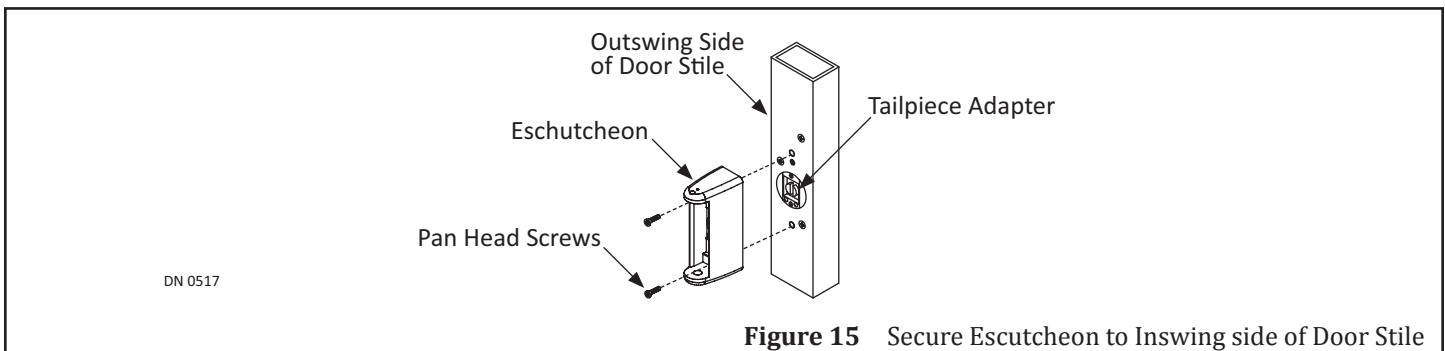


9. Tighten (3) #10-24 x 2 inch Flat Head screws to secure the Entry Trim to the Stile.
  - a. Do not overtighten screws to prevent deforming of Stile.
10. Test the Door Handle to ensure the vertical rod turns clockwise/counter clockwise.

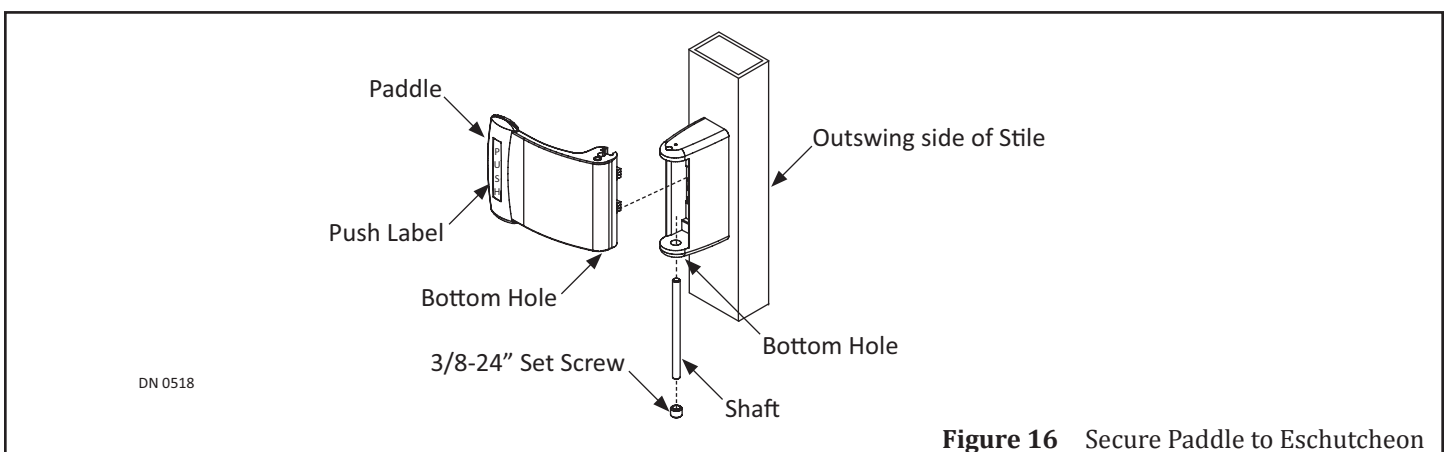
## SECTION 10.2: The Push Paddle

The Push Paddle is installed on the Inswing side of the Active Swing Door. It is used to manually latch or unlatch the vertical rod (Same as Handle). When unlocked and pushed, the Active Swing door swings out into the corridor.

1. Obtain (1) assembled Escutcheon, (1) Push Paddle, (2) #10-24 x 1-1/2 inch Pan Head Screws, (1) Shaft, (1) 3/8-24 inch Set Screw, (1) Label, (1) Dogging Screw, and (1) Dogging Key provided by NABCO.
2. Obtain the Escutcheon and (2) #10-24 x 1-1/2 inch Pan Head screws.
3. Go to the Inswing side of Stile.
4. Align (2) screw holes located inside the Escutcheon to (2) pre-drilled screw holes located on the face of Stile. Directly above and below the Tailpiece Adapter.
5. Secure the Escutcheon to the Stile with (2) #10-24 x 1-1/2 inch Pan Head screws.



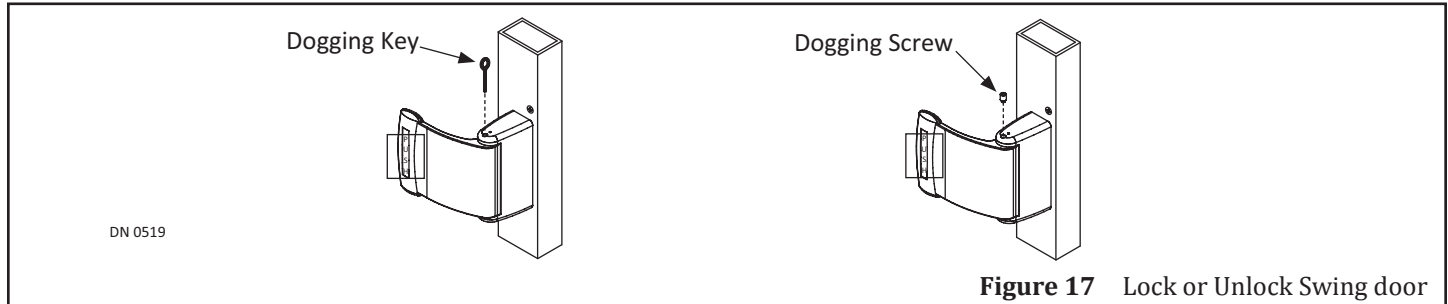
6. Obtain (1) Push Paddle, (1) Shaft, and (1) 3/8-24 inch Set screw.
7. Insert the hinge end of Push Paddle into the Escutcheon until the bottom holes are aligned.



8. Run (1) Shaft up into the aligned holes.
9. Insert (1) 3/8-24 inch Set Screw into the bottom of the Shaft. Tighten the Set Screw.
10. Adhere (1) Push label onto the Paddle.

### 10.2.1 Dogging Key for Push Paddle

A Dogging Key is used to lock or unlock the Push Paddle. If the Push Paddle is locked the Swing door is not allowed to open from the Inswing side of door.



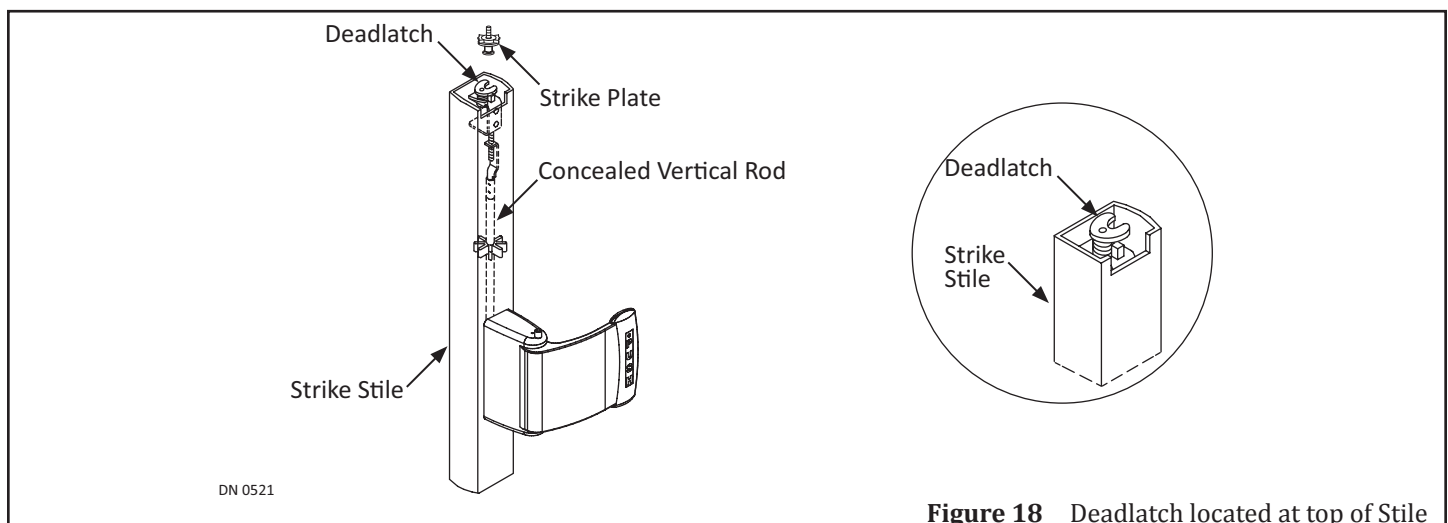
**Figure 17** Lock or Unlock Swing door

1. Insert (1) Dogging Key in the hole located on top of the Escutcheon.
2. Turn the Dogging Key:
  - ▶ Clockwise to lock the vertical rod.
  - ▶ Counter Clockwise to unlock the vertical rod.
3. Remove the Dogging Key when not in use.
4. Replace the Dogging Key with the Dogging Screw.
  - a. The Dogging Screw must be inserted into the hole when the Swing door does not need to be locked or unlocked by the Dogging Key.

### 10.2.2 Install the Strike Plate Assembly

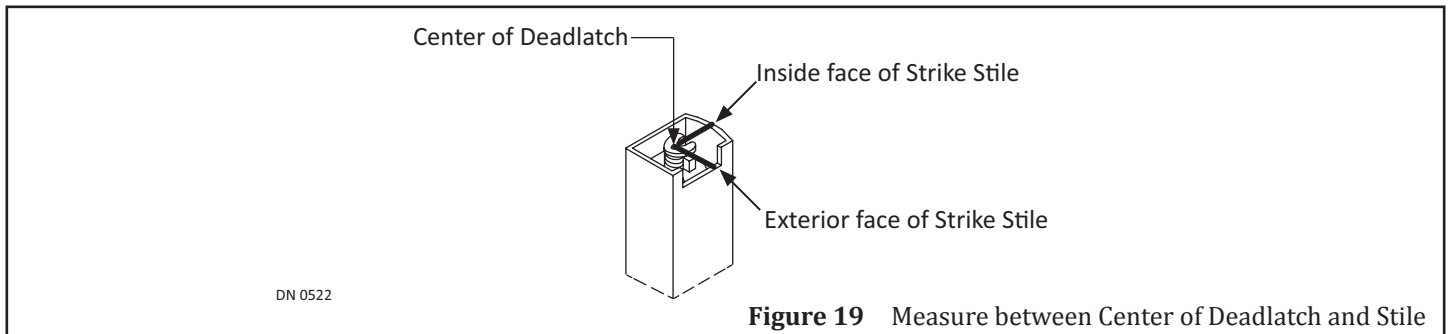
The Strike Plate assembly is installed within the Header so the Deadlatch located at the top of the Concealed Vertical Rod Mechanism can wrap around it. The Strike Plate assembly is used to prevent forced entry by bowing of the Swing door Panel.

1. Open the Active Swing Door.
2. Go to the top of the Strike Stile. Locate the Deadlatch.

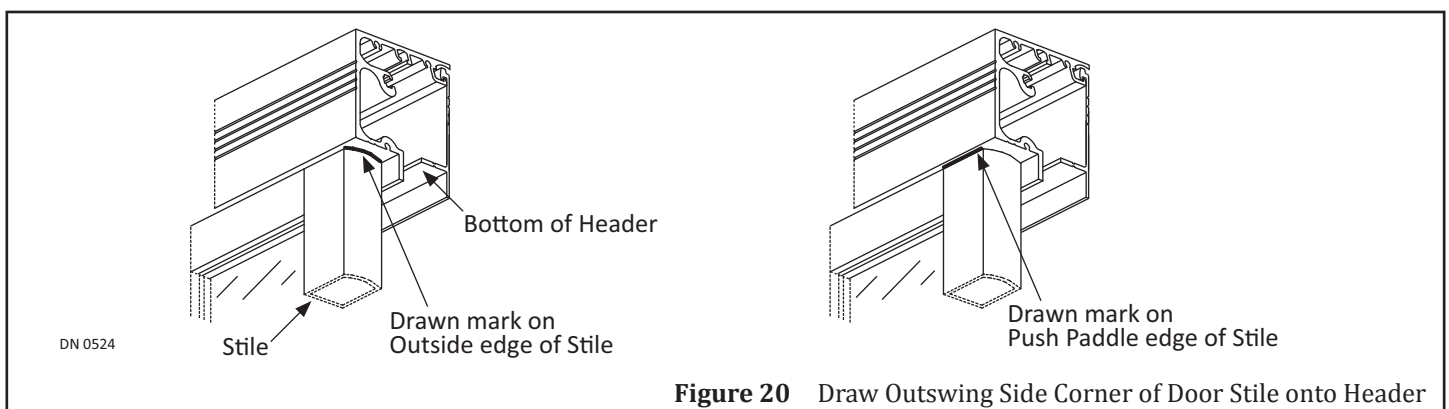


**Figure 18** Deadlatch located at top of Stile

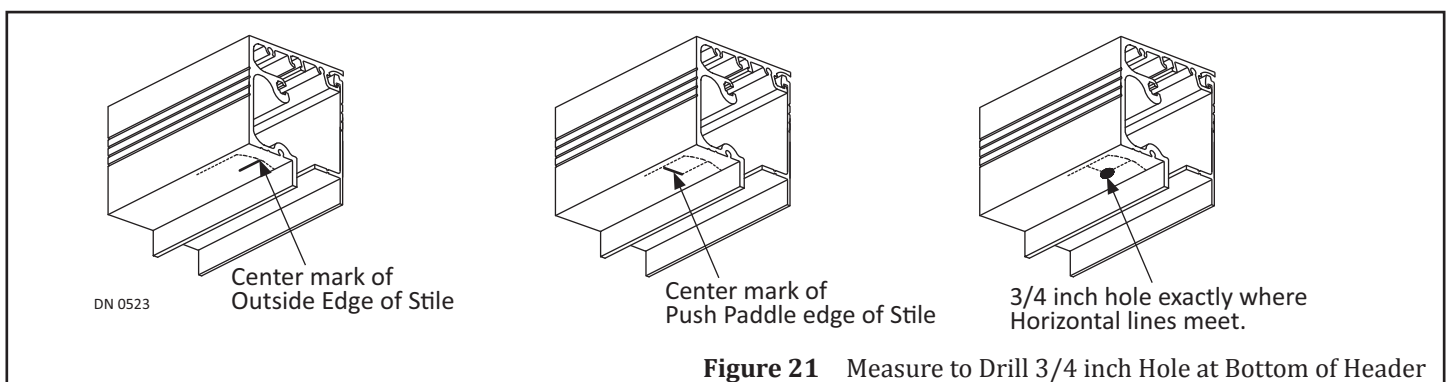
3. Measure (2) Horizontal lines. (1) each; between the center of the Deadlatch to the:
  - ▶ Inside Face of the Strike Stile.
  - ▶ Exterior Face of the Strike Stile (where the Push Paddle is installed).
4. Mark both measurements down.

**Figure 19** Measure between Center of Deadlatch and Stile

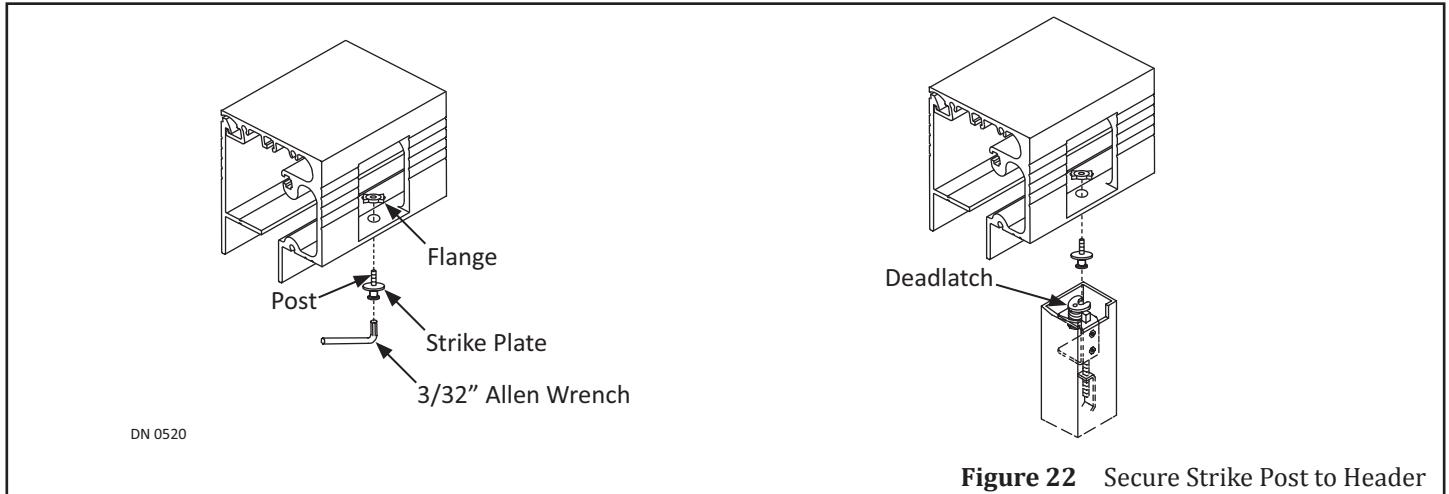
5. Open both Swing doors, then immediately close the Active Swing door.
6. Go to the bottom of Header directly above the Active Swing door.
7. Trace the Inside Face and Exterior Face of the Strike Stile onto the Bottom Face of Header.

**Figure 20** Draw Outswing Side Corner of Door Stile onto Header

8. Open the Active Swing Door.
9. Go to the traced mark of the Inside Face of Strike Stile.
10. Locate the center of the drawn line. From the center of the traced mark, draw a line towards the Pivot Stile, to be as long as the measurement that was recorded in Step 3.
11. Go to the traced mark of the Exterior Face.
12. From the center of the traced mark, draw a line towards the Interior side of Building, to be as long as the measurement that was recorded in Step 3.
13. Drill 3/4 inch hole at the center of where both traced marks meet.

**Figure 21** Measure to Drill 3/4 inch Hole at Bottom of Header

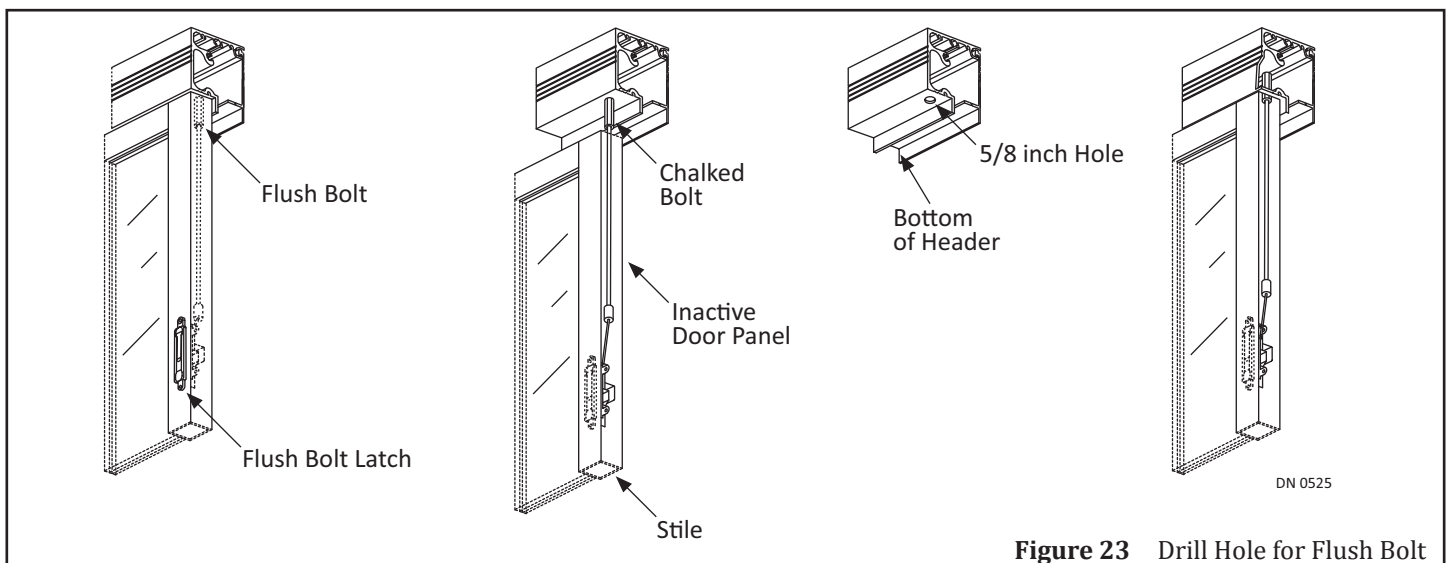
14. Obtain the Strike Plate assembly. Unscrew the Flange Nut from the Post.
15. Insert the Post through the 3/4 inch hole until the Strike Plate is flush against the face of Header. Ensure Post is centered.
16. Screw the Flange Nut down onto the Strike Post. Ensure the Strike Plate assembly is centered.
17. Insert a 3/32 inch Allen Wrench into bottom of the Strike Plate. Tighten down.



**Figure 22** Secure Strike Post to Header

## CHAPTER 11: DRILL HOLE FOR FLUSH BOLT (INACTIVE SWING DOOR)

1. Open both Swing doors, then immediately close the Active Swing door.
2. Go to the Strike Stile at the top of the Inactive Swing door. Locate the Flush Bolt.
3. Heavily chalk the top of Bolt.
4. Close the Inactive Swing door.
5. Raise the Flush Bolt until it hits the bottom face of Header.
6. Lower the Flush Bolt and then reopen the Inactive Swing door.
  - a. The bottom face of Header should be marked with a circular chalk mark.
  - b. If a circular chalk mark is not visible, chalk the bolt again. Repeat steps until a chalk mark can be seen.
7. Drill a 5/8 inch hole at the exact center of the Chalk mark.
8. Close the Inactive Swing door.
9. Raise the Flush Bolt until it is all the way through the 5/8 inch hole.
  - a. If Flush Bolt cannot go all the way through, drill the hole again to make it slightly bigger.
  - b. Do not drill hole so big that the Flush Bolt will be rendered useless.

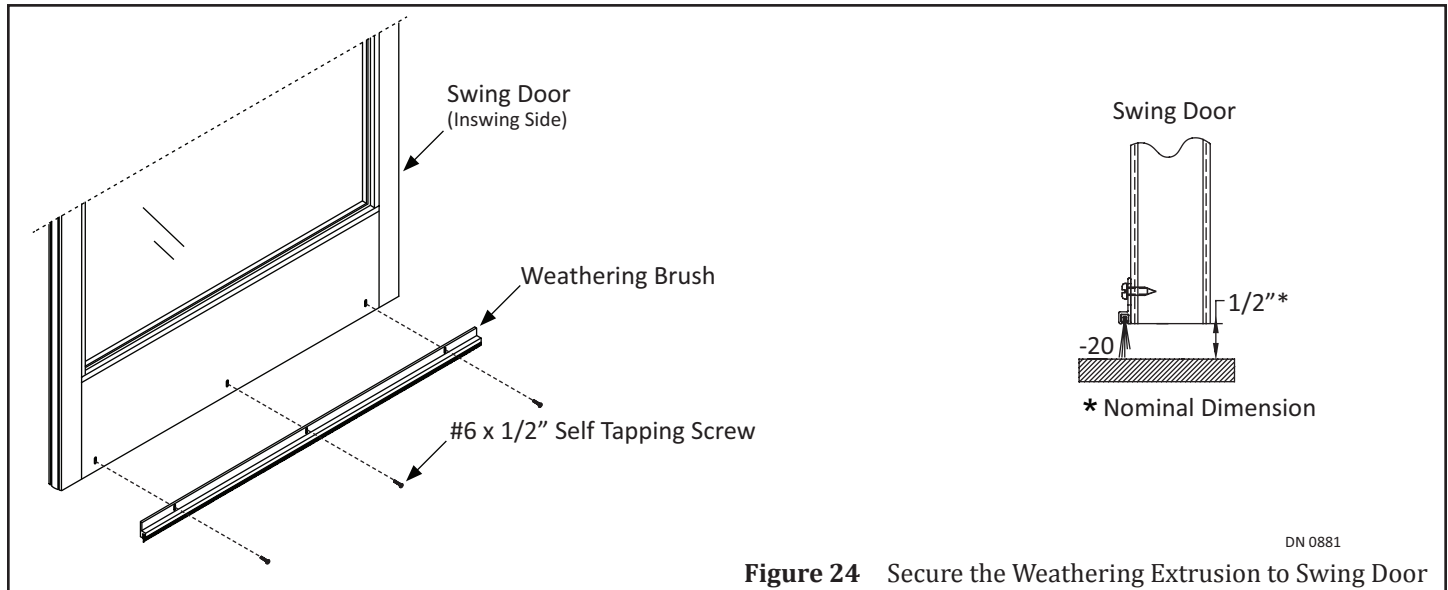


**Figure 23** Drill Hole for Flush Bolt

## CHAPTER 12: INSTALL THE WEATHERING

### SECTION 12.1: Install the Weathering Brush

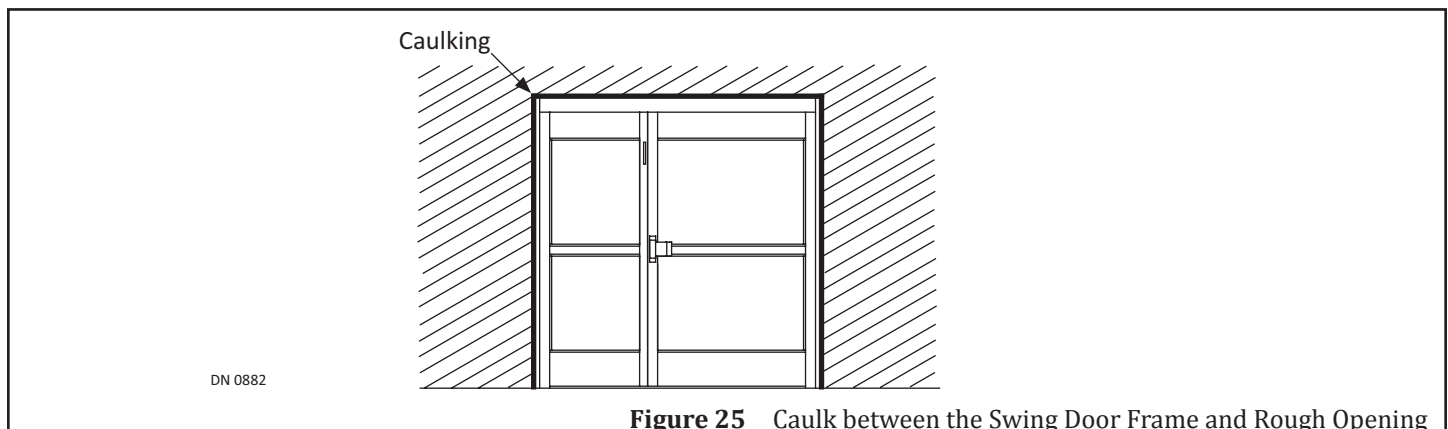
1. Obtain the Weathering Extrusion with Brush pre-installed.
2. Go to the Inswing side of the Swing door.
3. Align the Weathering Extrusion along the bottom edge of Swing Door.
4. Use the Weathering Extrusion as a template to mark and drill (3) 1/8 inch diameter holes onto the face of Swing door.
  - a. There should not be any excess Brush on this weathering.
5. Secure Weathering Extrusion to the Swing door with color coordinated #6 x 1/2 inch self tapping screws provided by NABCO.



**Figure 24** Secure the Weathering Extrusion to Swing Door

### SECTION 12.2: Apply Caulking Bead

1. Ensure the entire Swing Door Frame is properly secured to the Rough Opening.
2. Apply caulking bead between the Swing Door Frame and Rough Opening (inside and outside)



**Figure 25** Caulk between the Swing Door Frame and Rough Opening