



Synergy Group

Innovative Windows & Doors™

**INSTALLATION  
GUIDE FOR  
ALL SYNERGY GROUP  
ALUMINUM / CLAD / WOOD  
ENTRY AND SLIDING DOORS**

## TABLE OF CONTENTS

Pre-Installation Information and Warnings.....	2
Parts Included, Tools and Supplies Needed .....	3
Glass Information and Warnings.....	4
Glass Film Removal.....	4
Glass Cleaning .....	5
Glass Maintenance.....	5
Finishing.....	5
Step 1: Unit Preparation.....	6
Step 2: Prepare Rough Opening.....	8
Step 3: Position Installation Clips .....	10
Step 4: Install Unit.....	11
Step 5: Remove Brackets and Gussets.....	13
Step 6: Install Long Screws .....	14
Step 7: Securing Through Frame .....	15
Step 8: Secure Sill.....	16
Step 9: Flash and Seal Unit.....	17
Step 10: Insulate Around Unit .....	20
Step 11: Apply Exterior Finish and Seal .....	21

# Installation Instructions for all Synergy Group Aluminum/Clad/Wood Entry and Sliding Doors



## INSTALLER; PLEASE LEAVE THIS GUIDE WITH THE BUILDING OWNER TO FILE FOR FUTURE REFERENCE

Congratulations! You have just purchased one of the many fine Synergy® products. Proper assembly, installation and maintenance are essential if the benefits of your Synergy product are to be fully attained. Please read and follow this instruction guide completely. If your abilities do not match this procedure's requirements, contact an experienced contractor. You may direct any questions about this or other products to your local Synergy dealer. Contact Synergy Monday through Friday, 8 a.m. to 4:30 p.m. Eastern Standard Time (519-951-0909) or email us at [customerservice@synergywd.com](mailto:customerservice@synergywd.com). Thank you for choosing Synergy.

## IMPORTANT SAFETY, ASSEMBLY, AND INSTALLATION INFORMATION

Every assembly and installation is different (wind loads, structural support, etc.). Synergy strongly recommends consultation with a Synergy supplier or an experienced contractor, architect, or structural engineer prior to the assembly and installation of any Synergy product. Synergy has no responsibility regarding the post-manufactured assembly and installation of Synergy products.

### **WARNING!**

Use caution when working at elevated heights and around unit openings. Follow manufacturers' instructions for ladders and/or scaffolding. Failure to do so may result in injury or death.

### **WARNING!**

Follow manufacturers' instructions for hand or power tools. Always wear safety glasses. Failure to do so may result in injury and/or product damage.

### **WARNING!**

Windows and doors can be heavy. Use safe lifting techniques and a reasonable number of people with enough strength to lift, carry and install our products to avoid injury and/or product damage.

### **WARNING!**

Unless specifically ordered, Synergy doors are not equipped with safety glass, and if broken, could fragment causing injury. Many laws and building codes require safety glass in locations adjacent to or near doors. Synergy doors are available with safety glass that may reduce the likelihood of injury when broken. Information on safety glass is available from your local Synergy dealer.

### **WARNING!**

- Factory supplied Head Flashing and Installation Flanges DO NOT take the place of standard door flashing. Unit must be properly flashed and sealed with silicone for protection against water and air filtration. Use non-reflective flashings.
- Do not apply any type of film to glass. Thermal stress conditions resulting in glass damage could occur.
- Use of movable insulating materials such as window coverings, shutters, and other shading devices may damage glass. In addition, excessive condensation may result causing deterioration of doors.

**⚠ WARNING!**

Metal fasteners and other hardware components may corrode when exposed to preservative-treated and fire-retardant treated lumber. Obtain and use the appropriate metal fasteners and hardware as called out by the installation guide to fasten unit to any rough opening made from pressure treated and fire-retardant treated lumber. Failure to use the appropriate materials for the installation may cause a failure resulting in injury, property or product damage.

**⚠ WARNING!**

DO NOT carry door unit horizontally, interior side down. Door panels may swing open causing product damage and/or severe injury.

**⚠ WARNING!**

Follow instructions from foam, sealant and flashing manufacturer regarding material application and compatibility with this product.

**Parts Included**

- Installation Guide
- Screw Pack
- Door Unit
- Multi-Point Lock Set (if ordered)

**Tools Needed**

- Safety Glasses
- Tape Measure
- 4' Level
- Pry Bar
- Utility Knife
- Caulk Gun
- Hammer
- Putty Knife
- Flat Blade Screwdriver
- Drill/Driver
- Staple Gun
- 3/16" Drill Bit

**Supplies Needed**

- Formable Self-Adhering Sill Flashing
- Flashing
- House Wrap Tape
- Drip Cap (full width)
- Shims (waterproof)
- Foam Backer Rod
- Staples
- Low Expanding Foam
- Sealant
- Fasteners (SS, if required)
  - 1 ¾" Roofing Nails
  - #10 x 1 ½" Screws
  - #10 x 2 ½" Screws
  - 1 ½" Finish Nails

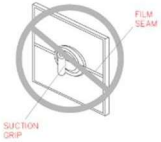
**Screw Pack Contains:**

#12 x 3" Stainless Steel Screws



## Glass

### **WARNING!**



Suction grips will not hold if placed over seam of film to lift or move unit. Unit will fall causing injury and/or product damage

- Laminated safety glass is not standard and must be special ordered. Check local building codes
- Leave protective film in place until after construction is finished. Leave (NFRC) performance label in place until final inspection.
- Argon gas blend not available with high altitude glass.

### **WARNING!**

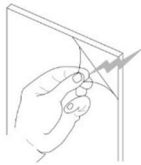


Sealants will damage exterior coating on glass.

## Film Removal

### **WARNING!**

Static created when removing film can ignite flammable materials or cause a shock.



**See warning label on glass!**



- Remove protective film from seam or corner using plastic scraper if needed.
- Remove protective film within nine months of installation and when temperature is above 0°C (32°F)

### **WARNING!**

**Dispose of film immediately after removal. Film may pose suffocation hazard to children.**

## Cleaning

### WARNING!

Acid solutions used for cleaning masonry or concrete will damage glass, fasteners, hardware, and metal flashing. Protect unit and follow cleaning product instructions carefully. If acid contacts unit, wash all surfaces with water immediately.

- Clean glass using liquid glass cleaner
- Clean exterior frame, sash and insect screens using mild detergent and water with a soft cloth or brush.
- For hard to clean areas, use a non-abrasive cleaner, alcohol-and-water or ammonia-and-water.

### WARNING!

Abrasive cleaners will damage glass surface.

### WARNING!



Metal razor blades can damage glass surface and exterior coating.

## Maintenance

- Do not apply any type of film to insulate glass. Thermal stress and glass damage can result. Shading devices (insulated covers, shutters, etc.) may also cause thermal stress and condensation damage.
- For more information contact your local Synergy dealer or visit [www.synergywd.com](http://www.synergywd.com).

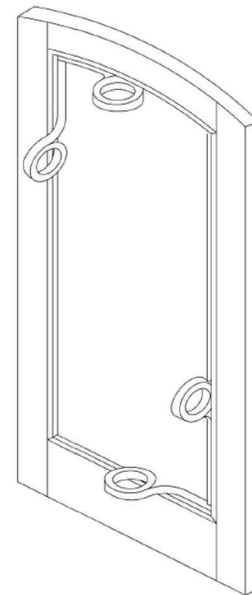
## Finishing

### WARNING!

Finish wood surfaces immediately after installation. Unfinished wood will deteriorate, discolour, and/or may bow and split. Do not stain or paint weatherstrip, vinyl, glass, or hardware. Product damage may occur.

- Apply interior casing to complete installation.
- Finish all hidden wood surfaces
- Do not overload brush with stain/paint when finishing.
- Finish may wick between glass stop/grille on glass.
- Read and follow "Care Guide".
- **Read and follow finishing product instructions and warnings on finishing materials.**

- Film is not a substitute for masking.



INTERIOR VIEW

## 1. Unit Preparation

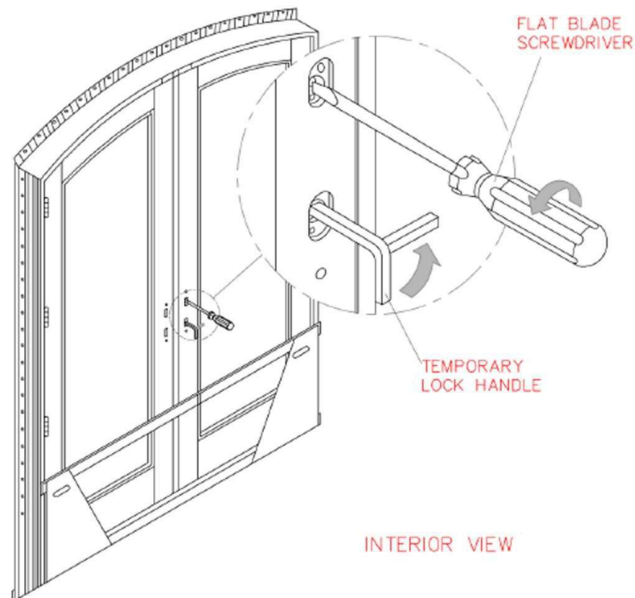
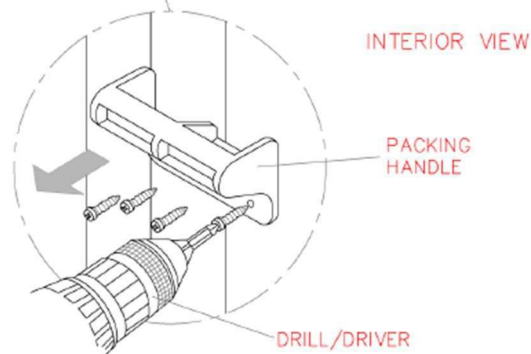
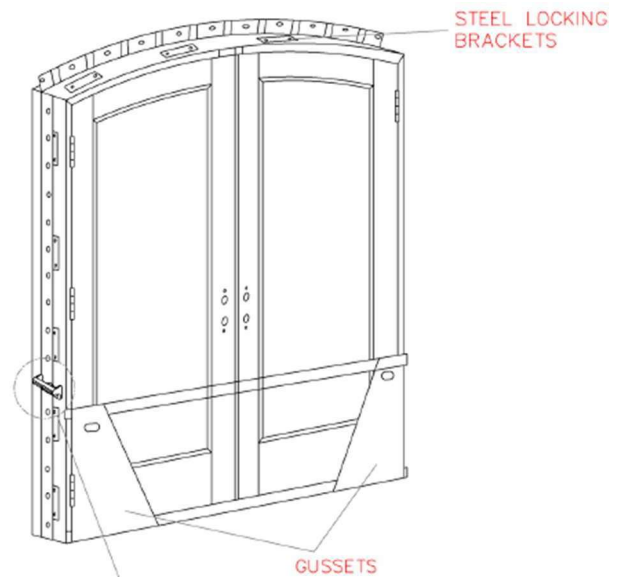
### **WARNING!**

Door panels must be secured in closed position until unit is installed. DO NOT remove Steel Locking Brackets or Gussets until unit is secured in opening. Failure to do so may result in door panel inadvertently opening causing injury, property damage and/or product damage.

### **WARNING!**

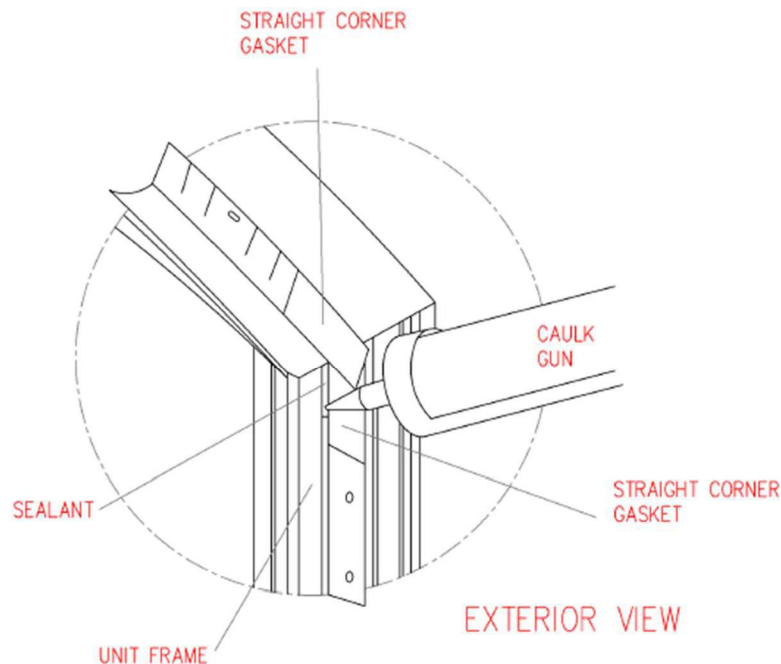
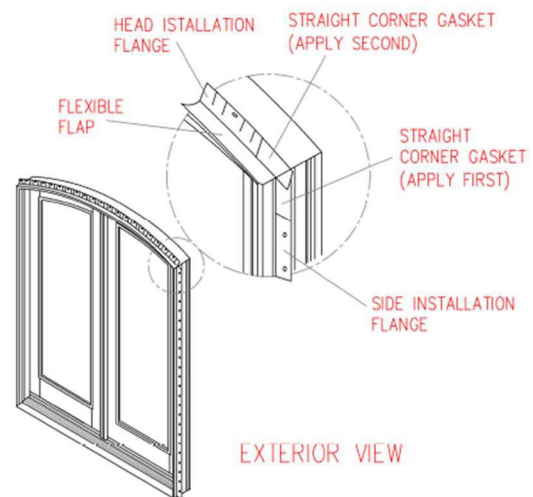
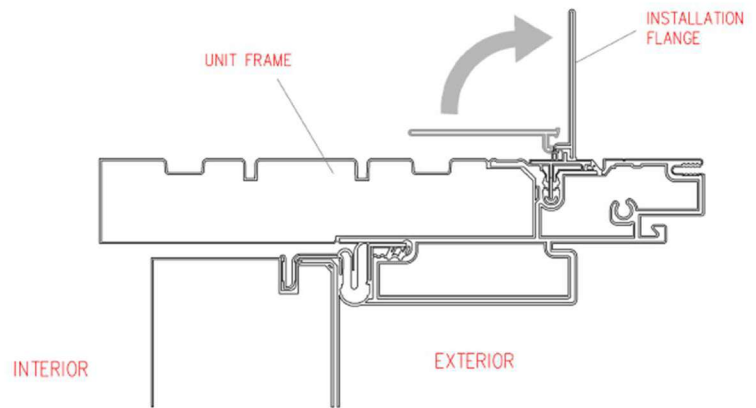
Gussets keep door unit square until installed. DO NOT remove Gussets until unit is secured in opening. Failure to do so may affect product performance.

- Remove loose items such as interior trim or drip cap (full width). Extension jamb are factory applied unless ordered loose.
- Remove shipping braces, if needed, being careful not to damage unit. DO NOT remove Steel Locking Brackets or Gussets from the interior side of unit until secured in rough opening.
- Remove packing handles and discard.
- Insert temporary lock handle in lower hole and turn to lock door.
- Place unit exterior side up on support boards (to protect hinges) on a clean, flat work surface.



## 1. Unit Preparation, continued

- Lift Installation Flanges and snap into position perpendicular to frame. Not required on curved frame section(s).
- Remove backer from straight corner gaskets.
- Adhere first straight corner gasket to side jamb Installation Flange extending half the gasket between head and side Installation Flanges from exterior.
- Adhere second straight corner gasket to head Installation Flange overlapping onto first straight corner gasket from exterior and unit frame. See drawing.





## 2. Prepare Rough Opening

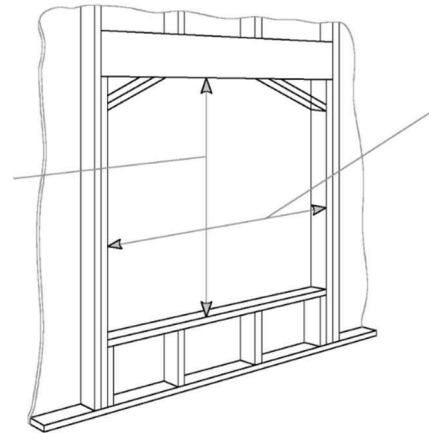
### Wood Frame Construction

- Width of rough opening should be  $\frac{1}{2}$ " more than unit width. Height of rough opening should be  $\frac{1}{2}$ " more than unit height. Allow for flashing thickness.
- Check sill plate for level. Sill must be level. Shim if needed.
- Check rough opening for plumb and level. If rough opening is not plumb or level, correct as needed.
- Check rough opening for square by measuring diagonally, upper left to lower right and upper right to lower left corner. If measurements are with  $\frac{1}{8}$ ", opening is square. If rough opening is **not** square, correct as needed.
- Cut house wrap along sill and head of rough opening.
- Cut house wrap vertically in center of rough opening from head to sill.

ROUGH OPENING  
HEIGHT  $\frac{1}{2}$ " MORE  
THAN UNIT HEIGHT

ROUGH OPENING  
WIDTH  $\frac{1}{2}$ " MORE  
THAN UNIT WIDTH

INTERIOR VIEW

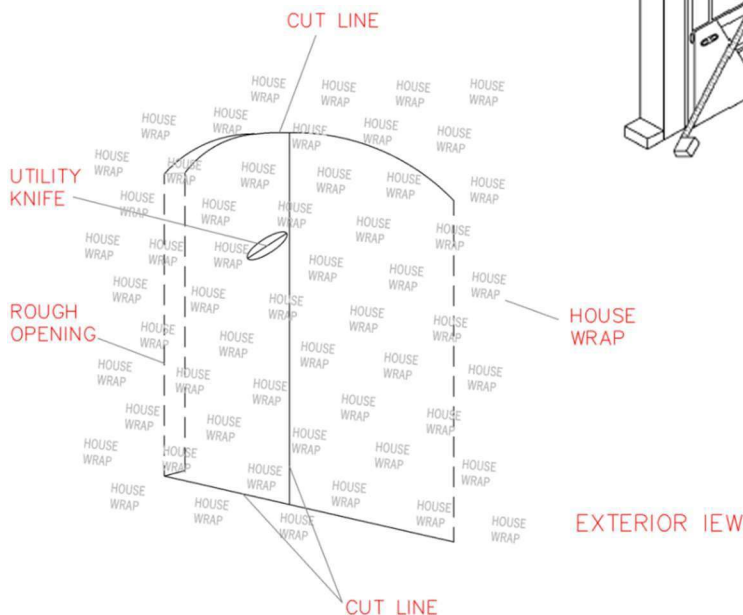
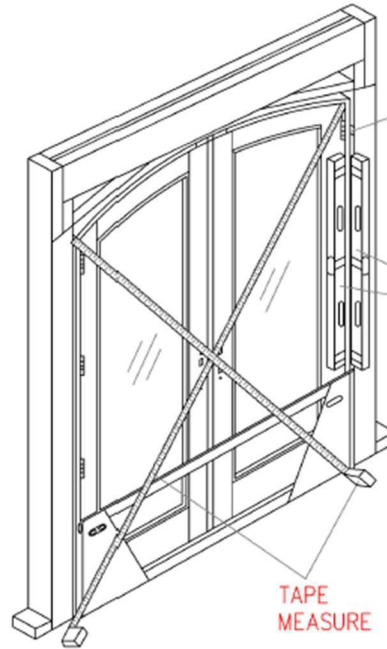


SHIM

INTERIOR VIEW

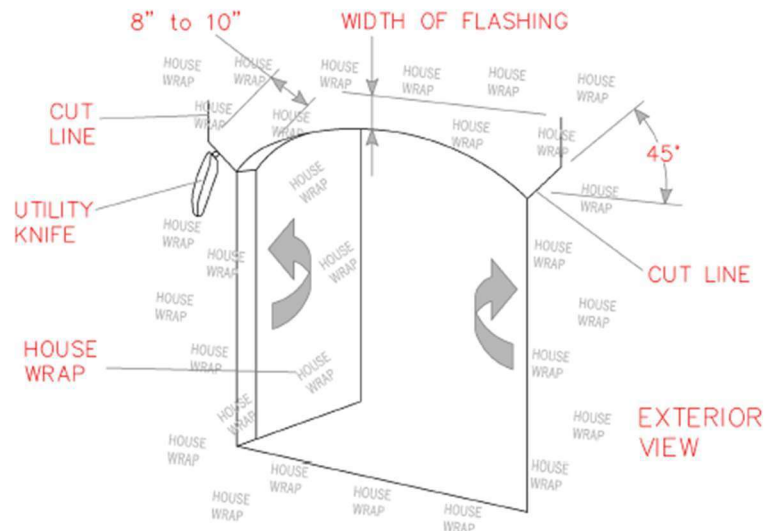
LEVEL

TAPE  
MEASURE

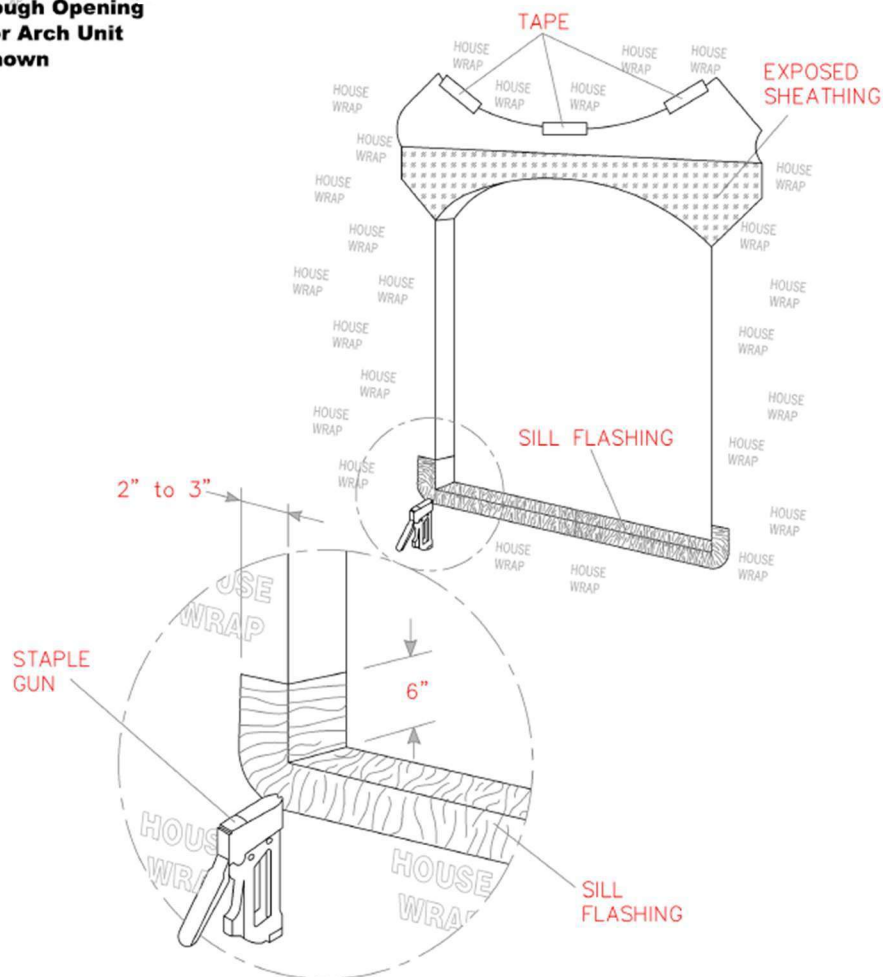


## 2. Prepare Rough Opening, continued

- Fold house wrap around to inside, trim excess and staple
- Cut top corners of house wrap on 45° angles the width of head flashing. For arch top units, cut top corners on 45° angle for 8" to 10" then cut straight up until the cuts equal the width of the head flashing above the unit. See drawing.
- Fold flap up and temporarily tape in position.
- Apply sill flashing to rough opening sill. Keep sill flashing 6" above sill at sides and 2" to 3" onto house wrap around exterior.
- Secure corners of sill flashing by stapling, taping or nailing in position. Stapling shown in drawing.

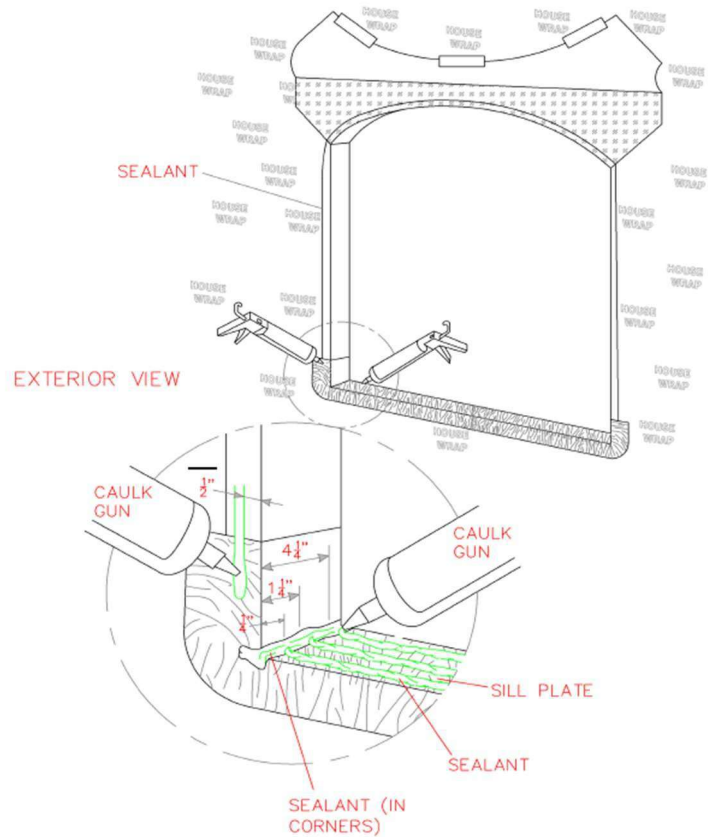


**Rough Opening  
For Arch Unit  
Shown**



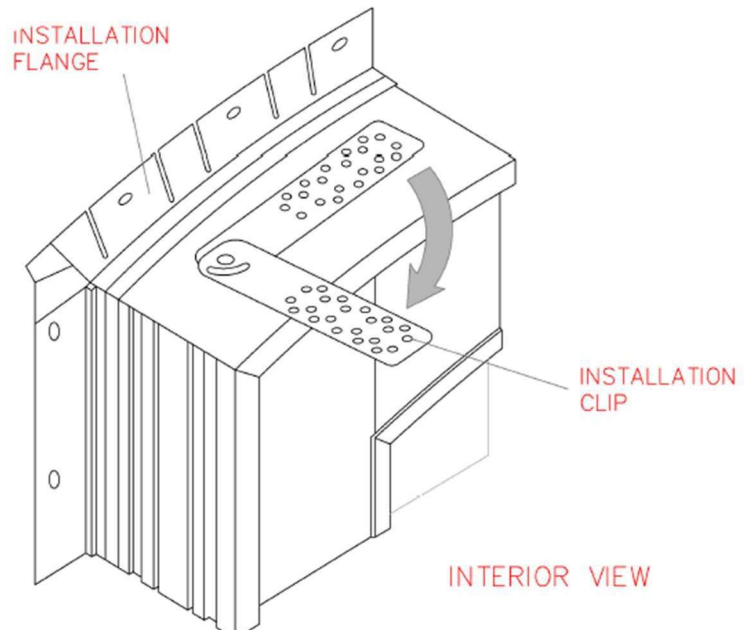
## 2. Prepare Rough Opening, continued

- Apply three, continuous 3/8" beads of sealant along sill plate of rough opening full length. Space beads 1/4", 1 1/4", and 4 1/4" from exterior edge.
- Apply a liberal amount of sealant in bottom corners.
- Apply a continuous 3/8" bead of sealant, around exterior sides and top of rough opening, 1/2" from rough opening edge.



## 3. Position Installation Clips

- Rotate Installation Clips 90° into position around frame, as shown, before placing unit into rough opening.
- For arch units, relocate Installation Clips on radius head jamb for securing to building framing as needed.



#### 4. Install Unit

##### **WARNING!**

Doors can be heavy. Use safe lifting techniques and a reasonable number of people with enough strength to lift, carry, and install door products to avoid injury and/or product damage.

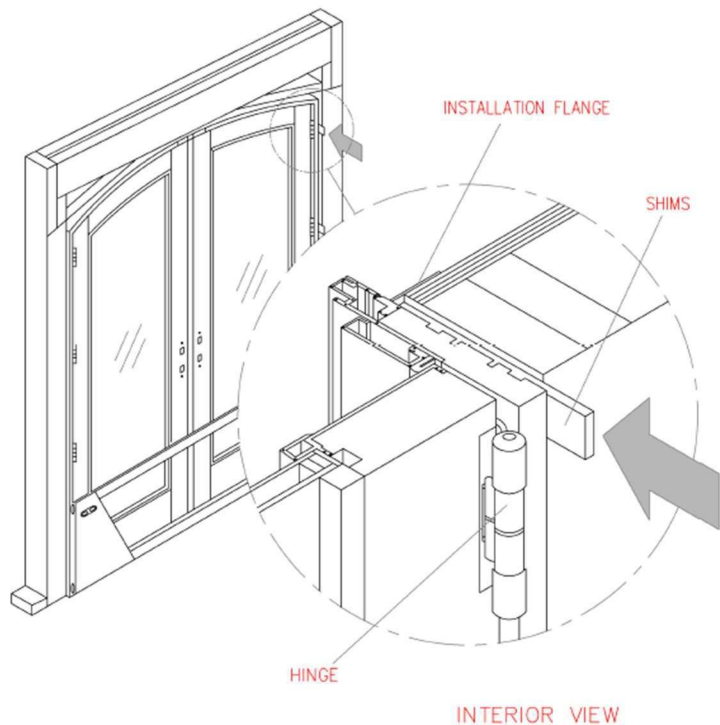
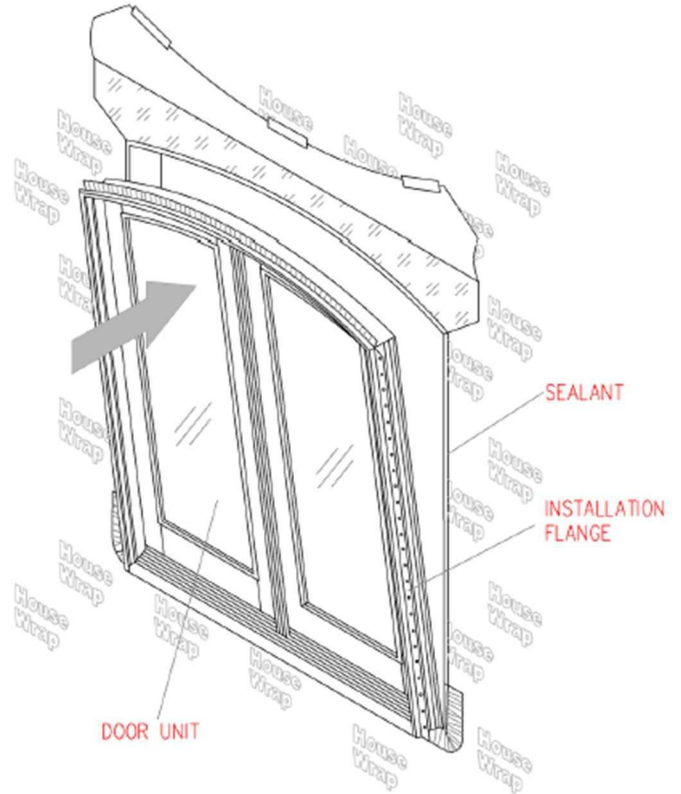
##### **WARNING!**

Door panels must be kept secured in closed position. Unsecured door panels may swing open causing injury.

##### **WARNING!**

Support unit in rough opening at all times until secured. Failure to do so may result in door falling out causing injury, property damage and/or product damage.

- Lift and center unit in rough opening, set sill of unit onto sealant, from the exterior.
- Push top in until Installation Flange is firmly pressed into sealant around perimeter of rough opening. Installation Flange must be flush with exterior of opening.
- Insert shims between rough opening and door unit, directly behind hinges and lock receivers and beside each Installation Clip from the interior. Shims must be tight to Installation Flange.



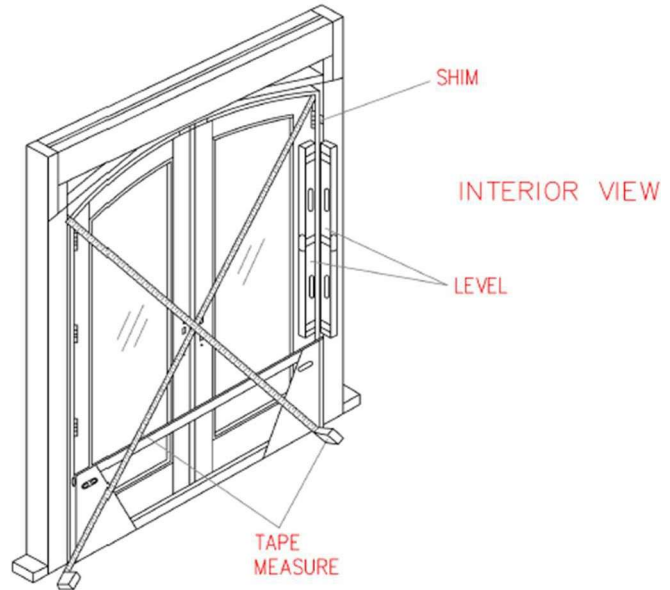
#### 4. Install Unit, continued

##### **⚠ WARNING!**

A minimum space of ¼" is required around exterior perimeter of unit between unit and building framing. Failure to properly space product in opening may result in product and/or property damage.

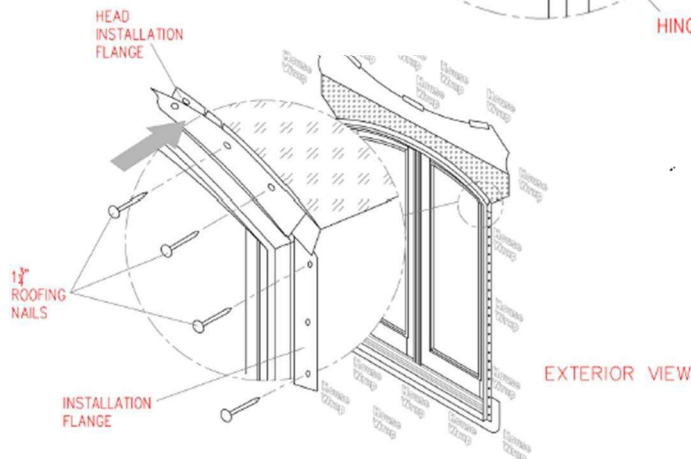
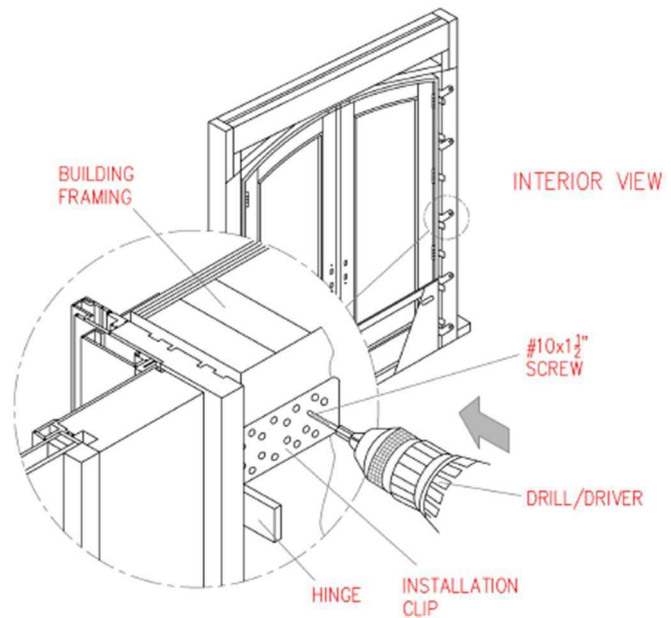
##### **⚠ WARNING!**

Both Installation Clips and Installation Flanges must be used for installing all units. If both cannot be used, unit must be secured to building structure through frame.



If not able to secure unit using both Installation Flanges and Installation Clips, secure unit through frame in Step 7.

- Unit must be plumb, level, and square. Check unit for square by measuring diagonally, upper left to lower right and upper right to lower left corners. Both measurements must be within 1/8". Adjust shims as needed.
- Bend and fasten Installation Clips to building framing using #10 x 1 ½" screws.
- Nail through every other hole around Installation Flange using 1 ¾" roofing nails.





## 5. Remove Brackets and Gussets

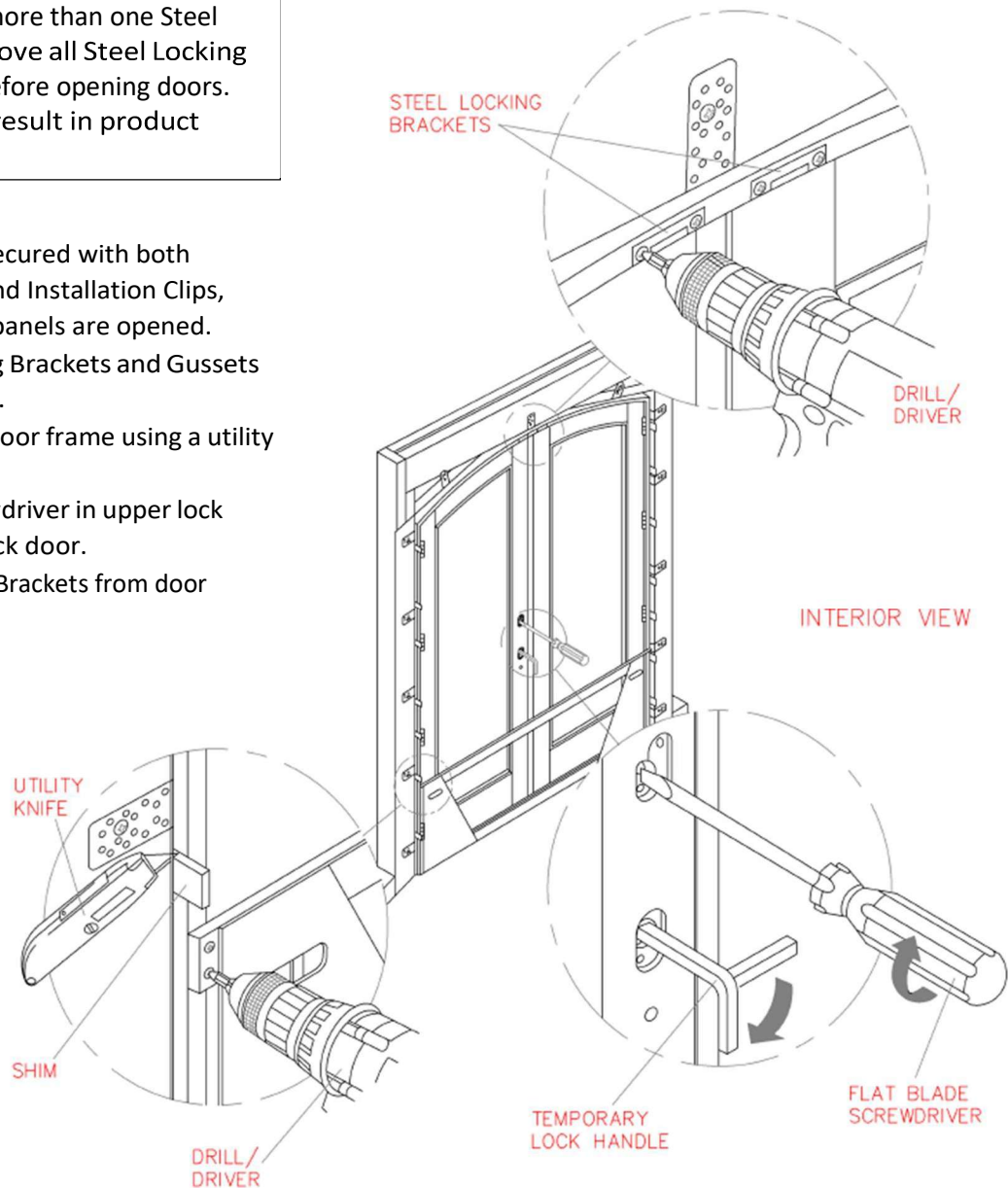
### **WARNING!**

Support unit in rough opening at all times until secured. Failure to do so may result in door falling out causing injury, property damage and/or product damage.

### **WARNING!**

Some units may have more than one Steel Locking Bracket. Remove all Steel Locking Brackets from frame before opening doors. Failure to do so may result in product damage.

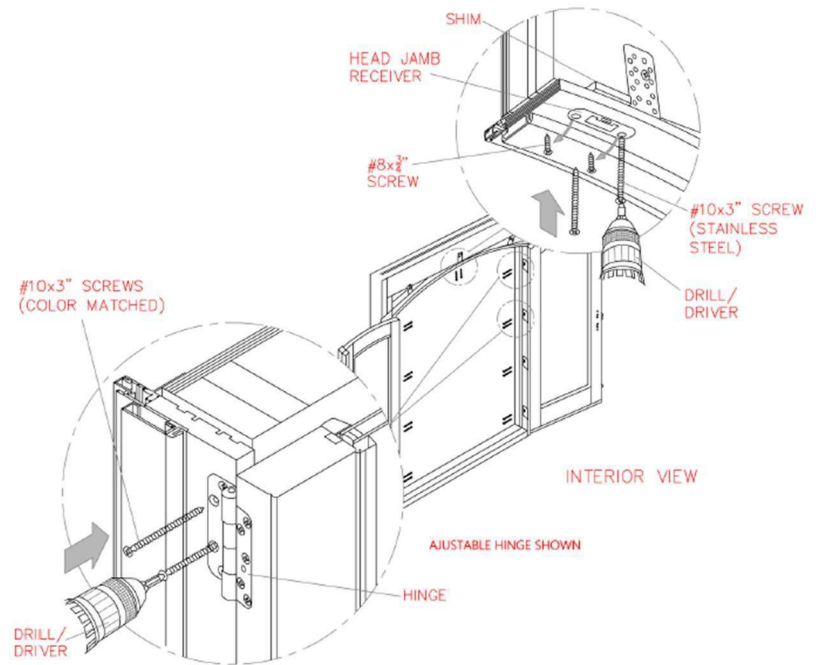
- If unit has not been secured with both Installation Flanges and Installation Clips, support unit as door panels are opened.
- Remove Steel Locking Brackets and Gussets from the door frame.
- Cut shims flush with door frame using a utility knife.
- Insert flat blade screwdriver in upper lock hole and turn to unlock door.
- Remove Steel Locking Brackets from door panels.



## 6. Install Long Screws

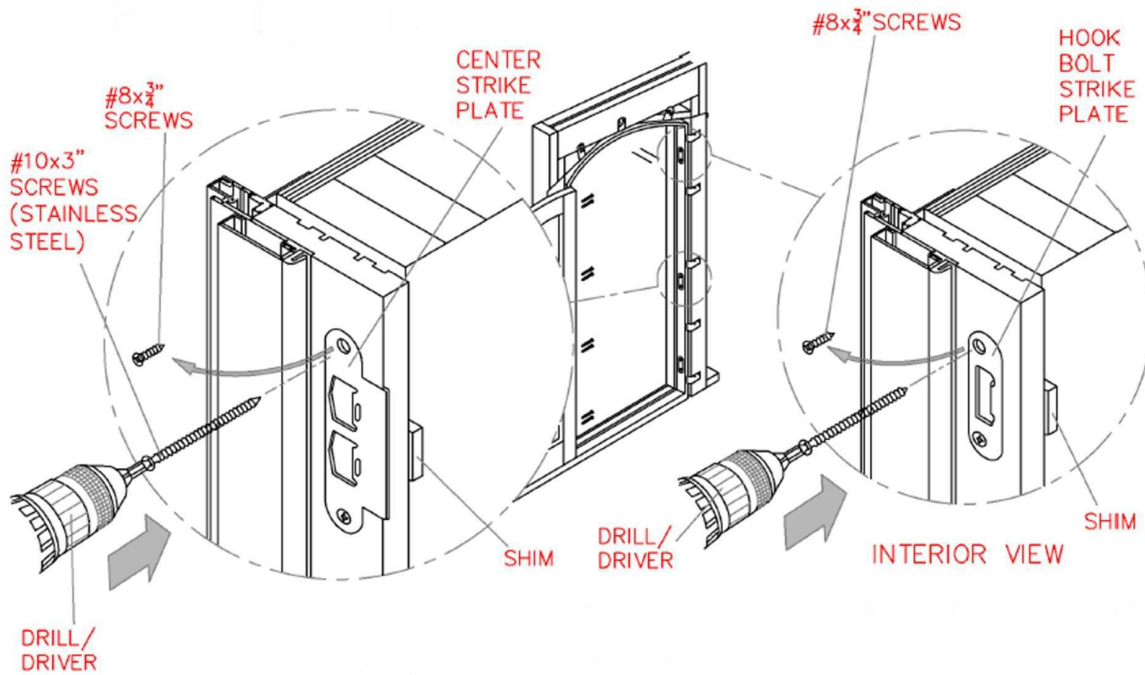
If unit has sidelites and/or transom don't install long screws.

- Secure hinges by installing supplied #10 x 3" color matched screws (from screw pack) through center holes of hinges, replacing factory screws if present.
- Shim behind head jamb receiver. Replace factory installed #8 x 3/4" screws in head jamb receiver with supplied #10 x 3" stainless steel screws (from screw pack).
- Check clearance and operation of door panels. Refer to hinge and hardware adjustment guides, if needed.



## Single Doors

- Shim behind strike plates
- Remove #8 x 3/4" screws from hook bolt strike plates and center strike plate and replace with supplied #10 x 3" stainless steel screws (from screw pack).

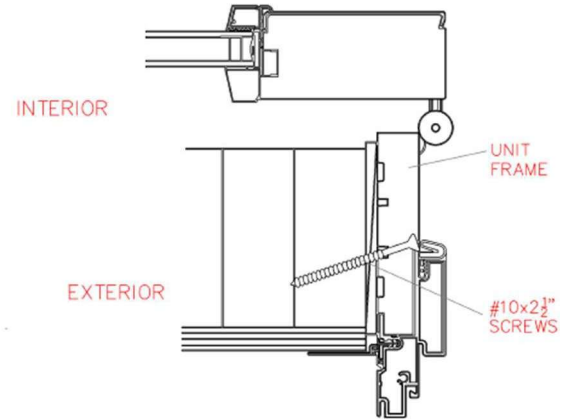


## 7. Securing Through Frame

If not securing through the frame, proceed to the next step.

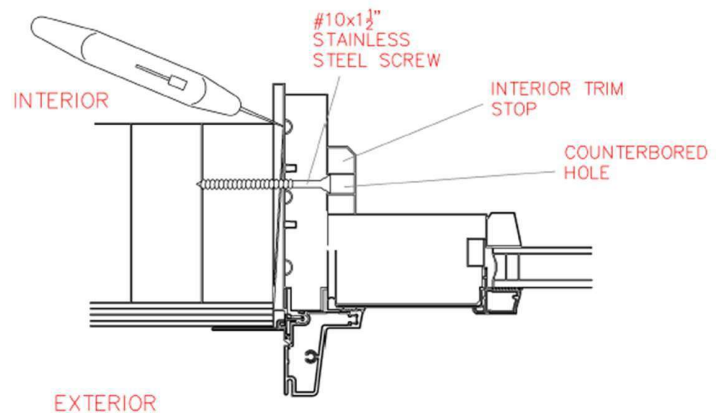
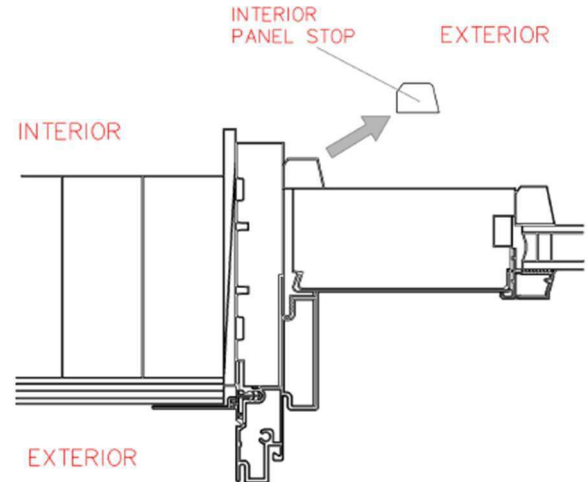
### Operating Units

- If securing through frame (where Installation Clips or Installation Flanges cannot be used), drill 3/16" holes through unit head and side jambs, 4" from each corner and every 16" between. See drawing.
- Insert shims between frame and rough opening behind 3/16" holes.
- Fasten through predrilled holes using #10 x 2 1/2" screws.
- Check plumb, level, and square of unit. Adjust shims as needed.
- Cut shims flush with frame.



### Fixed Units

- Remove interior panel stops along side jambs and head using pry bar.
- Drill 3/16" holes through unit head and side jambs, 4" from each corner and every 16" between behind interior panel stops. See drawing.
- Insert shims between frame and rough opening behind 3/16" holes.
- Fasten through predrilled holes using #10 x 2 1/2" screws.
- Check plumb, level, and square of unit. Adjust shims as needed.
- Cut shims flush with frame.
- Replace interior panel stops using 1 1/2" finish nails.

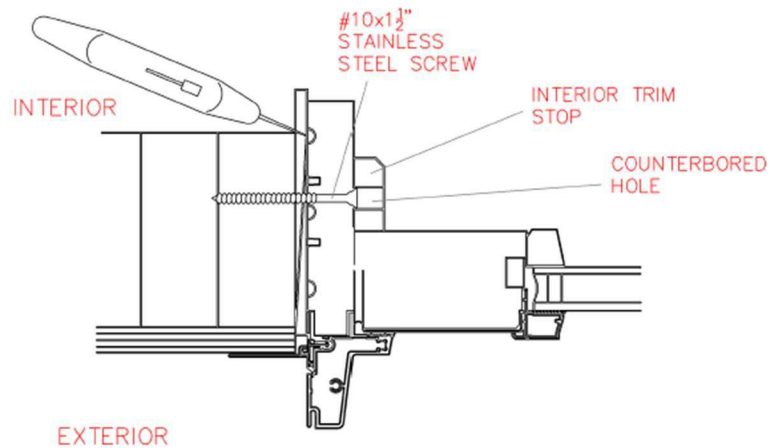




## 7. Securing Through Frame, continued

### Units with Sidelites

- Drill 3/16" holes and counterbore through interior trim stop around head and side jambs, 4" from each corner and every 16" between. See drawing.
- Insert shims between frame and rough opening behind 3/16" holes.
- Fasten through predrilled holes using #10 x 2 1/2" screws.
- Check plumb, level, and square of unit. Adjust shims as needed.
- Cut shims flush with frame.
- Fill counterbored holes with 3/8" wood plugs.

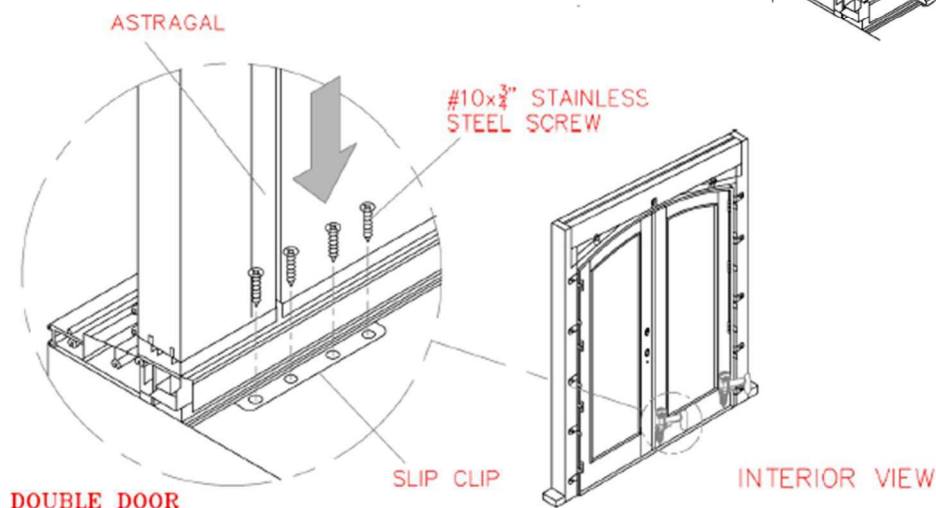
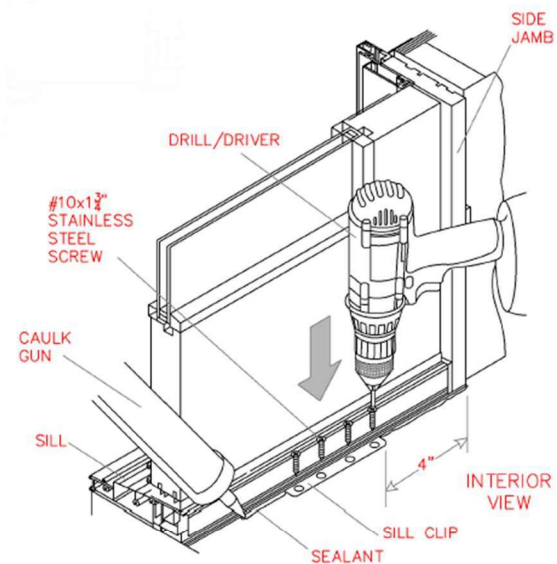


## 8. Secure Sill

### ⚠ WARNING!

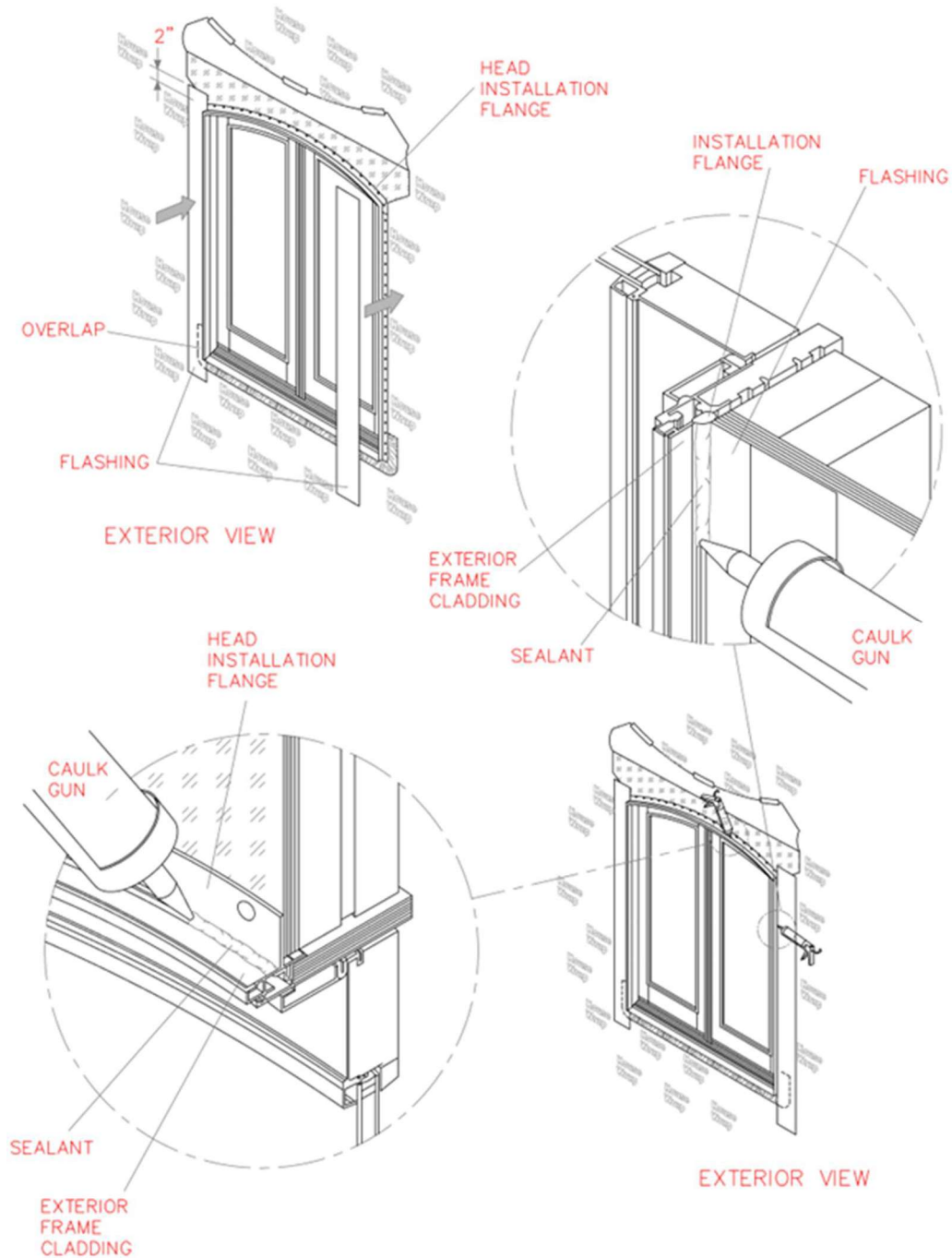
Ridged sill pan modification may be required for sill clip anchoring and sealing.

- Apply a 1/4" bead of sealant along sill from interior.
- Install sill clips 4" from each side jamb using supplied #10 x 1 3/4" screws (from screw pack).
- Secure sill of door unit and sidelites if applicable.
- For double doors, install a sill clip in center of door unit. Align with astragal.



## 9. Flash and Seal Unit

- Close and lock door(s) by following instructions from Step 1.
- Apply flashing at sides, overlapping sill flashing and extending 2" above head Installation Flange.
- Apply 3/8" bead of sealant along head and sides, sealing Installation Flanges to exterior frame cladding.

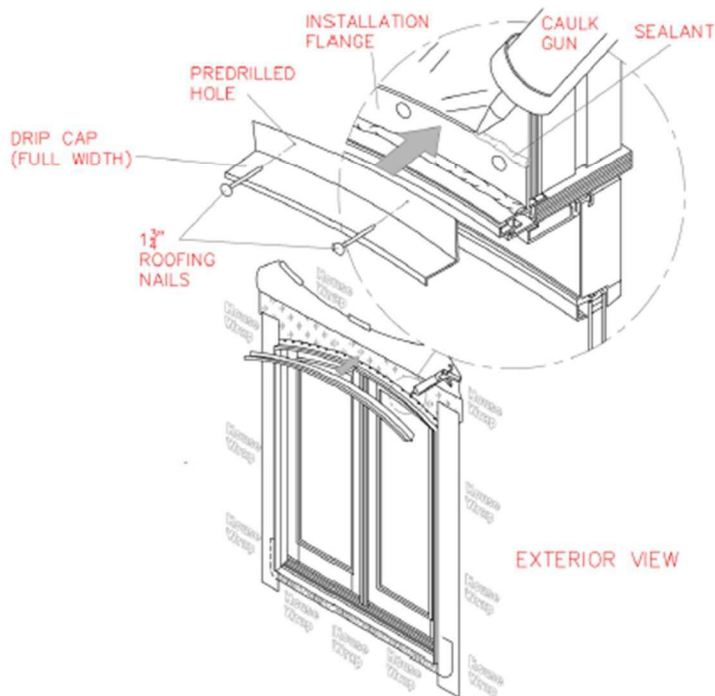
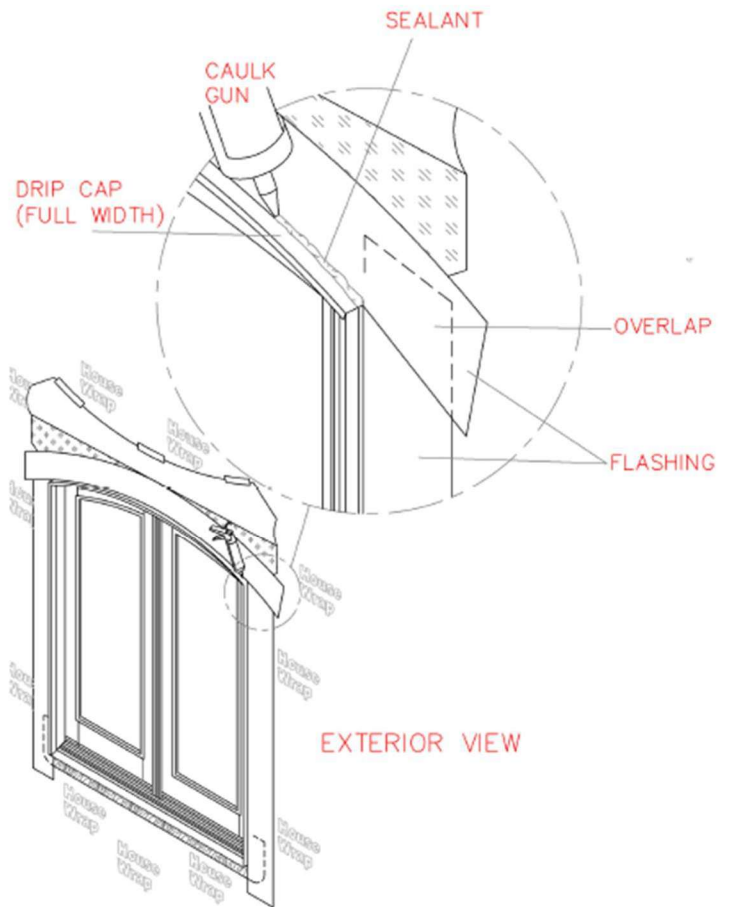


## 9. Flash and Seal Unit, continued

If not installing drip cap (full width), proceed to “Units without Drip Cap (full width)” on Page 18.

### Units with Drip Cap (full width)

- Apply 3/8” bead of sealant along top edge of Head Installation Flange.
- Place drip cap (full width) in sealant at head, centered over unit.
- Secure to building structure using 1 3/4” roofing nails through the predrilled holes.
- Apply flashing over drip cap (full width) at head, overlapping flashing at sides.
- Apply sealant between flashing and drip cap (full width) along head.
- Fold house wrap flap down and secure with house wrap tape.

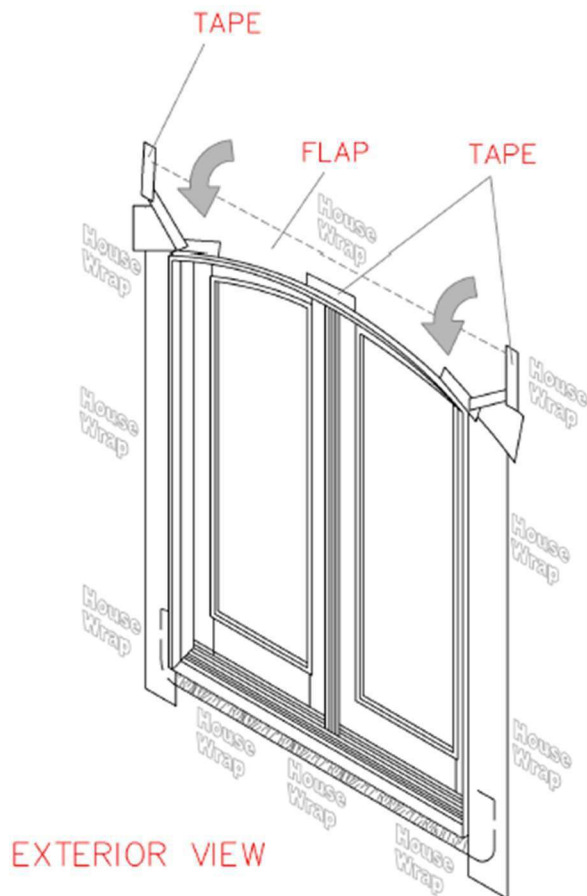
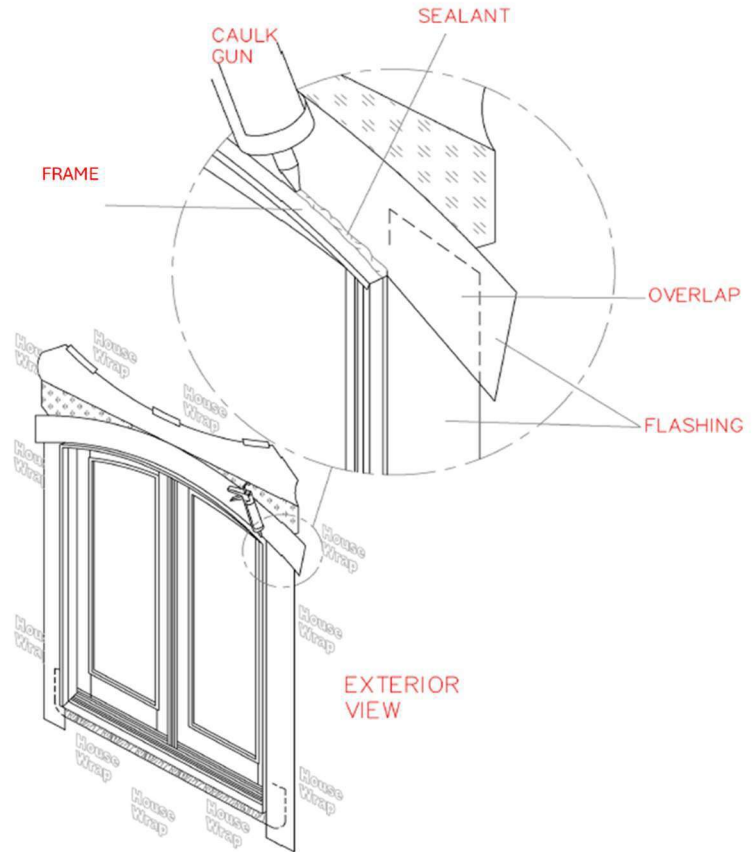


### 9. Flash and Seal Unit, continued

If installing drip cap (full width), return to “Units with Drip Cap (full width)” on Page 17.

#### Units without Drip Cap (full width)

- Apply flashing over Installation Flange at head, overlapping flashing at sides.
- Apply sealant between flashing and unit frame along head.
- Fold house wrap flap down and secure with house wrap tape.

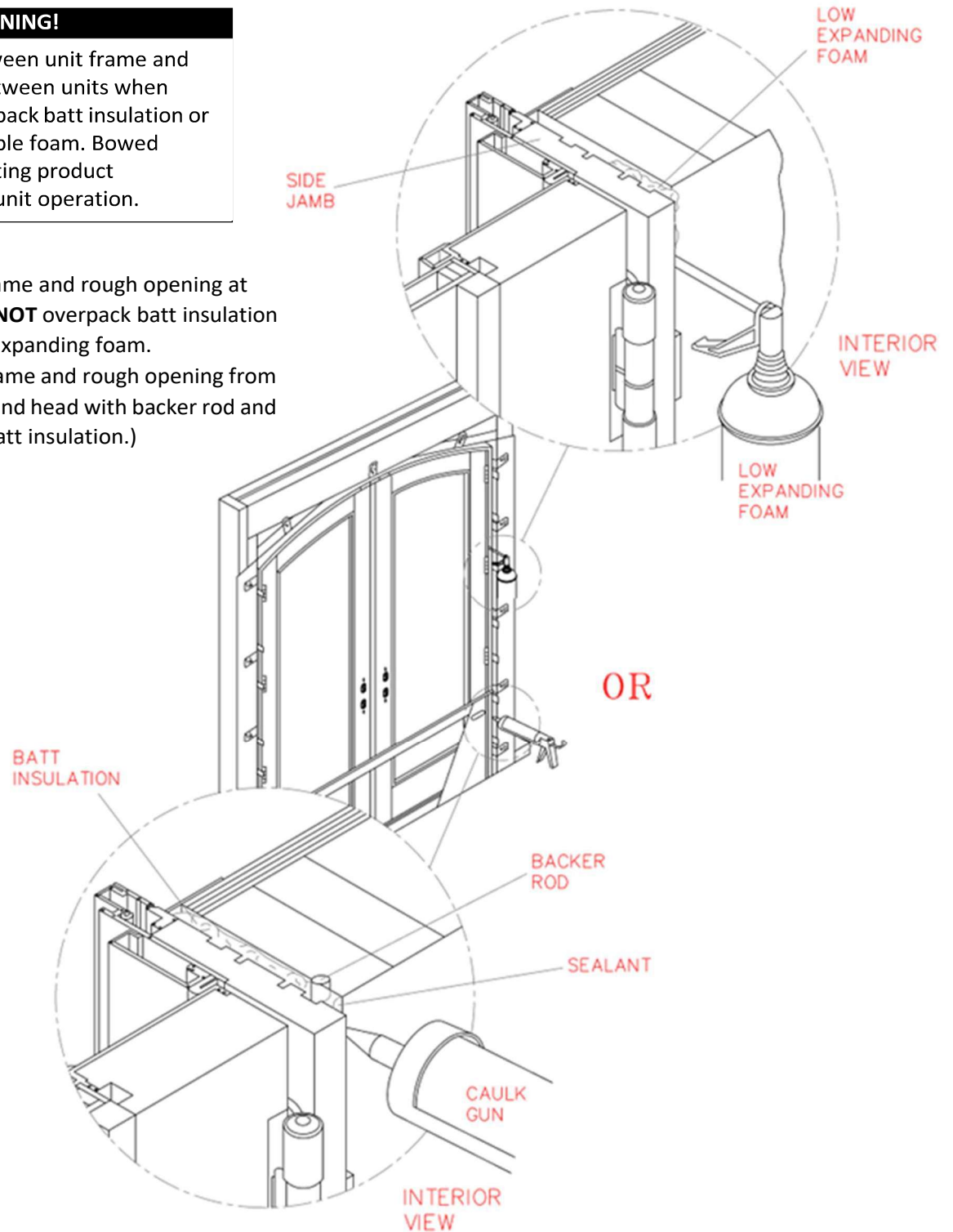


## 10. Insulate Around Unit

### WARNING!

When insulating between unit frame and rough opening, or between units when joining, **DO NOT** overpack batt insulation or overfill with expandable foam. Bowed jambs will result affecting product performance and/or unit operation.

- Insulate between frame and rough opening at sides and head. **DO NOT** overpack batt insulation or overfill with low expanding foam.
- Seal gap between frame and rough opening from interior along sides and head with backer rod and sealant. (optional: batt insulation.)





## 11. Apply Exterior Finish and Seal



### WARNING!

Use backer rod to seal and reduce depth of gap before filling with sealant. Follow sealant manufacturer's instructions.

- Apply exterior finish leaving  $\frac{1}{4}$ " space between exterior frame cladding and exterior finish at sides and head.
- Insert backer rod and apply a continuous bead of sealant around exterior perimeter of head and side jambs between exterior frame cladding and exterior finish, filling the  $\frac{1}{4}$ " space. **DO NOT** seal along exterior of sill or block drain holes in sill.

