



WINDOWS & DOORS

ULTRA  
PIVOT  
DOOR

INSTALLATION  
INSTRUCTIONS

READ THESE INSTRUCTIONS COMPLETELY BEFORE  
ATTEMPTING ANY INSTALLATION

 CAUTION

Lead-based paint may be present in older homes, and the removal of windows & doors may cause this paint to be disturbed. In order to minimize exposure to lead-based paint dust, please consult [www.epa.gov/lead](http://www.epa.gov/lead) for more information.

[www.kolbewindows.com](http://www.kolbewindows.com)

#### NOTICE

Proper installation and periodic home maintenance of Kolbe windows & doors is essential for upholding and sustaining the quality of our products. Failure to install and maintain our product according to these instructions will void any warranty, written or implied. The installer is responsible for consulting the contractor, structural engineer, architect, or consumer, for proper installation according to local codes and/or ordinances.

#### ⚠ WARNING

Proper Eye and Hearing Protection must always be worn when installing, removing or performing adjustments to Kolbe window and door products.

#### ⚠ WARNING

Improper use of hand/power tools could result in personal injury and/or product damage. Follow manufacturer's instructions for safe operation of equipment.

#### NOTICE

Before applying sealant or adhesive pads, make sure the area to be sealed is clean, dry, and frost-free. Use color-matching or transparent sealant. Photos show contrasting sealant for clarity and demonstration only.

#### NOTICE

Some codes require the use of pressure-treated lumber to line the rough openings. Corrosion resistant materials, such as stainless steel or hot-dip galvanized steel, must be used for fasteners and anchors having direct contact with pressure-treated lumber.

#### ⚠ CAUTION

Follow the flashing manufacturer's application instructions. Any flashing material used on Kolbe products must be compatible with solid and plasticized PVC.

### INTRODUCTION

These instructions are for installing Kolbe's Ultra Series Pivot Doors into a wood or concrete/masonry wall. The rough opening must be lined with a 1-1/2" (38mm) thick wood buck. Contact your Kolbe window and door supplier for information on installing into other wall conditions. Please visit our website at [www.kolbewindows.com](http://www.kolbewindows.com) for additional literature and information. For simplicity, only extruded aluminum units are shown in pictures throughout the instructions.

### ITEMS REQUIRED BY INSTALLER

- Hearing protection device
- Sealant
- Level
- Hammer
- Tape Measure
- Power Drill
- Fiberglass Insulation
- 10d Finishing Nails
- 7/64" drill bit
- 3/32" drill bit
- 5/8" drill bit
- Safety glasses/goggles
- Caulk gun
- Square
- Shims
- Phillips/Flat head screwdriver
- Flashing tape
- Putty Knife
- 3/16" drill bit
- 1/8" drill bit
- 9/64" drill bit

For temporary nailing through the nailing fin:

- 1-1/2" (38mm) or longer galvanized roofing nails

For installation technique 1:

- Kolbe installation clips
- #8 x 3/4" (19mm) phillips flat head screws
- #8 x 1-3/4" (44mm) phillips flat head screws or 8d common nails

For installation technique 2:

- #10 x 2-1/2" (64mm) phillips flat head screws

### PRELIMINARY PREPARATION

Opening preparation information is provided to the distributor when an order for a pivot door is received. Check to make sure the opening is properly prepared before starting the installation of a pivot door. Remove any shipping packaging, skid plates, or factory applied bracing. Make sure the unit is not damaged, and the dimensions are appropriate for the rough opening.

#### PREPARE ROUGH OPENING:

1. The material/lumber quality and fasteners must be structurally adequate for design load requirements.
2. Typically the rough opening should be sized 1/2" (13mm) wider and 1" (52mm) higher than the outside measurement of the door frame. Masonry opening should be sized 1/2" (13mm) wider and 1/4" (6mm) higher than the cladding/exterior casing (verify sizing with local building code requirements).
3. The rough opening must be plumb, square, level and in plane.
4. Individual construction members should not be twisted.
5. The floor beneath the unit must be perfectly level for proper unit operation.

#### ⚠ CAUTION

When installing on a concrete floor, first install a subfloor to ensure a level surface. The subfloor should be caulked and fastened to the concrete. Use a caulk rated for adhesion to concrete. When installing into a wall with exterior rigid foam insulation panels, place solid blocking material behind the brickmould/nailing fin to provide proper support when fastening the unit into the provided opening.

## SELECT INSTALLATION TECHNIQUE

These techniques are general guidelines only, and may not be appropriate for all performance requirements. See the Installation Anchor Calculator on our website to help determine whether to use Installation Clips or to Screw Through the Frame. Kolbe recommends using installation clips for units with exterior trim, and units in high wind pressure locations. Screwing through the frame may be required with some mullion situations.

If using installation clips, fasten the clips to the frame head and sides now. Use two #8 x 3/4" (19mm) Phillips flat head screws (provided by other) per clip and follow the spacing determined by the Installation Anchor Calculator. For more information, see the instructions provided with your Kolbe installation clips.

## SEALANT AND FLASHING

Kolbe recommends following ASTM E 2112 guidelines for sealing and flashing exterior windows. Maintain a gap of at least 1/4" (6) between the window frame and the rough opening structure. Create a proper seal between the window and the building exterior. For more details, see our pamphlets *Sealant Information* and *Flashing Information*. These publications are available from your Kolbe window and door supplier or visit [www.kolbewindows.com](http://www.kolbewindows.com) to download a copy.

### ⚠ IMPORTANT

Be sure all points where the casing meets the side jamb(s) and sill nosing are sealed on the backside of the unit.

#### Apply sealant to unit

See Fig. 1, 2 or 3 based on your unit configuration for proper sealant placement. Sealant is not shown as continuous for illustration purposes only.

#### Units with Nail Fin only or Heritage (wood) Units with Brickmould:

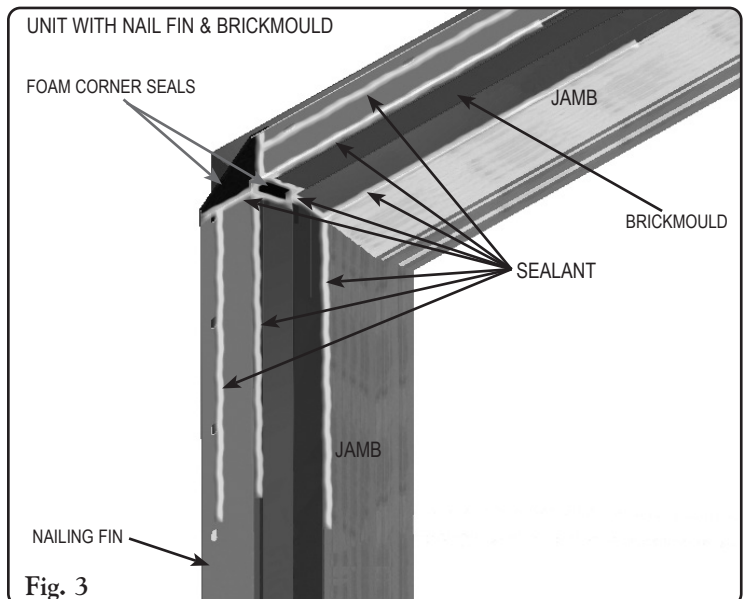
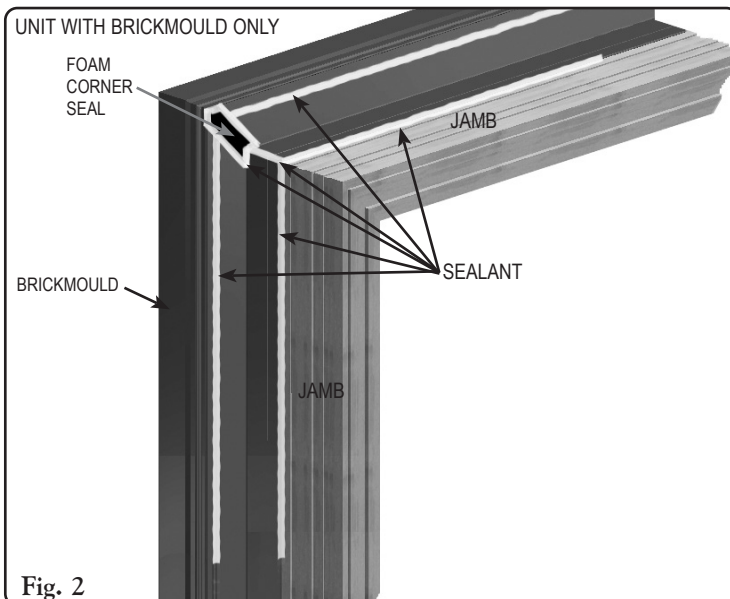
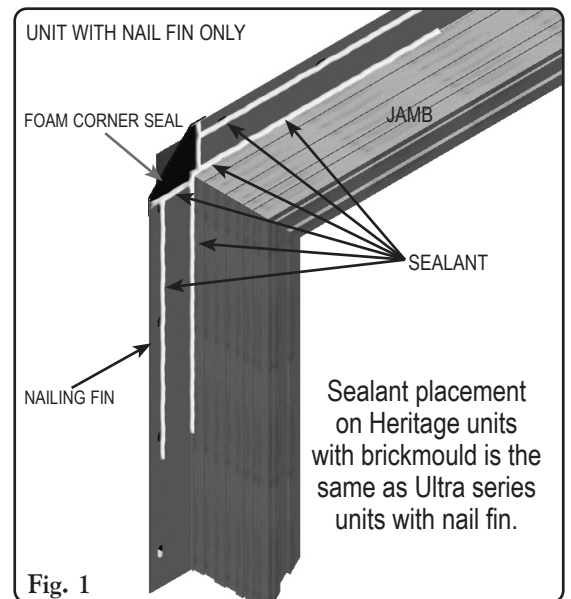
See Fig. 1. Apply two 3/16" (5mm) continuous beads of sealant around the perimeter on the backside of the nail fin as shown in Fig. 1. Also, apply sealant to the edges of the foam corner seal.

#### Units with Brickmould only:

See Fig. 2. Apply two 3/16" (5mm) continuous beads of sealant around the perimeter on the backside of the brickmould as shown in Fig. 2. Also, apply sealant to the edges of the foam corner seal.

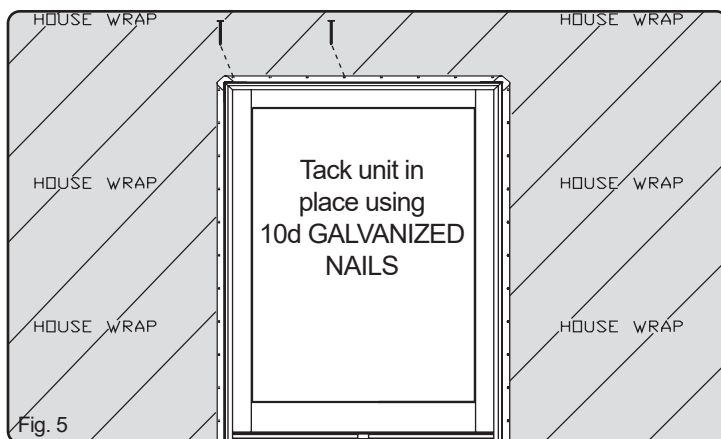
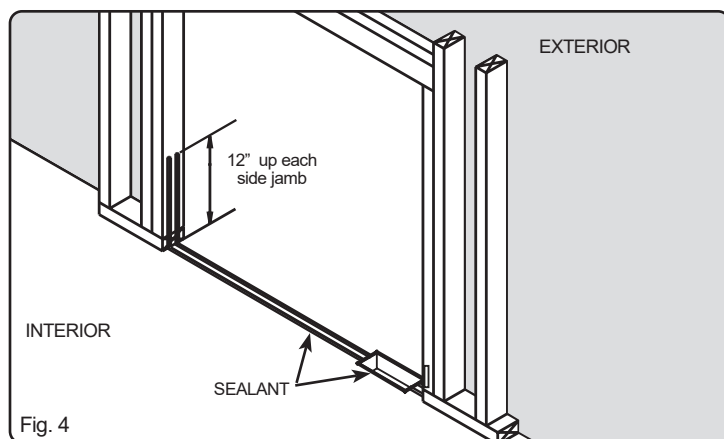
#### Units with Nail Fin & Brickmould:

See Fig. 3. Apply three 3/16" (5mm) continuous beads of sealant around the perimeter on the backside of the brickmould and nail fin as shown in Fig. 3. Also, apply sealant to the edges of the foam corner seals.



### Apply sealant to rough opening sill

See Fig. 4. Run two 3/8" (10mm) diameter beads of sealant across the entire length of the subfloor, around the recessed opening and up each side jamb a minimum of 12" (305mm), allowing the sealant to pool in the corners. Locate the beads of sealant on the subfloor so they are directly under the thermal break(s) or a leg on the sill of the door frame when installed.



## INSTALL UNIT IN ROUGH OPENING

### Place unit in rough opening

From the exterior, tilt the unit, sill first into the opening. Center the unit and press the brickmould or nailing fin against the sheathing.

### Temporary fastening for units with Nailing Fin (units without nailing fin, skip to checking for square section)

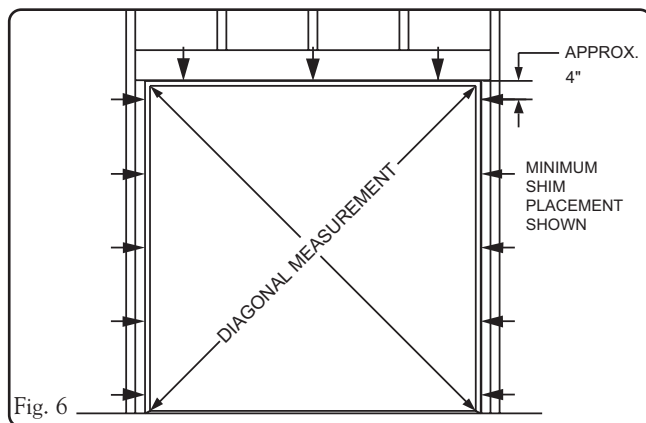
See fig. 5. Tack the unit in place using one 1-1/2" (38mm) or longer galvanized roofing nails (provided by other) in the first pre-punched hole from each corner/end of the nailing fin to tack unit in place. Plumb, level and square the unit in the opening (see checking for square), then use 1-1/2" roofing nails in every third hole (approximately 10-1/2" (267mm) on center) along the head and sides. Do not drive the nail head in too far, as doing so could compress and warp the nailing fin.

### Checking for square

See fig. 6. To check that the unit is square, measure both diagonals from the interior, the measurements must be within 1/16" (2mm) of each other. The height of the frame at the center must be the same as the height at each end. The margins around the door should be even. Add shims if necessary to square the unit in the opening.

### Shimming

See Fig. 6. At a minimum shims should be placed along the head and side jambs at 4" (102mm) from the corners/ends and every 12" (203mm) between. When using installation clips one shim should be placed above each installation clip between the frame and rough opening. Shimming ensures correct margins, parallel jambs, a level unit, and proper operation. Do not bow the jambs by over shimming.

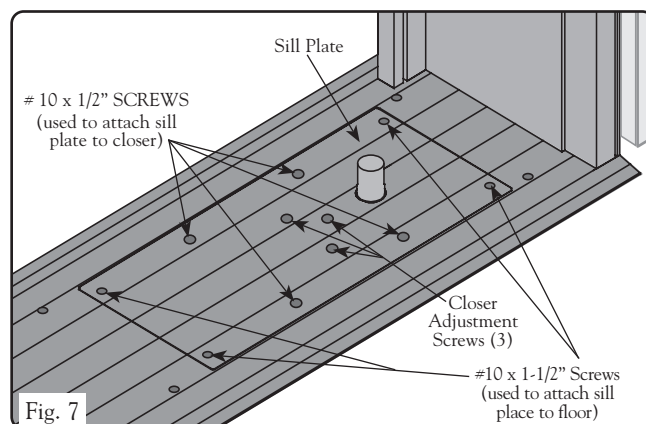


### Place floor closer

Place the Rixon floor closer (pivot body) in the recessed opening in the subfloor using the instructions provided with the Rixon floor closer. Remove the four temporarily installed #10 x 1/2" (13mm) screws from top of pivot body.

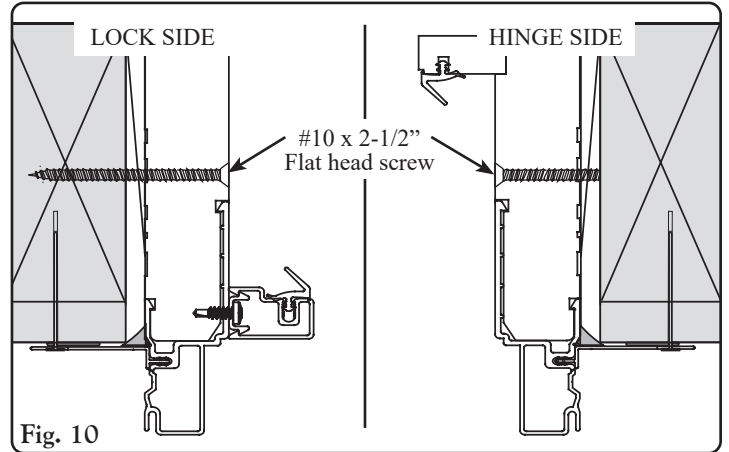
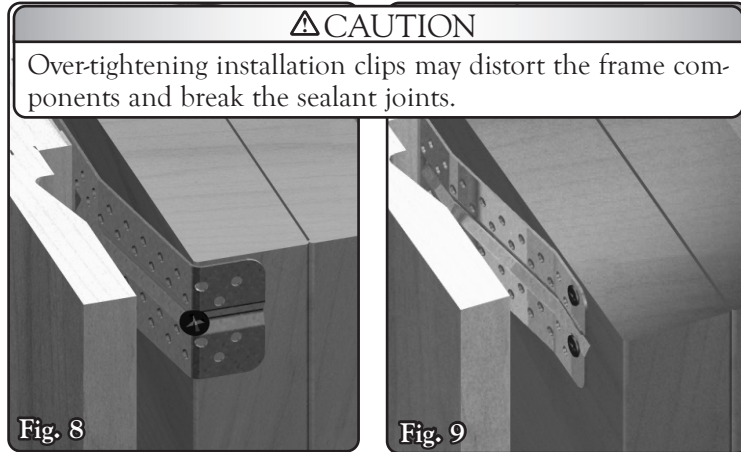
### Securing the Sill

See Fig. 7. Place the sill plate over the pivot body and place a dab of sealant in each pre-drilled screw hole. Secure the sill plate in place using the provided #10 x 1/2" (13mm) and #10 x 1-1/2" (39mm) Phillips flat head stainless steel screws. The #10 x 1/2" screws secure the sill plate to the pivot body and the #10 x 1-1/2" screws secure the sill plate to the floor.



### Secure head and side jambs using INSTALLATION CLIPS (recommended method)

See Fig. 8 or 9. Place a shim between the frame and rough opening above each installation clip to prevent bowing. Starting with an interior upper corner, hammer bend the clip(s) as shown in Fig. 8 or do a face mount as shown in Fig. 9 around the rough opening frame and fasten with one #8 x 1-3/4" (44mm) SMS (provided by other) or two 8d common nails (provided by other) at a 20° angle through the pre-punched holes at the hammer-bend within 1/8" of buck corner or two #8 x 1-1/4" (32mm) SMS (provided by other) for face mounted clips. Continue around the perimeter, making sure the jambs are straight and the unit is square.

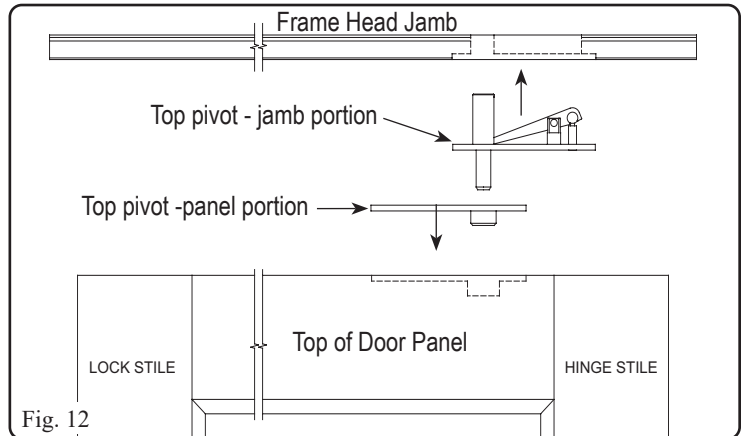
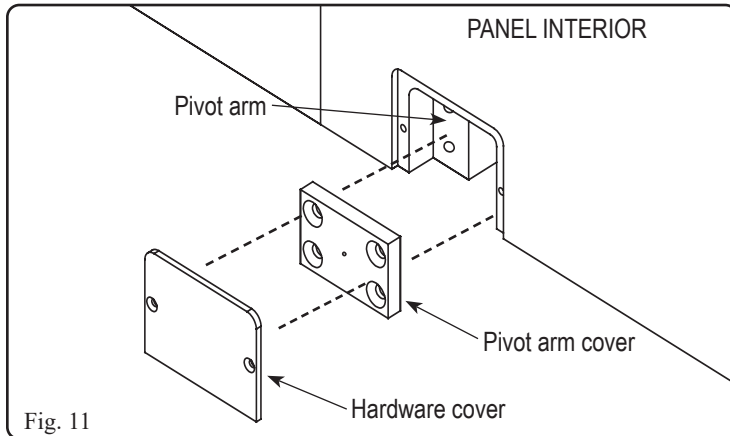


### Secure head and side jambs using SCREW THROUGH THE FRAME (alternate method)

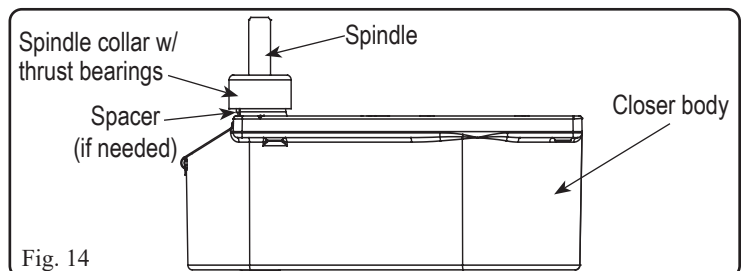
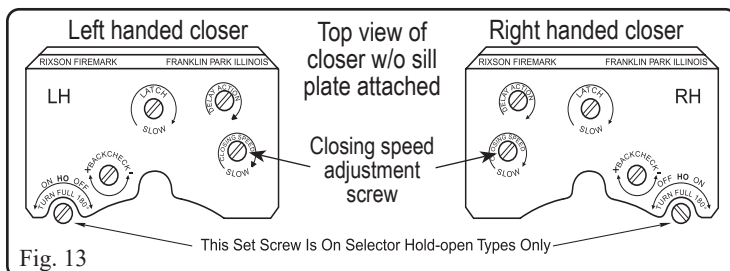
See Fig. 10. Use the installation anchor calculator to determine proper screw spacing and shim location. Predrill and countersink 9/64" (4mm) diameter lead holes through the head and side jambs at each shim location. Fasten through the door frame and into the rough opening with a #10 x 2-1/2" (64mm) flat head screw at each hole location.

## DOOR PANEL INSTALLATION

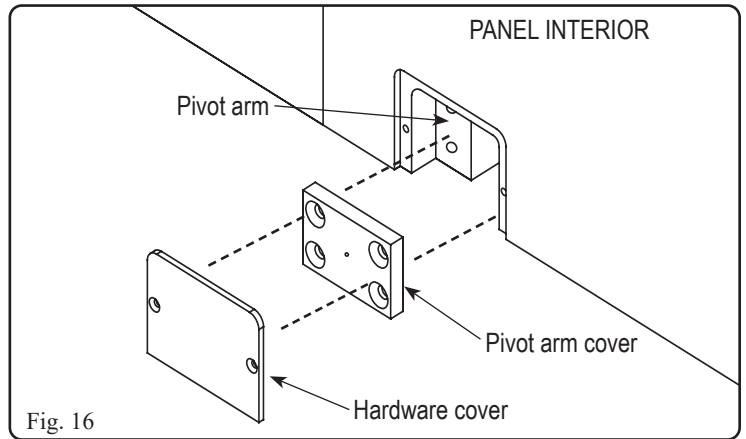
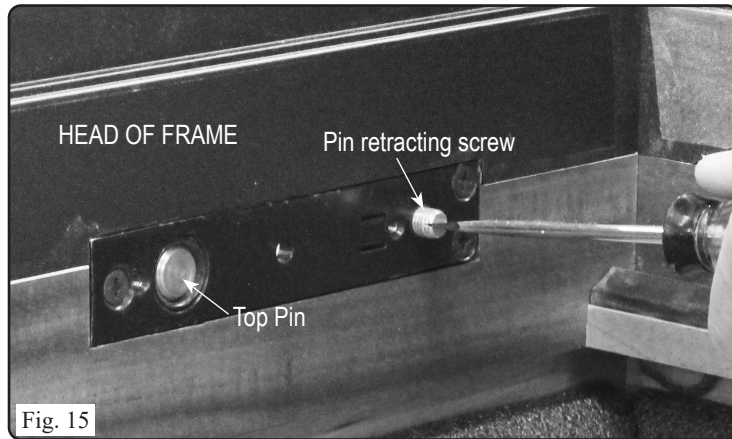
- See Fig. 11. On the interior bottom of the door panel, carefully remove the hardware cover and pivot arm cover (if applicable).
- See Fig. 12. Install Rixson hardware in routes on panel and frame head jamb (if not factory installed).



- See Fig. 13. Adjust closing speed on pivot body (so spindle will stay the open position during panel installation) by rotating closing speed adjustment screw clockwise. (For more information on adjustments, refer to the instructions sent with the closer from Rixson.)
- See Fig. 14. Using a wrench, turn the spindle to open door rotation. Slide the spacer (if needed) and spindle collar w/ thrust bearings onto spindle.



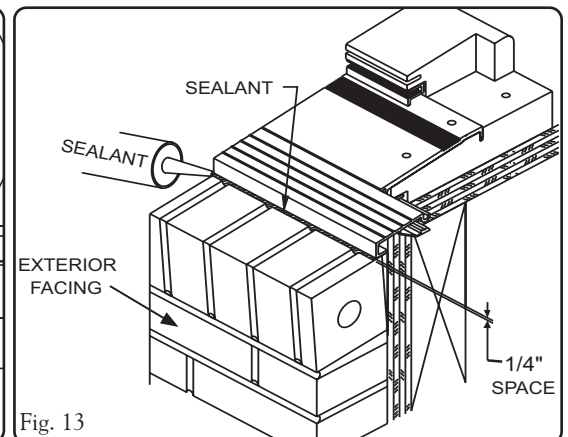
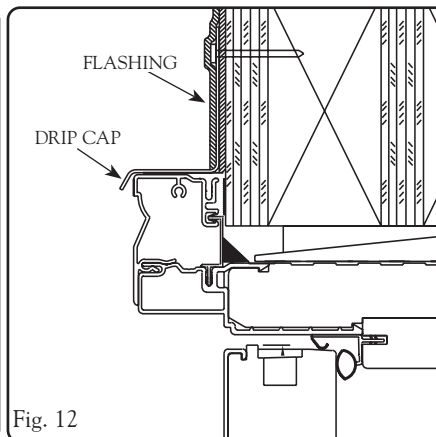
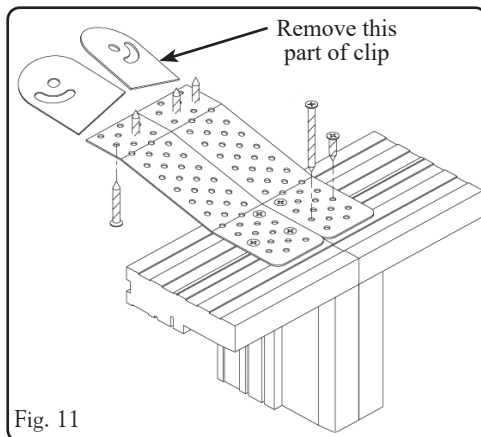
- See Fig. 15. At the frame head, retract the top pivot pin by turning the pin retracting screw counterclockwise.
- Slide door on spindle. DO NOT ATTEMPT TO CLOSE DOOR. Attach pivot arm cover, but do not tighten.
- Line up the top pivot in the top of the door panel with the top pivot in the frame and turn the pin retracting screw clockwise to engage the pin.
- See Fig. 16. Tighten the pivot arm cover and attach the hardware cover.
- Open door to 60° or more, on the sill open the screw valve by turning adjustment screw counterclockwise. Door will then close. *(For more information on adjustments, refer to the instructions sent with the closer from Rixson.)*



## ADDITIONAL ANCHORING

### Additional anchoring requirements for Muller Units

See Fig. 11. Combination and/or Integral mulls require the use of Gemini Anchorage System at the top of each muller unit. For more details, see our Installation Clip Instructions. These publications are available from your Kolbe supplier or visit our website at [www.kolbewindows.com](http://www.kolbewindows.com) to download a copy.



## COMPLETING THE EXTERIOR

See Fig. 12. A drip cap must be installed/applied to direct water away from the window. *(This is required by most building codes and a requirement of proper installation for all kolbe products.)* If a drip cap has not been applied, apply now. Seal the side ends of the drip cap to the window. Seal between the drip cap and the exterior sheathing. When using building paper to cover the exterior sheathing, also seal the paper to the drip cap.

See Fig. 13. Apply a 3/16" (5mm) bead of sealant to the inside corner created by the bottom of the sill and face of the exterior sheathing. Secure a support block up underneath the sill.

### IMPORTANT

See Fig. 13. A 1/4" (6mm) minimum gap between the door perimeter and framing materials, should be provided when using brick, stone, marble or concrete as an exterior facing. This will provide for any movement or settling of the structure, which could affect operation of the unit. The gap should be spanned by an appropriate sealant joint.

## HARDWARE INSTALLATION

Follow the manufacturer's instructions provided with the locking hardware and handle set for proper installation. Install handles, gaskets, escutcheons and key cylinders as required.

## INSULATION & INTERIOR CASING/TRIM

Kolbe recommends installing fiberglass insulation in the void created by the outer perimeter of the door frame and rough opening members. Using a putty knife, loosely fill the entire depth of the gap with insulation. Apply the interior casing. **Foam insulation may be used, but it must be a low expanding type foam. Use of any foam other than low expanding foam will void the warranty.** Follow the manufacturer's instructions for proper application of the foam.

### ⚠ CAUTION

Over-packed insulation can lessen the insulation effectiveness and distort the frame, resulting in poor panel operation.

## EXTERIOR & INTERIOR FINISHING

Exterior: Fill any voids created by fasteners used in securing the primed unit to the building structure using an exterior wood filler. Sand wood filler flush and scuff remaining exterior primed wood surfaces prior to applying exterior top coat. Primed wood and metal must remain dry and finishing should be completed immediately. See our pamphlet *Finishing Recommendations* for more information.

### IMPORTANT

To maintain the K-Kron II finish warranty, any surface penetration of the finish film of the K-Kron II surface must be sealed with a color-matched or clear sealant. See the finish warranty for details.

Interior: Finish bare wood interiors immediately using a top quality stain, sealer and/or polyurethane varnish. On factory primed interiors, apply a quality top coat system. See our pamphlet *Finishing Recommendations* for more information.

### IMPORTANT

Avoid getting finishing products on any vinyl components and weatherstripping.

## MAINTENANCE TIPS / PROCEDURES

Inspect your Kolbe products periodically/yearly to see if the exterior sealants and/or finishes have any gaps, cracks or signs of damage and deterioration. Any cracks must be caulked immediately with a high quality sealant, to maintain the seal integrity of the paint finish and to prevent infiltration of water and air. See our pamphlet *Maintenance Guide* for more information.

## CLEANING

A quarterly cleaning with a mild soap and sweet water (tap water) solution is recommended for the panels and frames, (all extrusions on Ultra Series products); then rinse. (Cleaning on units in high salt spray areas requires a monthly cleaning and rinse. Clean glass with any standard glass cleaner, keeping it from running down the panel onto the frame and weatherstrip.

### ⚠ CAUTION

Do not pressure wash!

## HARDWARE

Check all fasteners, making sure all hardware is properly secured. The hardware can be lubricated with a Teflon® or a Teflon®/silicone spray. Lubricate the key hole, if supplied.

## INSULATING GLASS

Broken or fogged IG units, requiring re-glazing or replacement should be referred to your Kolbe window & door supplier.

### NOTE

Kolbe's standard H°K insulating glass has a LoE coating on surface two (2). It does not match clear glass or other LoE products. Do-it-yourself reg-lazing/replacing without Kolbe & Kolbe's permission, will void the product's warranty.

## RECYCLING

Care must be taken to properly recycle or dispose of old materials. Any recyclable materials should be separated from non-recyclable or hazardous materials. Please consult with local or state authorities regarding proper disposal of non-recyclable or hazardous materials.

Contact your Kolbe Window & Door supplier or visit us at [www.kolbewindows.com](http://www.kolbewindows.com) for further information.

THANK YOU FOR PURCHASING KOLBE PRODUCTS.

Kolbe & Kolbe Millwork Co, Inc. reserves the right to change specifications without notice.

© 2020 Kolbe & Kolbe Millwork Co., Inc.

**5177200 2/20**