

KOLBETM

WINDOWS & DOORS

VISTALUXE OUTSWING & INSWING ENTRANCE 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 for more information.

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.

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.

⚠ WARNING

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

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.

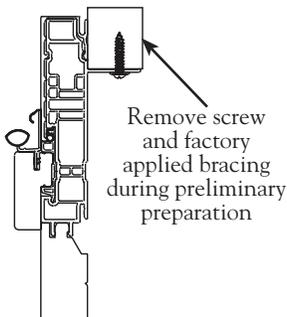
⚠ WARNING

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

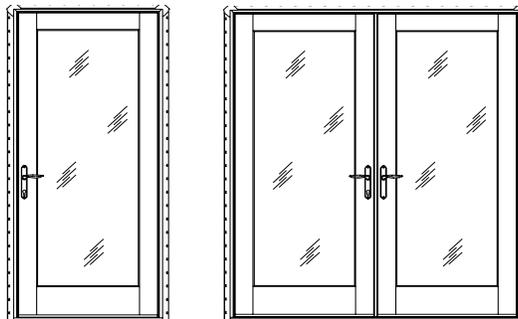
⚠ CAUTION

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

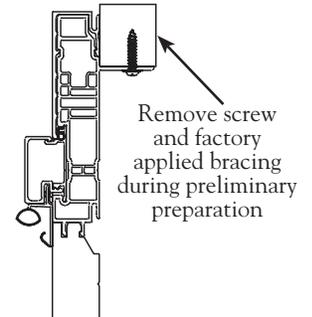
Outswing Entrance Doors



Elevation Drawings



Inswing Entrance Doors



INTRODUCTION

These instructions are for installing VistaLuxe Outswing and Inswing Entrance 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 for additional literature and information.

ITEMS REQUIRED BY INSTALLER

- | | | |
|--|--|--|
| <ul style="list-style-type: none"> • 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 | <ul style="list-style-type: none"> • 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 | <p>For temporary nailing through the nailing fin:</p> <ul style="list-style-type: none"> • 1-1/2" (38mm) or longer galvanized roofing nails <p>For installation technique 1:</p> <ul style="list-style-type: none"> • Kolbe installation clips • #7 x 5/8" (16mm) phillips flat head screws • #8 x 1-3/4" (44mm) phillips flat head screws or 8d common nails <p>For installation technique 2:</p> <ul style="list-style-type: none"> • #10 x 2-1/2" (64mm) phillips flat head screws |
|--|--|--|

PRELIMINARY PREPARATION

Remove any shipping packaging, skid plates or factory applied bracing by removing the screws through the nailing fin, see profile pictures above. 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 1/2" (13mm) 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 clad nosing/ 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.

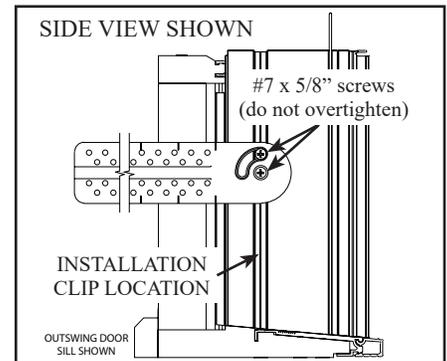
⚠ CAUTION

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 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.

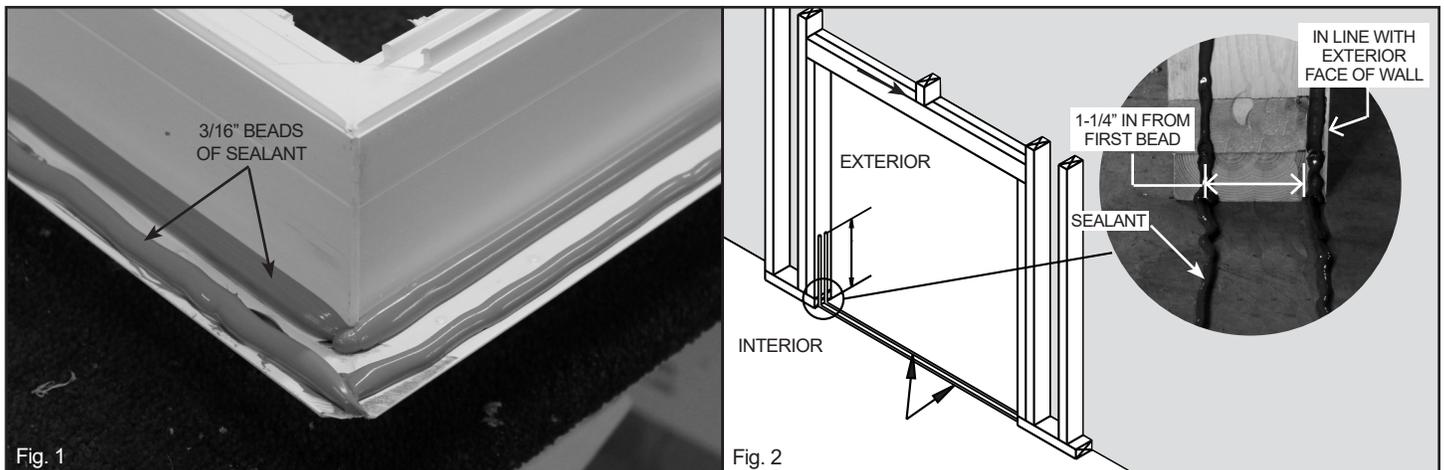
If using installation clips, fasten the clips to the frame head and sides now. Use two #7 x 5/8" (16mm) Phillips flat head screws (provided by other) per clip and follow the spacing determined by the *Installation Anchor Calculator*. For more information, see the instructions provided with your Kolbe installation clips.



SEALANT AND FLASHING

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

See Fig. 1. Apply two 3/16" (5mm) diameter beads of sealant around the perimeter of the unit on the backside of the nailing fin as shown in the pictures below.



Apply sealant to rough opening sill

See Fig. 2. Run two 3/8" (10mm) diameter beads of sealant across the entire width of the subfloor and up each side jamb a minimum of 12" (305mm), allowing the sealant to pool in the corners. Run the first bead in line with the exterior face of the wall, and run the second bead 1-1/4" (32mm) in from the first bead.

INSTALL UNIT IN OPENING USING INSTALLATION CLIPS

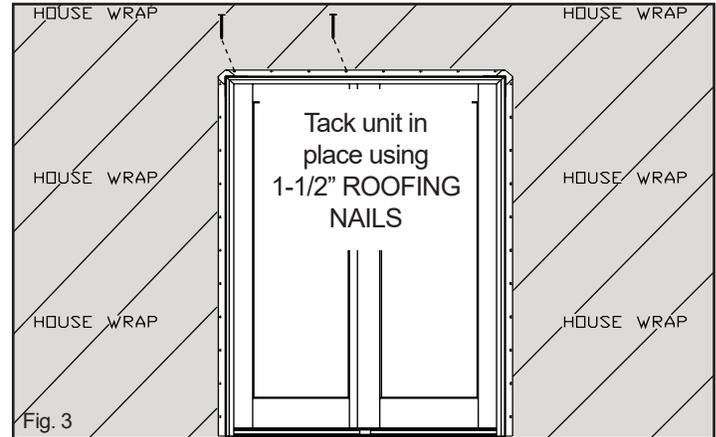
If using screw through the frame installation, skip to the install unit in opening by screwing through the frame section now.

Place unit in rough opening

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

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

See Fig. 3. 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.

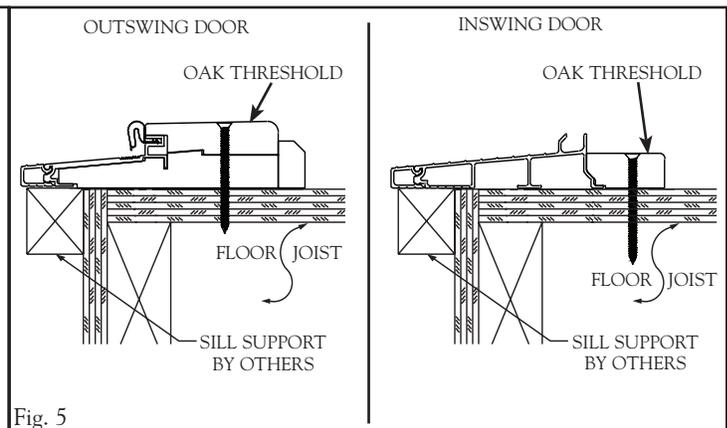
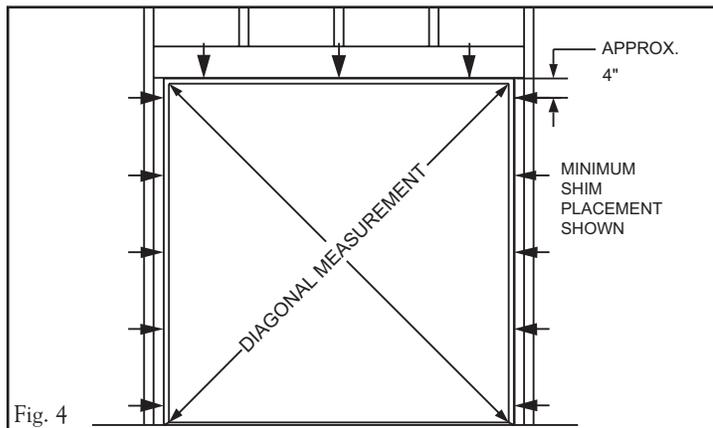


Checking for square

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. 4. 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. Be sure to place shims under the hinges on the hinged side jamb.



Securing the Sill

See Fig. 5. In order to secure the sill, you must first remove the screws at each end of the oak threshold and every other screw in between (remove all screws on High Performance units). French doors should have 2 screws fastened into the oak threshold at the center of the sill.

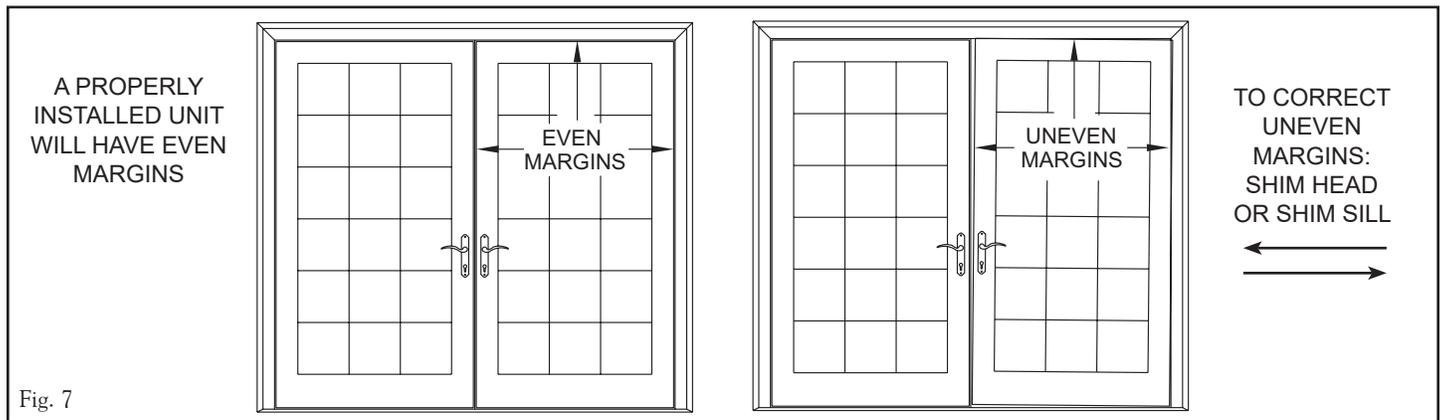
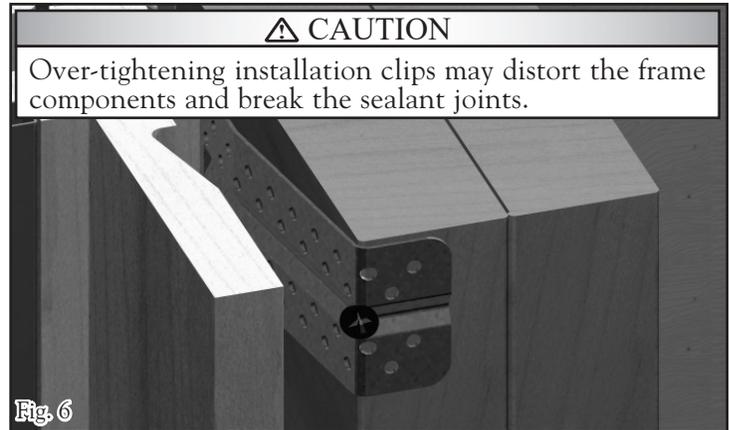
Drill a 3/16" (5mm) clearance hole through the existing hole locations. The hole should pass through the oak threshold and sill, stopping short of the underlying floor system. A 7/64" (3mm) lead hole should then be drilled through the clearance hole into the underlying floor system. Drill a 3/16" (5mm) hole when anchoring sill into a concrete floor.

Place a dab of sealant into each screw hole prior to installing screws, in order to prevent any penetration of water that may get on the sill. Complete by installing a #10 x 3" (78mm) Phillips flat head stainless steel screw into each of the pre-drilled holes.

Secure unit in opening

See Fig. 6. Place a shim between the frame and rough opening above each installation clip to prevent bowing. Starting with an interior upper corner, bend clips around the rough opening frame and fasten using one #8 x 1-3/4" (44mm) Phillips flat head screw or two 8d common nails (provided by other). Continue around the perimeter, making sure the jambs are straight and the unit is square.

See Fig. 7. When viewing from the interior make sure the margins between the inside of the frame and outside of the panel are consistent. This can be performed through proper shimming.



INSTALL UNIT IN OPENING BY SCREWING THROUGH THE FRAME

Place unit in rough opening

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

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

See fig. 3, previous page. 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 unit in opening, 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. 4, previous page. 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. 4, previous page. 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 screw through the frame installation one shim should be placed behind each marked screw location 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.

Securing the Sill

See Fig. 5, previous page. In order to secure the sill, you must first remove the screws at each end of the oak threshold and every other screw in between (remove all screws on High Performance units). French doors should have 2 screws fastened into the oak threshold at the center of the sill.

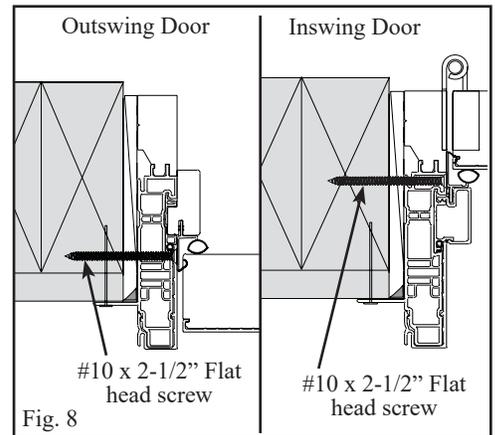
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Place a dab of sealant into each screw hole prior to installing screws, in order to prevent any penetration of water that may get on the sill. Complete by installing a #10 x 3" (78mm) Phillips flat head stainless steel screw into each of the pre-drilled holes

Secure unit in opening

See Fig. 8. Use the installation anchor calculator to determine proper screw spacing. Lift the side jamb weatherstrip, then 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.

See Fig. 7, previous page. When viewing from the interior make sure the margins between the inside of the frame and outside of the panel are consistent. be performed through proper shimming.



ADDITIONAL ANCHORING REQUIREMENTS

Anchoring at the Hinges (The following should be performed on units with hinges applied to the door frame.)

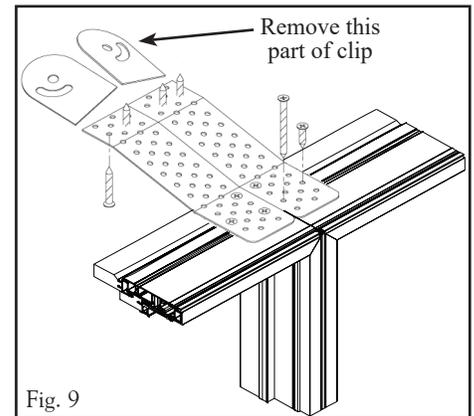
Remove the two (2) center screws from the top and bottom hinges and one (1) screw from the center of the remaining hinges. Next, at each of the previous screw locations, drill 3/16" (5mm) lead holes into the side jamb and shims, stopping short of the rough opening. **Note: Shims are required at all hinge locations.** Proceed by installing a #9 x 3" (78mm) Phillips flat head screw into each of the pre-drilled screw locations.

Anchoring at the Hinges (for units with steel mull only):

Units with a steel mull require drilling and tapping the steel prior to installing machine screws. Please see the **Mull Instructions** sent with your unit for detailed specifications.

Anchoring at the Strike Plate (The following should be performed on units with strike plates applied to the door frame.)

Remove the strike plate from the frame. (The strike plate is the metal plate located on the side jamb which accepts the lock tongue, when engaged.) Drill a 9/64" (4mm) lead hole through the jamb and shims, making sure to place it so that it will be concealed after replacing the strike plate. You will need to countersink the lead hole. This will allow the strike plate to be replaced without the head of the screw making contact with the back surface. Install a #10 x 2-1/2" (64mm) phillips flat head screw into the pre-drilled hole. Replace the strike plate.



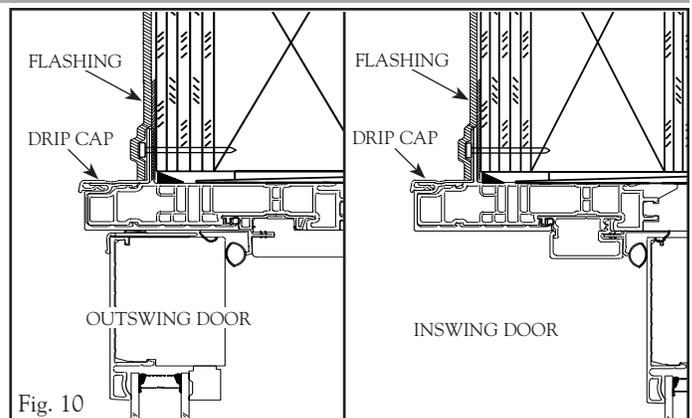
Additional anchoring requirements for Mullled Units

See Fig. 9. Combination mullers require the use of Gemini Anchorage System at the top of each mullled 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 to download a copy.

COMPLETING THE EXTERIOR

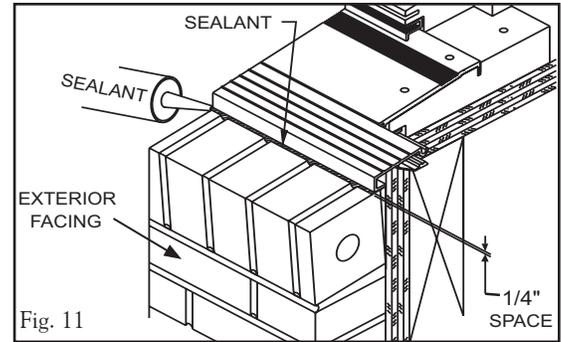
See Fig. 10, above. A drip cap must be installed/applied to direct water away from the window. (This is required by most building codes and a requirement of proper installation for all Kolbe products.) If a drip cap has not been applied, apply now. Seal the side ends of the drip cap to the window. Seal 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.

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 (Fig. 11, next page).



IMPORTANT

See Fig. 11. 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.



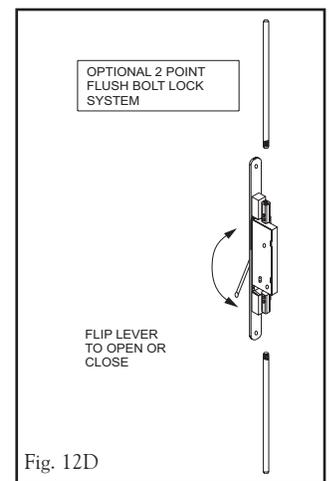
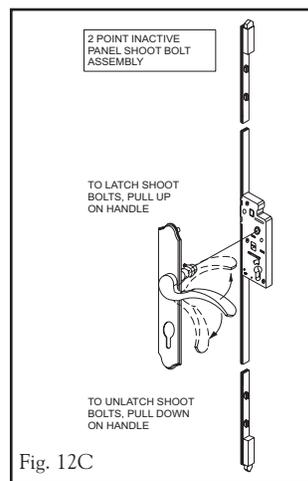
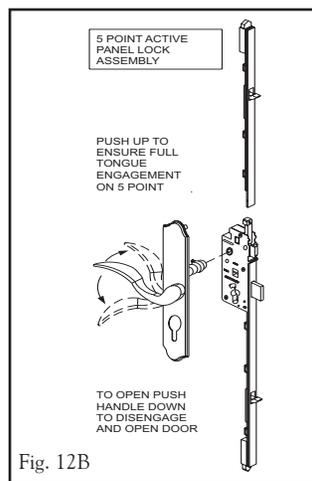
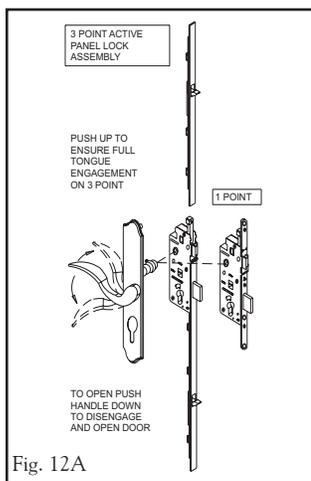
HARDWARE INSTALLATION

Review supplemental installation instructions provided with the handle set. Install handles, gaskets, escutcheons and key cylinders as required.

French style door units consist of an active panel, which is utilized as the primary panel, and includes a secondary operable "inactive" panel. Non-french units consist of one panel operating and one fixed panel in a single frame.

See Fig. 12A, B, C & D. Active panels are available with either a one point lock, consisting of a latch bolt and a dead bolt at the handle elevation, or a three-point lock having the same latch and dead bolt at the handle elevation plus two additional latches (tongues). Tongues are located at the head and base of the active door panel stile (Fig. 12A). A five point lock system contains the locking points of a three point, in addition to two shoot bolts, one located at each end of the inactive panels locking stiles (Fig. 12B). Three and five-point locks systems are manual as standard. To latch the top and bottom tongues, the door must be closed and the handle must be lifted to its full upright position. This will engage the tongues into the strike plates. Only at this point can the dead bolt be utilized.

The inactive panel of a french door unit is provided with one of three (3) locking options: a two-point shoot bolt (Fig. 12C), two-point flush bolts (Fig. 12D). (*Generic handle shown - for illustration purposes only.*)



Contact your Kolbe supplier for additional information about these options.

Units supplied with either of the two-point lock systems listed above have factory applied strike plates at the head and sill frame that allow for final adjustments in the field.

NOTE

If the shoot bolts on the two-point system are not locked with the key cylinder on the inactive panel, the panels may be opened at any time, regardless of the active panel being locked.

NOTE

French style doors supplied with flush bolts on the inactive panel require a one-point lock on the active panel. When the active panel is supplied with a three-point lock a two-point flush bolt lock must be used on the inactive panel. The combination of the five-point and the two-point shoot bolt locks on French door units are referred to as a seven-point High Performance lock option.

ADJUSTMENT OF HEAD & SILL STRIKE PLATE

To determine if the strike plate is properly aligned, close the door panels. The exterior face of the door panel should be evenly set back from the face of the frame exterior. The sill strike plate should be temporarily secured at a distance of 13/16" (21mm) in from the face of the sill nosing. Close panel(s) and check weatherstrip for proper compression (light should not be visible around the door panel). If the panels are not in proper alignment, adjust strike plate(s). This can be performed by backing out the screw in the slotted hole(s) of the strike plate, see **Fig. 13**.

Once proper positioning has been determined, re-seat the screw(s) in the strike plate. Pre-drill the sill, through remaining holes, with a 3/16" (5mm) diameter clearance hole. Then drill a 7/64" (3mm) lead hole into the underlying floor system through the clearance hole. Apply a bead of sealant to each of the holes and lock the strike plate in place with the #10 x 3" (78mm) phillips flat head screw (Fig. 14). Make sure all screw heads are properly seated.

Installer must drill a 5/8" (16mm) diameter hole in the sill and head jamb. It must be drilled to a depth of 5/8" (16mm) in the head jamb and 3/8" (10mm) into the sill.

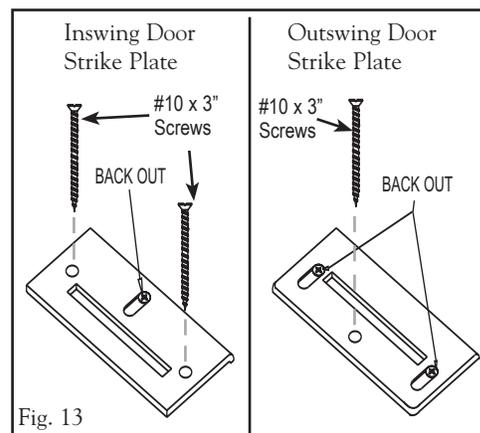


Fig. 13

CAUTION

Do not over tighten the sill strike plate screws as this may distort the sill members and break the underlying sealant bead.

ADJUSTMENT FOR THE ADJUSTABLE HINGE

IMPORTANT

The adjustable hinge option is not offered as a means of correcting a unit that has been improperly installed.

IMPORTANT

The hinge pin on the adjustable hinge is not removable. To remove the door panel from the frame, the hinges must be unscrewed and removed from the door panel or the frame.

A set of adjustable hinges consists of one (1) or two (2) set hinges and two (2) guide hinges, depending on the height of the door panel. The range of adjustment is approximately 1/8" (3mm) vertically and 1/8" (3mm) horizontally. In the event that the unit has been installed with unequal or poor margins, minor adjustments may be made.

See **Fig. 14**. To do a vertical adjustment on the set hinge, carefully remove the finial cap from the bottom of the hinge pin (use a putty knife or flat head screwdriver for brass or painted hinges if needed). Using a 3/16" (5mm) Allen wrench turn the adjustment screw clockwise (tighten screw) to move the panel up and turn the screw counterclockwise (loosen screw) to move the panel down until the panel is properly adjusted. If the unit has four hinges it will have two (2) set hinges, which requires both hinges be adjusted simultaneously and at the same increments to prevent the hinges from binding. Once you are done doing adjustments re-apply the finial cap.

See **Fig. 15**. To do a horizontal adjustment on the guide hinge, fully open the door panel and look for the adjustment screw on the face of the sash leaf. Using a 3/16" (5mm) Allen wrench, turn the screw until the proper margin has been obtained. By turning the screw clockwise a larger margin at the hinge side of the panel is created. A counter-clockwise direction will decrease the margin. Be sure to adjust both hinges by the same increments to prevent the hinges from binding.

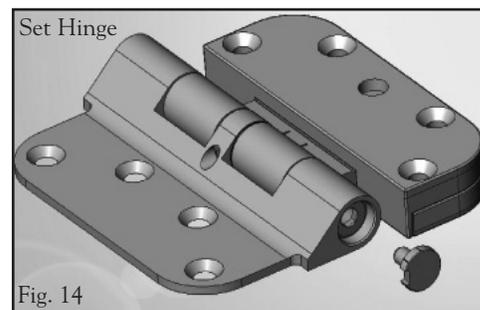


Fig. 14

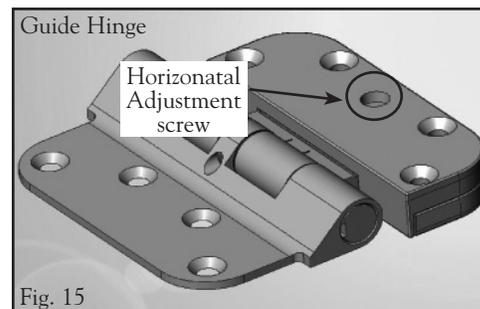


Fig. 15

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.

⚠ CAUTION

Over-packed insulation can lessen the insulation effectiveness and distort the frame, resulting in poor panel operation. If you are using a foam type insulation, it must be a low expansion type foam and used in conjunction with fiberglass insulation. Follow the manufacturer's instructions for proper application of the foam.

INTERIOR FINISHING

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; 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 reglazing 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 reglazing/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 for further information.

THANK YOU FOR PURCHASING KOLBE PRODUCTS.

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

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KOLBE™

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**VISTALUXE
OUTSWING & INSWING
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INSTALLATION
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www.kolbewindows.com