

Elevate Inswing French Door

Installation Instructions

ABSTRACT: Read these instructions thoroughly before beginning to install your Elevate Inswing French Door. Failure to install as recommended will void any warranty, written or implied. Regional applications and standards may vary, therefore Marvin Windows and Doors is not responsible for interpretations of local codes and/or ordinances. Installation of Marvin products is the sole responsibility of the installer, contractor, structural engineer, architect, building owner and/or consumer. After installation is completed, these instructions should be retained by the building owner. For additional information, consult your local Marvin Windows and Doors dealer.

ATTENTION

Specifications and technical data are subject to change without notice.



Table of Contents

Hazard Notations	2
Before You Begin	3
After Market Products	3
Installer and Builder Information	4
Technical Installation Specifications.....	4
You Will Need to Supply	5
Standard Parts Shipped	6
Permanently Fasten the Door	7
Final Installation Procedures	9
Final Sealing Procedures	10
Handle Operation	11
Locking the Door	11
Unlocking the Door	11
Hinge Adjustment.....	12
Adjusting the Hinge	12
Masonry and High Performance/IZ3 Unit Installation.....	14

Hazard Notations

WARNING!

Always practice safety! Wear the appropriate eye, ear, and hand protection, especially when working with power tools.

WARNING!

This product can expose you to chemicals including titanium oxide, which is known to the state of California to cause cancer. For more information, go to www.P65Warnings.ca.gov.

WARNING!

This product can expose you to chemicals including methanol, which is known to the state of California to cause birth defects or other reproductive harm. For more information, go to www.P65Warnings.ca.gov.

WARNING!

Drilling, sawing, sanding or machining wood products can expose you to wood dust, a substance known to the State of California to cause cancer. Avoid inhaling wood dust or use a dust mask or other safeguards for personal protection. For more information go to www.P65Warnings.ca.gov/wood.

WARNING!

Older homes may contain lead-based paint, which may be disturbed when replacing windows or performing renovations. Consult state or local authorities for safe handling, disposal, or abatement requirements. For information, go to www.epa.gov/lead.

Before You Begin

IMPORTANT

Read these instructions thoroughly before beginning to install your Elevate Inswing French Door. Failure to install as recommended will void any warranty, written or implied. Regional applications and standards may vary, therefore Marvin Windows and Doors is not responsible for interpretations of local codes and/or ordinances. Installation of Marvin products is the sole responsibility of the installer, contractor, structural engineer, architect, building owner and/or consumer. After installation is completed, these instructions should be retained by the building owner. For additional information, consult your local Marvin Windows and Doors dealer.

IMPORTANT

All windows and doors must have properly installed flashing systems and sealant at unit perimeter in accordance with accepted and proven construction methods.

IMPORTANT

Do not allow strong detergents, solvents, chemicals or other harsh cleaning substances to come in contact with Ultrex surfaces as they can cause damage. Remove fresh paint splashes, grease or caulking with naphtha or isopropyl alcohol. If you wish to maintain the finish of the Ultrex, wash with soap and water.

NOTE: When specifying or considering the structural load requirements for windows and doors, it is important to consider the method of fastening the unit(s) together in addition to the method of fastening multiple assemblies into an opening. The methods contained herein may not be appropriate for all performance requirements. Selection of the appropriate fastening method(s) is the sole responsibility of the installer, contractor, structural engineer, architect, building owner and/or installer.

NOTE: Numbers listed in parentheses () are metric equivalents in millimeters rounded to the nearest whole number.

IMPORTANT

Marvin windows and doors may be harmed by excess construction moisture. Ventilate building during high moisture phases or seal interior of the opening with plastic.

After Market Products

Alterations to Marvin products including window films, insulating or reflective interior window treatments or additional glazings can cause excessive heat buildup and/or condensation. They may lead to premature failures not covered under warranty by Marvin Windows and Doors.

Before purchasing or applying any product that may affect the installation or performance of Marvin windows or doors, contact the manufacturer of after-market product/glazings that are not supplied by Marvin and request written product use, associated warranties and damage coverage. Provide this information and warranties to the end user and/or building owner for future reference.

Installer and Builder Information

- Always provide a copy of these instructions for the current homeowner.
- Plan sizing of rough opening and clearance from exterior finishing systems to allow for normal materials shrinkage or shifting (e.g. wood structure with brick veneer; allow adequate clearance at the sill). Failure to do so can void the Marvin warranty coverage.
- Refer to the Technical Installation Specifications section for technical specifications regarding the installation of this product. These installation requirements as well as the details in the section must be followed to achieve the advertised design pressure (DP) rating of this product.
- It is the responsibility of the builder, installer, and subcontractors to protect the interior and exterior of windows or doors from contact with harsh chemical washes, construction material contamination and moisture. Damage to glazing, hardware, weather strip and cladding/wood can occur. Protect with painters tape and/or protective sheathing as required. Follow all guidelines regarding material use, preparation, personal safety and disposal.
- Refer to the enclosed painting and staining instructions for exterior and interior finish instructions.
- Contact your Marvin supplier if you have any questions regarding product and materials used in manufacturing or questions on replacement parts.
- Please refer to the PDF version of this instruction for further information regarding best practices installer and builder information, code, and other legal requirements. The PDF version is the official document of record.

Technical Installation Specifications

The following details are specified for proper installation and for the unit to meet the advertised design pressure (DP) rating.

- Rough Opening Width: 1/4" - 1" (6-25)
- Rough Opening Height: 1/4" - 1/2" (6-13) higher than window/door frame outside measurement.
- Masonry Opening Width: 1/4" - 1/2" (6-13) higher than window/door frame outside measurement.
- Masonry Opening Height: 1/8" - 1/4" (3-6) higher than window/door frame outside measurement.

NOTE: Architectural Detail Manual Specifications Rough Opening: Width 1" (25); Height 1/2" (13). Masonry Opening: Width 1/2" (13); Height 1/4" (6).

- If using less than a nominal 2" x buck in masonry openings; the rough opening must be no more than 1/2"(13) wider and 1/4" (6) taller than the outside measurement of the frame. Installation methods are limited to Jamb Screw method using 3/16" concrete screws
 - Marvin recommends the use of sloped sills on all concrete openings (either pre-cast or poured).
 - **Regarding recessed masonry openings:** the window frame must not come in direct contact with masonry/concrete/concrete block. Construct framing from treated lumber or plywood and fasten to the masonry opening jambs, header, and sill.
- This framing must be designed (and anchored to the opening) properly to withstand certified and advertised DP ratings for your particular unit.
- For installations in typical wood frame construction (with sheathing and building paper or air barrier material) where a continuous air barrier system is used, refer to ASTM E2112 or reference the "Continuous Air Barrier Systems" section for details on preparing the rough opening and sealing the installation.
 - For installations in concrete block, or masonry construction, etc., follow local codes for sealing and water management details.

! CAUTION!

Be aware that the use of sill pans and other barriers will decrease the rough opening height clearance. Adjust opening dimensions accordingly.

- Properly flash and/or seal all windows at the exterior perimeter.
- Sealants used for installation must be Grade NS Class 25 per ASTM C920 and compatible with the building exterior, window exterior surface, and flashing/water management materials.
- Flashing materials must comply with ASTM E2112-01, section 5.13 and be compatible with all materials used in installation including panning systems, air barriers and building papers, sheathing, and the window unit. **Flashing material must not contain asphalt and must be compatible with flexible PVC (vinyl) when used in conjunction with nailing fin.**
- Optional foams used for installation must be low expansion only. Foam and foam application must comply with ASTM E2212.
- Shims are required between the window frame and framing members at all locking points and at every point of attachment (excluding nailing fin and brick mould casing) as well as at all points detailed within these instructions.
- For units with flat casing install with installation brackets, structural masonry brackets, or jamb screws.
- Do not use chemically treated products for shim material. Fasteners penetrating chemically treated lumber must be a minimum of 0.90 oz/ft² zinc hot dipped galvanized or stainless steel type 304 or 316.
- Clad window frames must not come into direct contact with chemically treated wood products

IMPORTANT

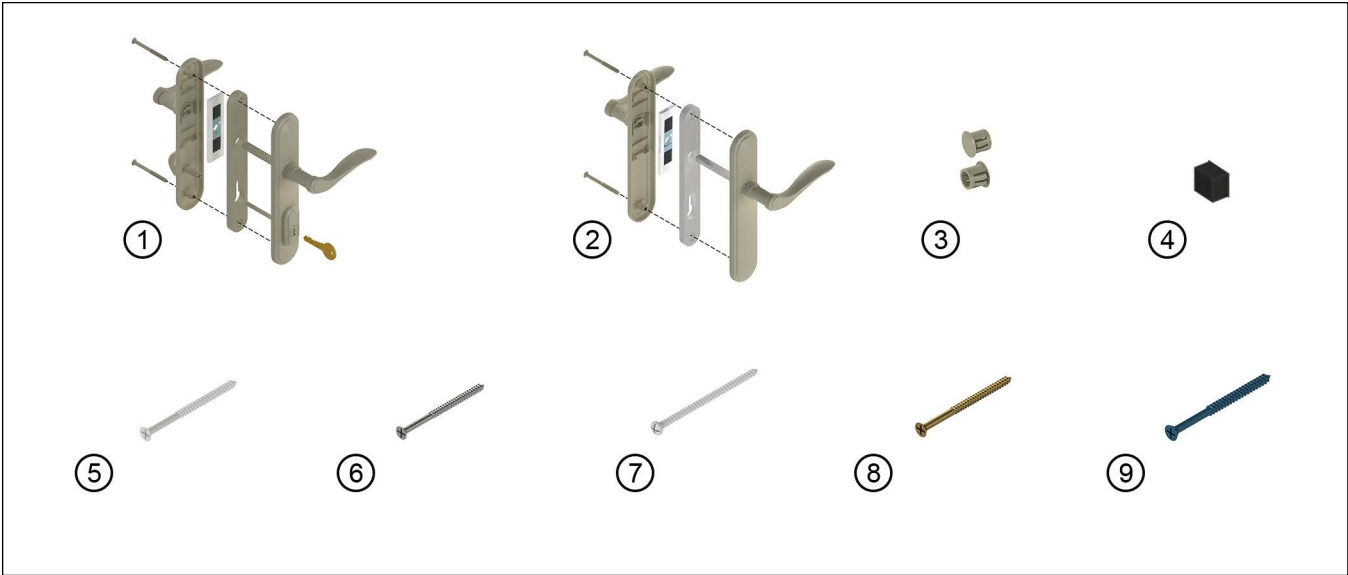
Flashing material must not contain asphalt and must be compatible with flexible PVC (vinyl) such as that found in Marvin vinyl nailing fin.

You Will Need to Supply

- Safety glasses
- Hearing protection
- 4-6' level
- Square
- Hammer
- Tape Measure
- Utility Knife
- Drill
- 11/64" drill bit
- 5/32" hex key
- Shims
- 2" Roofing nails
- Insulation
- Flashing Material
- Drip Cap (optional if not using drip included)
- Foam Backer Rod
- Sealant

NOTE: Sealants used for installation must be Grade NS Class 25 per ASTM C920 and compatible with the building exterior, window exterior surface, and flashing/water management materials.

Standard Parts Shipped



No.	Description	XX	XO/OX	X	O
1	Primary handle set with escutcheon plates, machine screws, and keyed cylinder with keys.	1	1	1	
2	Secondary handle set with escutcheon plates and machine screws	1			
3	Hole plugs	10	10	10	10
4	Sliding screen sill dust block	1	1	1	1
5	#8 x 2 1/2" Flat head screws, color matched	8		4	
6	#8 x 2 1/2" Flat head screws, stainless steel	5	5	5	
7	#8 x 3" Panhead screws, beige	10	10	10	10
8	#8 x 2 1/2" Flat head screw, brass	1	1	1	
9	3/16 x 2 3/4" Masonry anchor	1	1	1	1

NOTE: Not all fasteners may be used during installation. Additional fasteners will be supplied with High Performance and Impact rated products.

Permanently Fasten the Door

IMPORTANT

Prior to beginning this section, ensure you have completed the general door installation instructions included with this door.

WARNING!

On X, XO/OX and XX units, the unit is locked. Please refer to the Handle Operation section for further details.

NOTE: For masonry installation and IZ3 rated products, refer to [Masonry and High Performance/IZ3 Unit Installation on page 14](#) prior to beginning this installation.

1. Locate the through jamb installation holes on the jamb (three) and head jamb (two to four) Ultrex. Pre-drill each of these location to the rough opening with an 11/64" drill bit. Drive the #8 x 3" pan head screws into the framing members. Do not completely tighten screws as some adjustment may be necessary. From the interior, apply shims directly above installation screws.

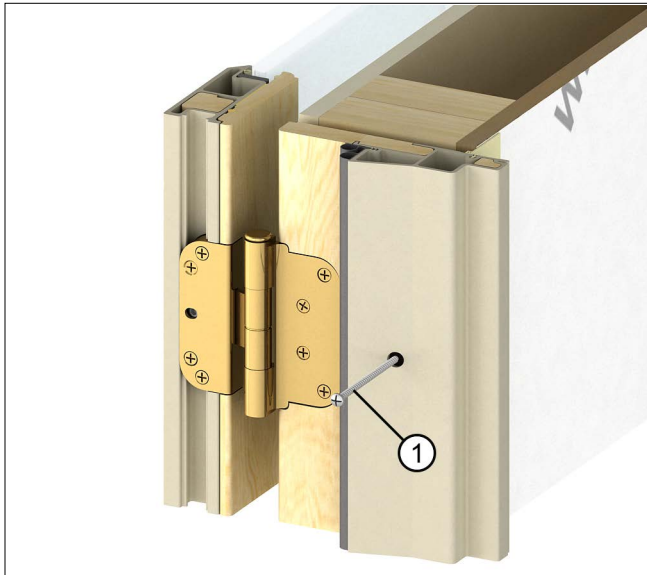


Figure 1

1	#8 x 3" Panhead screw
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2. Install handles on operator panels according to the instructions supplied with the handle sets.

3. On **operator panels**, after the jamb and head jamb installation screws are installed, open the door 90° to access the hinges and strike plate installation screws.

Support the weight of the panel by adding blocking under the far edge (handle side) of panel to the floor.

4. On X and XX units remove the top screw from each hinge and replace with a #8 x 2 1/2" flat head color matched screw.

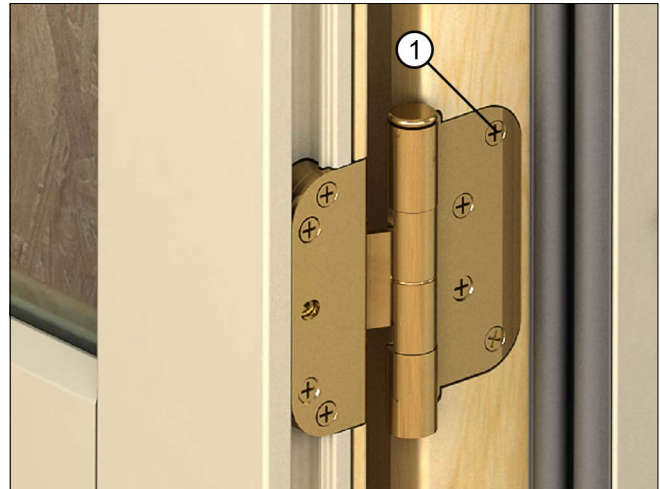


Figure 2

1	Top screw in hinge, replace with #8 x 2 1/2" flat head screw
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5. On X and XO/OX units, remove the center screw from the locking jamb strike plate and replace with either a #8 x 2 1/2" brass or stainless steel screw.

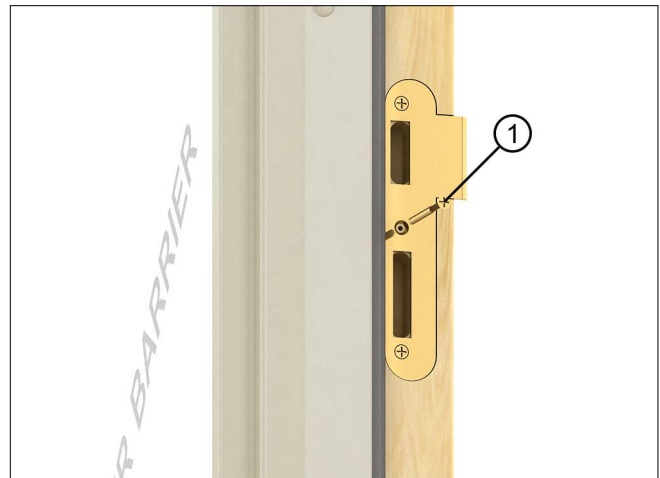


Figure 3

1	#8 x 2 1/2" screw
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NOTE: On High Performance/IZ3 units, pre-drill all strike plate installation holes with an 11/64" bit prior to fastening.



Figure 4

6. On X and XO/OX units, remove the two interior head jamb strike plate screws and replace with #8 x 2 1/2" stainless steel screws.

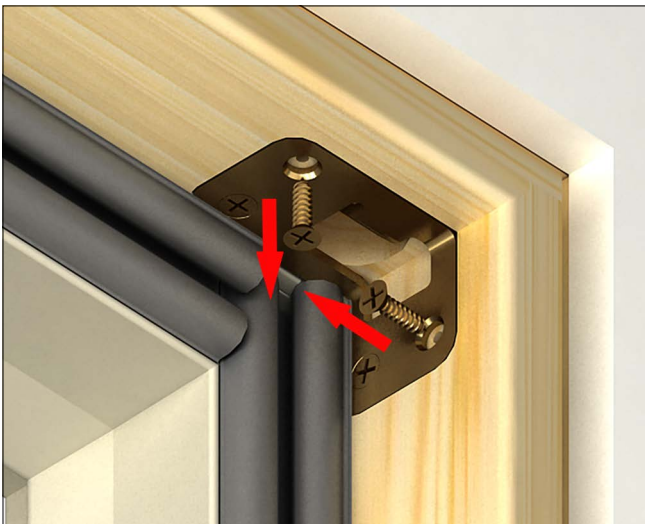


Figure 5

7. On XX and XO units, remove two head jamb strike plate screws and replace with #8 x 2 1/2" stainless steel screws. XX units will be the two interior most screws, XO/OX units will be the two visible screws.



Figure 6 XX Door



Figure 7 XO/OX Door

8. Place additional shims around the unit perimeter as necessary. Shims must be placed 4"-6" (102-152) from each corner and a maximum 15" (381) apart on center. **Do not over shim!**

9. Tighten each installation screw through Ultrex jamb and head jamb.

10. Check horizontal, vertical, and diagonal measurements to ensure the door is square in the opening. Adjust screws and shims as necessary. Plug installation screw holes once complete. [See Figure 8.](#)



Figure 8

11. Permanently fasten nailing fin to exterior sheathing, space fasteners 6" - 8" (152 - 203) apart (maximum) and a maximum of 6" (102) from each corner.

Final Installation Procedures

1. From interior side of unit, unlock operating panel. Open and remove shipping block from under each operator panel. [See Figure 9.](#) Carefully bring panel into closed position, take care not to allow panel to contact sill if vertical adjustment is necessary. Follow [Hinge Adjustment on page 12](#) if necessary. Close and lock the door panel.

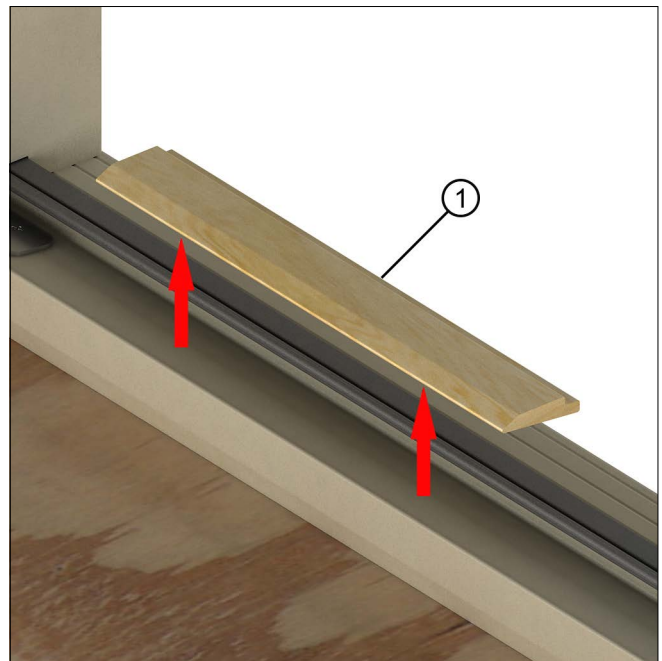


Figure 9

1	Shipping block
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2. Check the door to see if the panel swings easily. Follow hinge adjustment procedures if necessary.

Final Sealing Procedures

IMPORTANT

Using improper sealant could result in sealant failure causing air and water infiltration.

! CAUTION!

Expanding foam type insulation may be used to form an infiltration seal as required by some building codes. However, a low expansion type foam should be used in combination with fiberglass insulation.

1. After exterior finish or siding is installed, apply sealant around the exterior perimeter of the unit frame or casing. As needed, insert backing material between the frame or casing and the structure to provide a proper sealant joint. Sealant depth must be equal to width between unit and exterior finish material (brick and masonry apply). Always refer to the manufacturer's recommendations for proper surface preparation and application.



Figure 10

2. Fill gaps between the door frame and framing members on interior with insulation. Do not pack tightly.

3. Apply interior casing as desired. Finish the interior wood surfaces as soon as possible. Follow enclosed general paint/stain instructions and manufacturer's recommendations to ensure proper adhesion and performance.

4. On XO/OX Units when installed with a sliding screen, install the sliding screen sill dust block at the center of the unit, flush to the bottom of the sill as shown

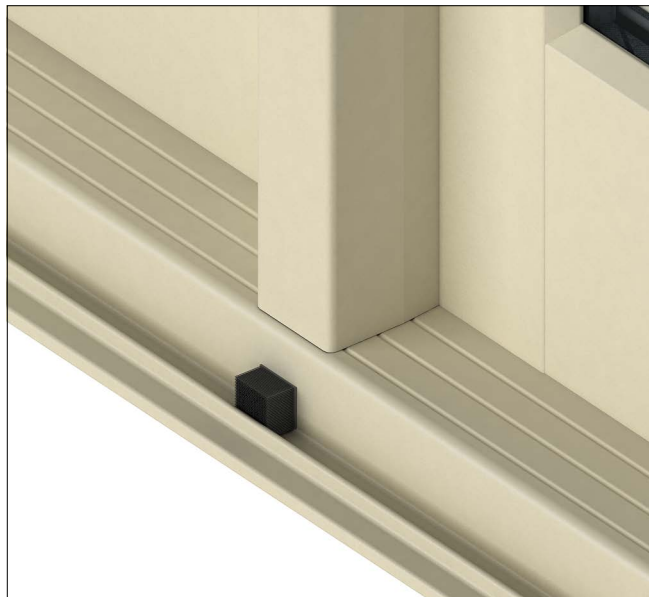


Figure 11

Handle Operation

NOTE: The door handle performs two separate functions. Rotating the handle upward engages the multi-point lock (at the top, bottom and side jamb). Rotating the handle in a downward motion releases the latch and also the multi-point lock if engaged. The thumb turn is used to lock the handle to prevent it from being rotated down. The thumb turn does not engage the multi-point lock.

Locking the Door

1. Close door so it latches. Rotate handle up to engage the shoot bolts and deadbolt on the multi-point lock.
2. Turn “thumb turn” 1/4 turn to lock the handle. Verify that the handle cannot be rotated down to ensure door is properly locked.



Figure 12



Figure 13

Unlocking the Door

1. Turn the thumb turn 1/4 turn.
2. Rotate the handle down to disengage the multi-point lock and latch mechanism.



Figure 14

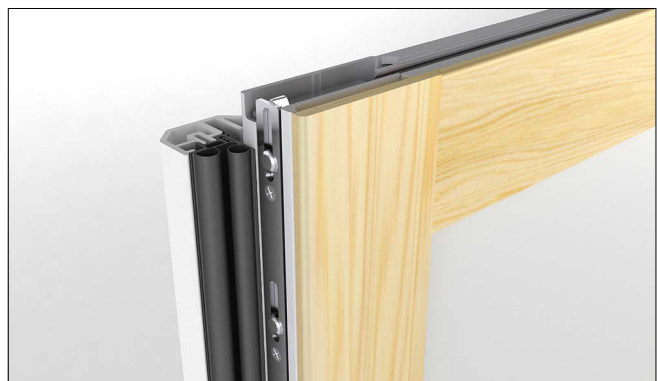


Figure 15

Hinge Adjustment

NOTE: Should you find it necessary to make minor adjustments to your Elevate Inswing French door after it has been permanently installed, the adjustable hinge system will allow you to do this. During installation, adjustment of door frame shims should be done to correct any alignment or operation problems.

IMPORTANT

Ensure that the unit has been installed square in the opening.

 **CAUTION!**

Failure to follow adjustment procedures as outlined may damage hinge.

Adjusting the Hinge

1. Adjustments should only be made when panel misalignment is visible or it causes poor operation of the door/lock. Make any adjustments in small increments (one rotation per hinge), starting with the bottom hinge and working up to the top hinge. Repeat the process as necessary adjusting one rotation at a time. Check results, readjust or proceed as required. Each hinge has a vertical and horizontal adjustment screw. See [Figure 16](#) and [Figure 17](#).

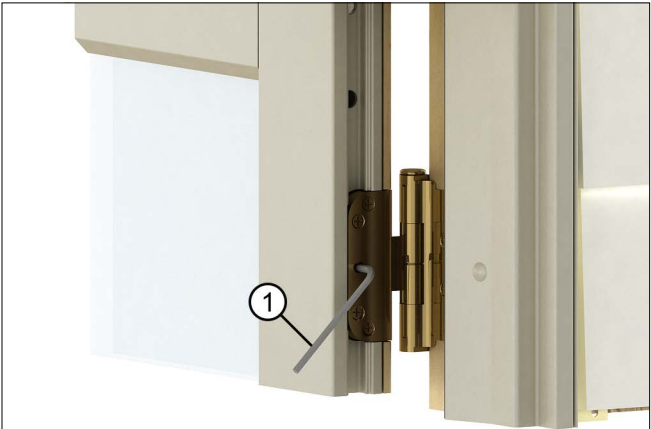


Figure 16 Horizontal adjustment

1	5/32" hex key
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Figure 17 Vertical adjustment

1	5/32" hex key
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2. Check panel clearance at the sill. The panel should have a minimum of 3/16" (5) clearance at the bottom. The vertical adjustment screw should be adjusted equal amounts starting with the bottom hinge. Check index mark on hinge leaf to determine amount and direction of panel movement.

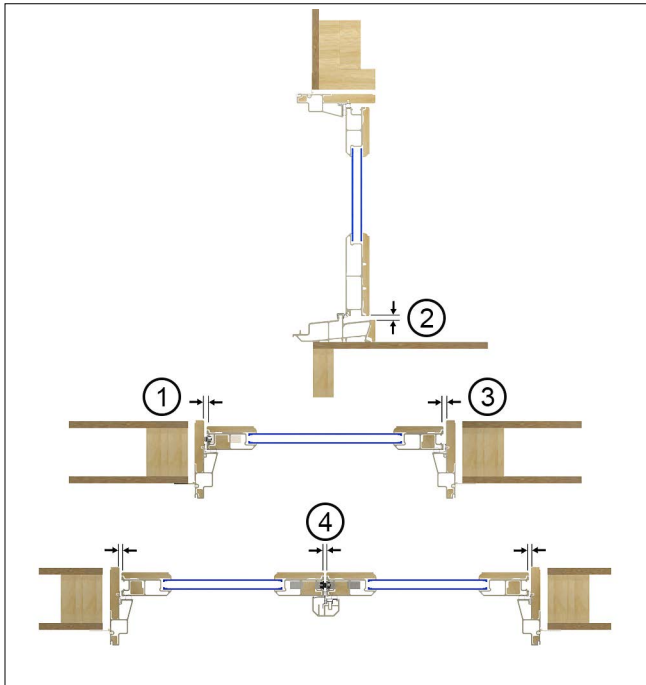


Figure 18

1	3/16" (5)
2	3/16" - 1/4" (5-6)
3	3/16" (5)
4	1/8" (3)

3. Check panel alignment with locking jamb, the panel should have 3/16" (5) clearance along the jamb on one panel configurations and 1/8" clearance on two panel configurations. Rotate the horizontal adjustment screw clockwise to decrease, counterclockwise to increase jamb to panel clearance.

NOTE: If increasing clearance at the top, the bottom hinge may have to be adjusted to decrease clearance at the hinge jamb and avoid hinge binding.

4. After panel alignment is corrected, recheck latch and deadbolt operation.

Masonry and High Performance/IZ3 Unit Installation

IMPORTANT

Fasten IZ3 rated products to the rough opening using either nailing fin with installation clips or structural brackets.

NOTE: Nailing fin with installation clips must be used on IZ3 units using a nail fin installation. Alternatively, structural brackets may be used instead of nailing fin and installation clips. Both installation types will be fastened to the frame following these instructions. **High performance units do not require IZ3 installation clips on the nailing fin.**

1. Align each installation clip or structural bracket on the frame with the nailing fin (if used) extended to 90°. Align center hole on installation clip or structural bracket with through jamb hole location for placement guide. Fasten installation clip or structural bracket using three #7 x 5/8" wood screws, [See Figure 19](#).



Figure 19

NOTE: On XO/OX units, the center installation clip or structural bracket on the head jamb will align with two outer holes of installation clip or structural bracket, and fasten as shown in [Figure 20](#).



Figure 20

1	Outer holes are aligned with through jamb hole locations.
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2. On X and XO/OX Units, install nailing fin installation clip or structural brackets at the rhino hook strike plate locations as shown in [Figure 21](#). Ensure the bracket does not interfere with the hardware operation.

NOTE: Top rhino hook plate will be tangent to top of route, bottom rhino hook location will be tangent to bottom of route.



Figure 21

3. On nailing fin with installation clips, prior to installing the unit, pre-drill each of the holes from the installation clip through the nailing fin to make installation easier. See Figure 22.



Figure 22

4. To install the unit using nailing fin with installation clips, install the unit as defined in the general door installation instructions, then complete the installation by placing five #8 x 1 1/4" drywall screws through each installation clip into framing member. See Figure 23.



Figure 23

5. To install the unit using structural brackets, install the unit as defined in the general door installation instructions, then complete the installation by bending structural bracket tabs to the interior of the frame. Attach structural bracket to wood framing with two 1 5/8"(41) sheet rock screws per tab, making sure screws

are no more than 1/4" (6) from the bend in bracket. Angle the screws approximately 15° towards the thicker part of the framing member. See Figure 24.

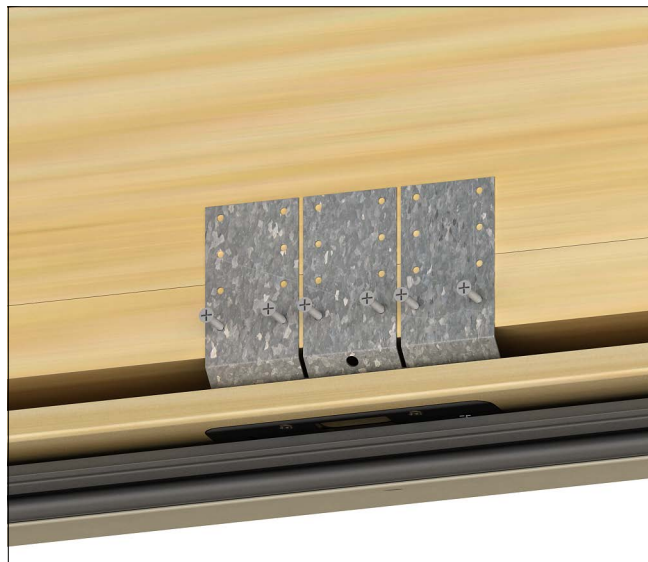


Figure 24

6. On X & XX Units, install 2 installation screws through each hinge, top and bottom hole locations. Pre-Drill location with 11/64" drill bit through installation bracket. See Figure 25.



Figure 25

7. On X and XO/OX units, remove the two interior strike plate screws and replace with #8 x 2 1/2" stainless steel screws. See Figure 26.

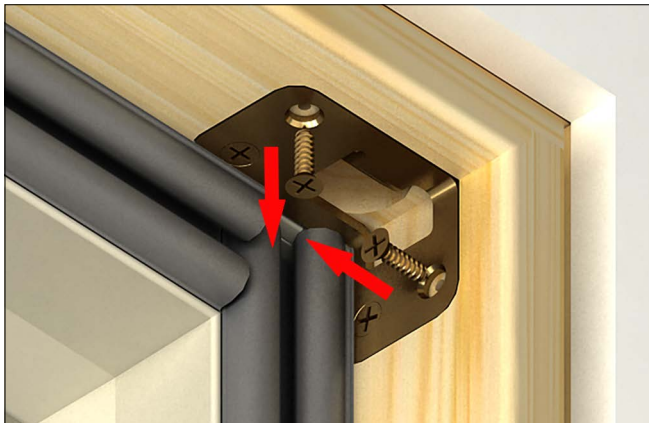


Figure 26

8. On XX Units, remove four head jamb strike plate screws and replace with #8 x 2 1/2" stainless steel screws (on XO/OX units these will be the two visible screws). Pre-drill locations with 11/64" drill bit through installation bracket. See Figure 27 and Figure 28.



Figure 27 XX Door



Figure 28 XO/OX Door

9. On X & XO/OX Units, install two installation screws through each of the Rhino hook strike plates. Pre-drill location with 11/64" drill bit through installation bracket. See Figure 29.

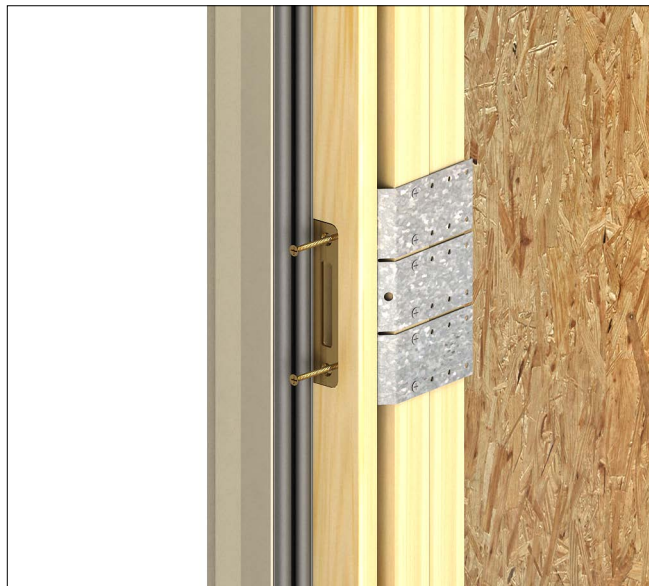


Figure 29

10. On all High Performance/IZ3 Units, install 2 3/4" masonry anchor screw through the sill installation bracket. Locate bracket at the center of the unit. Pre-drill center hole location with 11/64" drill bit through the Ultrex sill foot at 25° angle from vertical. See Figure 30.



Figure 30