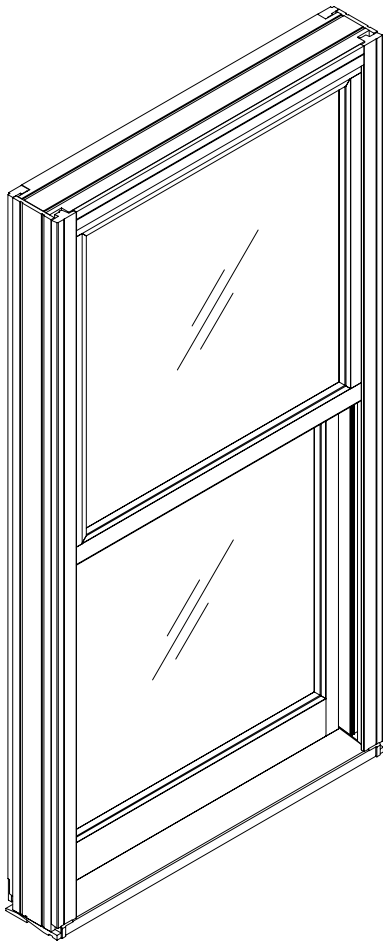
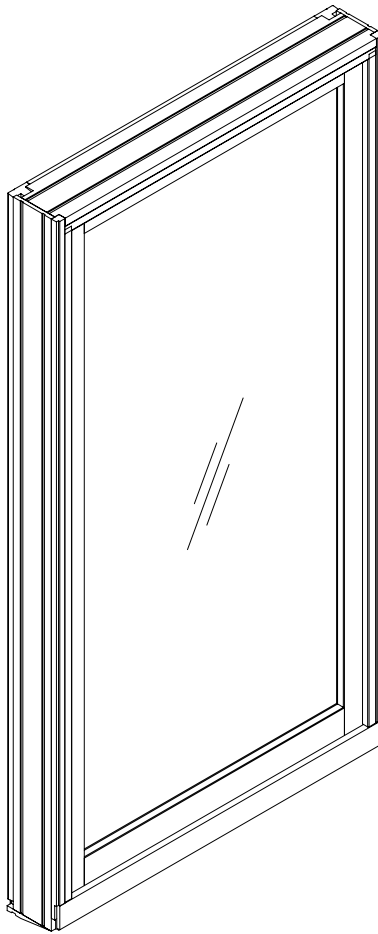


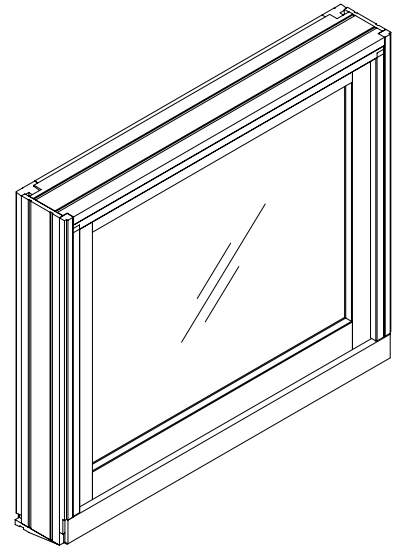
Wood Ultimate Insert Double Hung Installation Instructions



Operator - (WINDH)



Picture - (WINDP)



Transom - (WINDT)

MARVIN 
Windows and Doors

Made for you.®

BEFORE YOU BEGIN

- Read these instructions thoroughly before beginning to install the Wood Ultimate Insert Double Hung. Failure to install as recommended will void any warranty, written or implied.

IMPORTANT: WINDH products are designed for exterior installation.

ATTENTION: Chemicals, solvents, paint, and other substances should never come in contact with vinyl parts. To clean, use only warm soapy water.

ATTENTION: Specifications and technical data are subject to change without notice.

NOTE TO THE INSTALLER:

Always provide a copy of these instructions to the current (or future) building owner.

Failure to follow the above recommendations and any other specific warnings, procedures for use, safety recommendations and standard construction practices can result in personal injury, poor product performance, premature failure and unnecessary call backs.

Contact your Marvin supplier if you have any questions regarding product or materials. Before purchasing or applying any aftermarket product that may affect the installation or performance of Marvin windows and doors, contact the manufacturer of aftermarket product/glazings that are not supplied by Marvin and request written product use, associated warranties and damage coverage. For additional assistance on this or any other Marvin product, please contact your local Marvin Window and Doors dealer or you can find us online at www.Marvin.com.

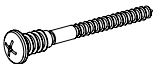

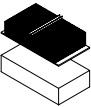

INSTALLATION PACKAGES

Operator: 11900550-Beige
11900557-White

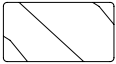
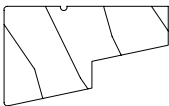
Transom: 11900537

Picture: 11900538

PARTS INCLUDED WITH INSTALLATION PACKAGES

ILLUSTRATIONS (not to scale)	DESCRIPTION AND COLOR	PART/PROFILE NUMBER
	2- 5/16-#10 x 2 1/2" Jamb jack screws (operators only)	11882360
	4- #7 x 2" Phillips panhead installation screws (operator and transom) 16 - screws included with picture unit	11807121
	2- Jamb liner check rail pads (operators only)	BG 10500508 WH 10500509
	4- Wood flat head plugs	02074845

OPTIONAL EXTERIOR TRIM PARTS

ILLUSTRATIONS (not to scale)	DESCRIPTION AND COLOR	PART/PROFILE NUMBER
	Exterior header and jamb trim	W8602
	Exterior sill trim	W8599

REPLACEMENT PARTS

If replacement of parts ever becomes necessary, please contact your local Marvin Windows and Doors dealer.

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

YOU WILL NEED TO SUPPLY

Tape measure	Level
Pry bar	Stiff putty knife
Utility knife	Fiberglass insulation
Wood shims	9/32" drill bit
Reciprocating saw	Safety glasses
1 1/4" Brad nails	
Power drill/driver w/ #2 Phillips head bit	
Silicone sealant - grade NS Class 25 per ASTM C920 and compatible with building exterior and window surfaces.	

INDEX

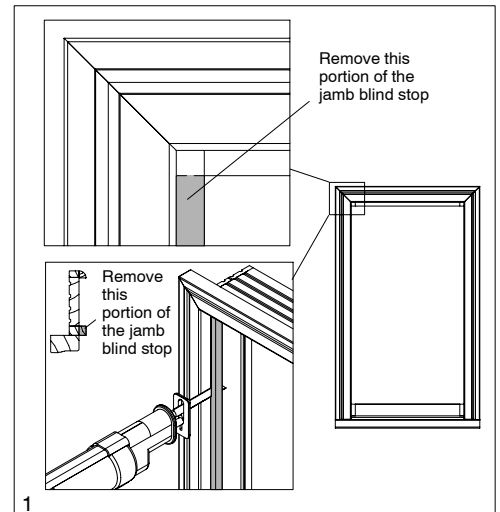
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Tilt Feature Operation	5
Removing the Operator Sash	5
Installing the Operator Sash	6
Installing the Screen	7

Removing the Old Sash and Preparing the Opening

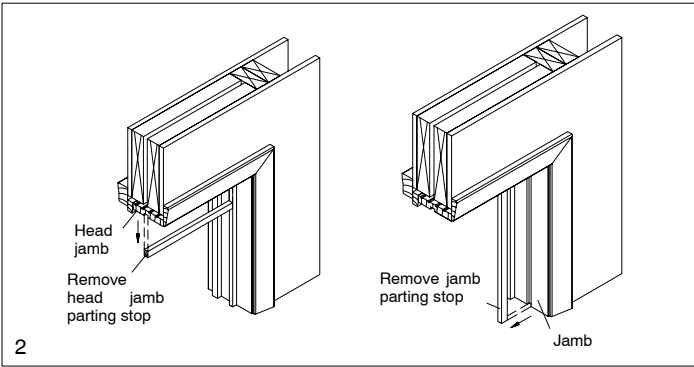
ATTENTION: The following instructions detail the removal of sash and jamb hardware on windows that utilize a pulley and weight system. Your existing window may differ from those shown. All jamb hardware and/or jamb liners must be removed prior to installation of the WINDH.

Exterior Installation - Preparing the Opening

- Using a reciprocating saw, remove the jamb blind stop by cutting it even with head jamb blind stop and flush with exterior casing and jamb frame. See illustration 1.



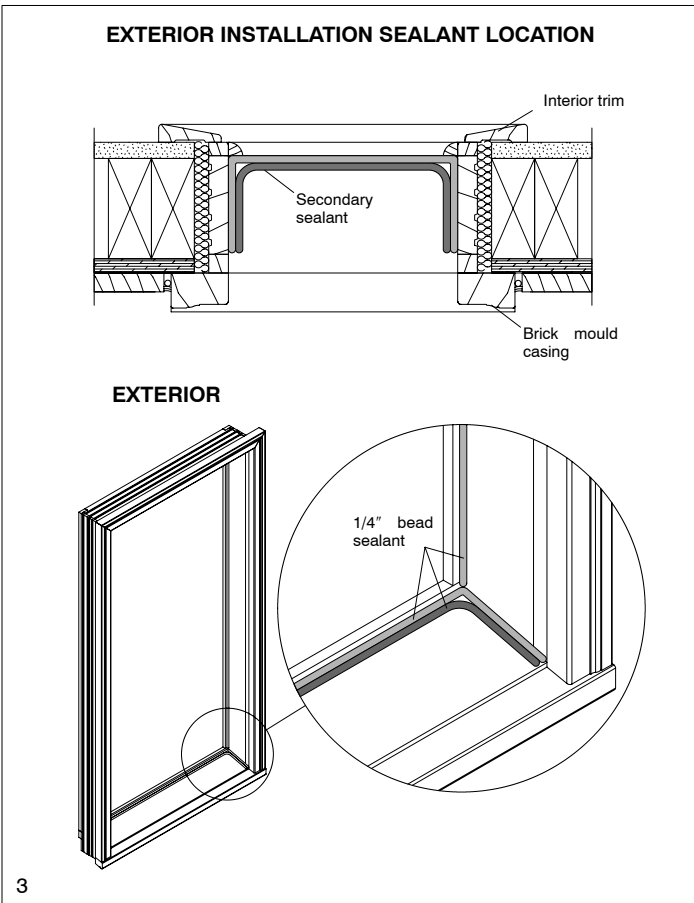
- Lower the top sash and cut the balance cords. Remove the top sash, disconnect and remove any balance mechanisms attached to existing window frame.
- Remove the head and side jamb parting stops with a pry bar. See illustration 2.



- Cut the balance cords on the lower sash and remove from frame.
- Remove any remaining balance mechanism hardware from the existing frame such as balance cords, balance cord pulleys, etc. that may hinder installation. If your frame utilized weight pockets at the jambs, remove weights (if possible) and fill cavity with fiberglass insulation.

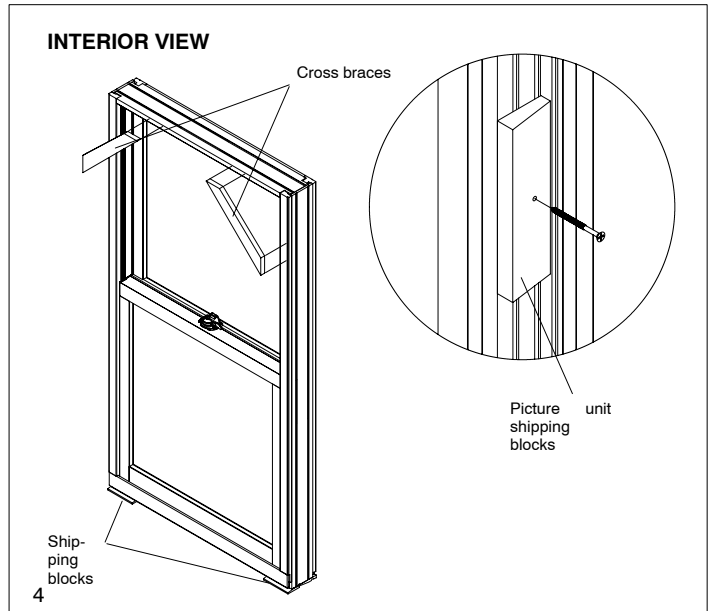
CAUTION: Before proceeding inspect existing frame for rot or deterioration of frame members. Repair or replace as needed.

- Apply a 1/4" (6) bead of sealant at both the sill, jamb joints and on the back of the interior sash stops or moulding. Apply a second continuous bead of sealant on sill as shown in illustration 3.

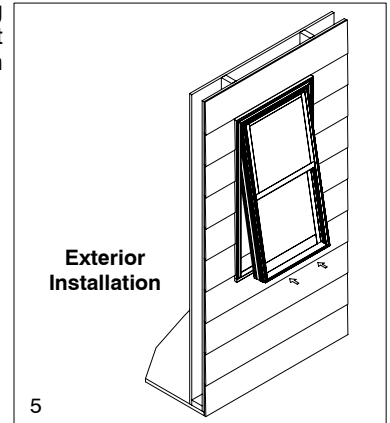


Installing Ultimate Double Hung Insert Window

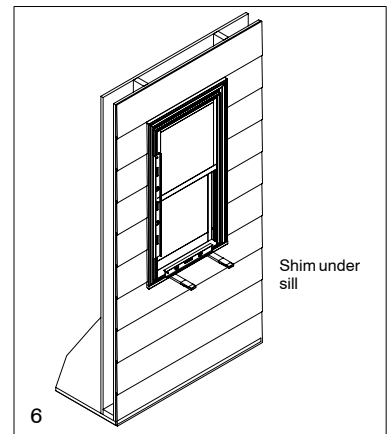
- Remove cross braces and shipping blocks from sill. Remove screws and shipping blocks from side jambs and head jamb (picture units). See illustration 4.



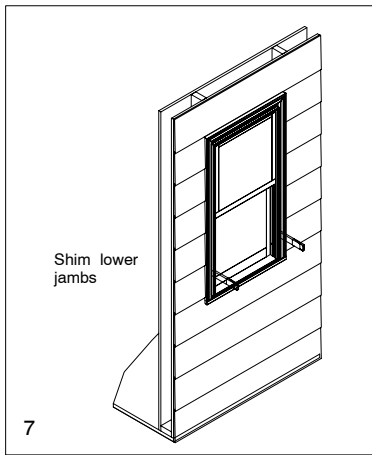
- Center unit in opening and press the unit against interior sash stop. See illustration 5.



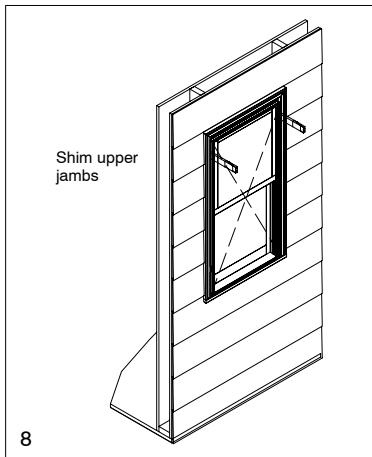
- If necessary, place shims under sill of unit to level unit horizontally from jamb to jamb. See illustration 6.



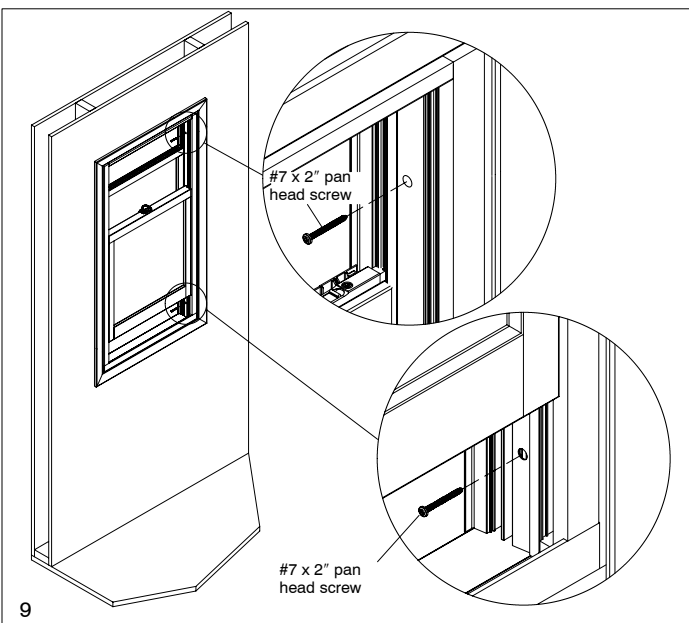
- Place shims at the bottom corners of jambs above the pre-drilled screw holes in jamb liners. See illustration 7.



- Apply shims above the top pre-drilled screw holes in the jamb as shown in illustration 8. Square the frame by taking diagonal measurements of the unit and adjusting the lower shims as necessary until the measurements are equal.



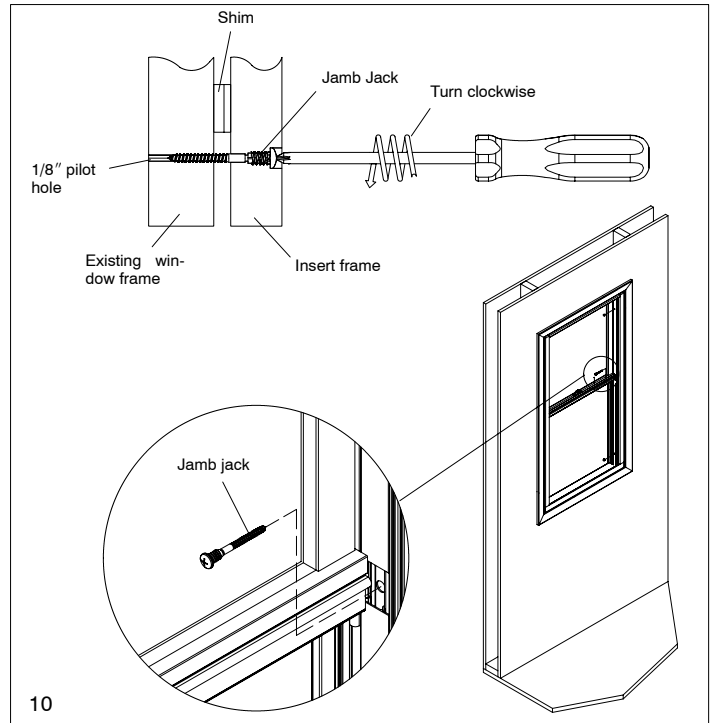
- Raise bottom sash 3-4" and lower the top sash slightly to access pre-drilled screw holes. Hold unit firmly against interior stop and drive the four #7 x 2" screws provided through pre-drilled holes in jamb liner at top and bottom corners. Do not over-tighten screws, some adjustment may be necessary later. See illustration 9.



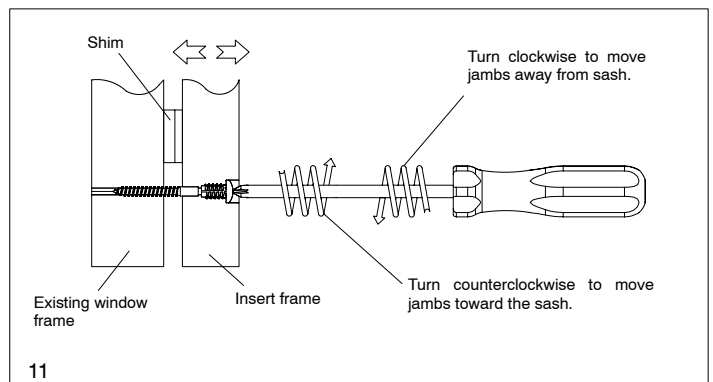
- Recheck diagonal measurements again. Adjust screws as necessary to square the frame. If square, apply shims between side jambs and existing window opening above pre-drilled holes at the check rail. DO NOT OVER SHIM. See illustration 10.

NOTE: For transom or picture units proceed to step 12.

- Tilt bottom sash, see index Tilt Feature Operation. Remove shipping clips from jambs.
- Using the pre-drilled holes in jambs at check rail as a guide, drill pilot holes in existing window jambs with a power drill and 1/8" drill bit. Insert jamb jacks in holes and drive until the jamb jack "bottoms out". See illustration 10.

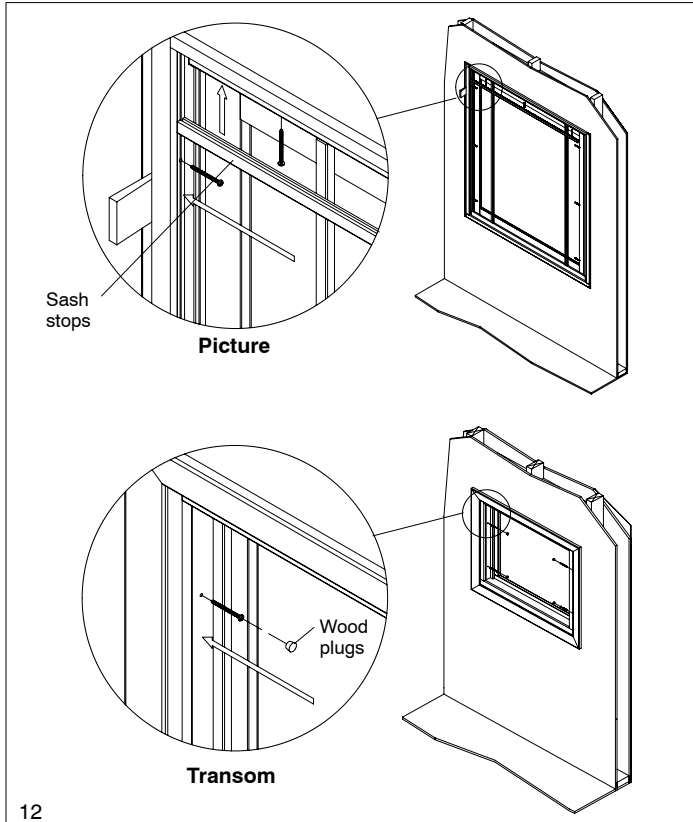


- Measure width at head jamb, sill, and check rail. Jamb jacks allow for adjustment to obtain an even reveal and proper sash operation. Using a #2 Phillips screwdriver, turn the jamb jack clockwise to move jambs away from the sash or counterclockwise to move jambs toward the sash. Adjust until measurements at head jamb, sill, and check rail are equal. Adjust shims at checkrail as necessary. See illustration 11.



- If shimming at head jamb is necessary, remove head jamb parting stop from insert unit. Pre-drill, drive and countersink a wood screw through insert frame and into existing window frame to bring to level (screw not provided). Replace parting stop. Be careful not to damage jamb weatherstrip during removal and replacement. Proceed to step 13.

12. On picture and transom units, fasten unit in opening by inserting the #7 x 2" Phillips panhead screws (provided) into pre-drilled screw holes and tighten with a power driver/drill. Be sure shims are placed near every screw location to avoid bowing of jambs. Do not over-tighten screws. See illustration 12. Recheck frame for square. Adjust as necessary by either loosening or tightening screws. On picture units install the interior sash stop by fastening with 1 1/4" brad nails. Start with the jambs first, then install the head jamb stop last.



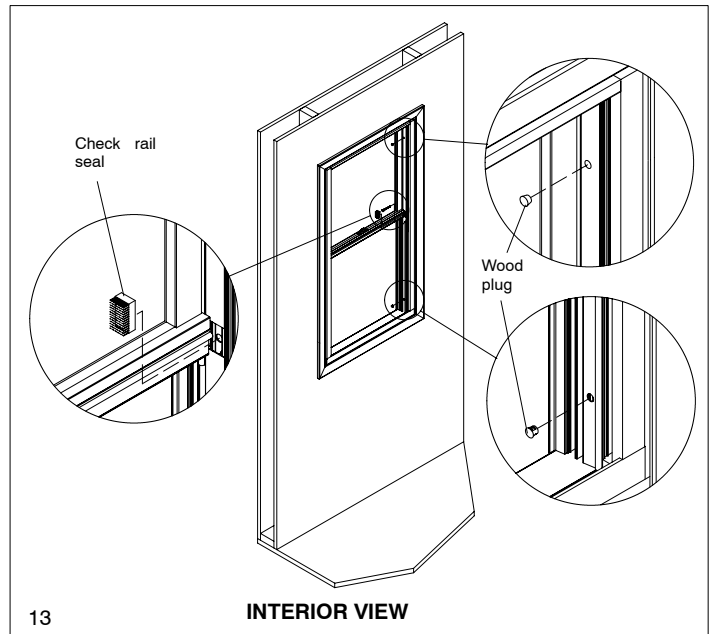
12

13. Once the insert unit is flush, square, and plumb in opening and sash works properly, cut shims off flush with interior jamb or exterior of frame depending on installation technique. Fill the gaps between the insert window frame and existing window frame with fiberglass insulation. Do not pack tightly.

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

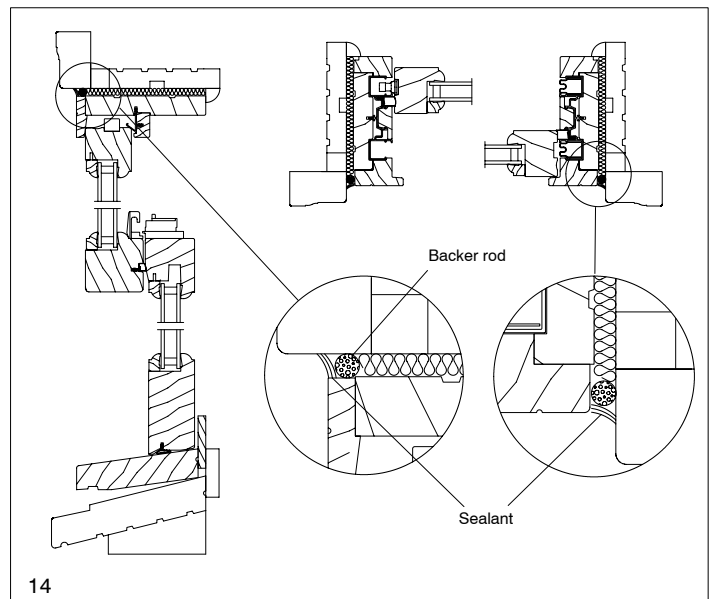
CAUTION: When using expanding foam insulation it is very important not to bow the head jamb and/or side jambs of the insert unit.

14. On transom units, cover screw holes in jambs by inserting the wood hole plugs until they are flush with jambs. See illustration 13. On operator units insert wood rail pads in lower and upper screw holes. Insert the check rail pad over the jamb jack hole at check rail. See illustration 13.



13

15. Apply backer rod between insert frame and existing window frame. Run a bead of sealant to bridge the gap between the insert unit and existing window frame and/or exterior casing. See illustration 14.

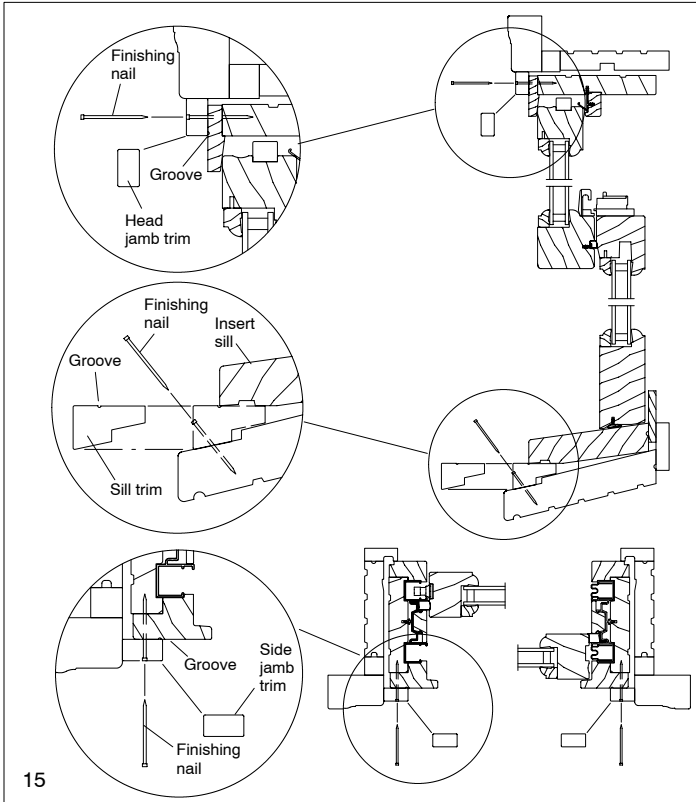


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Optional Exterior Trim

16. Complete installation of the insert unit by inserting the optional exterior sill trim under the sill until the small dimple is aligned with the Insert unit sill. If necessary, trim the sill trim to fit. Nail the sill trim into place using 1 1/4" finishing nails or staples. Next cut the optional Marvin head jamb trim to length, align with the groove on the insert header and nail into place. See illustration 15.

IMPORTANT: Proper placement of the exterior trim parts is required for installation of a Marvin screen.



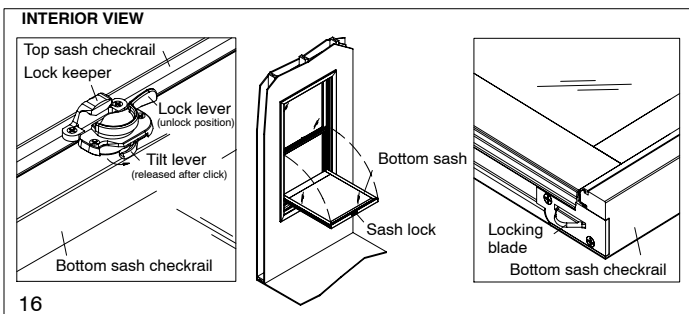
15

Tilt Feature Operation

The Ultimate Insert Double Hung tilt feature allows the consumer to wash the exterior pane of glass from the interior of the home.

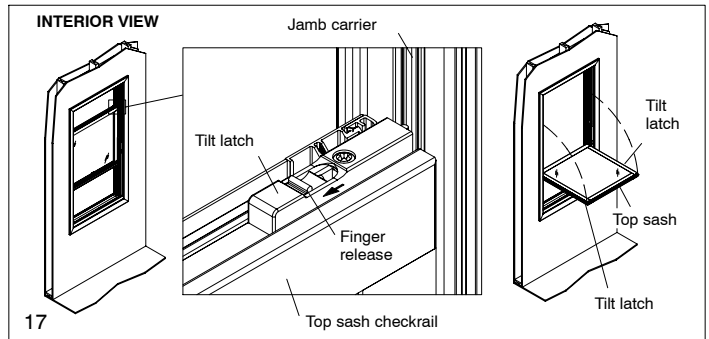
NOTE: Only the bottom sash may be tilted on a Single Hung unit. A clad unit is shown for illustrative purposes.

17. To tilt bottom sash, simply raise sash about 4" (102). Pull the tilt lever (nested in the sash lock base) until it clicks. Hold lever until latches clear the unit frame when tilting. Ease top edge of bottom sash out toward you to a horizontal position. The sash will pivot in the hardware near the bottom. Support top of tilted sash carefully with a stable support such as a padded step stool or chair to guard against damage or personal injury. See illustration 16.



16

18. To tilt a top sash, lower top sash about 1/2 way. Pull the tilt latches (in the edge of sash top rail) until they release on each side. Hold latches until they clear unit frame when tilting. Ease top of sash toward you to a horizontal position. See illustration 17.

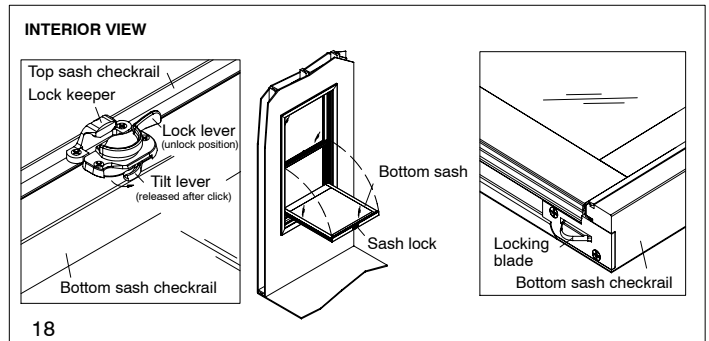


17

19. To tilt top sash back to the original position, tilt upward and pull the tilt latches (in the top edge of sash top rail) until they retract fully on each side. Hold until sash is at installed position. Ease sash into jamb carrier track. Check the nose of each tilt latch to ensure they are fully engaged in the sash guide track of jamb carrier assembly. To tilt bottom sash back to original position, follow procedures listed above.

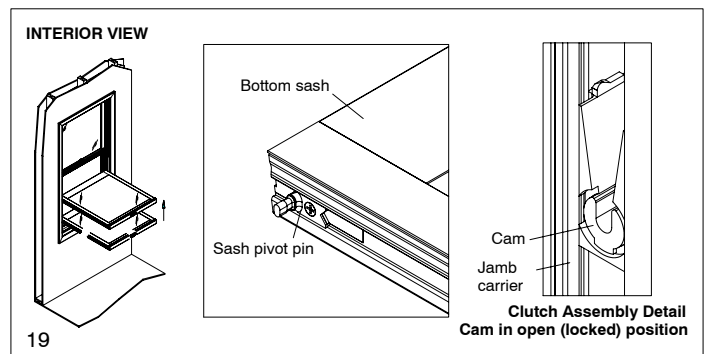
Removing Ultimate Insert Double Hung Sash

20. Raise bottom sash about 4" (102). Pull the tilt lever (nested in the sash lock base) until it clicks. Hold lever until locking blades clear the unit frame when tilting. See illustration 18.



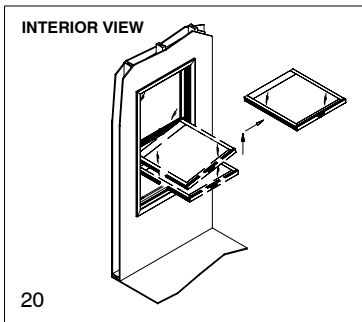
18

21. Ease top of sash toward you to a horizontal position (flat). Lift both sides of the sash upward 2"-3" (51-76) (raising pivot pins out of each clutch). See illustration 19.



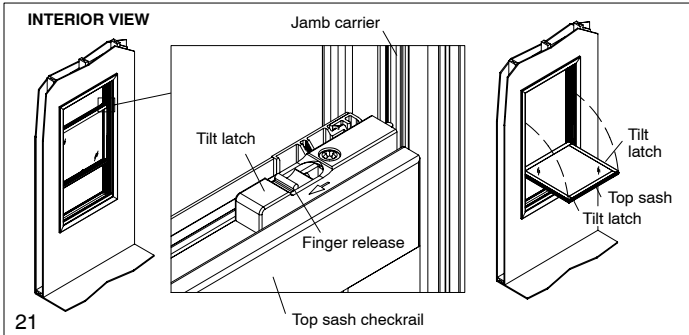
19

22. Rotate the sash counter-clockwise until pins clear the jambs and remove sash. See illustration 20.

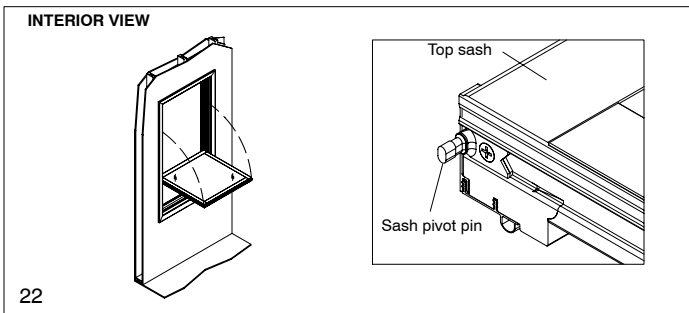


ATTENTION: The Single Hung top sash is not removable.

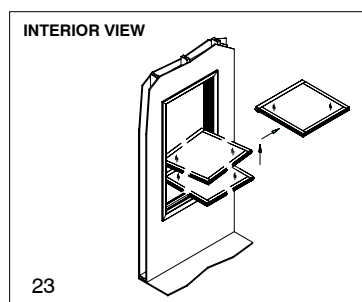
23. Lower top sash about 1/2 way. Pull the tilt latches (in the top edge of sash top rail) until they retract fully. Hold latches until they clear unit frame when tilting. See illustration 21.



24. Ease top of sash toward you to a horizontal position. Lift both sides of the sash upward 2"–3" (51–76) (raising pivot pins out of each clutch). See illustration 22.



25. Rotate the sash counter-clockwise until pins clear the jambs and remove sash. See illustration 23.



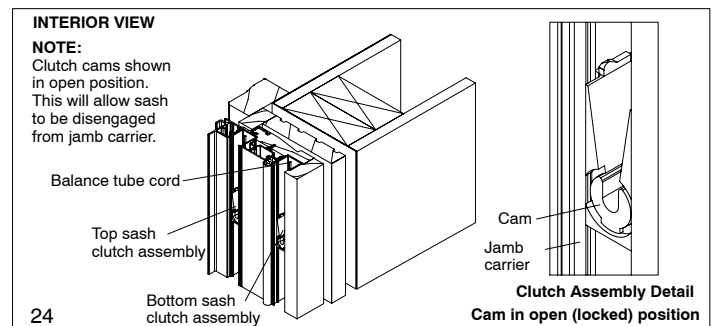
Installing Ultimate Insert Double Hung Sash

CAUTION: When replacing sash, both sash pins must be positioned above the balance clutch assembly located in the jamb carrier track.

NOTE: Should a balance clutch assembly slip upward toward the head jamb, the following procedures can be accomplished in order to properly reposition. Measure the clutch dimension from sill for the opposing balance assembly (MUST be within 1/8" (3)) and temporarily mark that dimension on the jamb carrier that contains the released clutch. Using a flat screwdriver rotate the balance clutch cam in the clutch assembly to the released position. Hold the screwdriver firmly and slide the clutch assembly down the jamb carrier to the mark.

CAUTION: Clutches are under extreme spring tension.

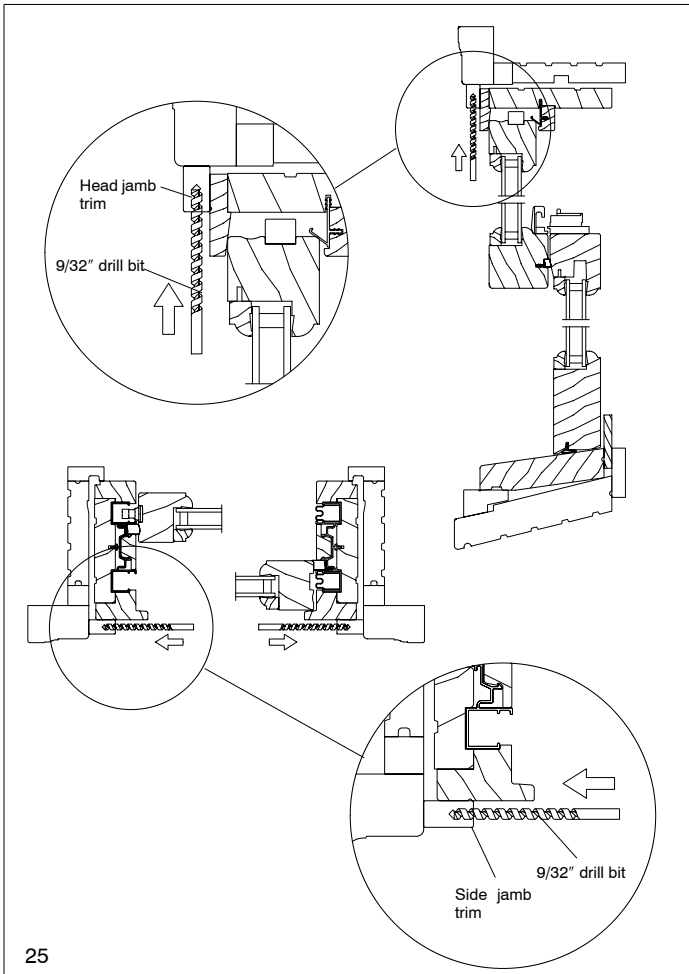
26. Rotate the balance clutch cam to the open locked position (cam opening up) as shown in illustration 24. Release the screwdriver carefully from the clutch assembly (it must lock in place or damage will occur). Compare clutch heights from the sill for the sash affected they MUST be within 1/8" (3) of each other or damage may occur when sash are reinstalled, adjust height as needed.



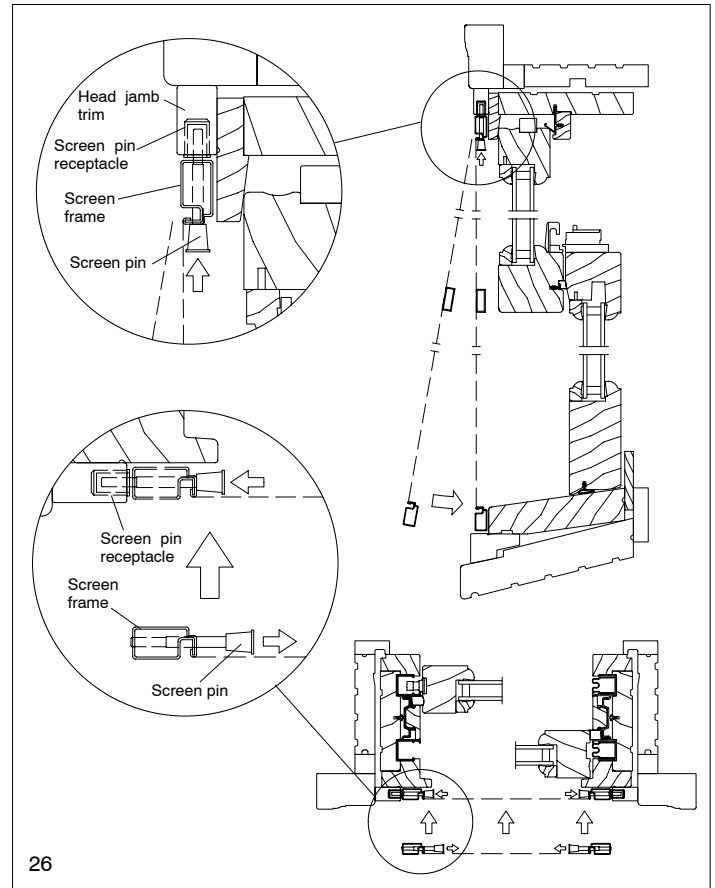
27. Hold the top sash in a horizontal position, top rail toward you, exterior face up. Sash pivot pins must be placed 2"–3" (51–72) above the clutch assemblies when relocating in jamb carrier tracks. Pivot one side of the sash up to enable pivot pins to clear jamb carrier assemblies when aligning sash in tracks, pivot sash back to horizontal (flat) position. Lower sash pivot pins into balance clutch cams. Check pins to ensure they are fully engaged in the clutch cams before proceeding.
28. Tilt sash up, pull the tilt latches (in the top edge of sash top rail) until they retract fully on both sides, hold them and ease sash into place. Check the nose of each tilt latch to ensure they are fully engaged in the sash guide track of jamb carrier assembly. Raise the top sash to the top of frame. Repeat above procedures for bottom sash, except retract sash check rail guides with the tilt lever in the sash lock base when installing.

Installing the Screen

29. Place the screen onto the WINDH unit and mark the location of the top and side plunger bolts. Drill a 9/32" hole in the center of the screen channel at these locations and insert the supplied screen pin receptacle. See illustration 25.



30. When installing screen, place screen sideways through window frame, turn to an upright position and place top plunger bolts into the screen pin receptacle located at head jamb. Pull screen towards the interior, holding the side plungers in the open position. When screen is flush against frame, release plungers to lock into the side screen pin receptacle. See illustration 26.



Interior Finishing Guidelines

- Paint or stain/seal all wood surfaces with a high quality topcoat system.
- Follow manufacturer's recommendations for proper surface preparation and application.
- Apply at least two coats of paint or polyurethane/varnish to form an adequate moisture vapor barrier.
- To easily access all wood surfaces, remove both sash from frame.
- It is essential to coat exposed wood along sides of both sash and at head jamb between part stop and frame on this product.
- Use extreme caution when applying finishing products near weatherstrip or vinyl components. DO NOT allow contact, solvents in most formulas will cause damage.
- Allow ample drying time before reinstalling sash to ensure complete evaporation of solvents and to reduce bonding with mating surfaces.
- DO NOT apply paint or stain over metal sash track along jambs.

Note: See Marvin Window's "GENERAL PAINTING / STAINING AND CARE INSTRUCTIONS", on the back of the warranty page, for more detailed information.