

Important installation, finishing and homeowner information. Please keep these instructions with the window, to be removed only by homeowner.

Marvin recommends removing the sash prior to installation. Although not required, it will ease installation. This supplemental will detail how to remove shipping clips, remove and replace sash, remove and replace fillers as well as how to use the jamb adjusting feature essential for proper installation. Use this supplemental instruction in conjunction with the enclosed Structural Installation Instructions PN19970019.

Removing Shipping Clips and Sash Retainers

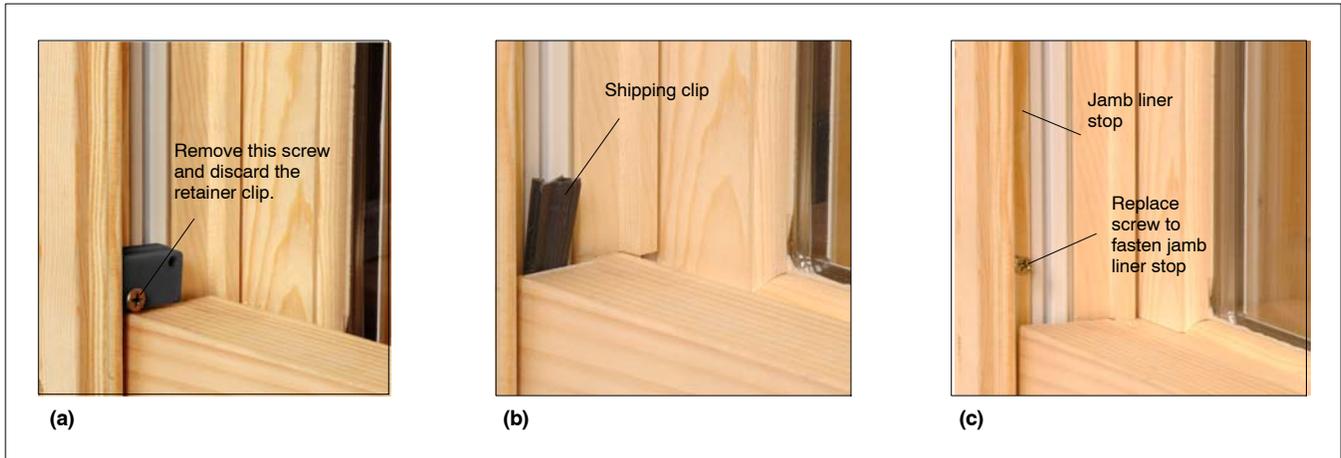


Figure 1: Removing shipping clips and sash retainers.

1. Remove the screw fastening the sash retainer clips to the jambs. Discard the clip but save the screw. See figure 1a.
2. Vinyl shipping clips are placed at the checkrail between the sash and the jamb liner. Prior to window installation, simply pull the clip up and out as shown in figure 1b.
3. Use the screw removed earlier to fasten the jamb liner stop.

Special Note for Painters and Finishers - Tilt Pins and Bottom Sash Weather Strip

When finishing or painting the sash, it may be necessary to remove weather strip and hardware. When removing these components, take special care to note their original position on the sash.

- Tilt pins are handed as viewed from the exterior. Each pin is marked noting its location on the sash as well as which sash it should be installed on. For example in figure 2, "BL" is stamped on the pin. This stands for bottom left meaning the bottom sash on the left side.
- It is crucial for performance reasons that the bottom sash weatherstrip is replaced in its original position, overhanging the recess in the sash by about 1/8" (3) on each side.



Figure 2: Replacing tilt pins and bottom sash weather strip

Removing Jamb Fillers

(to access pre-drilled installation screw holes)



Figure 3: Removing Jamb Fillers

1. Remove the top sash wood jamb filler by pushing on the flange and rotating the filler toward the exterior. See figure 3a.
2. With the bottom sash open, remove the exterior clad jamb filler by prying it out with a flat bladed screwdriver and rotating the filler toward the interior. See figure 3b.
3. Wood units have a two-part bottom filler. Remove the lower section following the same procedure as removing the clad filler. Remove the top portion by inserting a flat screwdriver behind the filler and carefully prying it off. See figure 3c. Ultimate Single Hung Magnum units have a one part filler. Remove by prying it out with a flat sided screwdriver and rotating toward the interior. See figure 3c.
4. Remove Ultimate Single Hung Magnum sash retaining clip. See figure 3d. Replace prior to installing jamb filler.

Replacing Jamb Fillers

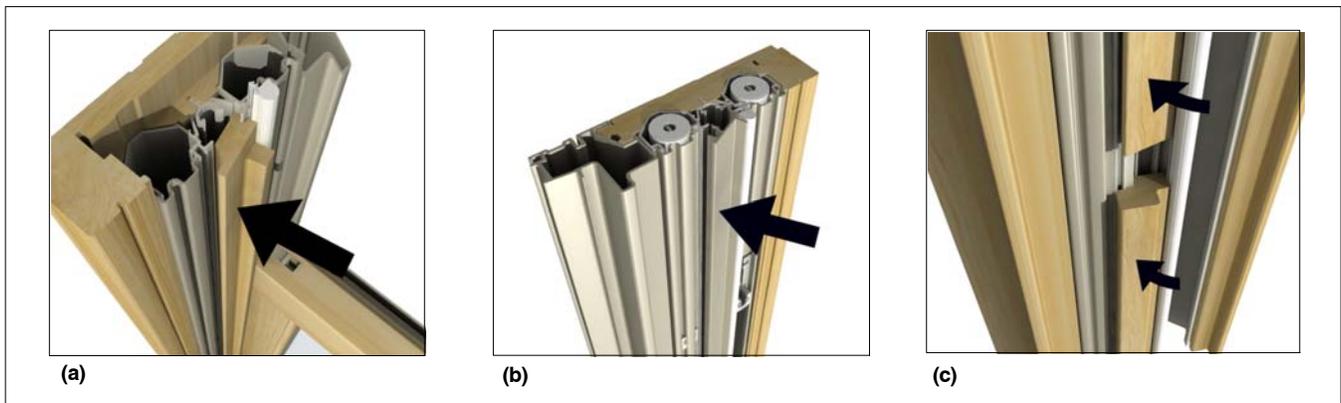


Figure 4: Replacing Jamb Fillers

1. Replace the interior jamb top filler by first inserting the flange side of the filler into place. Push on the filler to rotate and snap the filler into place. See figure 4a.
2. With the bottom sash open, replace the exterior clad filler with the flange end in first and press into place. Make sure the filler is flush against the checkrail pad. See figure 4b.
3. On Ultimate Double Hung Magnum wood units first replace the top portion by snapping it into place. Follow with the bottom portion by rotating into place toward the exterior see figure 4c. For Ultimate Single Hung Magnum units insert the interior side first and rotate the filler into place.

Removing - Bottom Sash



Ultimate Double Hung Magnum sash can be very heavy and awkward to handle. Failure to acquire adequate assistance may result in damage to the unit and/or personal injury.

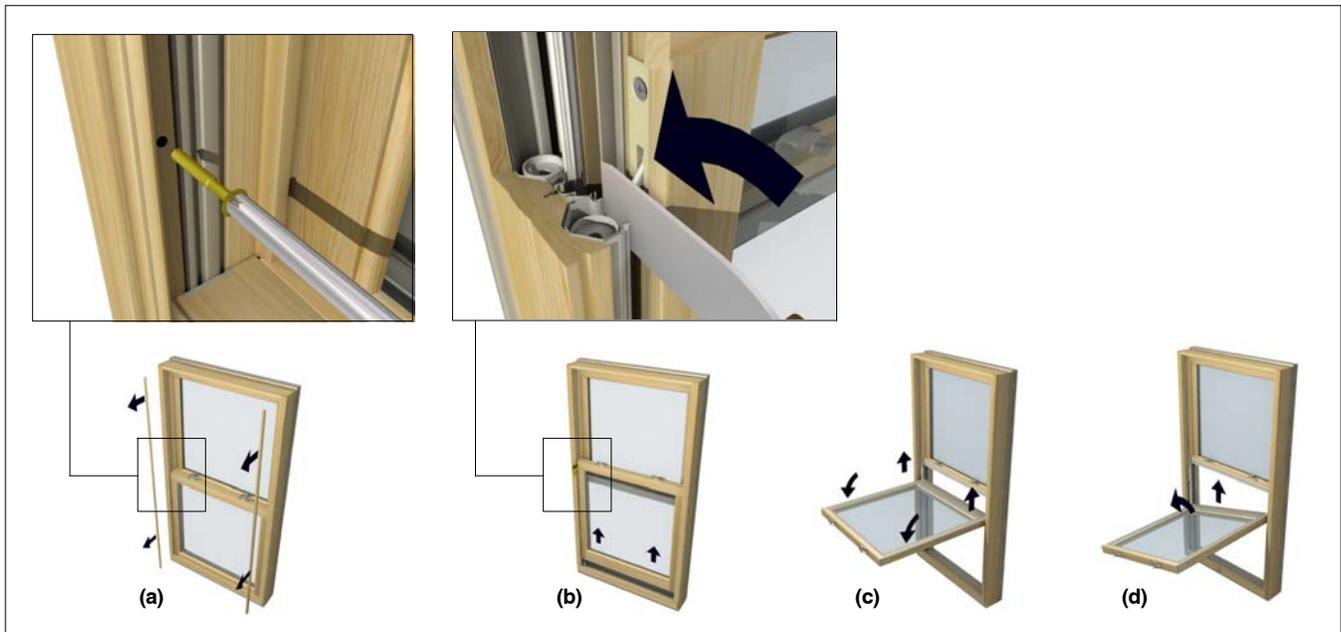


Figure 5: Removing Bottom Sash

1. Remove the interior jamb stop by first unscrewing the top screws. Lift the sash to the fully "up" position and remove the lower screws. See figure 5a. Be sure to retain screws for reinstallation of sash and stop later.
2. Raise the bottom sash to the fully open position. With a person at each side of the window, insert a putty knife or plastic credit card between the bottom sash checkrail and jamb. Slide the putty knife down approximately 4" (102) past the top of the sash to release the latch blade. See figure 5b.
3. Ease top of sash to a horizontal position to lock clutches. Lift both sides of the sash up 2"-3" (51-76) (separating the pivot pins from the clutches). See figure 5c. Rotate the sash counterclockwise until pins clear the jambs and remove the sash. See figure 5d.

Removing - Top Sash

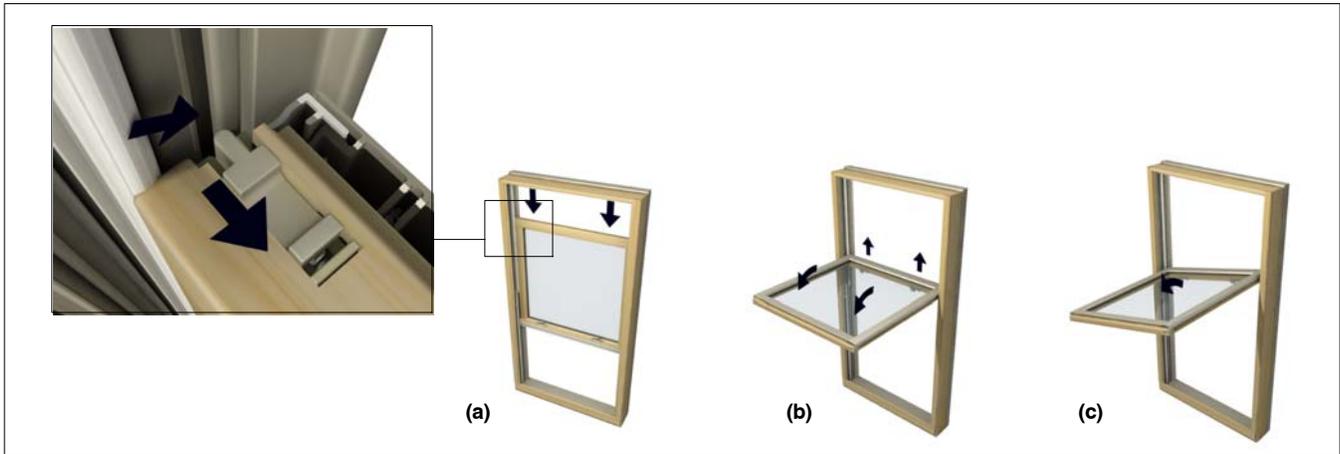


Figure 6: Removing Top Sash

1. Remove the jamb covers and lower the top sash 4" (102). With a person at each side of the unit, release the top tilt latches. See figure 6a.
2. Ease top of sash to a horizontal position to lock clutches and lift the sash upward 2"-3" (51-76) (separating the pivot pins from the clutches). See figure 6b.
3. Rotate the sash until the pins clear the jambs and remove the sash from the frame. See figure 6c.

Installing Sash - Top Sash



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

NOTE: To reposition the clutches, use both hands on a flat screwdriver to rotate the clutch cam to the release horizontal position. Firmly holding the screwdriver with both hands, slide the clutch **no more than 4" (102) down** from the balance tube. Rotate the balance clutch cam to the locked position.



(a)
Released (horizontal) position



(b)
Locked (vertical) position

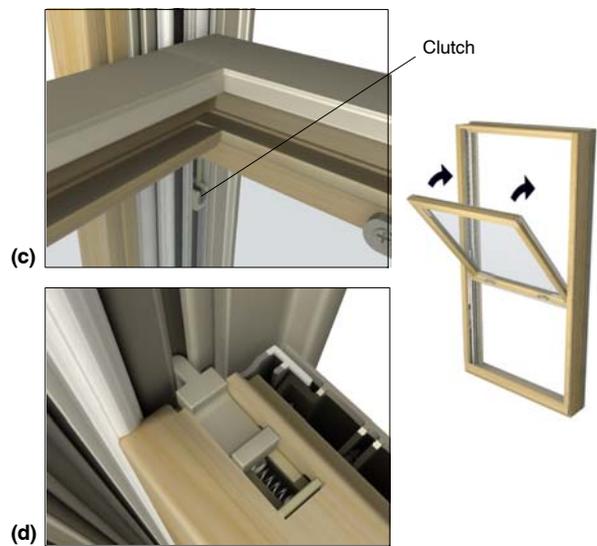


Figure 7: Installing Sash

1. Be sure that both left and right clutches are parallel and within 4" (102) of the balance tube. and in the vertical (locked) position. See figures 7a and 7b.
2. With a person on each side of the sash, position the top sash horizontally in the frame, ensuring that the pivot pins are placed above the jamb clutches. See figure 7c. Lower sash to engage the tilt pins in the clutches.
3. With the tilt pins engaged in the clutches, tilt the sash up into place and pull back on the tilt latches. Once the sash is in place release the latch and make sure the latch pin is properly seated and the sash is securely in place. See figure 7d.

Installing - Bottom Sash

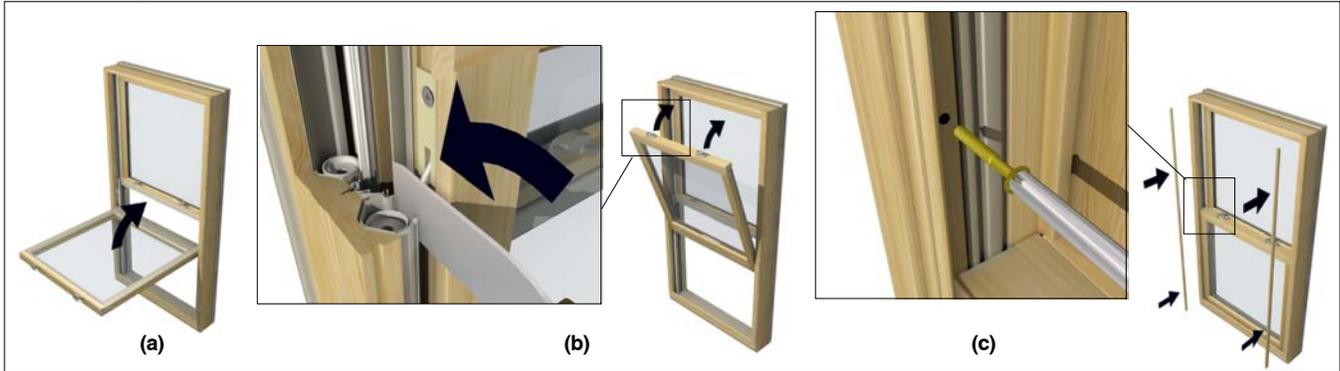


Figure 8: Installing Bottom Sash

1. Ensure that both left and right clutches **are no more than 4" (102) down** from the balance tubes, parallel and in the locked position. With a person on each side of the sash, position the bottom sash horizontally in the frame so that the pivot pins are placed above the jamb clutches. See figure 8a. Lower sash to engage the tilt pins in the clutches.
2. Tilt the sash up into place. Use a putty knife to depress the latch blades while tilting the sash into position in the frame. Once in place, remove the putty knife ensuring the latch blades are properly seated into the jamb carrier. See figure 8b.
3. Install the interior jamb stops and fasten using all the #8 x 1" full thread screws removed earlier. See figure 8c. Make sure screws are fully seated and there is no gap between the jamb liner stop and the jamb liner.

Note: For IZ3 units, replace the #8 x 1" screws with #8 x 1 3/4" screws into the interior stop. It is recommended that this be performed after the impact brace is predrilled in the following section.

UDHM IZ3 Units

The following step applies to wood and clad Ultimate Double Hung Magnum IZ3 products. If your unit is not an IZ3 product, skip to the next section.

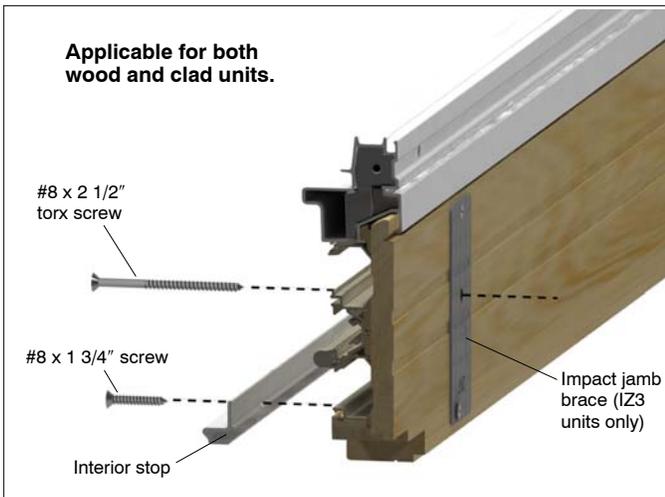


Figure 9: Predrilling the impact jamb brace.

1. Using the provided 7/64" (3) drill bit, predrill a hole in the jamb brace at each interior stop fastener location.

Using the Jamb Adjusting System and Jamb Screws for Structural Installation

IMPORTANT: The Ultimate Double Hung Magnum features a jamb adjustment system incorporated into the jamb liner. This system is essential for proper installation and adjustment for proper sash operation. If you do not use the jamb adjustment system, you must install the window with structural masonry clips to achieve the advertised DP rating.

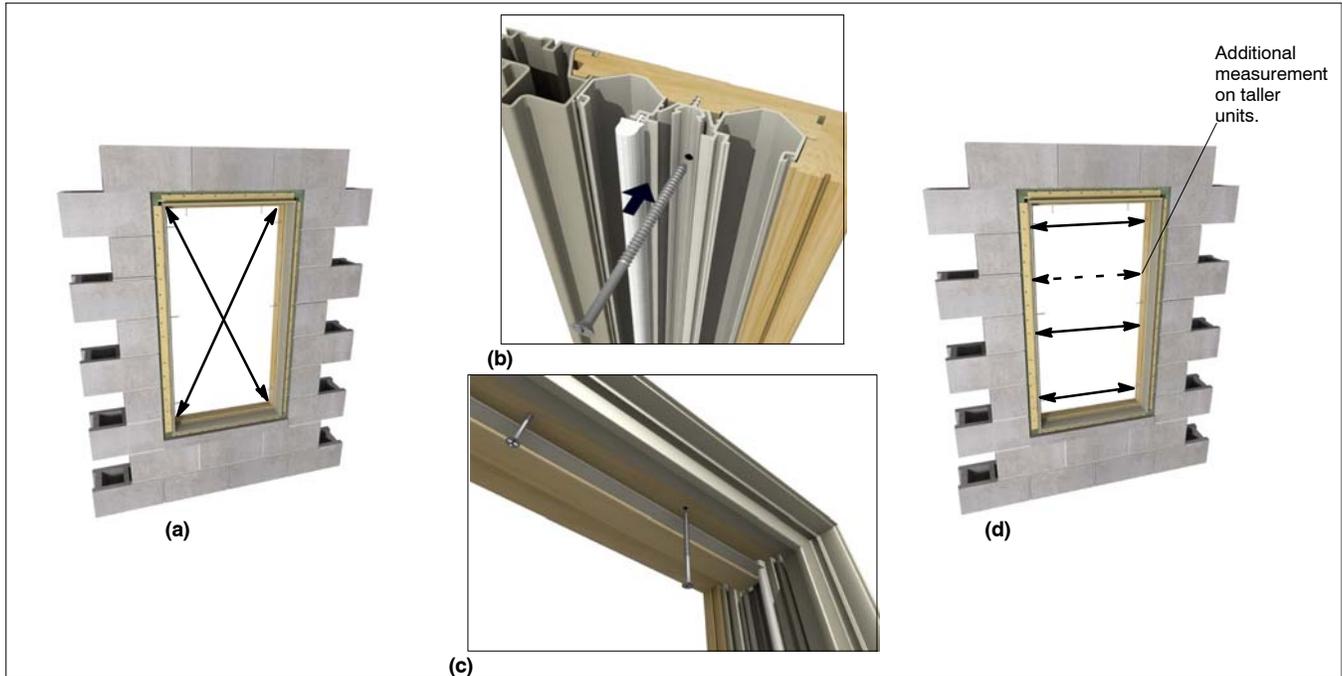


Figure 10: Using the jamb adjustment system

1. Once the unit is in the rough opening, centered, plumb and temporarily squared using BMC or nailing fin, remove the jamb covers. See figure 10a.
2. Fasten the unit to the rough opening driving the enclosed screws through the pre-drilled holes in the jamb liner and head jamb. Drive the screws until the head "pops" past the kerf in the jamb liner. See figures 10b and 10c. Always shim behind or above screws.
3. Adjust screws and shims until top, checkrail, and bottom measurements are equal. On taller units, measure in between top/bottom and midpoints. See figure 10d. Or with the sash installed, adjust the screws and shims until an even reveal is achieved between the sash and frame weatherstrip.