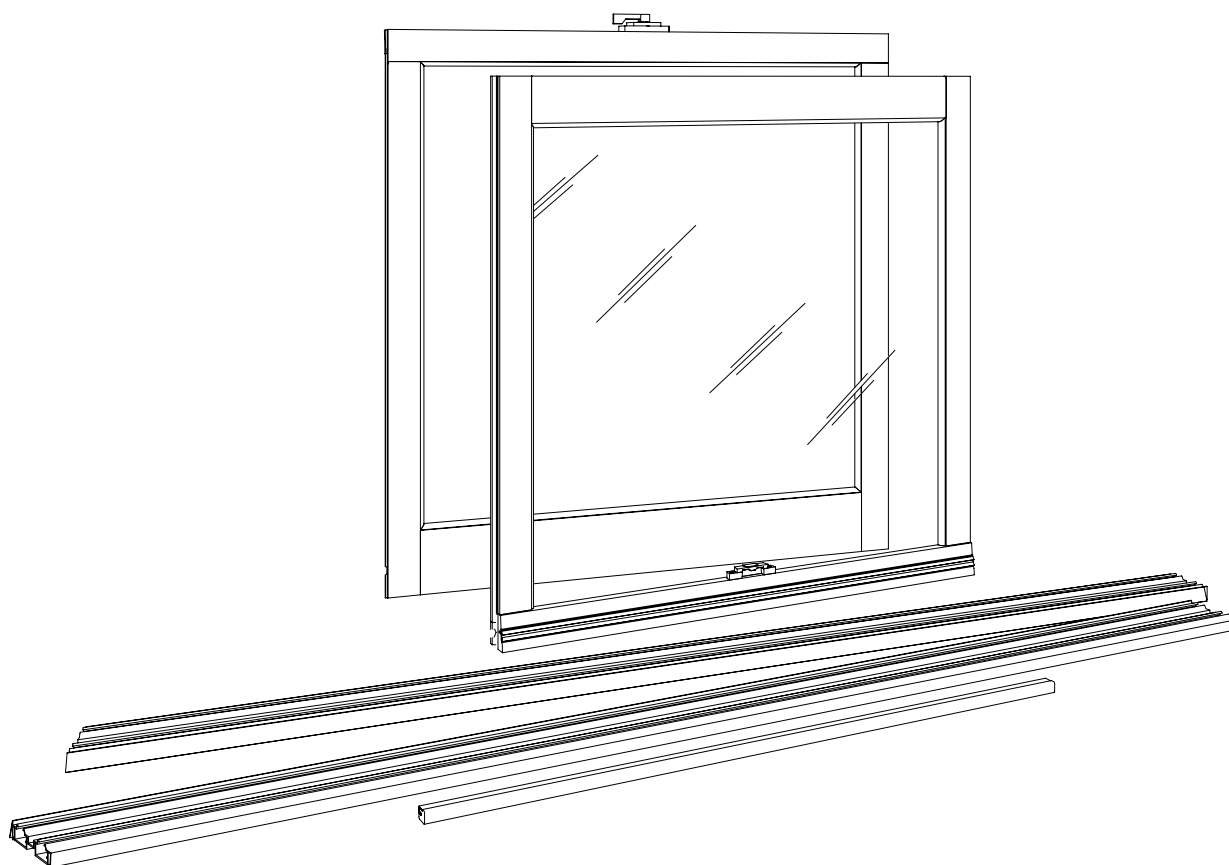


# Ultimate Wood Single Hung Magnum Tilt Pac

## Installation and Finishing Instructions



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**MARVIN**® 

## BEFORE YOU BEGIN

**IMPORTANT:** Read these instructions thoroughly before beginning to assemble and install a Tilt Pac. Failure to install as recommended will void any warranty, written or implied.

- It is the responsibility of the builder, installer and subcontractors to protect the interior and exterior of windows/doors from excessive contact with harsh chemical washes, construction material contamination and moisture. Damage to glazing, hardware, weatherstrip 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.
- Alterations to Marvin products including window films, insulating or reflective interior window treatments or additional glazings can cause excessive heat buildup and/or condensation. This may lead to premature failures not covered under warranty by Marvin Windows and Doors.

- When preparing to finish the exterior of wood windows and doors fill all nail holes and staple holes with wood filler. Follow all guidelines enclosed (after warranty) and by others (from materials used) to prepare and finish.



**WARNING: Practice safety! Wear safety glasses or goggles and appropriate hearing protection when installing or performing adjustments to a Marvin window or door product.**



**CAUTION: Make certain that you have adequate help for the size of the unit you will be working with. Many of the sizes that Marvin offers will require more than one person to complete the following steps.**

**ATTENTION: Chemicals, solvents, paints and other harsh substances should never come in contact with the vinyl jamb liner of your Magnum Single Hung Tilt Pac. To clean use only warm soapy water.**

## STANDARD PARTS SHIPPED WITH UNIT

ILLUSTRATIONS (not to scale)	DESCRIPTION AND COLOR	PART/PROFILE NUMBER
	Top and Bottom Sash Pair	Contact your Marvin dealer
	Vinyl Sash Stop V458 60" (1524) WH BG	11870998 11870999
	Sash Retainer Plate TP BZ WH	11870468 11870464 11870500
	Sash Opening Filler	W7188
	Stationary Sash Bracket	11100300
	Hardware Clip, Vinyl V611 WH	16215004
	Sash Pivot RH LH	11870463 11870462
	Single Hung Jamb Liner V610 168" (4267) WH BG	16215002 16215003

## YOU WILL NEED TO SUPPLY

Drill	Hammer
10-15 finishing nails	Nail set
Screwdrivers (Flat and Phillips)	Pliers
Putty knife or pry bar	Safety glasses
2 pieces of scrap wood	3/32" drill bit

## REPLACEMENT PARTS

If replacement parts are needed, please contact your local Marvin Windows and Doors dealer.

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

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## Removing the Existing Sash

1. Pry moulding loose from the side jambs using a putty knife. Be careful not to damage the casing. See figure 1.

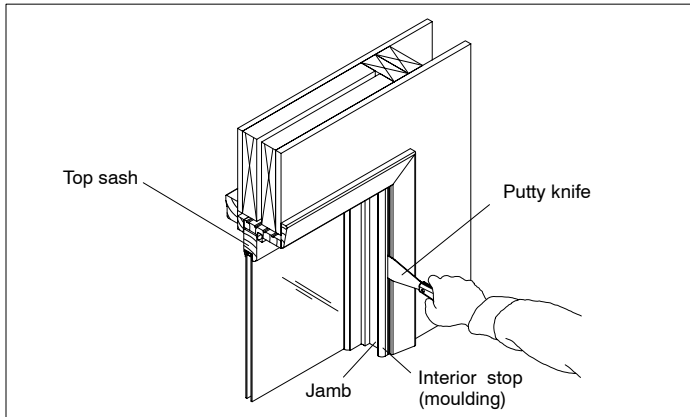


Figure 1

2. Remove the bottom sash.
3. Slide the top sash down to the sill and remove the header part stop from the header. See figure 2.

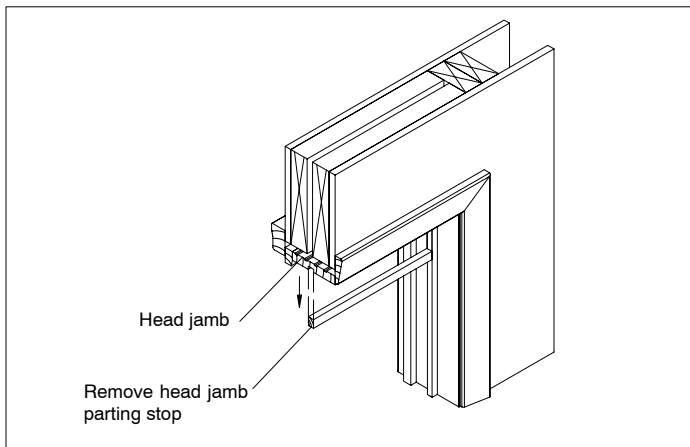


Figure 2

4. Remove the part stops from both jambs. Remove the top sash. See figure 3.

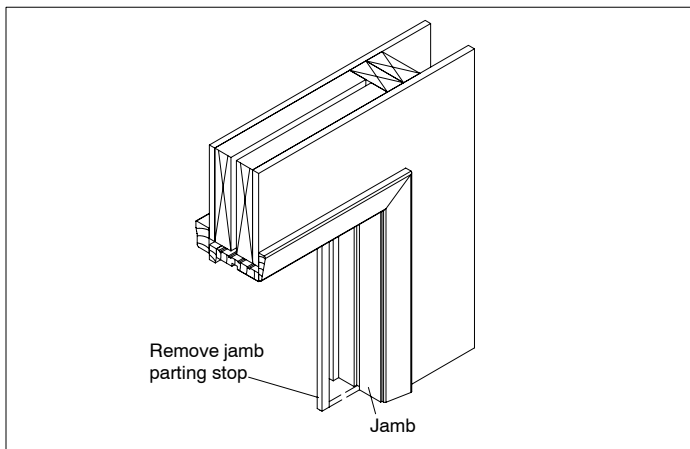


Figure 3

5. Inspect the frame to be sure that it is square and the jambs are straight (not bowed). Measure the sash opening and sill bevel for proper size in relation to the Tilt Pac you have ordered. (Standard Marvin bevel is 14 degrees.)

## Preparing the Frame

6. Install the sash opening filler strip, butt it against the blindstop and the sill. Nail in place with finishing nails. See figure 4. If the sill bevel is not the standard 14 degrees, the sash filler should be trimmed to fit the bevel. Trim from the short side to the long side. The length of the short side should remain the same.

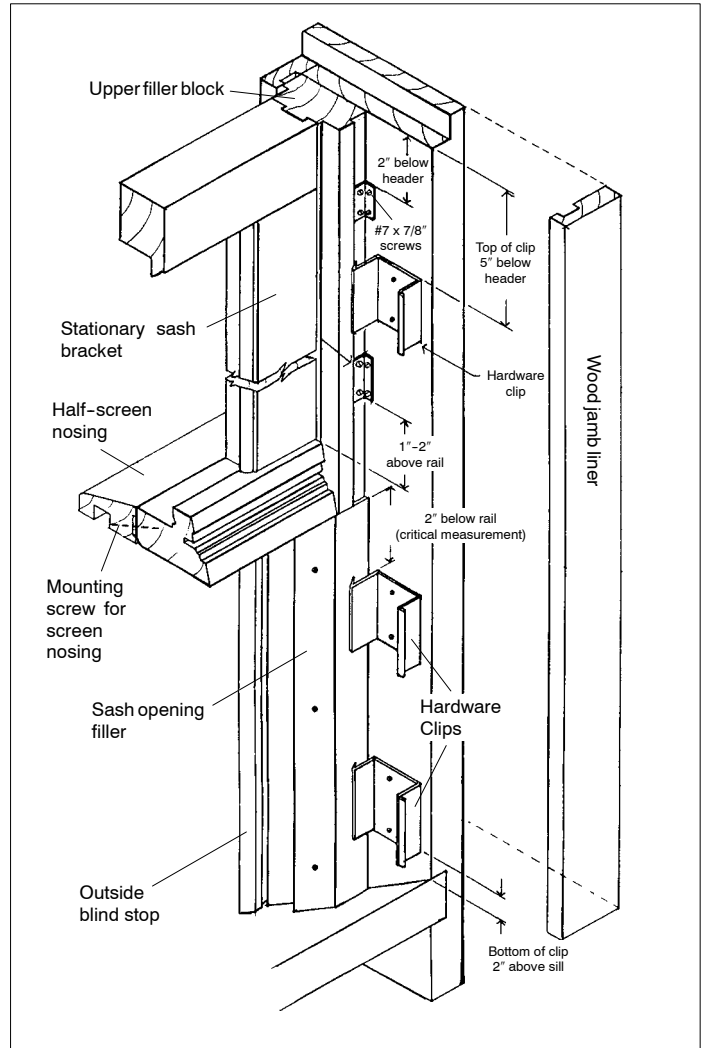


Figure 4

## Stationary Sash Brackets

7. Install the stationary sash brackets on the sash using the #7 x 7/8" screws provided. The unit has been pre-drilled for correct placement. See figure 4.
8. Install the top sash above the sash opening filler strip and fasten it into the frame using the #7 x 7/8" screws. See figure 4.

## Installing Vinyl Hardware Clips

(Refer to Figure 4)

- To install vinyl hardware clips on units of 20"–27 glass size, six vinyl hardware clips will be provided, three for each jamb. The top clip should be placed 5" below the header. The center clip should be placed 2" below the check rail. The bottom clip should be placed 2" above the sill.

On units with glass size 28"–39", ten vinyl hardware clips will be included, five for each jamb. Place the top clip 5" below the header. The center clip should be placed 2" below the check rail. The bottom clip should be placed 2" above the sill. The two remaining clips should be centered between the above three clips.

On units with glass size 40" and over, fourteen vinyl hardware clips will be included, seven for each jamb. Place the top clip 5" below the top check rail, and the bottom clip 2" above the sill.

Evenly space the remaining clips.

**NOTE: DO NOT PLACE THE HARDWARE CLIPS OVER THE STATIONARY SASH BRACKETS!** See figure 4.

- Install vinyl hardware by placing it against the sash brackets and snapping it into place. Foam backing should be positioned in the center of the clips. Restriction of hardware movement can be prevented by making sure the foam backing does not get caught between the hardware and the clips. Install the vinyl sash stops (one per side) in the track at the top of each vinyl jamb liner.
- Install wood jamb liner using finishing nails. (**NOTE: 1/4 round moulding may be used in place of the wood jamb liner.** Wood jamb liner and 1/4 round not provided.)

## Installation of the Half Screen Nose (Optional)

- Pre-drill the 1/2 screen nosing as indicated on figure 4. Install it flush with the bottom of the check rail and fasten into place with wood screws. (See figure 4 for mounting location.)
- Pull down the two, one per side, locking terminals located within the jamb liners. Hold a standard screwdriver firmly and pull down each assembly 8"–10" from the sill. Engage in locked position by rolling the screwdriver. **BE SURE THE ASSEMBLIES ARE IN THE LOCKED POSITION BEFORE LETTING GO. IMMEDIATE DAMAGE COULD OCCUR IF THE LOCKING TERMINAL ASSEMBLIES ARE NOT LOCKED.** (See figure 5 and 6.)

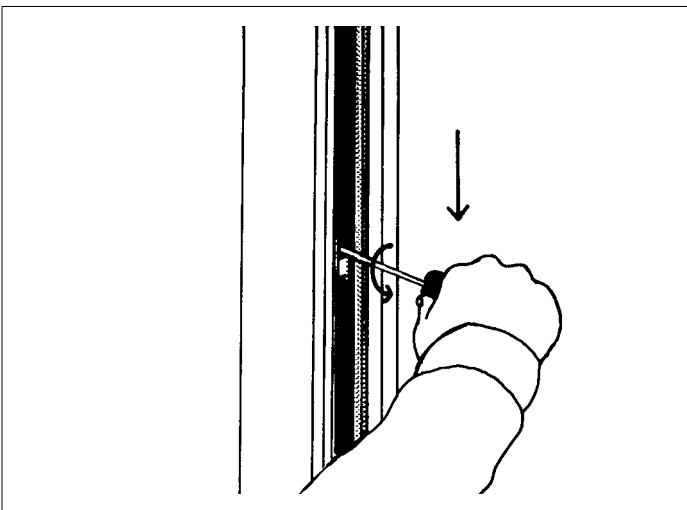


Figure 5

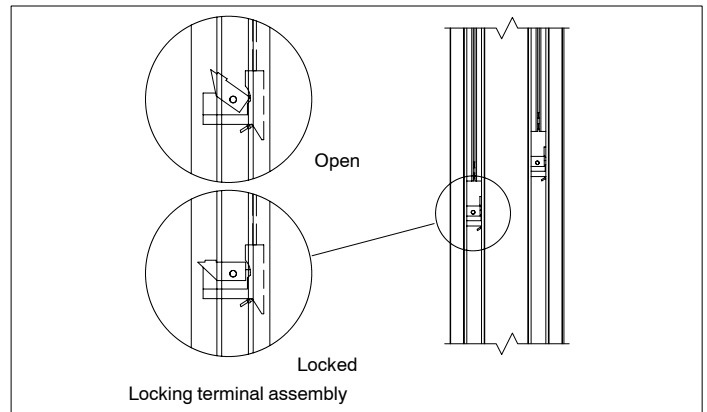


Figure 6

## Installing the Sash

- Sash retainer plates are installed at the factory on all Magnum Single Hung units, with the exception of Magnum Historical Single Hung. Before placing sash into position, remove the single screw and loosen the two screws in the oversized holes on the sash retainer clip. Slide the sash retainer clip back.
- Install the bottom sash keeping one side of the sash lower than the other, insert the metal cam pivot into the vinyl track. The pivot should be positioned above the locking terminal assembly.
- Place the other metal cam pivot into the vinyl track. The pivot should be positioned above the locking terminal.
- Level the front edge of the sash. See figure 7.

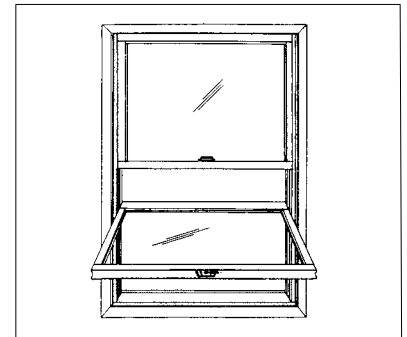


Figure 7

- Tilt sash up and depress the vinyl jamb liner on both sides, easing the sash into position.
- Once the sash is in position, slide the sash down until the cam pivots engage with the locking terminal assemblies.
- Slide the sash retainer clips tight against the jamb liner. Secure each clip into place by installing the screw provided into the pre-drilled hole. See figure 8.

**NOTE: Sash retainer clips will have to be slid back to allow the sash to tilt out.**

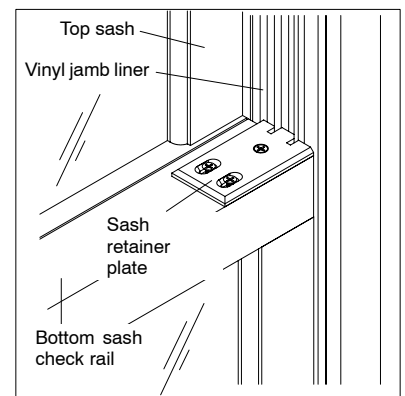


Figure 8