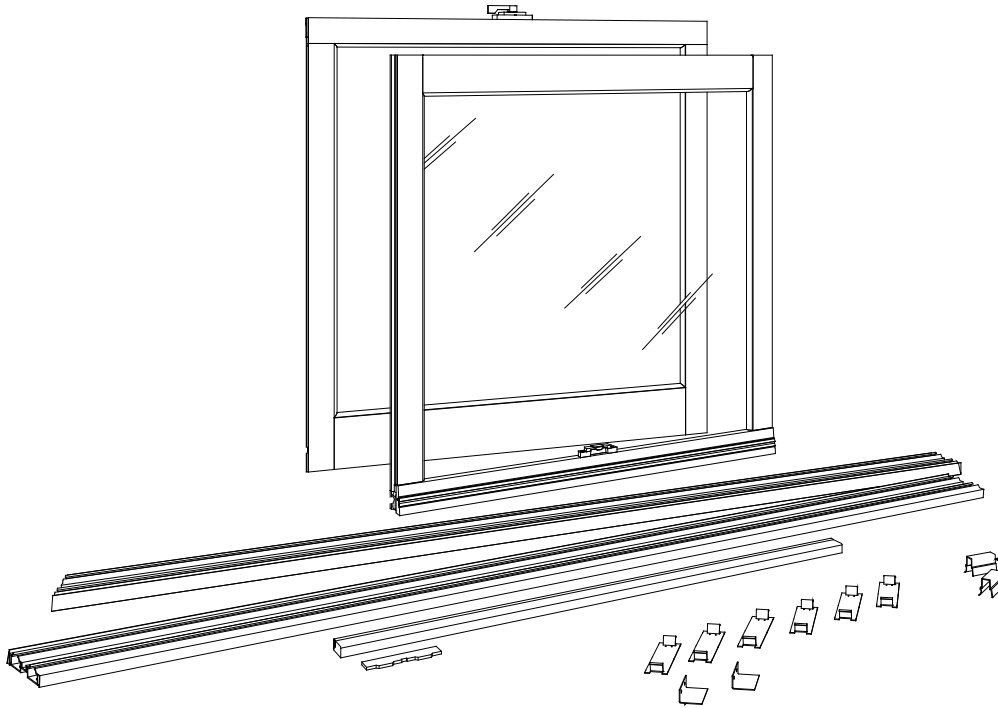


Ultimate Double Hung Magnum Tilt Pac Installation and Finishing Instructions



ABSTRACT: Please read these instructions in their entirety before beginning to install your Marvin window product. For installation using other construction methods, such as remodeling, replacement, and recessed openings refer to “ASTM E2112-01, Standard Practice for Installation of Exterior Windows, Doors and Skylights,” for installation suggestions. Information for ASTM E2112 can be found on the ASTM website, www.astm.org. Failure to install as recommended will void any warranty, written or implied.

For product specific issues, service instructions and other field service guides, refer to the Marvin Service Manual, visit our website at www.marvin.com, or contact your Marvin representative.

Regional standard practices, environmental conditions, and codes may vary and supersede the procedures contained within. The responsibility for compliance is yours: the installer, inspector, and owner(s).

The procedures within these instructions are consistent with those used in testing to achieve the advertised DP rating.

- Always provide a copy of these instructions for the current or future building owner.
- Contact your Marvin supplier if you have any questions regarding product and materials used in manufacturing or questions on replacement. If replacement parts are needed, please contact your local Marvin Windows and Doors dealer. Whenever possible, please provide a part number.

IMPORTANT

Please consult with local authorities to properly dispose and/or recycle all packaging, materials, and waste.



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 more information, go to www.epa.gov/lead.

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



WARNING

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

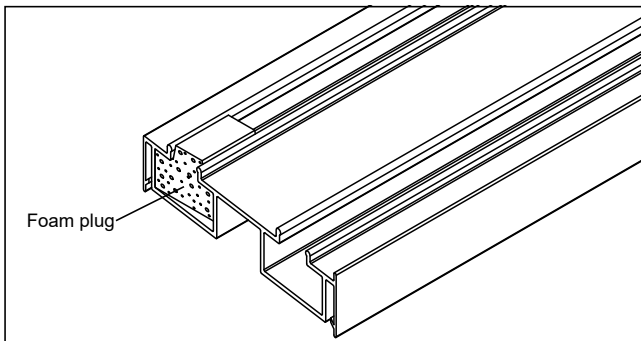
Standard Parts Shipped

You Will Need to Supply

Safety glasses	Hammer
Putty knife	Pliers
Finish nails	
Screwdrivers (Flat and Phillips)	

Foam Plugs

During shipping the foam plugs located in the vinyl jamb liner may come loose. If so, reposition in the bottom of the interior sash as shown below.



Removing the Sash

1. Remove the moulding from the side jambs using a putty knife or pry bar. Do not break or damage these pieces as they may be reused. See figure 1.

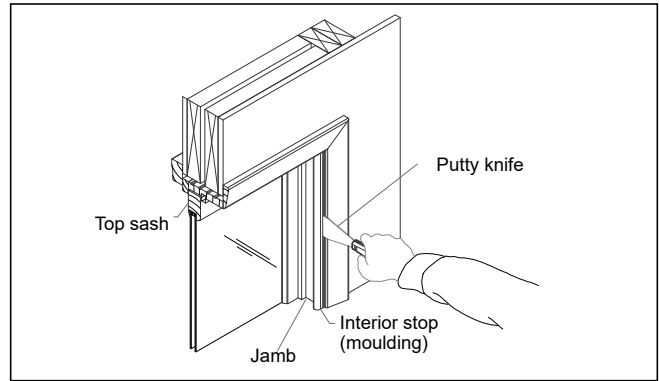


Figure 1

2. Lift out the bottom sash.
3. After removing bottom sash, slide top sash down toward sill and remove part stop from the head jamb. See figure 2.

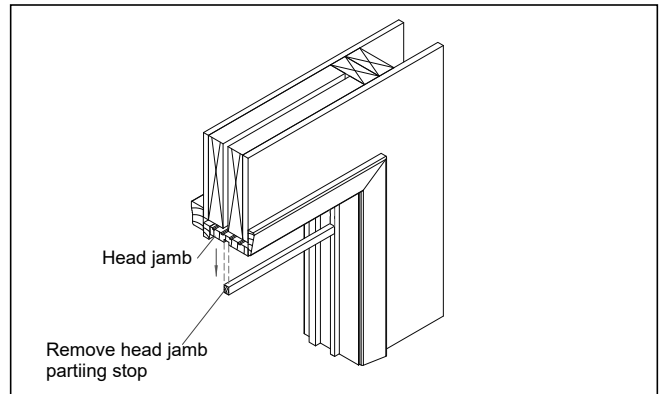


Figure 2

4. Remove part stops from both side jambs. See figure 3.

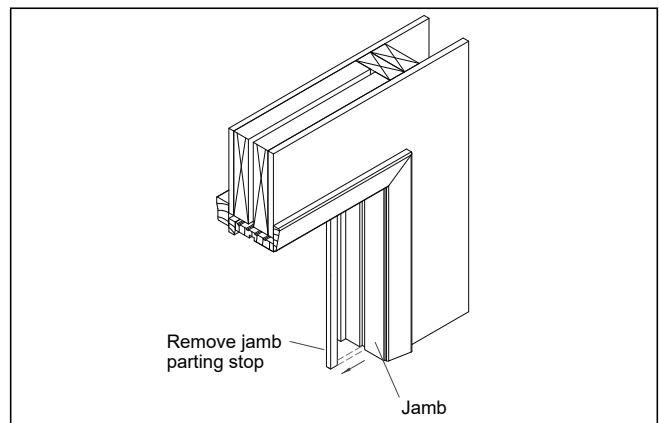


Figure 3

5. Remove the top sash.

IMPORTANT

Before proceeding inspect existing frame for rot or deterioration of frame members, repair or replace as needed.

Check frame to ensure the sill, side and head jambs are straight, level and plumb. Measure frame diagonally to check frame for square. The frame **MUST** be corrected if "out" on any of the above conditions.

Recheck sash opening width (inside of side jambs), height (head jamb to point where exterior of bottom sash contacted sill), and sill bevel (standard Marvin bevel is 14 degrees) to ensure Tilt- Pac ordered will properly fit the opening.

Preparing the Frame

1. Remove any remaining balance mechanism hardware. If your frame utilized weight pockets at the jambs remove weights (if possible) and fill cavity with fiberglass insulation.
2. Place the top sash stays on the blind stop of the frame slightly above the check rail. See figure 4.

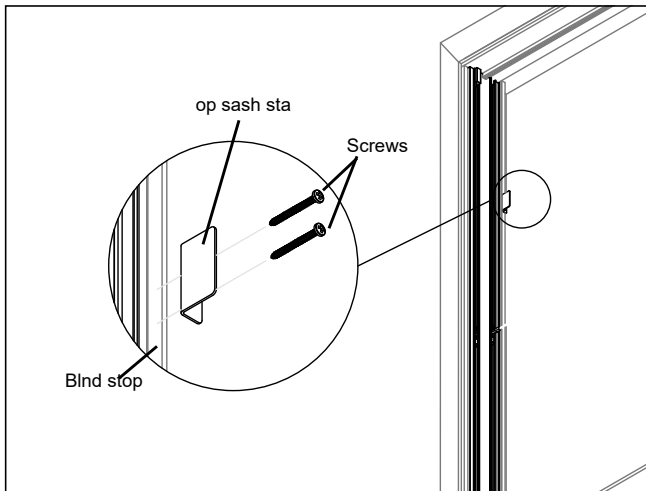


Figure 4

3. Position brackets for the vinyl jamb liners. Place one approximately 4" (102) from head jamb, and one 4" (102) from sill. Align level on the jamb 1/16" (2) away from the exterior blind stop. Distribute and align other brackets evenly along the jambs depending upon the size of the unit. The correct amount of brackets will be sent with each Tilt Pac. Fasten in place with 1"-1 1/4" galvanized roofing nails, 4 per bracket using holes nearest the ends of each bracket.

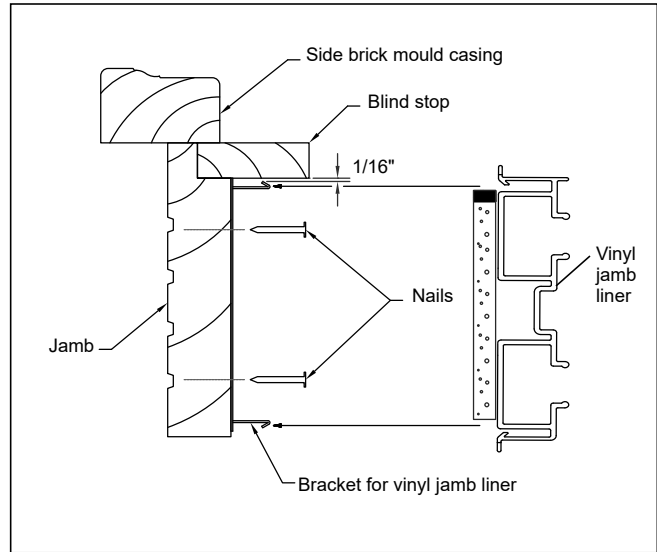


Figure 5

4. Place vinyl jamb liner against brackets and snap into place. If necessary to remove the vinyl jamb liner, the following procedures should be performed. Place a putty knife or pry bar between wood and vinyl jamb liner. At the same time try to determine the location of brackets for the vinyl jamb liner. They are not visible until you pry away the liner. This will result in easier removal of jamb liner. Pry outward. This will loosen jamb liner and usually the bracket. Repeat this procedure along the entire length of jamb on both interior and exterior side. When removing vinyl jamb liner, be careful not to damage wood frame members.

5. Install two vinyl sash stops (one per side) in the interior track at the top of each vinyl jamb liner. See figure 6.

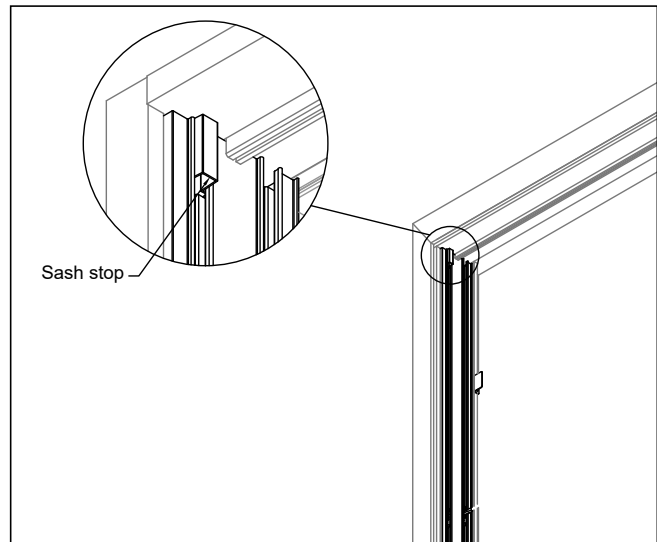


Figure 6

- Using a flat screwdriver and holding it **firmly**, pull down the four locking terminal assemblies located in the vinyl jamb liners (2 per liner), approximately 8I-10I (203-254) from the sill. See figure 7. Engage in locked position by rotating the top of screwdriver toward interior. **Be sure terminals are in the locked position before letting go.**

IMPORTANT

Immediate damage could occur if the locking terminal assemblies are not locked. See figure 8.

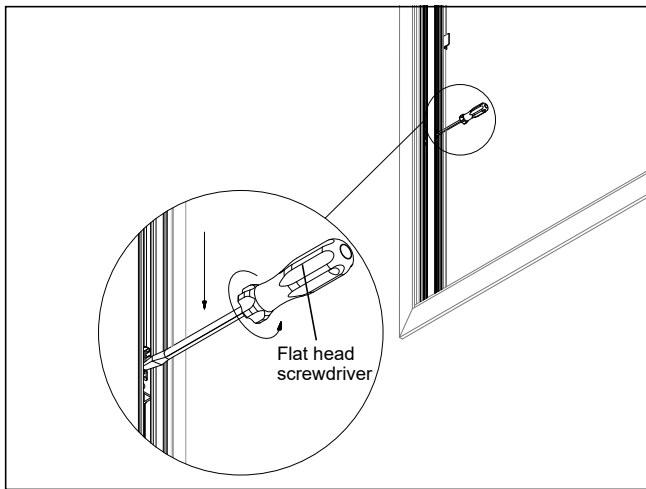


Figure 7

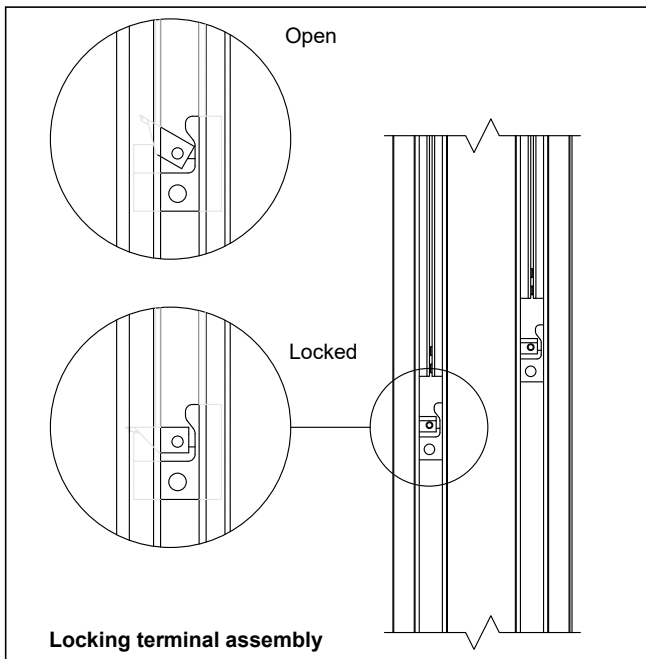


Figure 8

Preparing and Installing the Sash

- Install the top sash first. Keep left side of sash slightly lower than right side, insert left metal cam pivot into vinyl jamb line track nearest the exterior side of building. Be sure pivot is positioned above the locking terminal assembly. See figure 9.

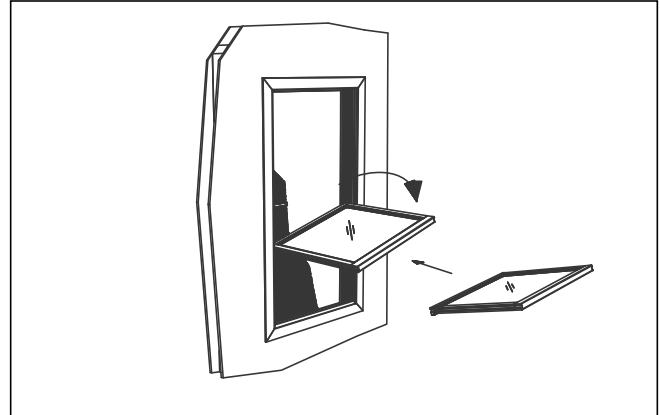


Figure 9

- Lower right side of sash, placing right metal cam pivot into vinyl jamb liner track nearest the **exterior** side of building. Be sure pivot is positioned above locking terminal assembly.
- Level front edge of sash (parallel to the sill/head jamb).
- Tilt sash up and depress vinyl jamb liner on both sides. This will ease sash into position in the jamb liner. See figure 10.
- Once sash is in position, slide it down until cam pivots contact locking terminal assemblies in both jamb liners. This will release locking terminal assemblies and allow top sash to travel up and down. See figure 10.

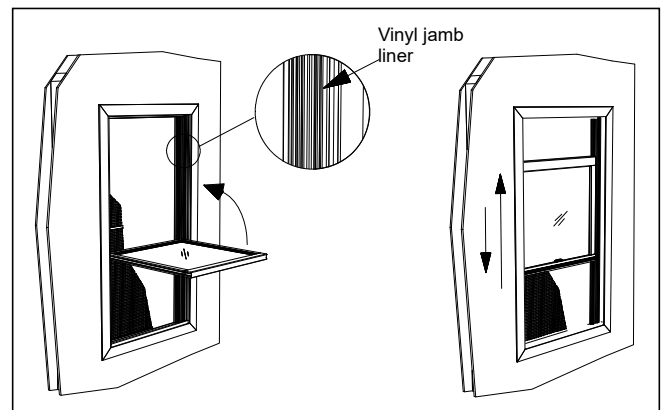


Figure 10

- Install the bottom sash by repeating steps 1-5 in this section, this time using tracks in vinyl jamb liner closest to the interior of the building.

- Place part stop into the head jamb with weather stripping facing exterior of building. Use small finishing nails (not included) to fasten, nailing through the part stop into the head jamb. See figure 11.

NOTE: The head jamb part stop in 1/2" (13). In some older windows the groove that the part stop is inserted into is only 3/8" (10), therefore, the part stop may have to be ripped down to fit.

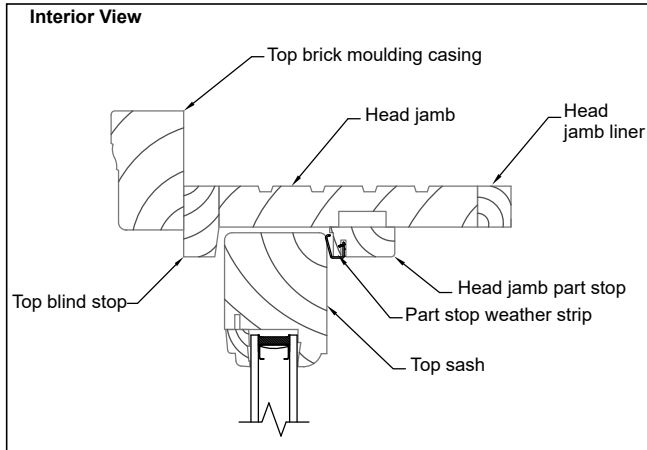


Figure 11

- Using small finishing nails (not included) replace interior stops you removed from jambs in Step 1.
- Check the tilt feature by raising sash 3" (76) and tilt the top corners of bottom sash to interior. This is done to assure clearance of interior jamb stops replaced in previous step. Remove and modify if needed.
- Finish primed or bare wood surfaces as soon as possible after installation.

Sash Retainer Plate Instructions (Magnum Double Hung Only)

- With bottom sash installed, slide both sash retainer plates tight against the vinyl jamb liner. Secure each plate in place by installing the screw provided into pre-drilled hole in check rail. Then tighten existing screw in each sash retainer plate. **NOTE:** After securing sash retainer plates, bottom sash cannot be tilted. In order to tilt bottom sash, remove screw in round hole and loosen the one in elongated hole. Slide retainer plate away from vinyl jamb liner track. Remember to return plates to the locked position, replace and tighten screws. See figure 12.

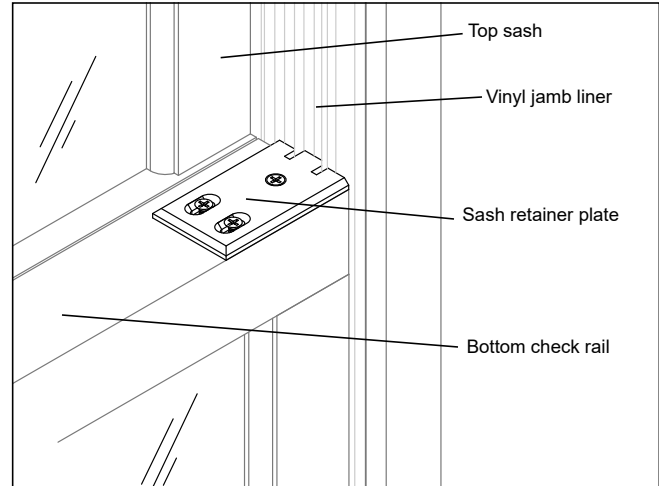


Figure 12