IMPORTANT

The Marvin Ultimate Push Out Casement unit features a friction limiter that can be locked open in three positions and easily disconnected to place the sash into the wash mode. The sash features a lever activated multi-point lock system with adjustable cams that enable the user to tighten or loosen the closing force of the sash lock. For heights 64 9/32" and under the lever handle is placed in the center of the sash, on all larger sizes the lever handle is placed 31 3/8" up from the sill and optional dummy handle can be ordered. The interior screen is hinged and the knob is shipped loose for job site installation.

<table>
<thead>
<tr>
<th>Parts Shipped with Unit</th>
<th>You Will Need to Supply</th>
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</thead>
<tbody>
<tr>
<td>Dummy handle (optional)</td>
<td>Screen knob</td>
</tr>
<tr>
<td>Straight slot screwdriver</td>
<td>Drill</td>
</tr>
<tr>
<td>Safety glasses</td>
<td>5/32&quot; (4) drill bit</td>
</tr>
<tr>
<td>9/64&quot; (3) Allen wrench</td>
<td>3/8&quot; (10) spade bit</td>
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NOTE: Numbers listed in parentheses ( ) are metric equivalents in millimeters rounded to the nearest whole number.

WARNING

Possible Fall Hazard: Do not lean out of window to operate sash. Keep sash limiters engaged unless full opening is required for egress or to operate wash mode.

CAUTION

To help prevent possible damage from swinging or wind-blown sash, keep sash limiters engaged unless full opening is required for egress or to operate wash mode.

Installing the Unit

1. If using screw through the jamb installation method, open sash and remove unit sill, head jamb, and side jamb stops.

2. Install unit into the opening per installation instructions.

Adjust Sash Cam Locks

1. Operate the sash and place lever into the closed position to check locking force of the sash; if necessary, adjust sash cam lock to increase or decrease sash locking force. See figure 1.

Adjust Friction Limiter

1. Operate the sash back and forth to check operation of the friction limiter; if necessary, adjust friction screw on the limiter to increase or decrease limiter operating force. See figure 2.
Handle Grip

1. Open the sash and rotate the handle grip to the down position; push out on the sash to place the sash in one of the locked positions. Gently push or pull on the sash to verify that the locked open function is operating properly. See figure 3.

Wash Mode

1. To place sash in wash mode, disconnect friction limiter arm from the sash and push it back under the hardware cover. See figure 4.

Install Screen Knob

1. Install the screen knob by first locating the height at which the screen knob is easiest to operate. Measure and mark a spot 13/16”(21) in from the edge of the stile and drill a hole through the stile with 5/32”(4) bit. Install supplied screen knob. For French screens counter bore the 5/32”(4) through hole from the astragal side using a 3/8” (10) spade bit to a depth of 5/16”(8). This will allow for proper tightening of the wood knob.

Remove Handle

1. Remove handle when painting or staining the sash. See figure 5.

Hinge Adjustment Procedures

NOTE: The casement hinge track hardware has been designed with an adjustability feature that allows a sash that is slightly out of alignment to be realigned to the frame.

1. To adjust the hinge without detaching the support arms it is necessary to use a hinge adjustment wrench as found in the Marvin Parts Manual. See figure 6.

NOTE: Do not rotate track stud more than 45° from perpendicular in either direction.