Your Window Order Will Be Packaged With The Following:

- Replacement Window with Nail Fin Attached or Shipped Loose (3 3/4" Frame Depth)
- Mullion Kit (If applicable)

This installation manual is intended for residential and light commercial applications less than four stories in height. Your installation is subject to all codes and restrictions set by your local governments or municipalities, which may require additional procedures not listed in this installation manual.
**TIPS TO FOLLOW BEFORE YOU BEGIN INSTALLATION:**

- Approved sealants for use must meet the requirements of ASTM C920, Class 25.

- Window flashing must be used with all window installations to prevent air and water infiltration. Flash all windows in accordance with the ASTM E2112 standards, including methods A, A1, B, and B1. 9" flashing should be used in all applications or conform to local code.

- All flashing material must be barrier coated reinforced and provide a twenty-four hour minimum protection from water penetration when tested in accordance with ASTM D-779.

- All flashing and weather resistant barrier (house wrap/building paper) materials must be installed in a weatherboard fashion - layered and installed starting at the bottom working upward.

- **DO NOT INSTALL** roofing nails onto nailing fin with an air gun or pneumatic device. Doing so will cause distortion or fracture of the nailing fins. All nailing fins must be secured by hand through the pre-punched nailing holes.

- Fasteners for securing the flashing must be non-corrosive. Acceptable fasteners: staples applied with a hammer, tacker or stapler. Stapling of self adhesive flashing is recommended to keep it curling in extreme weather conditions.

- Fasteners for securing the nail fin of the window must be non-corrosive galvanized roofing nails at least 1¾" in length and the head of the roofing nail must be wide enough to cover the pre-punched slot of the nailing fin. The roofing nail must be able to penetrate the framing material by at least 1".

- **DO NOT OBSTRUCT WEEPHOLES** with flashing or sealant. The weepholes located at the bottom sill area of a window are necessary in order to prevent water accumulation.

- The plastic applied to UV resistant paint finish windows is for the protection of the paint finish and should remain on the window until the installation is complete.

- Sloped sills are designed to direct water to the outside of the building. Any covering or trim applied to the product will need to allow for proper drainage. Failure to do so will create a risk of water infiltration.

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**1 INSPECT NEW WINDOW**

**Step 1-** Unwrap window and thoroughly inspect new window for any shipping or material damages.

If any component of the main frame is damaged, please contact your dealer for replacements **BEFORE** you begin demolition of the existing window.

Moving parts, locks, balances, glass, rails, etc. can be repaired easily **AFTER** the window is installed.

**Step 2-** After inspecting the new window, shut and lock it. This will allow the seals, locks, interlocks and weatherstripping to engage.

**Step 3-** Remove screen and lay aside. You will be re-inserting the screen in Procedure 9.
2 MEASURE THE NEW WINDOW

Step 1- Measure the width and height of the new window. The tip-to-tip make size should be big enough to fit the framed rough opening to allow a clearance for shimming and insulation.

See sizing chart on below:

<table>
<thead>
<tr>
<th>Vinyl Models:</th>
<th>RO Width</th>
<th>RO Height</th>
</tr>
</thead>
<tbody>
<tr>
<td>Double Hung, Casement, Awning, Slider, Picture</td>
<td>RO (-) 1/4&quot; width = Unit make size</td>
<td>RO (-) 3/8&quot; height = Unit Make Size</td>
</tr>
</tbody>
</table>

**Exact Sizing**

Exact sizes are the actual window tip to tip finished sizes. Allowable factory tolerance is plus or minus 1/16".

Exact Sizes are manufactured on the following increments:

<table>
<thead>
<tr>
<th>Width</th>
<th>Height</th>
</tr>
</thead>
</table>

3 CHECK ROUGH OPENING

Rough opening must be level, square, and structurally adequate. The studs should be free of voids, holes, chipping, twisting or other conditions that will not allow for proper installation and sealing.

Step 1- Clean rough opening area of any leftover construction debris.

Step 2- Check rough opening to make sure it is level, plumb, and square.
4 **INSTALL FLASHING**

Flashing material must be barrier reinforced and must provide twenty-four hour minimum protection from water in accordance with ASTM D-779. Check your local building codes for any additional requirements in your area.

**Step 1-** Using 9" wide flashing material, apply a horizontal piece at the bottom of the sill area making sure the sides are extended 9” on each side (in order for the flashing to meet with the vertical pieces).

**Step 2-** Secure the flashing at the top corner using a staple gun, making sure the location of the staple will be covered by the nail fin of the window.

The bottom and the ends maybe taped down in order prevent weather damage until the weather resistant barrier is installed.

**Step 3-** Cut the vertical (jamb) flashings so that the length extends beyond the bottom of the window vertically approximately 8½" so that you leave ½" short from the bottom of the sill flashing and to extend beyond the top of the window an additional 8½" so that the head flashing will overlap the vertical flashings by ½".

**Step 4-** Secure the vertical flashings at the outside edges using a staple gun making sure to overlap the bottom sill flashing. **Important!** Do not secure the bottoms of the vertical flashings - you will need to install weather resistant barrier in Procedure 7 that will require it to be tucked behind the vertical flashings.

5 **INSTALL WINDOW**

If the windows need to be field mulled, please go to Page 9 for instructions on field mulling the window before placing into the opening.

**Step 1-** Place a ¾" continous bead of sealant around the entire perimeter of the inside of the nailing fin of the window, making sure the sealant is aligned and covering the pre-punched holes in the nailing fin. **Important!** DO NOT leave any holes unsealed.

After the sealant is applied, immediately install the product before a skin can form on the sealant’s surface.
5 INSTALL WINDOW

Step 2- Immediately set the window into the rough framed opening, pulling the nailing fin in against the sheathing and bedding the window and the sheathing into the sealant, forming a gasket between the window and the flashing.

Step 3- Fasten with one roofing nail installed into the top corner of nailing fin.

6 SHIMMING & SECURING WINDOW

Make sure the sill of the window has a continuous support underneath. If shimming is required, make certain to prevent twisting or binding of the window frame.

Step 1- From inside the home, unlock and raise sash slightly above sill and check margins between bottom of sash and top of sill. Adjust by pulling sill up or down.

Step 2- From the inside of the home, install shims at a minimum of 16" intervals at the center meeting rail, sill, and header. See illustration.

DO NOT FORCE SHIMS INTO PLACE—doing so will cause window to become out of square and sashes to operate poorly.

Step 3- Check sill with a level and adjust shims to level the sill. Re-adjust side clearance if necessary. Shim both sides of window and adjust shims to make diagonal measurements equal with the window plumb.
**SHIMMING & SECURING WINDOW**

**DO NOT INSTALL** roofing nails onto nailing fin with an air gun or pneumatic device. Doing so will cause distortion or fracture of the nailing fins. All nailing fins must be secured by hand through the pre-punched nailing holes.

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**Step 4-** Install jamb installation screws for double hungs and sliders: (4) #8 x 2" Phillips Panhead Screws at the top and bottom jambs. On double hungs, move balance cover slightly down to expose top hole, slide it up into position after installing the screw.

For Picture windows, install: (4) #8 x 2½" Phillips Panhead Screws.

Check operation of sash.

**Step 5-** From inside the house, adjust the single jamb adjuster by snugging it against the rough opening. **DO NOT OVERTIGHTEN.** Check operation of sash.

**Step 6-** Using a hammer, (DO NOT USE A PNEUMATIC GUN) and install a 1½" roofing nail into the pre-punched nail fin holes. Roofing Nails should be installed at a minimum of 8-12” apart all around the exterior perimeter of the window frame, including the head of the window.

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**INSTALLING FLASHING & WEATHER RESISTANT BARRIER**

**Step 1-** Install a ¾” bead of sealant onto the exterior top header.

**Step 2-** Cut the header flashing same length as the bottom piece and install overlapping the vertical pieces.
**INSTALLING FLASHING & WEATHER RESISTANT BARRIER**

All weather resistant barrier must be installed in a weatherboard fashion around the entire perimeter of the window or window opening (working from the bottom first and moving upwards)

![Diagram of installation process](image)

**Step 3** - Check window for plumb, level and square.

**Step 4** - Starting from the bottom and working upwards, install weather-resistant barrier on the exterior of the rough opening.

*Important!* Make sure you tuck the barrier behind the vertical flashing.

**Step 5** - Using a staple gun, secure the weather-resistant barrier with staples.

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**APPLY INSULATION**

![Insulation application diagram](image)

**Step 1** - To maximize energy efficiency, insulate any gaps between window frame and opening. Using batt insulation and a flat putty knife, insert into the cavities between the window frame and the rough opening.

**OR**

Using an AAMA approved ASTM C 1620 non-expanding foam, fill the cavities between the window frame and the rough opening.

*DO NOT OVERSTUFF* the batt insulation. Doing so will cause the window to become out of square and sashes will not operate properly.

**Step 2** - Check margins between sash and window frame.
9 FINAL ADJUSTMENTS TO WINDOW

Step 1- Check the window operation by unlocking and operating both sash and tilt mechanisms.

Step 2- Install hole plugs for the jam installation screws.

Step 3- Slide balance cover (located in the jamb pocket above the bottom sash) up into position at the head of the window frame.

Step 4- Install screen.

SQUARING THE WINDOW:

Adjust the window in the opening so that the edge of the glazing bead is parallel to the inside edge of the frame. If the margins between frame and glazing bead are not parallel, the sashes will not operate properly.

Adjust the jamb installation screws by loosening or tightening in order to achieve proper margins between sash and window frame.

If necessary, shim the window in order to achieve a level and square window.

SILL IS CROWNED (Sashes Not Operating Properly):

Step 1- Open and close the sash. The sash should lock securely and not bind when opened or closed.

Additional 2" screws may be needed for the sill as necessary to relieve any crown condition.

Step 2- On Casement/Awnings: Place 2" screws approx. 2" from the keeper side down through the sill. If need be, the hinge plate screw can be removed and another 2" screw used to draw the sill down.

Sealant must be used on any screws secured through the sill.

The keeper located on the sash can be adjusted up or down, where applicable, to align with the locking mechanism.
MULLING WINDOWS IN FIELD

If your window unit has been shipped loose and you need to mull the windows together in the installation field, please follow each step listed that is the appropriate scenario to your application.

**Tools You May Need:**

- Power drill & assorted drill bits
- Pre-cut treated plywood (size depending on model of window)
- ⅛" x ⅜" Glazing Tape

MULLING VINYL DOUBLE HUNGS:

**Step 1** - Install ⅛" x ⅜" double sided glazing tape to inside of frame of each window and to each side of plywood (see illustration).

**Step 2** - Install (pre-cut to the window make size) treated plywood, making sure each piece adheres to the glazing tape.

**Step 3** - Install the snap mullion (or H mullion) to both the interior and exterior sides of both windows.

**Step 4** - From inside the home, install the #8 x 2" Phillips panhead installation screw in 3-4 locations staggered depending on height of window. If you use the factory prepped location on one window, make sure you stagger (or place ⅛" - ⅜" directly below the factory prepped hole) the other installation screw on the opposite window to prevent the screws from hitting.

**Step 5** - Install hole plugs for the mulled side only.

After the window units have been field mulled, proceed to *Procedure 5 - Install Window*
**FIELD MULLING VINYL WINDOWS**

**MULLING VINYL SLIDERS:**

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**Step 1:** Install \(\frac{1}{16}\)" x \(\frac{3}{8}\)" double sided glazing tape to inside of frame of each window and to each side of plywood (see illustration).

**Step 2:** Install (pre-cut to the window make size) treated plywood, making sure each piece adheres to the glazing tape.

**Step 3:** Install the snap mullion (or H mullion) to both the interior and exterior sides of both windows.

**Step 4:** Remove track insert from interior jamb cavity.

**Step 5:** From inside the home, install the \#8 x 2" Phillips Panhead installation screw in 3-4 locations staggered depending on height of window. If you use the factory prepped location on one window, make sure you stagger the other installation screw on the opposite window to prevent the screws from hitting (or place \(\frac{3}{8}\)" - \(\frac{1}{2}\)" directly below the factory prepped hole).

**Step 6:** Install hole plugs for the mulled side only.

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After the window units have been field mulled, proceed to *Procedure 5 - Install Window*.
MULLING CASEMENTS/AWNINGS:

Step 1- Install 1/16” x 3/8” double sided glazing tape to one side of window frame (see illustration) and attach opposite window, making sure the glazing tape adheres to both window frames.

Step 2- Install the snap mullion to both the interior and exterior sides of both windows.

Step 3- From inside the home, install the #8 x 2” Phillips Panhead installation screw in 3-4 locations staggered depending on height of window. If you use the factory prepped location on one window, make sure you stagger the other installation screw on the opposite window to prevent the screws from hitting.

Step 4- Install hole plugs for the mulled side only.

After the window units have been field mulled, proceed to Procedure 5 - Install Window
**FIELD MULLING VINYL WINDOWS**

**MULLING DOUBLE HUNG TO PICTURE WINDOW:**

Step 1- Install \( \frac{1}{16} \)" x \( \frac{3}{8} \)" double sided glazing tape to 2 sides on the double hung frame, 2 sides on the picture window frame and exterior sides of both pieces of plywood.

Step 2- Install (pre-cut to the window make size) treated plywood, making sure each piece adheres to the glazing tape. The double hung frame will use \( \frac{3}{8} \)" x 3" Treated Plywood and the picture window frame will use \( \frac{3}{8} \)" x 1 3/8" Treated Plywood.

Step 3- Install the H mullion to both the interior and exterior sides of both windows.

Step 4- From inside the home, install the #8 x 2" Phillips panhead installation screws in the double hung frame and the #8 x 2 1/2" Phillips Panhead installation screws in the picture window frame in 3-4 locations staggered depending on height of window. If you use the factory prepped location on one window, make sure you stagger the other installation screw on the opposite window to prevent the screws from hitting.

Step 5- Install hole plugs for the mullled side only.

After the window units have been field mullled, proceed to Procedure 5 - Install Window.