

**Standardized Installation Instructions For Windows**  
**With Exterior Casings or Nailing Fins –**  
**For Wood Brickmould Units, PVC Casing Trim Units –**  
**For Aluminum Clad, Fiberglass Clad, Vinyl Clad,**  
**and All-Vinyl Units with Nailing Fins**  
**Structures With Weather Resistant Barrier**  
**Applied Before Window Installation**  
Includes Jamb Extension Instructions  
See separate instructions for sash & screen handling



**IMPORTANT:** Please read completely before you begin.

**NOTE:** A blue background is applied to pages where the installation instructions apply exclusively to units with brickmould or exterior casing trim.

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**CAUTION** Do not nail or screw through factory-applied finish. Breaking exterior finish coating voids warranty. (Does not apply to factory-applied primer paint.) To prevent penetrating factory-applied finishes, install with interior installation clips. Obtain clip installation instructions, part #1037024. Installation clip method will not meet DP requirements.

## Code Compliance

If local laws or building codes require installation to meet design pressure ratings, as certified by independent test laboratories, *do not use these installation instructions*. You must follow the instructions contained in Part No. 1200309 [“Standardized Window Installation Instructions For Maintaining Design Pressure Ratings.”](#)

## General Information

**⚠ IMPORTANT:** Thoroughly read and follow these instructions. Failure to install as recommended will void any warranty, expressed or implied. **Before installation, check building codes for the area in which the doors or windows are being installed to ensure proper compliance.** The installation instructions that follow are based on typical frame construction. Specific applications may differ. The window manufacturer recommends that you consult a qualified installation professional. The window manufacturer is not responsible for installation.

**⚠ IMPORTANT:** A number of jurisdictions have adopted building code design pressure requirements that require window and door products be installed in the same way they were installed for laboratory testing. To comply with these requirements, see Part No. 1200309 "[\*Standardized Window Installation Instructions For Maintaining Design Pressure Ratings\*](#)".

Sealant **must** be applied in all installations. Follow guidelines below and details contained in the following installation instructions for non-rated installation.

- A 3/8" sealant bead must be applied to the rough opening (or the back of the nailing fin or exterior casing) so that the sealant aligns with the nailing fin pre-punched holes. Do not caulk the sill nailing fin or the sill area of the rough opening.
- The nailing fin or exterior casing must contact the sealant continuously along the head and sides of the unit and must fully contact the exterior face of the wall around the window's entire perimeter.
- A shim space is required around all sides of the window to allow for structure movement, seasonal expansion and contraction, and to provide space for insulation. The rough opening must provide a shim space that does **not exceed:**

3/8" on all sides (3/4" total for either width or height) for all-vinyl units with a nailing fin;  
OR

1/2" wider on the sides (1" total for width) or 1/4" on top or bottom (1/2" total for height) for clad, wood brickmould, or exterior casing equipped windows.

**NOTE:** Shim space for maintaining DPR ratings cannot exceed 1/4" on all sides (RO total of 1/2" larger than frame width or frame height).

If a shim space greater than listed above exists on the interior or exterior of the unit, use solid continuous furring material to fill this space until the maximum shim allowance is achieved.

Accessories, such as jamb extension, may alter unit width and height. Check rough opening size vs unit size accordingly.

- Furring material must be solid, continuous, and run the full height and/or width of the rough opening. Furring strip depth must be at least equal to window jamb depth.

### ADDITIONAL NOTES FOR ALL INSTALLATIONS:

- For any installation that has exposed fasteners, it is recommended to use fasteners made of 300 series stainless steel. Follow your local codes if they specify a different series of stainless steel.
- Certain options, accessories, and warranty considerations require the unit be installed using installation clips. Contact your customer service representative for additional assistance.

### Definition:

DPR equals "Design Pressure Rating". Certain installation procedures must be completed to maintain the rating validity.

Weather Resistant Barrier (WRB) is a material used to provide moisture control. Usually applied over sheathing and underneath siding.



Recognize this symbol. This is the Safety-Alert symbol. When you see this symbol be alert to the potential for personal injury or product damage.



### **ANGER**

Falling from window opening may result in serious injury or death. DO NOT leave openings unattended when children are present.



### **ANGER**



### **CUT HAZARD**

- \*Non-safety Glass.
- \*May cause serious injuries if broken.
- \*Do not install where tempered safety glass is required.



### **ARNING**

Wear gloves, safety glasses, goggles or eye-shields appropriate to procedure.



### **ARNING**

Weight of window and door unit(s) and accessories will vary. Use a reasonable number of people with sufficient strength to lift, carry and install window or door unit(s) and accessories. Always consider site conditions and use appropriate techniques when installing.



### **ANGER**

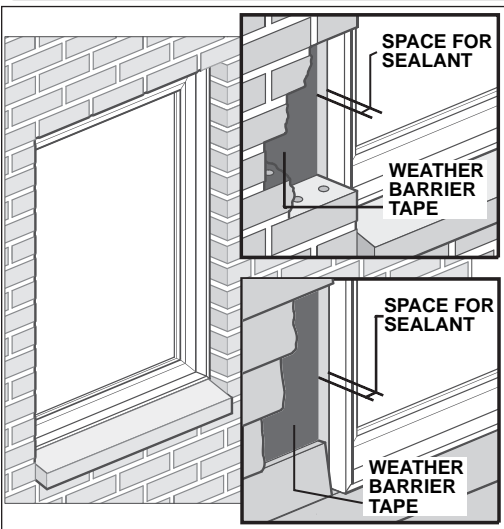


Screen will not stop children, any one or anything from falling out window.

Keep children and objects away from open window.

Read installation instructions completely before beginning procedure.

## **A Special Note About Masonry**



The perimeter joint between window exterior and exterior building material must conform to siding manufacturers' recommendations. All masonry, stucco, or synthetic stucco systems require an expansion joint around the window perimeter that must be filled with sealant compatible with the building material and window components.

Expansion joint space should be no less than 3/8" and not greater than 1/2" unless stated otherwise by your siding manufacturer. If there is a conflict, follow siding manufacturer's guidelines.

Failure of this joint will cause structural damage unrelated to window performance.

## Rough Opening Preparation

FIGURE 1

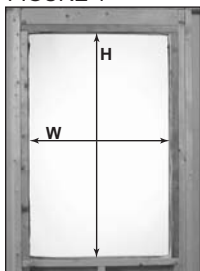


FIGURE 2

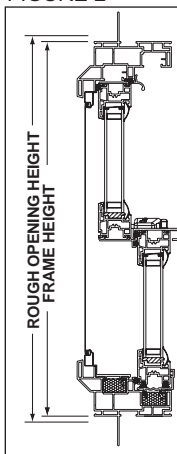


FIGURE 2A

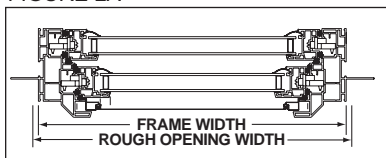
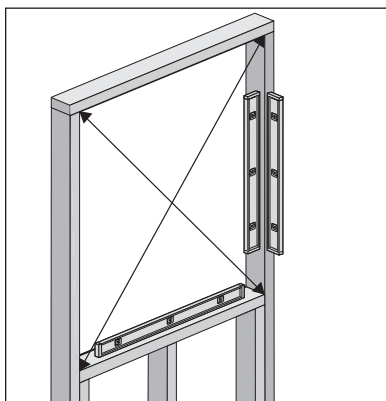


FIGURE 3



**▲ IMPORTANT:** **BEFORE** starting make sure you have:

- The correct window type (casement, tilt, etc.)
- The correct size window (Width and Height) for your rough opening (FIGURE 1).
- Accessories, such as jamb extension, may alter unit width and height. Check rough opening size vs unit size accordingly.
- If using a sill pan, be sure rough opening size will accommodate both the window unit and the sill pan.
- Perform a complete unit inspection checking for shipping damage, broken glass, or other physical damage. Fix whatever is wrong before installation or start appropriate claim procedures.
- When accessories such as jamb extension have been ordered, apply according to the directions **BEFORE** you install the unit **OR** prep the rough opening.

The rough opening must provide a shim space that **does not exceed:**

3/8" on all sides (3/4" total for either width or height) for all-vinyl windows with a nailing fin. OR 1/2" wider on the sides (1" total for width) and 1/4" on the top or bottom (1/2" total for height) for clad units and exterior casing (wood or pvc) units.

**NOTE:** Shim space for maintaining DPR ratings cannot exceed 1/4" on all sides (RO total of 1/2" larger than frame width or frame height).

If a shim space greater than listed above exists on the interior or exterior of the unit, use solid continuous furring material to fill this space until the maximum shim allowance is achieved.

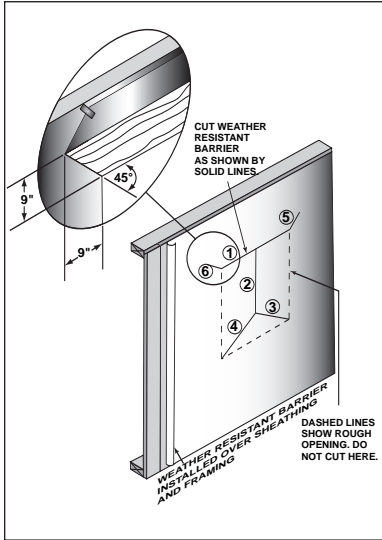
Furring material must be solid, continuous, and run the full height and/or width of the rough opening. Furring material depth must be at least equal to window jamb depth. Furring material must be securely fastened to the rough opening framing.

1. Measure the rough opening to ensure it meets the guidelines listed above. Check the rough opening dimensions against the unit's actual Frame Height and Frame Width (FIGURES 1, 2, & 2A).
2. Make sure walls are plumb and not twisted. Check rough opening for square by measuring diagonally from corner to corner in both directions. Diagonal measurements cannot differ from each other by more than 1/4" (FIGURE 3).

**▲ IMPORTANT:** Fix problems with plumb, level or square before proceeding.

## Rough Opening Preparation (cont.)

FIGURE 4



The following instructions are for structures with weather resistant barrier (WRB) applied before the windows are installed.

### WARNING

Improper use of hand and power tools could result in personal injury and/or product damage. Follow equipment manufacturers' instructions for safe operation. Always wear safety glasses.

3. Cut weather resistant barrier (WRB) in sequence as shown by the circled numerals in (FIGURE 4).
4. Fold sill and side jamb WRB into the rough opening (FIGURE 5). Lift head WRB up and tape to face of wall (FIGURE 5).
5. Secure WRB to interior framing with staples placed every 12" to 16" apart (FIGURE 6).

FIGURE 5

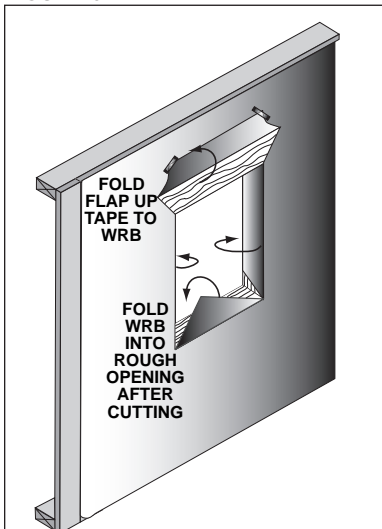
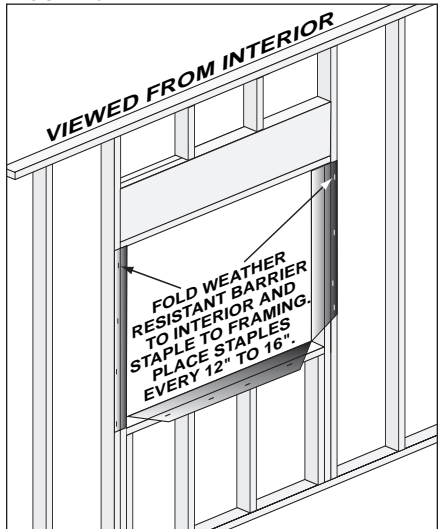


FIGURE 6



## Rough Opening Preparation (cont.)

FIGURE 7

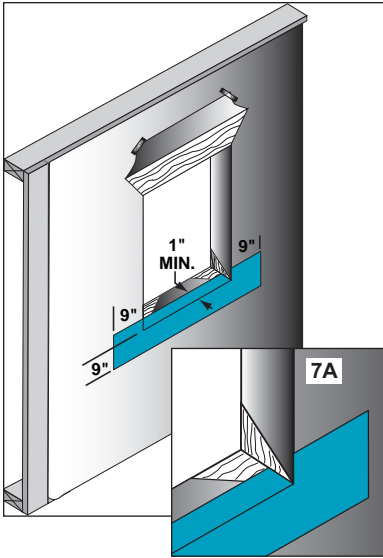
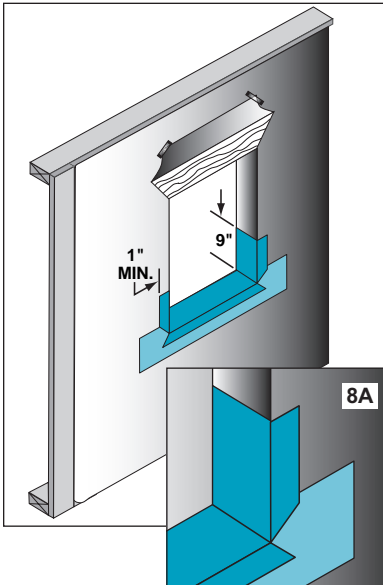


FIGURE 8



**NOTE:** Some tape manufacturer's recommend a primer be applied before using their tape on top of bare wood. Check and follow the tape manufacturer's instructions.

6. Cut a piece of weather barrier self-adhering tape 9" tall and as long as the opening width plus 18". Apply to face of exterior wall so 1" extends above the opening and 9" extends beyond each side of the opening (FIGURE 7). Cut along the corners of rough opening and fold down onto the sill (FIGURE 7A). Use a rubber roller to apply.

7. Apply a second continuous piece of weather barrier self-adhering tape on the top surface of the rough opening sill (FIGURE 8).

8. Cut the second piece of weather barrier tape the thickness of the wall plus at least 1". Make the tape 18" longer than the width of the opening.

9. Align flush with interior of the wall and extend edge of the tape at least 1" past the exterior wall surface (FIGURE 8). Start the piece 9" up the side of the rough opening and run it to the bottom of the opening, to the other side of the opening, and 9" up the other side (FIGURE 8).

10. Use a utility knife to cut the sill piece on both corners of the rough opening, and fold along the outside wall (FIGURE 8A).

**⚠ IMPORTANT:** High-quality, exterior, neutral-cure, clear silicone sealant (compatible with wood, vinyl, aluminum, fiberglass and the exterior face of the wall) is to be used for all the procedures in the following instructions which call for caulking or sealant.

**⚠ IMPORTANT:** Check both the weather barrier self-adhering tape and weather resistant barrier manufacturer's instructions to ensure the sealant you use is compatible with their product.

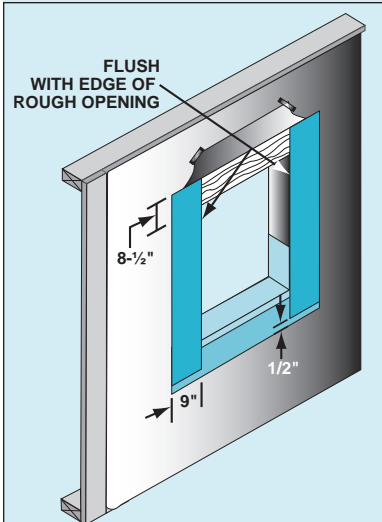
### Sill Pans

Sill pans, either flexible, rigid, commercially made or job site fabricated can be used if the following conditions are followed.

- They must be water tight
- Cannot be penetrated by fasteners
- Must be caulked prior to installation
- Must provide a means for drainage to the exterior so window sill will not sit in water.
- Must be installed to preserve integrity of weather resistant barrier's drainage system.
- Commercial units must be installed according to the manufacturer's instructions.

## Rough Opening Preparation (cont.) Steps for Exterior Casing Units

FIGURE 8BM



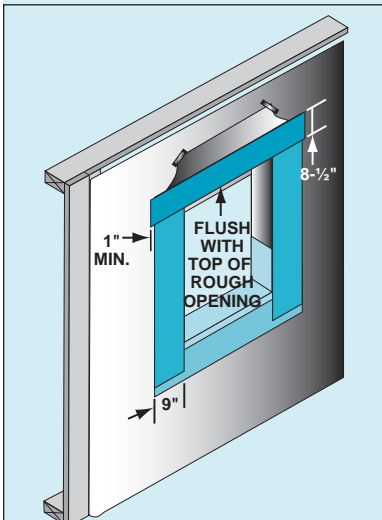
The following weather barrier tape instructions are for units with exterior casing (wood, pvc, or aluminum) installations ONLY.

### For nailing fin units skip to page 5.

Exterior casing equipped unit installation requires weather barrier self-adhering tape to be applied before the window is placed into the rough opening.

1. After completing all instructions on Pages 1 through 3, cut two side pieces of high-quality weather barrier self-adhering tape to length and width as shown (FIGURE 8BM). Length starts 8-1/2" above top of rough opening and extends 8-1/2" below sill. Make tape 9" wide.
2. Apply side weather barrier tape to the exterior of the wall with the tape's long edge flush with the rough opening. Start 8-1/2" above the top of the rough opening and run tape down so that it goes over the sill wrap weather barrier tape. Use a rubber roller to apply. Side tape should end about 1/2" above the sill wrap tape (FIGURE 8BM).
3. Cut an 9" tall piece of weather barrier tape for the head that is as long as the rough opening plus 20" (FIGURE 9BM).
4. Apply the head piece to the sheathing. Start one end so it overlaps a side piece of weather barrier tape by 1". Work toward opposite side and overlap other side piece by 1". Keep bottom edge of the head weather barrier tape flush with the horizontal edge of the rough opening header (FIGURE 9BM).

FIGURE 9BM

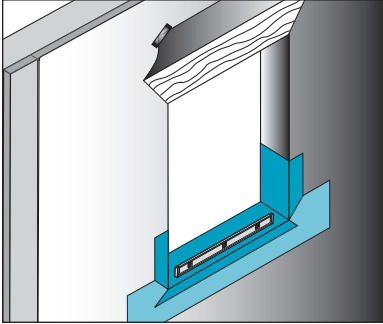


*All installation types continue on next page.*



## Rough Opening Preparation (cont.)

FIGURE 10



11. Check the rough opening sill for level (**FIGURE 10**).

**NOTE:** If level isn't long enough to reach across entire sill use a straightedge with the level.

**⚠ IMPORTANT:** To ensure that the sash operate smoothly, make sure that the sill is level and straight.

12. Measure the opening diagonally from corner-to-corner (**FIGURE 11**). The measurements should not differ more than 1/4". Fix problems before continuing.

Apply a continuous 3/8" bead of silicone sealant around the sides and head of the rough opening perimeter. Locate sealant so it does not intrude into the opening, aligns with the pre-punched nailing fin holes, and will also provide a continuous seal between the face of the wall and the nailing fin or exterior casing trim (**FIGURE 12**).

Caulk around the head and sides of the rough opening. **Do not caulk the sill.**

**NOTE:** If you prefer, caulk can be applied to the back of the nailing fin or (exterior casing) instead of the rough opening.

When the window is installed the caulk bead must contact the nailing fin and/or exterior casing continuously so it seals the nailing fin and/or exterior casing against the face of the wall.

FIGURE 11

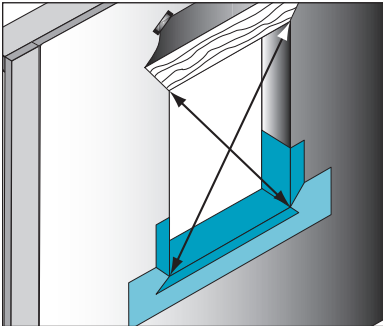


FIGURE 12 –  
Nailing Fin Unit

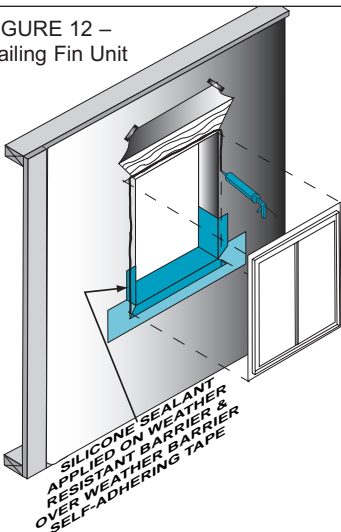
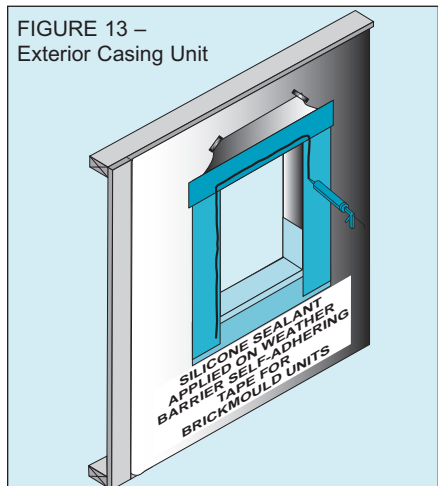


FIGURE 13 –  
Exterior Casing Unit



## Units With Exterior PVC Casing Trim

*For nailing fin unit installation, turn to Page 7.*

Factory-applied PVC trim is attached to the unit through the nailing fin from the back side. Therefore, the nailing fin is not available for installation fastening. The unit must be installed into the rough opening by nailing or screwing through the exterior casing, much like a wood brickmould unit.

### **PVC Unit Installation Tips**

- PVC trim must be nailed or screwed to the building's framing members.
- Keep **all** fasteners at least 4" from the corners.
- Nailing – Use 8d galvanized (or stainless steel) casing nails.
- Nails must be long enough to penetrate framing members by at least 1-1/2".
- Space nails 12" on center and at least 3/8" away from PVC edge.
- Drilled pilot holes are required if temperature is 40° F. or below. Pilot holes are recommended for all manual nailing.
- When pilot holes are not used, make a starting dimple with a nail set.
- Set nails below the surface with a nail set.
- Fill nail holes with a high-performance, non-solvent, exterior wood filler.
- **A pneumatic nail gun can be used.** Gun must be set to place nail approximately 1/16" below the surface. Test the setting before nailing so nails do not "blow all the way through" the PVC. Nails must be long enough to penetrate framing members by 1-1/2". Space nails 12" on center and at least 3/8" away from PVC edge. Use at least 15 or 16 gauge or larger galvanized finish nails.
- **Screws may be used instead of nails.**
- Use #8 stainless steel flat head screws long enough to penetrate framing by at least 1-1/2". Space screws 12" on center and at least 3/8" from edge of PVC.
- Drill pilot holes and countersink for screw heads.
- After fastening with screws, fill countersink holes with a high-performance, non-solvent, exterior wood filler.

*Continue on Page 9.*

## Window Installation – Units With Nailing Fin

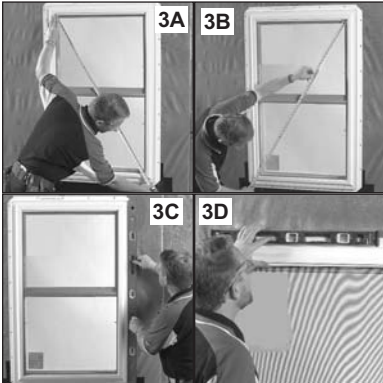
FIGURE 1



FIGURE 2



FIGURE 3



**FOR EXTERIOR CASING UNITS,  
SKIP TO PAGE 9.**

**⚠ IMPORTANT:** When accessories such as jamb extension have been ordered, apply according to the directions starting on Page 16 **BEFORE** you install the unit OR prep the rough opening.

Before you begin, make sure sash is closed and locked.

Remove all shipping and packing material from the unit.

Ensure unit's drainage (weep) holes are toward the RO sill and free of obstructions.

1. Immediately after applying sealant around rough opening or to back of nailing fin, lift and center window in the opening from the exterior (FIGURE 1). Level unit on the interior or exterior across the sill and head. If necessary to level the unit, place shims directly below the side jambs.

**NOTE:** To provide sill insulation space, add shims at the sill.

**⚠ IMPORTANT:** If unit is mullied, it must be shimmed at the sill under each mull jamb for proper support.

2. Secure one side top corner with either a rust proof roofing nail or a #8 steel screw. Any fastener **must** be long enough to penetrate the framing material by at least 1-1/2" (FIGURE 2).

3. While holding unit in place, square and plumb jambs. Check both side-to-side and inside-to-outside. Measure unit from corner-to-corner to check for square (FIGURES 3A & 3B).

To plumb, level and square, use a pry bar to shift unit and shim from the interior as needed.

4. Secure opposite top corner. Check again for level, plumb and square. Use shims and a straight-edge to straighten the side and top jambs.

**STOP!** Before continuing, skip to Page 8 and perform steps to square and straighten the interior. Also perform check sash operation and alignment steps. After procedures, as listed on Page 8, are completed return to this page and continue below.

When window is straight, true and square continue fastening through the nailing fin. Place fasteners in all the pre-punched holes around the entire perimeter of the nailing fin.

**Fasteners must not over-compress the nailing fin.**

*Continue nailing fin Installation on Page 13.*

## Square and Straighten the Interior – All Units

FIGURE 1

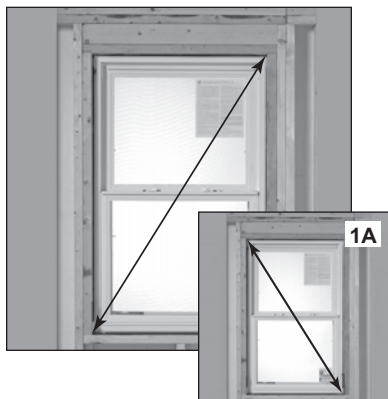


FIGURE 2

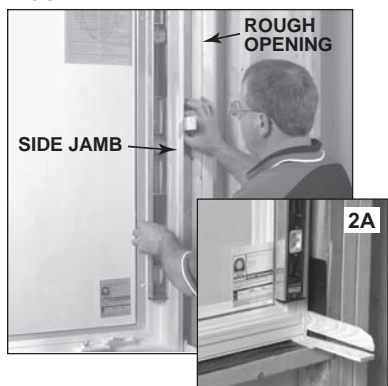
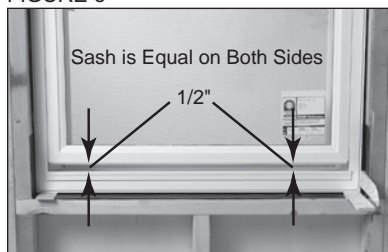


FIGURE 3



**⚠ CAUTION** Ensure the unit is held firmly in place while performing the following steps.

1. Measure the entire window assembly diagonally in both directions (**FIGURES 1 & 1A**).
2. Shim the top and bottom ends of the side jamb on the left or right (**FIGURE 2**) to get the diagonal measurements (**FIGURES 1 & 1A**) of the entire window assembly exactly the same.
3. Using a level as a straightedge, shim between the frame and the rough opening to straighten the side jambs and sill (**FIGURES 2 & 2A**).

**⚠ IMPORTANT:** If unit is mullled, it must be shimmed at the sill under each mull jamb for proper support. Also check mull jambs for level and square.

**⚠ IMPORTANT:** For sliding and hung windows, perform a sash alignment test.

### **Sash Alignment Test**

4. Unlock and fully open sash.
5. Close sash until it is open about 1/2".
6. The gap should be equal on both sides (**FIGURE 3**).

If the gap is unequal the unit requires adjustment. Make adjustments for level and square as outlined in Steps 1, 2, and 3 above and then recheck sash alignment. Make adjustments as necessary to get gap even.

*If you are installing a nailing fin equipped unit turn back to Page 7 and complete the fastening sequence.*

*If you are installing an exterior casing equipped unit turn to Page 10 and complete the fastening sequence.*

## Window Installation – Units With Exterior Casing

**CAUTION** Do not nail or screw through factory applied finish. Breaking exterior coating voids warranty. (Does not apply to factory-applied primer paint.) Install with interior installation clips. Obtain clip installation instructions, part #1037024.

FIGURE 1



FIGURE 2



FIGURE 2A



**FOR NAILING FIN UNIT INSTALLATION TURN TO PAGE 7.**

**IMPORTANT:** Before you begin, make sure sash is closed and locked.

Remove all shipping and packing material from the unit.

Ensure unit's drainage (weep) holes are toward the RO sill and free of obstructions.

1. Immediately after applying sealant around rough opening (or back of casing trim), lift and center window in the opening from the exterior (**FIGURE 1**). Level unit on the interior or exterior across the sill and head. If necessary to level the unit, place shims directly below the side jambs.

**NOTE:** To provide sill insulation space, add shims at the sill.

**IMPORTANT:** If unit is mullled, it must be shimmed at the sill under each mull jamb for proper support.

See Page 6 for fastener options and fastener application techniques for PVC casing.

2. For wood trim, secure one side top corner with a galvanized casing nail long enough to penetrate framing material by at least 1-1/2" (**FIGURE 2**).

**NOTE:** Drilling pilot holes will help prevent wood casing from splitting and cracking. Keep fasteners at least 4" from the corners.

2A. For PVC trim, secure one side top corner with a fastener long enough to penetrate framing material by at least 1-1/2" (**FIGURE 2A**).

## Window Installation – Units With Exterior Casing (cont.)

FIGURE 3

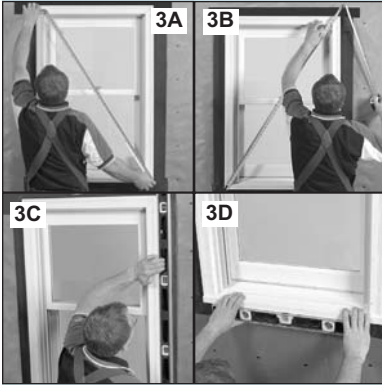


FIGURE 4



3. While holding unit in place, square and plumb jambs. Check both side-to-side and inside-to-outside. Measure unit from corner-to-corner to check for square (FIGURES 3A & 3B).

To plumb, level and square (FIGURES 3A – 3D), use a pry bar to shift unit and shim from the interior as needed (FIGURE 4).

4. Secure opposite top corner of unit and check again for level, plumb and square. Use shims and a level to straighten the side and top jambs.

**STOP! Before continuing, turn to Page 8 and perform steps to square and straighten the interior. Also perform sash alignment test. After procedures, as listed on Page 8, are completed return to this page and continue below.**

When window is straight, true, and square finish securing unit in opening by applying fasteners through the exterior casing at the head and sides. Apply fasteners 12" to 16" apart. Keep fasteners at least 4" from the corners.

*Continue on Page 11.*

## Drip Cap Installation – Units With Exterior Casing

FIGURE 1BM



1. Measure and cut a drip cap that is as long as the top casing.

2. Apply a continuous 1/4" bead of high-quality, exterior, neutral-cure, clear silicone sealant (compatible with wood, vinyl, aluminum and the exterior face of the wall) to the exterior face of the wall, located above the casing such that the drip cap's vertical leg will seal against the caulk. Continue caulk bead along top surface of casing (**FIGURE 1BM**). Caulk must be as long as the drip cap.

FIGURE 2BM



3. Place drip cap on top of casing (**FIGURE 2BM**) and center its length on the casing. Push tightly down against casing and imbed the vertical leg into the bead of caulk.

4. Nail drip cap in place with galvanized roofing nails long enough to penetrate framing members by at least 1-1/2" (**FIGURE 3BM**). Place nails every 12 to 16 inches along drip cap's length.

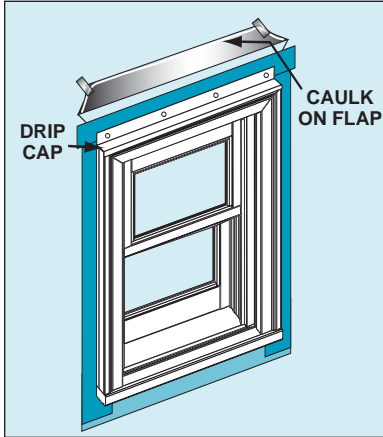
*Continued on next page.*

FIGURE 3 BM



## Drip Cap Installation – Units With Exterior Casing (cont.)

FIGURE 4BM



5. Apply clear silicone sealant to underside of the weather resistant barrier (WRB), along edges of the seams (**FIGURE 4BM**).

6. Fold WRB flap down over the weather barrier tape and drip cap (**FIGURE 5BM**). Use a rubber roller on top of flap to smooth and spread sealant applied in Step 5.

7. The diagonal seams in the weather resistant barrier must be sealed.

One method is to cut and apply weather barrier sealing tape. Make sealing tape 2" longer than diagonal seams. Apply tape over the diagonal seams so that 1" of tape extends beyond the ends of each seam (**FIGURE 5BM**).

Another method is to cut and apply self-adhering weather barrier tape as shown in (**FIGURE 6BM**).

FIGURE 5BM

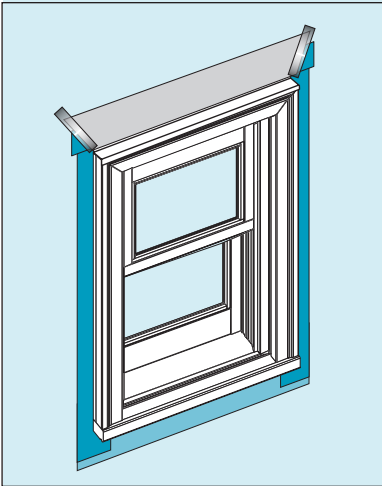


FIGURE 6BM





## Weather Barrier Self-Adhering Tape Application – Units With Nailing Fin

FIGURE 1

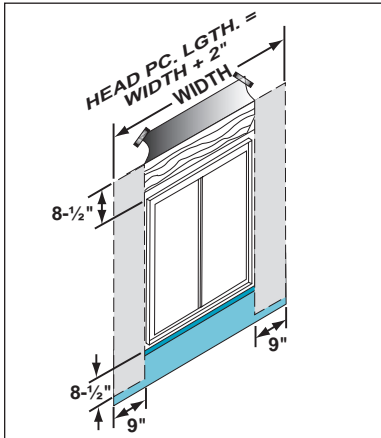
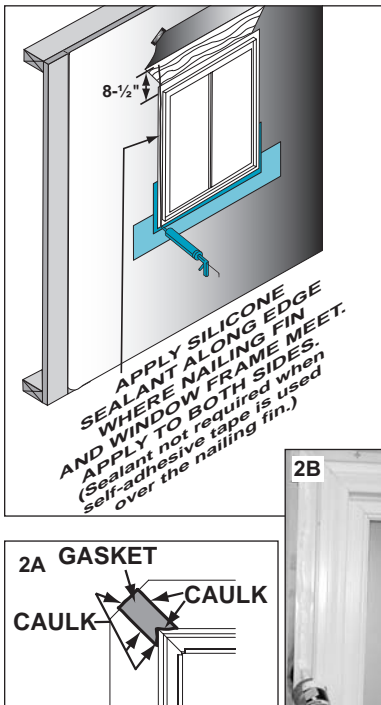


FIGURE 2



### Preparation

1. For the sides, cut two pieces of weather barrier self-adhering tape that are 9" wide and 17" taller than the window (FIGURE 1).

Cut the head piece 9" tall and long enough to span the window and side tapes; plus 2" (FIGURE 1).

**NOTE:** Sealant along sides not required if self-adhesive tape is used over the nailing fins. **Corner gasket sealant is required, even with the self-adhesive tape.**

2. Apply sealant beads along all sides of all four corner gaskets (FIGURE 2A). Apply a generous, continuous silicone bead on the side nailing fins over the fasteners in the nailing fin. Start 8-1/2" above the window and run the bead to bottom of the nailing fin (FIGURES 2, 2B, & 3A). Repeat for the other side frame.

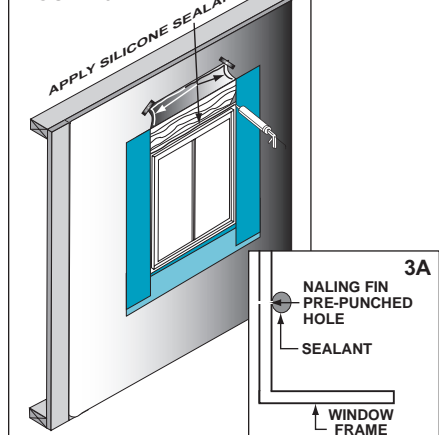
### Tape Application – Side Pieces

Start at the top, about 8-1/2" above the window. Apply tape to the face of the wall close to the window frame and work toward the bottom. Tape **must** cover the entire nailing fin, including the installation holes, the joint between the fin and the building's sheathing **and** extend out onto the exterior wall. Use a rubber roller to get good contact between the tape and the wall. Tape ends 1/2" above sill tape.

### Head Piece Application

1. Apply silicone sealant along full width of head nailing fin from side to side. Position bead over top of fasteners in the head nailing fin (FIGURES 3 & 3A).

FIGURE 3



## Weather Barrier Self-Adhering Tape Application – Units With Nailing Fin (cont.)

FIGURE 4

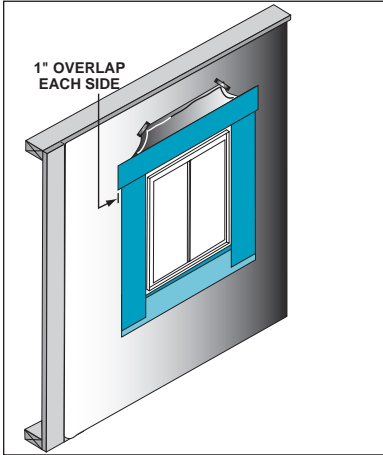
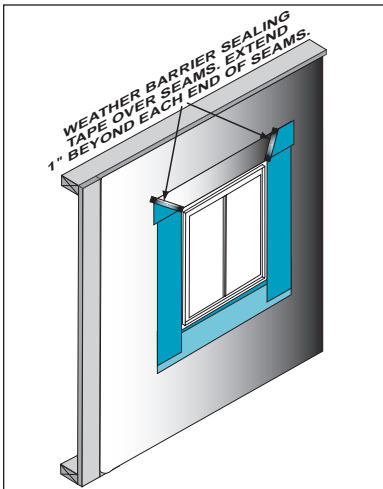


FIGURE 5



### Head Piece Application (cont.)

2. Apply top piece of weather barrier self-adhering tape so one end extends 1" beyond a side piece of tape (FIGURE 4). Apply top piece across the head jamb and over the opposite side piece of tape. Both ends of top piece should overlap side pieces by 1". Use a rubber roller to get good contact with the wall surface.
3. Untape and fold down the top flap of weather resistant barrier over the top piece of the weather barrier tape (FIGURE 5). Use a rubber roller, on top of flap, to smooth and spread sealant applied earlier.
4. The diagonal seams in the weather resistant barrier must be sealed.

One method is to cut and apply pieces of weather barrier sealing tape. Make sealing tape 2" longer than diagonal seams. Apply tape over the diagonal seams so that 1" of tape extends beyond the ends of each seam (FIGURE 5).

Another method is to cut and apply self-adhering weather barrier tape as shown in (FIGURE 6).

FIGURE 6



## Finishing Details

**Installation is ready for finish and trim.**



**IMPORTANT:** Do not over pack insulation.

Loosely insulate between the window frame and rough opening with fiberglass.

**OR**

You can use minimal expansion foam products specifically designated and certified as meeting ASTM and AAMA requirements for "door or window use" to fill the shim space between the window frame and the rough opening. Foam manufacturer's installation and curing instructions must be followed.

## Casing Trim Finishing Details

Fill countersunk fastener holes with exterior grade non-solvent based filler after window installation. Follow the wood filler manufacturer's instructions.

Stain, paint, or varnish wood casing according to the "[\*Recommended Finishing Instructions\*](#)".

## Jamb Extension Option – All-Vinyl Windows

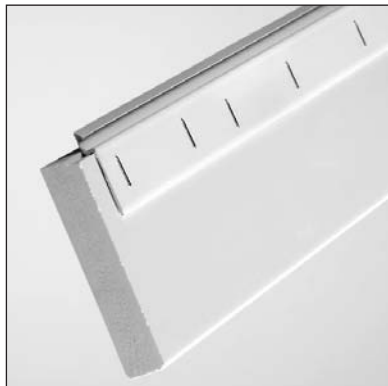
FIGURE 1 WOOD JAMB EXTENSION



FIGURE 2 PVC JAMB EXTENSION



FIGURE 3 PVC JAMB EXTENSION



Three types of jamb extension can be used on the vinyl windows. Each is applied according to the the following chart.

Jamb Extension Type	When Applied to Unit
Wood (FIGURE 1)	Before Installation
PVC (FIGURES 2 & 3)	Before Installation
Vinyl (FIGURE 4)	After Installation

Jamb extension can be ordered factory installed, factory pre-cut and not installed, or in lengths for job-site fabrication and installation.

Wood jamb extension can be ordered in several species and factory finishes.

The following instructions will explain how to install each jamb extension type.

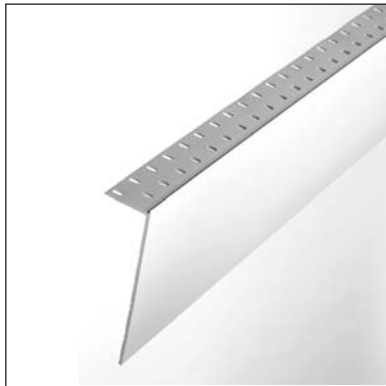
**NOTE:** The photos show a variety of windows but the application procedure is the same for each jamb extension type on vinyl windows.

**NOTE: For non-DPR installations only.**

Rough opening may need to be enlarged 3/8" to 1/2" to provide clearance for accessories and insulation.

**HINT:** To save time and effort, paint, stain and varnish wood jamb extensions before installing on window. Allow finish to dry thoroughly before installing jamb extension. **PVC can be painted but not stained or varnished.**

FIGURE 4 VINYL JAMB EXTENSION



## Jamb Extension Option All-Vinyl Windows (cont.)

FIGURE 1



FIGURE 2

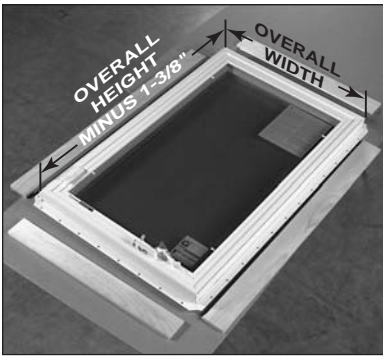
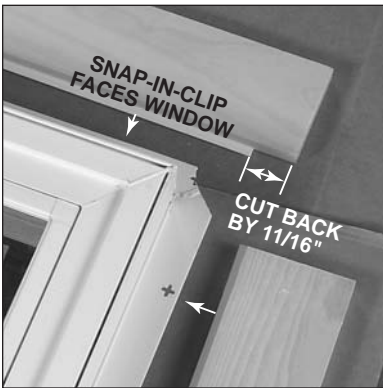


FIGURE 3



### **Measuring to Cut Lineal Jamb Extension – Wood and PVC**

1. Measure the interior side of the window from the outside of the frame to the outside of the opposite frame (FIGURE 1). Record both the frame width and frame height.

#### **2. Cut jamb extensions to length.**

Cut two horizontal pieces to the width recorded in Step 1.

Subtract 1-3/8" from the height measurement recorded in Step 1. Then cut two vertical pieces to this reduced length.

3. Cut back the vinyl snap-in-clip by 11/16" on each end of the horizontal jamb extension only (FIGURE 3).

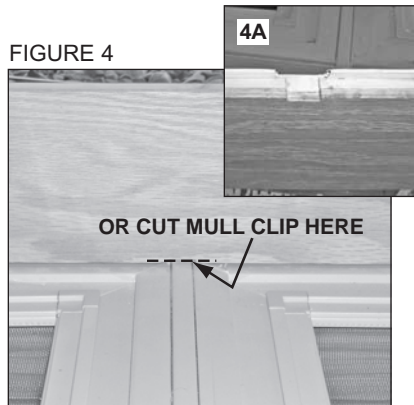
### **To Apply Jamb Extension – Wood and PVC**

1. Lay the pieces of jamb extension, so that the vinyl snap-in-clip faces the window (FIGURE 3).

**⚠ IMPORTANT:** On mull or stacked units, in order for the jamb extension to seat fully against the window frame, the snap-in-leg must be notched (FIGURE 4A) where the units intersect (FIGURE 4).

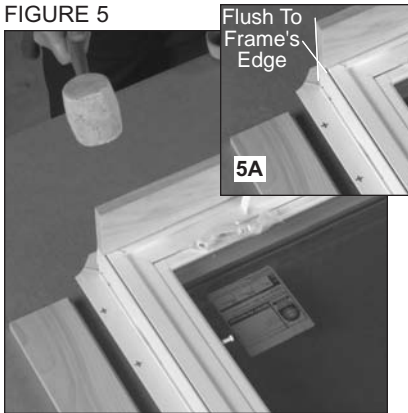
An alternative is to cut back the mull clip by the thickness of the jamb extension. Use the jamb extension as a guide to mark the clip. Set aside the jamb extension. Then use a sharp chisel or utility knife to carefully cut away the clip piece that would be under the jamb extension.

FIGURE 4



## Jamb Extension Option – All-Vinyl Windows (cont.)

FIGURE 5



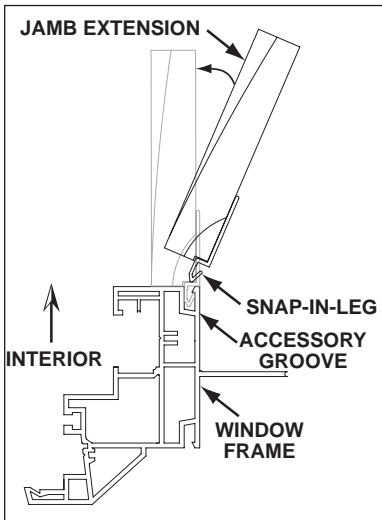
**NOTE:** Install the horizontal jamb extensions so their ends are flush with the ends of the window frame (**FIGURES 5 & 5A**). Install horizontal pieces first; then the vertical pieces.

2. Place jamb extension at a slight angle to window so snap-in-leg starts into the interior accessory groove (**FIGURE 6**). Use a dead-blow hammer and block of soft wood to tap along exposed edge of jamb extension until the extension starts to seat itself in the accessory groove.

3. Rotate jamb extension to a vertical position and use the dead-blow hammer and block of soft wood to finish seating jamb extension's snap-in-clip into the window's accessory groove. If necessary, tap end of horizontal side jamb until it aligns with edge of window frame (**FIGURE 5A**).

4. Apply the vertical jamb extension pieces between the horizontal pieces following the techniques in Steps 2 and 3 above.

FIGURE 6

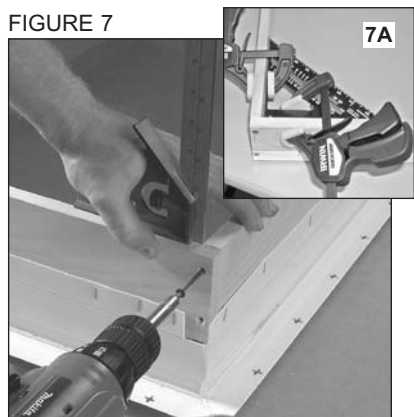


When all pieces are attached, examine joint between jamb extension and window frame to be sure extensions are fully seated around the entire perimeter.

5. Align the side of the vertical piece with the end of the horizontal piece. Use a small square or "speed square" to square the two pieces. While holding items aligned with each other, drill two countersunk pilot holes in the back of the horizontal piece. Fasten the horizontal piece to the vertical piece with two #6 x 1-1/4" flat head stainless steel screws (**FIGURES 7 & 7A**).

Repeat for each corner where vertical and horizontal jamb extensions meet.

FIGURE 7



## Jamb Extension Option – All-Vinyl – Shipped Loose

FIGURE 1 – “Walk-Around” Joints

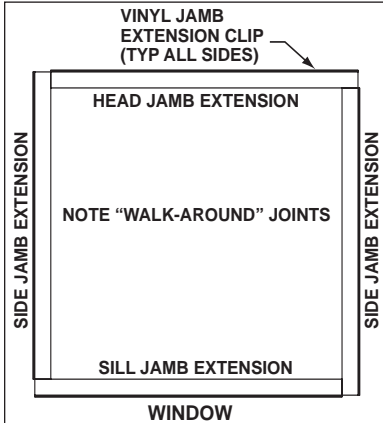
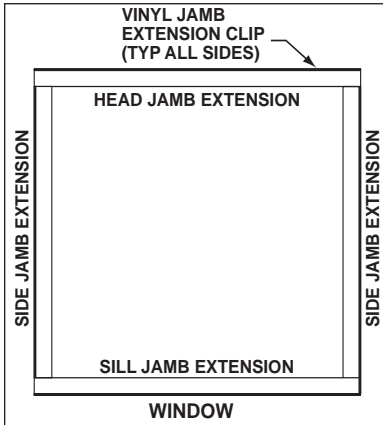


FIGURE 2 – Verticals Between Horizontal



Jamb extensions can be ordered pre-cut to fit your window and “shipped loose”. This allows staining, varnishing, or painting jamb extensions before they are attached to the window.

Factory pre-cut jamb extensions may have been set up in either of two ways.

(FIGURE 1) shows the “walk-around” joint method.

(FIGURE 2) shows the vertical members fitting between the horizontal pieces.

**NOTE:** Check your jamb extension pieces against your window to see which method was used to create your jamb extensions.

**⚠ IMPORTANT:** Do not trim any factory pre-cut jamb extensions until you have matched the pieces to your window and know how they will fit your unit. Refer to Figures 1 & 2 at the left.

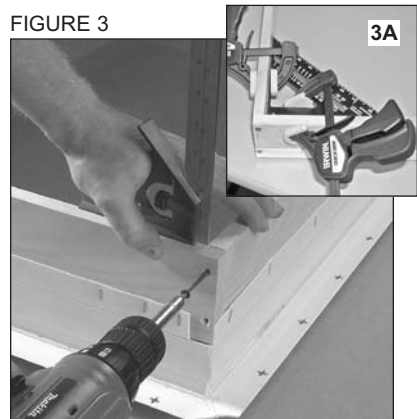
Since “shipped loose” jamb extension is cut to length and the snap-in-legs are pre-cut at the ends, follow attachment procedures from Pages 17 and 18 that apply to your unit’s configuration.

When all pieces are attached to the window, examine joint between jamb extension and window frame to be sure extensions are fully seated around the entire perimeter.

Align the vertical and the horizontal pieces using a small square. While holding items aligned with each other, drill two countersunk pilot holes in the back of one piece. Fasten the horizontal and vertical pieces with two #6 x 1-1/4” Phillips flat head stainless steel screws (FIGURES 3 & 3A).

Repeat for each corner where vertical and horizontal jamb extensions meet.

FIGURE 3



## Vinyl Jamb Extension – All-Vinyl Windows

FIGURE 1



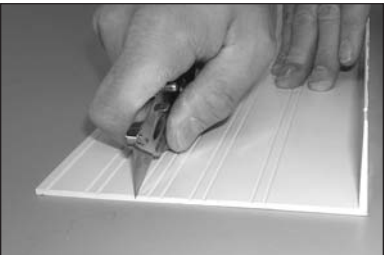
FIGURE 2



FIGURE 3



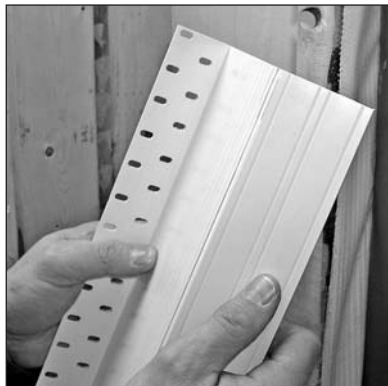
FIGURE 4



**⚠ IMPORTANT:** The vinyl jamb extension is applied to the windows after the windows are installed in the building.

1. After window unit is installed, measure interior window frame width and height from outside of frame to outside of frame (**FIGURE 1**). Record these measurements.
2. Cut horizontal jamb extensions to measured width. Subtract 3/8" from the height measurement and cut the vertical vinyl jamb extension to this reduced length. The height reduction allows the vertical pieces to fit inside the horizontal pieces.
3. Measure from window frame face to wall surface (**FIGURE 2**). Record this measurement. This will be the jamb extension depth. Measure several locations around the window's perimeter to check for variations. Adjust measurements as needed.
4. Work on the back of the jamb extension (**FIGURE 3**). Measure depth (from Step 3) and add 5/16". The 5/16" is the depth the jamb extension will lose when it is fully seated in the window's interior accessory groove. Measure from the jamb extension nailing flange as shown (**FIGURE 3**). Mark the depth plus the 5/16" add on.
5. Use a sharp utility knife and score jamb extension along the depth mark (**FIGURE 4**).
6. Bend the jamb extension several times along the score mark to separate the pieces (**FIGURE 5**).

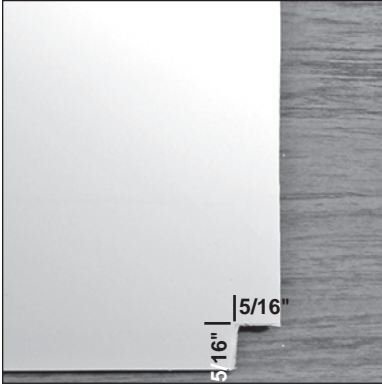
FIGURE 5





## Vinyl Jamb Extension – All-Vinyl Windows (cont.)

FIGURE 6



7. Notch both corners on the two horizontal pieces. Snip a 5/16" x 5/16" piece from each inside corner (FIGURE 6).

This notch will allow the jamb extension to sit flush with the edge of the window frame (FIGURE 7).

8. Insert horizontal jamb extensions into the head and sill interior accessory grooves (FIGURE 8). Align ends flush with window frame sides.

9. Insert vertical jamb extension pieces into interior accessory grooves (FIGURE 9).

10. Secure all vinyl jamb extensions with fasteners through the mounting flange into the framing (FIGURE 9). Follow standard drywall installation procedures for fastener selection and spacing.

FIGURE 7



FIGURE 9



FIGURE 8



## Wood Jamb Extension – Install on Wood Interiors

FIGURE 1 – “Walk-Around” Joints

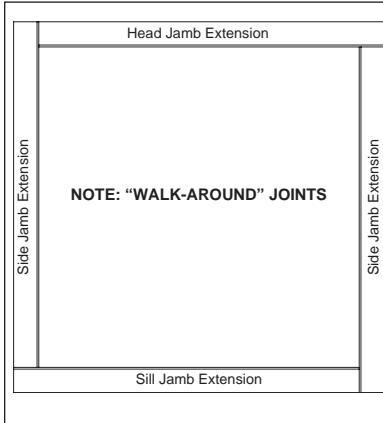


FIGURE 2

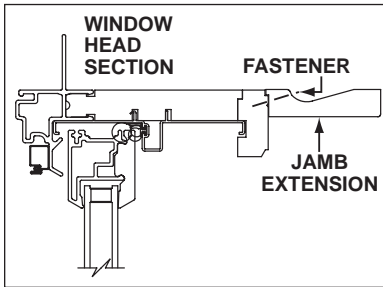


FIGURE 3



**IMPORTANT:** Jamb extension must be applied to the window **BEFORE** the unit is installed or the rough opening is prepared. Place window (interior facing up) and jamb extension on a clean flat surface.

**NOTE:** For non-DPR installations only.

Rough opening may need to be enlarged 3/8" to 1/2" to provide clearance for accessories and insulation.

DPR installations **MUST** maintain the 1/4" shim space on all sides (see Page 1).

Jamb extensions can be ordered pre-cut to fit your window and "shipped loose"; allowing for staining, varnishing, or painting before attaching jamb extensions to the window.

Factory pre-cut jamb extensions are cut to install in the "walk-around" joint method (FIGURE 1).

**⚠ IMPORTANT:** Do not trim any factory pre-cut jamb extensions until you have matched the pieces to your window and know how they will fit your unit (FIGURE 1).

1. Arrange and "dry fit" jamb extension pieces to the window unit as in (FIGURE 1). Trim or sand ends to achieve a tight fit at all the corners.

**Make sure flat side faces glass and curved side faces rough opening (FIGURE 2).**

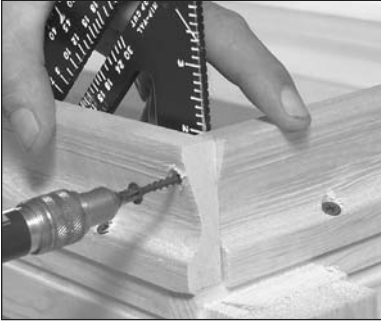
2. Securely clamp or hold jamb extension in place and drill countersunk pilot holes for #6 stainless steel screws. Place holes every 12" to 16" on center along a vertical jamb extension. Screw vertical jamb extension in place with 1-1/4" long #6 flat head stainless steel screws. Staples with 1-1/4" long legs can be used instead of screws (FIGURE 3).

**⚠ CAUTION** Drill pilot holes carefully to prevent damaging inside surface of jamb or jamb extension. Install screws or staples with care paying attention to angle and depth.

3. Work around unit installing remaining jamb extension pieces to the window.

## Wood Jamb Extension – Install on Wood Interiors (cont.)

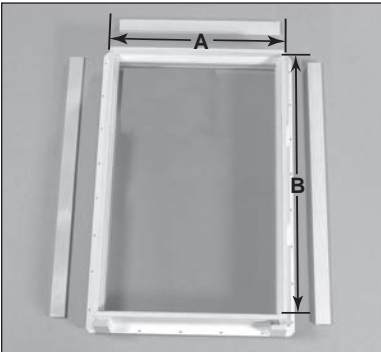
FIGURE 4



4. Align the vertical and horizontal pieces using a small square. While holding items aligned, drill two countersunk pilot holes in the back of one piece. Fasten the pieces together with #6 x 1-1/4" long flat head stainless steel screws (FIGURE 6). Repeat for each corner.

## Wood Jamb Extension – Install on Wood Interiors - Lineal

FIGURE 1



Jamb extension can be ordered in lengths, for custom fitting on the job site.

**IMPORTANT:** Jamb extension must be applied to the window **BEFORE** the unit is installed or the rough opening is prepared. Place window (interior facing up) on a clean flat surface.

**NOTE:** For non-DPR installations only.

Rough opening may need to be enlarged 3/8" to 1/2" to provide clearance for accessories and insulation.

DPR installations **MUST** maintain the 1/4" shim space on all sides (see Page 1).

### Measure Horizontal Jamb Extension Length

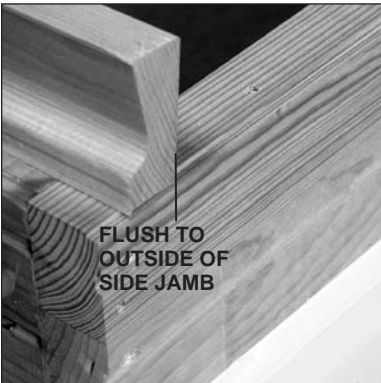
1. Measure "A" (horizontal jamb extensions) in (FIGURE 1). It is the width, measured from jamb to jamb, outside to outside. Cut two jamb extensions to this length; one for the head and one for the sill.

Install **horizontal jamb extensions**.

2. Place jamb extension on top of head or sill jamb. Align ends of horizontal jamb extension flush to outside edge of side jambs (FIGURE 2).

**IMPORTANT:** Make sure flat side faces glass and curved side faces rough opening.

FIGURE 2



## Wood Jamb Extension – Install on Wood Interiors - Lineal

FIGURE 3

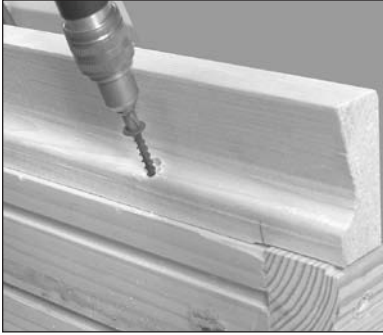


FIGURE 4

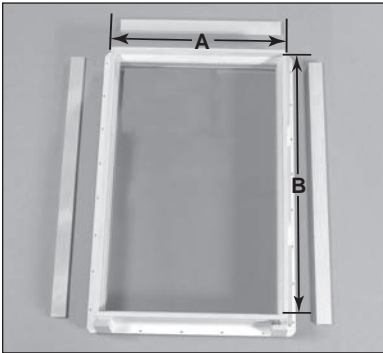


FIGURE 5



**CAUTION** Drill pilot holes carefully to prevent damaging inside surface of jamb or jamb extension. Install screws or staples with care paying attention to angle and depth.

3. Securely clamp or hold jamb extension in place and drill countersunk pilot holes for 1-1/4" long #6 flat head stainless steel screws. Place holes every 12" to 16" on center along horizontal jamb extension. Staples with 1-1/4" long legs can be used instead of screws.

4. Fasten horizontal jamb extensions in place (FIGURE 3).

### Measure Vertical Jamb Extension Length

5. Measure "B" (vertical jamb extensions) in (FIGURE 4). It is the inside distance between the two horizontal jamb extensions.

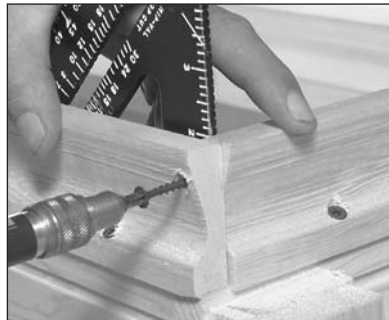
Cut two jamb extensions to this length; one for each side.

6. Place vertical jamb extension on top of side jamb (FIGURE 5) and between horizontal jamb extensions. **Make sure flat side faces glass and curved side faces rough opening.** Securely clamp or hold jamb extension in place and drill countersunk pilot holes for #6 screws. Place holes every 12" to 16" on center along vertical jamb extension. Screw vertical jamb extension in place with 1-1/4" long #6 flat head stainless steel screws or staples with 1-1/4" long legs.

7. Install other vertical jamb extension in a like manner.

8. Align the vertical piece and the horizontal piece using a small square. While holding items aligned, drill two countersunk pilot holes in the back of the horizontal piece. Fasten the horizontal piece to the vertical piece with #6 x 1-1/4" long stainless steel screws (FIGURE 6). Repeat for each corner.

FIGURE 6



## Recommended Finishing Instructions



### WARNING

Always follow chemical manufacturers' safety instructions when using chemicals to avoid injury or illness.

Vinyl, aluminum, and fiberglass may be cleaned with mild soap and water. Hard to remove stains and mineral deposits may be removed with mineral spirits. Factory-applied painted surfaces can be cleaned with mild household detergents and water.

- Do **NOT** clean any surface with gasoline, diesel fuel, solvent based, or petroleum based products.
- Do **NOT** use abrasive materials or strong acidic solutions against vinyl, aluminum, glass, or factory-applied finishes.
- Do **NOT** scrape or use tools that might damage the surface.
- Do **NOT** paint vinyl or aluminum surfaces.
- Do **NOT** use mastic-type tapes such as Duct Tape<sup>®</sup>.

**NOTE:** If masking tape is used on any surface to aid in painting or staining, remove tape as soon as possible after use. Tape must be removed within 24 hours of application.

For long term use, such as stucco applications; use tape that will release, even when exposed to high temperatures for an extended period of time. (Examples include 3M #2080 and #2090 tapes.)

### For Bare Wood Surfaces

For best results, we recommend sealing your wood products immediately upon receipt. Avoid storing products or leaving them unfinished for more than 30 days.


1. Remove all construction and adhesive label residue with mineral spirits before finishing.
2. Lightly sand surfaces being finished with 180 grit or finer sandpaper. Be careful not to scratch the glass.
3. After sanding, clean-off sanding dust using lacquer thinner applied to a cloth so the cloth is slightly damp. Let surface dry completely.

### -If a painted surface is desired:

- If a wood unit is delivered with factory-applied primer paint, it may be painted without repriming, providing the finish paint coat is applied within six (6) months of unit installation.

- If a factory-primed wood unit requires repriming contact your customer service representative for help in selecting a primer compatible with the factory applied material.
  - Factory-applied Accentials<sup>TM</sup> color system finishes in standard, designer or custom colors do not require additional painting. For "touch up" paint specifications contact your customer service representative.
1. An unprimed wood unit requires priming. Use high quality acrylic or oil-based primer. Use compatible oil or high quality acrylic finish coats. Refer to the primer and paint manufacturers' instructions.
  2. When priming bare wood or repriming, cover all exposed wood surfaces. Priming all exposed surfaces helps prevent end splitting, warping and/or checking.
  3. Once primed, apply two (2) coats of paint on all exposed wood surfaces.

### -If a stained surface is desired:

 **CAUTION** If no sealer is applied over stain, the wood will weather very rapidly and defects will occur. Apply at least two (2) coats of sealer.

1. Use only oil-based stain. A gel stain is easier to apply as it does not easily run or drip. The clear top coats may be oil or water-based. Apply at least two top coats of sealer or varnish.
- Stain applied to soft and porous woods such as pine, maple, alder, and fir can result in splotchy or uneven color appearance. Softer areas absorb pigmented stain more readily than harder areas, making the soft spots darker. The uneven absorption is especially prevalent with heavily pigmented darker stains. To determine if your stain choice is heavily pigmented and prone to splotchy application, view the opened and stirred stain container with an indirect light source. If you can see "down into" the stain, it is a lighter pigmented variety. If you cannot see "down into" the stain, it is a heavily pigmented type and will be prone to uneven absorption.

*Continued on the next page.*

## Recommended Finishing Instructions (cont.)

- A pre-stain wood conditioner, applied before staining, will help softer woods absorb stain more evenly. Apply both wood conditioner and desired stain according to the manufacturers' instructions.
- 2. Apply one (1) coat of sealer to the stained surface and let dry. Use a high-quality, exterior grade, uv-stabilized, clear polyurethane varnish. Let sealer dry completely.
- 3. Before applying the next finish coat, make sure the previous coat is completely dry. Then lightly sand previous finish coat with 180 grit or finer sandpaper. Clean off all sanding dust and wipe surfaces with a tack cloth.
- 4. Apply next coat of desired finish to surface and let dry. Apply only one coat at a time.
- 5. For any additional coats of finish, repeat steps 3 and 4.

-For a clear (natural) finish: Follow Steps 1, 2, and 3 under "Bare Wood" and Steps 2, 3, 4, and 5 under "stained surface".

**⚠ IMPORTANT:** Remove sash for finishing. Apply your choice of sealer (paint or varnish) to all exposed wood components. Do not get sealer on weather strip or into mechanical components (sash lock, tilt latches, operators, or sash rollers). Ensure bottom and top of sash are also sealed (FIGURE 1).

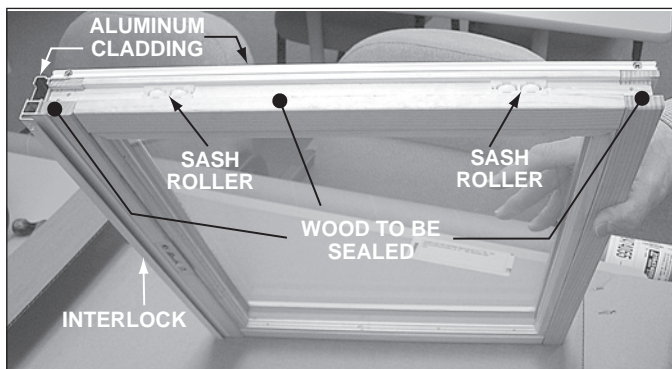
**⚠ CAUTION** Sealer (paint or varnish) applied to sash **MUST DRY COMPLETELY** before reinstalling sash. If not dry, sash may stick in jamb liners. Also weatherstrip and jamb liners may be damaged.

### PVC Trim

- Painting or finishing PVC trim is not required.
- If desired, PVC trim can be painted with high-quality exterior latex or oil base paint.
- PVC trim can be cleaned with most major household cleaners. Glass cleaners work the best.
- Cleaners to Avoid  
Harsh cleaners with glycol ethers or ethanol type solvent and/or isopropyl alcohol soften the coating if left on for several minutes. Cleaners such as Goof Off, Wal-Mart "Great Value All-Purpose Cleaner" (glycol ether), 409 General Purpose (2-Butoxyethanol) and Greased Lightning (glycol ether), citrus cleaners, abrasive cleaners, and solvents such as acetone, paint remover, and lacquer thinner are NOT recommended for cleaning PVC trim.
- Touch up can be performed with:  
Royal Fillers – touch up markers and aerosol sprays  
Dap "All Purpose" Painters Putty  
Minwax Hi Finish Light Wood Filler  
Sherwin Williams Shrink Free Spackling

**⚠ CAUTION** Solvent based fillers should not be used.

FIGURE 1 Sash Bottom





## Products With Synthetic Stucco

Serious concerns have been raised about excessive moisture problems in homes and other buildings that have Exterior Insulation Finish Systems, commonly referred to as EIFS or Synthetic Stucco.

Many experts agree that a certain amount of water or moisture can be expected to enter almost any building exterior system. The building system should allow such water and moisture to escape or “weep” to the exterior, so no damage occurs. However, some EIFS systems may not allow water or moisture that penetrates the wall system to “weep” to the exterior. This can cause excessive moisture to accumulate within the wall system, which can cause serious damage to wall and other building components. It has been reported that so-called “barrier” EIFS systems are particularly prone to this problem.

Moisture problems in any type of building structure can be reduced by proper design and construction with appropriate moisture control considerations, taking into account prevailing climate conditions. Examples of moisture control considerations include flashing and/or sealing of all building exterior penetration points, use of appropriate materials and construction techniques, adherence to applicable building codes, and general attention to proper design and workmanship of the entire building system, including allowances for management of moisture within the wall system.

Determination of proper building design, components and construction, including moisture management, are the responsibility of the design architect, the contractors, and the manufacturer of the exterior wall finish products. Questions and concerns about moisture management issues should be taken up with these professionals. The window manufacturer is not responsible for problems or damages caused by deficiencies in building design, construction or maintenance, failure to install our products properly, or use of our products in systems that do not allow for proper management of moisture within the wall system.



**Notes**

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