

Direct Set Window Installation Instructions For All Nailing Fin Equipped Units Including Rectangles, Geometric, and Specialty Shapes



Includes Instructions to Maintain Design Pressure Test Ratings

IMPORTANT: Please read before you begin.

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General – Installation and DPR Attainment

⚠ IMPORTANT: Thoroughly read and follow these instructions. Failure to install as recommended will void any warranty, expressed or implied. **Check building codes for the area in which the windows are being installed before installation to ensure proper compliance.** The 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 windows be installed in the same way they were installed for laboratory testing. To comply with these requirements, we are pleased to supplement the installation instructions with the following:

Sealant **must** be applied in all installations. There must be continuous contact with a generous bead of sealant between the **bare** sheathing and the window unit's nailing fin around the window's entire perimeter.

The following additional steps must be taken as appropriate.

- Exterior house wrap must be cut and temporarily taped back away from rough openings.
- When sealant is applied to the rough opening it must be applied directly to the building's sheathing and **NOT** the building wrap.
- The nailing fin must contact the sealant continuously along the entire perimeter of the unit and must fully contact exterior face of the wall around the window's entire perimeter.
- Exterior housewrap must be trimmed and reapplied over the nailing fin. It must be sealed to the fin along the entire perimeter with silicone sealant.

Fastening methods must conform to those used to install test units. See Pages iv and v for the correct type fastener, application spacing and additional silicone sealant requirements.

A shim space, not to exceed 1/4", is required. If a shim space greater than 1/4" exists on the interior or exterior of the unit, use solid material to fill this space until the maximum 1/4" shim allowance is achieved.

ADDITIONAL NOTES:

- 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. The clip install method has not been tested for design pressure ratings and should not be used where design pressure ratings must be maintained. Contact your customer service representative for additional assistance.

Design Pressure Performance – Fastening Method

To maintain ratings, all units must be installed with a continuous, generous bead of high-quality, neutral cure, silicone sealant applied between the nailing fin and the bare sheathing of the

exterior wall. Fasteners, as listed below, must be used to maintain rating validity. Additional caulking, as indicated must also be applied.

Aluminum Clad, Vinyl Clad, and All Vinyl Windows With Nailing Fins and Pre-Punched Fastener Holes		
Page v	Fastener	Fastening Method
Figure 1	#8 Steel screws long enough to penetrate framing material by at least 1-1/2".	Start a screw 4" in from corner and apply through nailing fin into framing member. Space additional screws every 6" on center, around entire perimeter, staying 4" from each corner.
Figure 2	Use a minimum of #8 x 2" steel screws or a length long enough to penetrate framing material by at least 1-1/2".	Start a screw 4" in from the corner and apply through nailing fin into framing member. Space additional screws every 6" to 8" on center, around entire perimeter, staying 4" from each corner.
Figure 3	#8 Steel screws long enough to penetrate framing material by at least 1-1/2".	Start a screw 4" in from corner and apply through nailing fin into framing member. Space additional screws every 4-1/2" on center, around entire perimeter, staying 4" from each corner. Apply sealant over fastener heads and over the border between the nailing fin and the sheathing along window entire perimeter.
Figure 4	#8 Steel screws long enough to penetrate framing material by at least 1-1/2".	Start a screw 4" in from corner and apply through nailing fin into framing member. Space additional screws every 4" on center, around entire perimeter, staying 4" from each corner. Apply sealant over fastener heads and over the border between the nailing fin and the sheathing along window entire perimeter.
Figure 5	Use a minimum of #8 x 2" steel screws or a length long enough to penetrate framing material by at least 1-1/2".	Start a screw 4" in from corner and apply through nailing fin into framing member. Space additional screws every 4" on center, around entire perimeter, staying 4" from each corner.
Figure 6	Use a minimum of #8 x 2" steel screws or a length long enough to penetrate framing material by at least 1-1/2".	Start a screw 4" in from corner and apply through nailing fin into framing member. Space additional screws every 4" on center, around entire perimeter, staying 4" from each corner.

Design Pressure Performance Window Configurations – Side Views

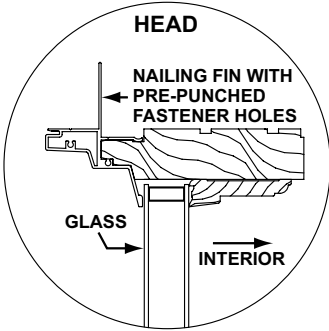


FIGURE 1 – Aluminum Clad Wood

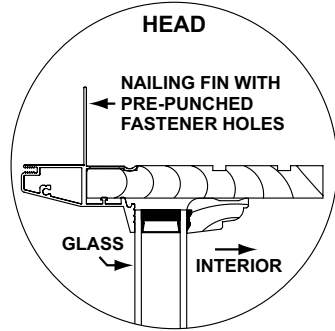


FIGURE 2 – Aluminum Clad Wood

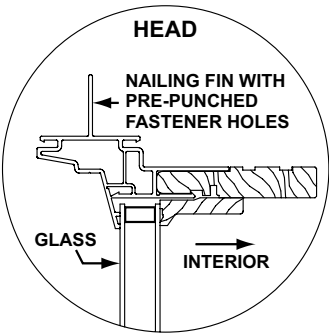


FIGURE 3 – Vinyl Clad Wood

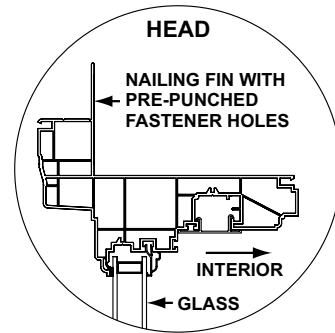


FIGURE 4 – All Vinyl With Integral Brick Mould

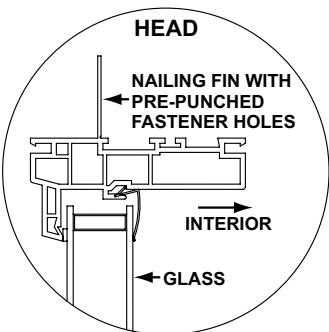


FIGURE 5 – All Vinyl

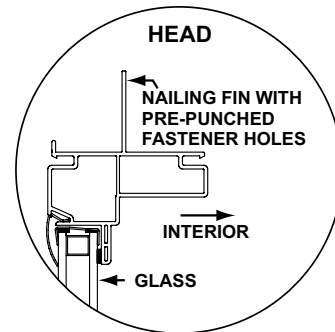


FIGURE 6 – All Vinyl



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.



DANGER

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



WARNING

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.



DANGER



CUT HAZARD

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



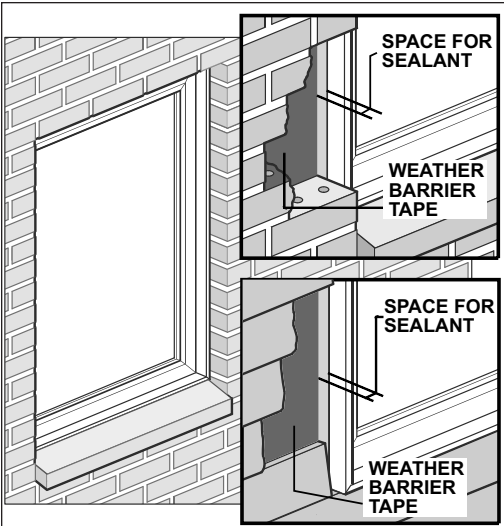
DANGER



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

Keep children and objects away from open window.

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.

Definition:

Throughout these instructions DPR equals "For Design Pressure Rating". Any procedure so titled **must be** completed to maintain the rating validity.

Non-DPR is for installations not requiring compliance with design pressure ratings. In this case you can follow procedures for either DPR or non-DPR.

⚠ IMPORTANT:

When accessories such as jamb extension have been ordered, apply **BEFORE** you **install** the unit **OR** prep the rough opening. Muller unit drip cap **MUST** be applied **BEFORE** unit is installed.

Rough Opening Preparation

FIGURE 1



FIGURE 2

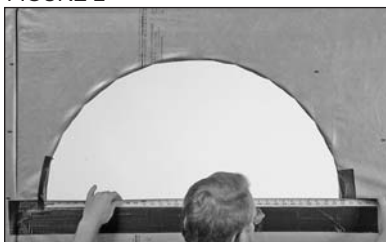


FIGURE 3

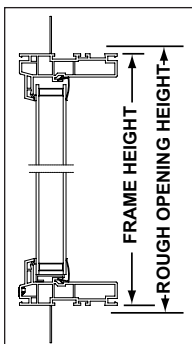
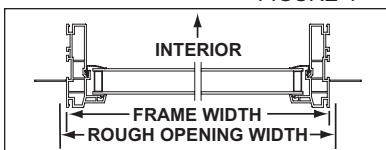


FIGURE 4



SAFETY INSTRUCTIONS

Read installation instructions completely before beginning procedure.

⚠ WARNING

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

Before you begin, check the following:

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

⚠ IMPORTANT: Check to make sure you have the correct size window (height and width) for your rough opening.

For Vinyl Units

Measure the rough opening to ensure that it is not more than 1/2" taller in overall height (FIGURE 1) or 1/2" wider in overall width (FIGURE 2) than window frame height (FIGURE 3) or frame width (FIGURE 4).

For Clad Wood Units

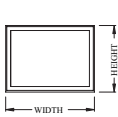
Where design pressure maintenance is not required, rough opening should be 1" taller and 1" wider than frame height or width.

NOTE: Rough opening for any unit may require adjustment if jamb extension or other options are to be installed.

See "Shape Measurement Locations" on the following page for measuring points on other styles of shaped windows.

⚠ IMPORTANT: If **ANY** unit is to meet design pressure ratings, a maximum 1/4" shim space is required around the perimeter. A shim space greater than 1/4" could result in lower product performance and may be considered non-compliant with certain building codes.

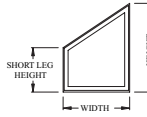
RO Preparation – Shape Measurement Locations



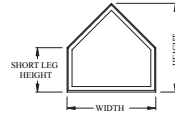
Rectangle



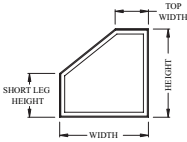
Triangle



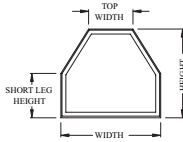
Trapezoid



Pentagon



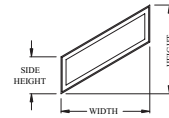
Pentagon with Flat Top



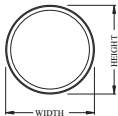
Hexagon with Flat Top



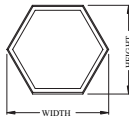
Diamond



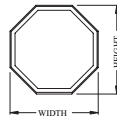
Parallelogram



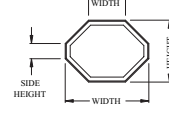
Full Circle



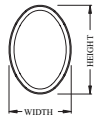
Hexagon
(All Equal Sides)



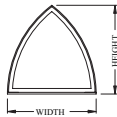
Octagon
(All Equal Sides)



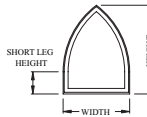
Octagon
(Non-Standard)



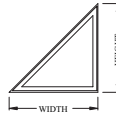
Full Ellipse



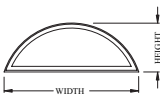
Gothic



Gothic Arch Top with Extended Legs



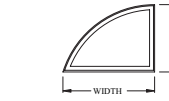
Right Triangle



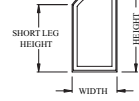
Arch Top



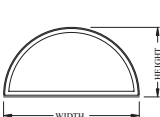
Arch Top with Extended Legs



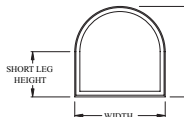
Quarter Arch Top



Quarter Arch Top with Extended Legs



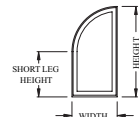
Half Circle



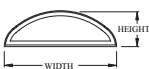
Half Circle with Extended Legs



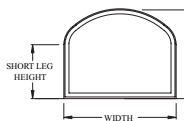
Quarter Circle



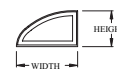
Quarter Circle with Extended Legs



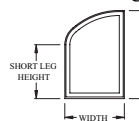
True Half Ellipse



True Half Ellipse with Extended Legs



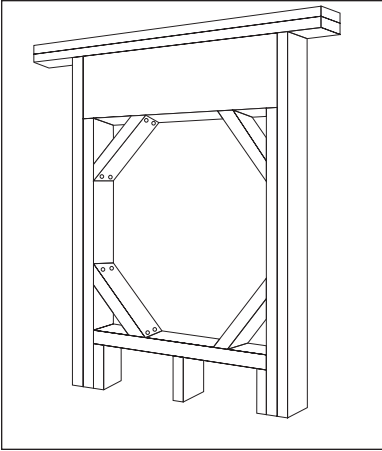
True Quarter Ellipse



True Quarter Ellipse with Extended Legs

RO Preparation (cont.)

FIGURE 5



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.

1. Add extra framing to provide support for special shapes. (FIGURE 5) shows extra bracing that works well for octagon, circle and hexagon style windows.

Modify your rough openings to provide support to the window frame. Additionally, solid framing lumber must surround the shape so fasteners can be securely attached (FIGURE 6).

2. Make sure walls are plumb and not twisted. Check sill for level (FIGURE 7). Make necessary corrections to ensure walls are plumb and straight.

FIGURE 6



FIGURE 7



Sill Preparation

FIGURE 1

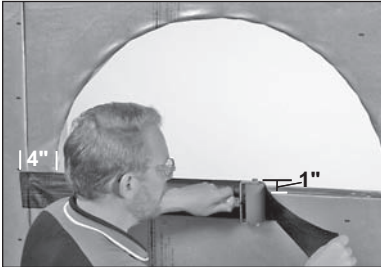


FIGURE 2



FIGURE 3



FIGURE 4



NOTE: If your structure has housewrap see the illustrations on Page 6 for installation techniques to preserve design pressure test ratings. Also perform steps in **Check Rough Opening for Level and Square** on Page 5.

If preserving design pressure test ratings are not a concern proceed as follows:

1. Cut a piece of weather barrier self-adhering tape 4" wide and as long as the opening width plus 8". Apply to face of exterior wall so 1" extends above the opening and 4" extends beyond each side of the opening. Use a rubber roller to apply (**FIGURE 1**).

2. Cut along the corners of rough opening and fold down onto the sill (**FIGURE 2**). Use a rubber roller on top of folded piece to obtain a tight seal against the sill (**FIGURE 3**).

3. Apply a second continuous piece of weather barrier self-adhering tape on the top surface of the rough opening sill (**FIGURE 4**).

Cut barrier tape the thickness of the wall plus 1" and 12" longer than the width of the opening. Align flush with interior of the wall and extend edge of the tape 1" past the exterior wall surface (**FIGURE 4**). Start the piece (approximately 6") up the side of the rough opening and run it to the bottom of the opening, to the other side of the opening, and 6" up the other side (**FIGURE 5**).

4. Use a utility knife to cut the sill piece on both corners of the rough opening (**FIGURE 5**). Fold cut pieces and press tightly against sill and side framing to form a tight corner (**FIGURES 6 & 7**).

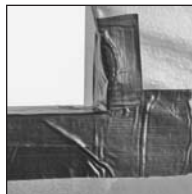
FIGURE 5



FIGURE 6



FIGURE 7



Check Rough Opening for Level and Square

FIGURE 1

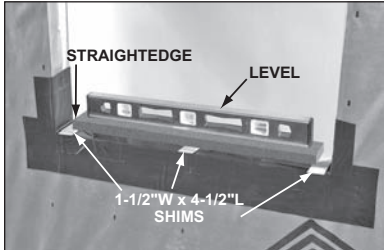


FIGURE 2

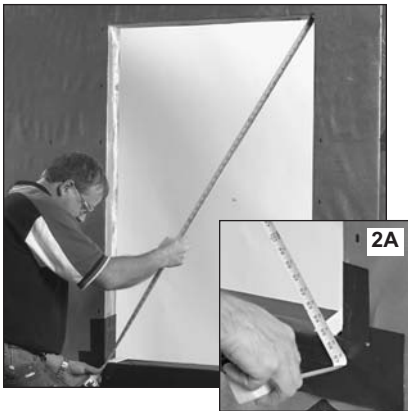
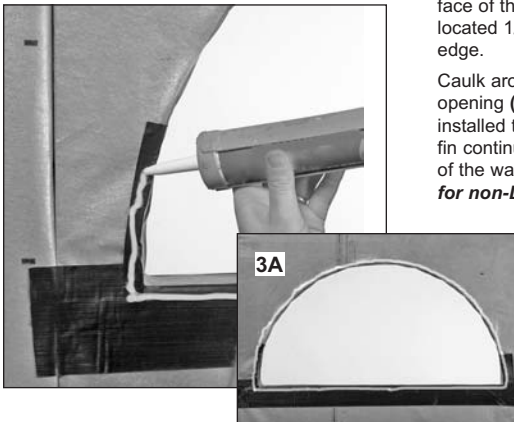


FIGURE 3



For Rectangular and Flat Bottom Units

⚠ IMPORTANT: For best results the straightedge must have straight parallel edges and must be shorter than the rough opening by no more than 1".

1. With a level on a straightedge, level the rough opening sill.
2. Place a 1-1/2" x 4-1/2" shim (under the straightedge) at the low end of the sill plate, locate shim against the side of the rough opening (FIGURE 1). Adjust the shim until level is achieved.

For Rectangular Units

3. Measure the opening diagonally from corner-to-corner (FIGURES 2 & 2A). Use top of shim for the lower corner. The measurements should not differ more than 1/4".

For All Units

STOP – Read Following Note For Design Pressure Considerations

NOTE: If your structure has housewrap and you must preserve design pressure ratings **DO NOT PERFORM STEP 4 BELOW.** See Page 6 for required installation techniques.

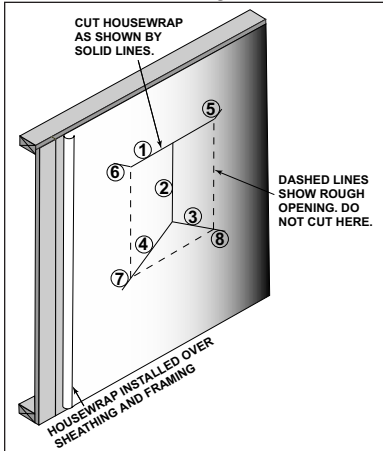
Step 4 **must** be used where design pressure ratings are not a concern.

4. Apply a continuous 1/4" bead of high-quality, exterior, neutral-cure, clear, silicone caulk (compatible with window extrusion and exterior face of the wall) to the exterior face of the wall, located 1/2" (FIGURE 3) from the rough opening edge.

Caulk around the entire perimeter of the rough opening (FIGURE 3A). When the window is installed the caulk bead must contact the nailing fin continuously so it seals the fin against the face of the wall. **For DP ratings continue on Page 6; for non-DP continue on Page 7.**

Housewrap & Caulking Rough Opening Details For Preserving Design Pressure Ratings On Structure With Housewrap

FIGURE 1 For Rectangular Units



If your structure does not have housewrap, continue on Page 7.

⚠ 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.

1. Cut housewrap in sequence as shown by the circled numerals in (FIGURE 1).

2. Fold housewrap back and tape out of the way (FIGURE 3). Bare sheathing must be exposed.

Use methods similar to (FIGURES 1 & 2) on full circles, hexagons, octagons and other shapes to cut and fold back housewrap.

3. Apply a continuous, generous bead of silicone sealant around entire rough opening perimeter. Locate sealant so it does not intrude into the rough opening and will also provide a continuous seal between sheathing and nailing fin (FIGURE 3).

To preserve DP ratings sealant must be applied to sheathing and not the housewrap.

FIGURE 2 For Arch Top Units

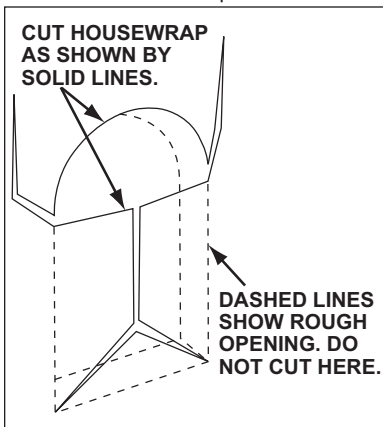
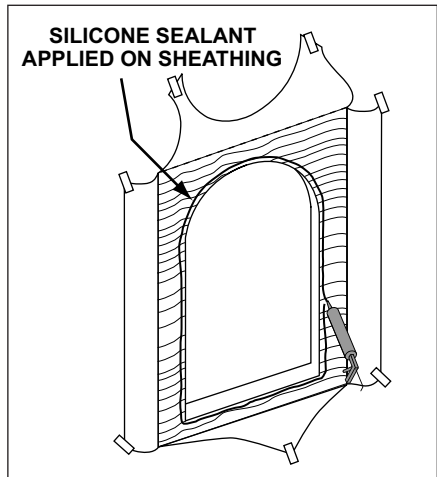


FIGURE 3



Vinyl Drip Cap Installation

FIGURE 1

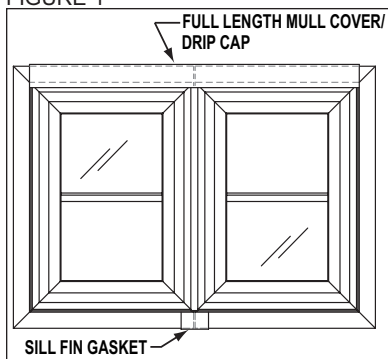


FIGURE 2

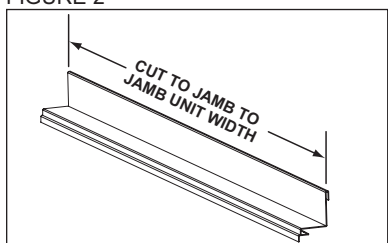


FIGURE 3

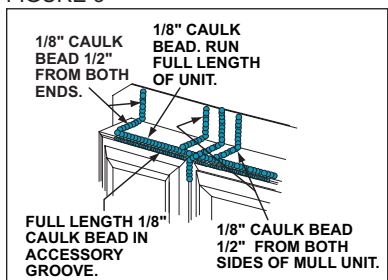
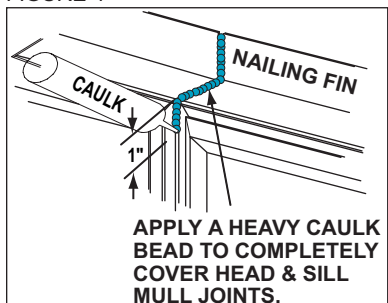


FIGURE 4



⚠ IMPORTANT: All mull units **MUST** have a one-piece drip cap applied **BEFORE** the unit is installed in the rough opening.

NOTE: See following page for aluminum clad unit drip cap installation.

A full-length, continuous (one-piece) drip cap must be applied to the exterior of all mull units before installing unit in structure. It must run from side jamb to side jamb (FIGURE 1). A sill gasket is also required (FIGURE 6).

1. Measure unit width, jamb-to-jamb.
2. Cut vinyl drip cap to this length (FIGURE 2).
3. Caulk unit with silicone sealant as shown in (FIGURES 3 & 4).
4. Complete caulking for mull joints by applying a lighter bead of caulk 1" out onto the exterior joint (FIGURE 4). Apply at **both** the head and sill.
5. Trim off snap-in leg on drip cap at points it overlaps mull covers so drip cap sits tightly against window frame.
6. Align drip cap across the units, snap over nailing fin and press snap-in leg firmly into accessory groove. Use a dead-blow hammer and wood block to fully seat snap-in leg into accessory groove across entire width of unit (FIGURE 5).
7. Apply sill fin gasket at each mull joint. Place adhesive side against fin, over joint and press to seal. Wrap excess material up behind fin (FIGURE 6).

FIGURE 5

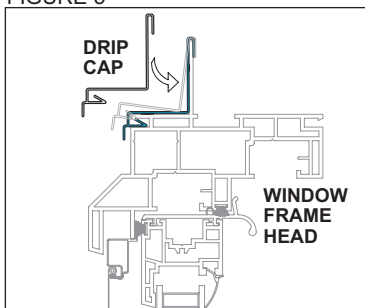
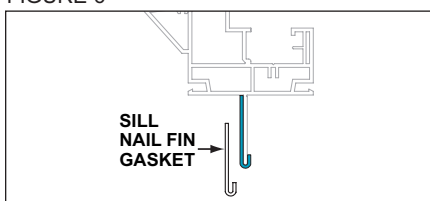


FIGURE 6



Aluminum Clad Unit – Drip Cap Installation

FIGURE 1



A full-length, continuous (one-piece) drip cap must be applied to the exterior of all mullied units before installing unit in structure. It must run from side jamb to side jamb. A sill gasket is also required.

1. Measure width of assembled units, jamb to jamb (**FIGURE 1**). Mark drip cap at this length and cut with a hacksaw.

2. Apply a continuous 1/8" diameter bead of sealant to head. Start 1/2" from side jamb. Caulk vertical face of nailing fin and continue along top of head to other end of unit and up the opposite nailing fin vertical face. Also apply sealant to the mullied joints laying a 1/8" diameter bead 1/2" from both sides of the joint. Add a third bead directly on top of the joint (**FIGURE 2**).

3. Center drip cap, from side to side, over head of combined unit and press firmly down into sealant (**FIGURE 3**).

4. Secure drip cap to head with #8 x 1/2" stainless steel TEK tip screws or #8 x 1/2" Phillips pan head stainless steel self tapping screws.

Place screws 1" to 2" from each end of unit and every 24" to 30" along length of drip cap (**FIGURE 4**).

5. Examine entire exterior and remove excess sealant using a clean soft shop towel dampened with denatured alcohol.

6. Allow sealant to dry before installing unit.

FIGURE 2

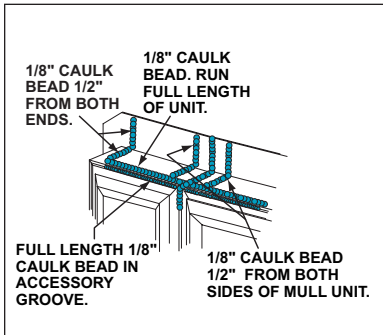


FIGURE 3



FIGURE 4



Window Installation – All Shapes

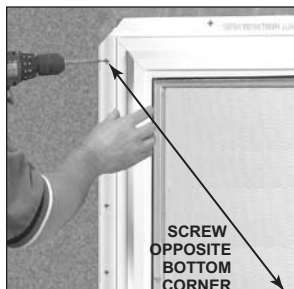
FIGURE 1



FIGURE 2



FIGURE 3



⚠ IMPORTANT: When accessories such as jamb extension have been ordered, apply **BEFORE** you install the unit **OR** prep the rough opening.

Remove all shipping and packing material from the unit.

High-quality, exterior, neutral-cure, clear, silicone caulk (compatible with extrusion and exterior face of the wall) is to be used for all procedures in these instructions which call for caulking or sealant.

⚠ WARNING

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

1. From the exterior lift and center window in the rough opening. 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 only.

⚠ IMPORTANT: If a unit is mulled, it **must be supported with shims under the sill at each mulled joint.**

2. Secure one side top corner with a #8 steel screw long enough to penetrate the framing material by at least 1-1/2" (**FIGURE 3**).

NOTE: If maintaining design pressure ratings are not a concern, roofing nails long enough to penetrate framing material by at least 1-1/2", may be used instead of screws.

⚠ IMPORTANT: If unit is to meet design pressure ratings, a maximum 1/4" shim space is required around the perimeter. Unit must be secured with #8 steel screws long enough to penetrate framing material by at least 1-1/2". See "Design Pressure Performance – Fastening Method" chart on Page iv for screw spacing.

Window Installation (cont.)

FIGURE 4



3. While holding unit in place, square and plumb jambs. This can be done from the interior or exterior. Check both side-to-side and inside-to-outside. Measure unit from corner-to-corner to check for square (FIGURES 4 & 5). To plumb, level and square (FIGURES 4 – 7), use a pry bar to shift unit and shim as needed.

4. Secure opposite bottom corner. Check again for level, plumb and square. Use shims and a level or straightedge to straighten the side and head jambs. When straight, fasten through the nailing fin spacing screws as prescribed on Page iv. In a similar manner, straighten the sill and fasten through sill nailing fin. Finish by fastening around entire perimeter, through nailing fin, as prescribed on Page iv. Fasteners must not over-compress the fin.

FIGURE 5



NOTE: If maintaining design pressure ratings are not a concern, roofing nails long enough to penetrate framing material by at least 1-1/2", may be used instead of screws.

FIGURE 6

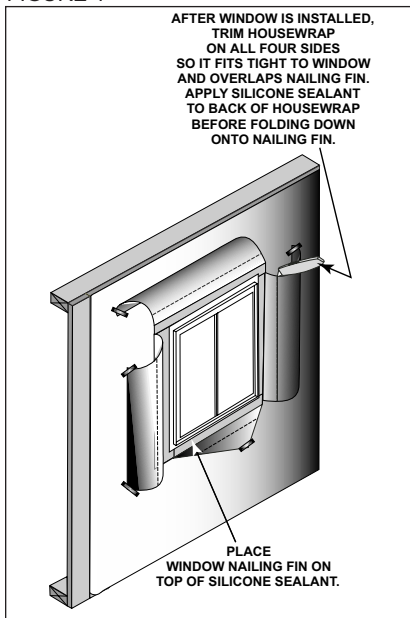


FIGURE 7



Housewrap & Caulking Finishing Details For Preserving Design Pressure Ratings On Structure With Housewrap

FIGURE 1



If your structure does not have housewrap continue on Page 12.

Trim and reseal housewrap to new window after window is installed according to the instructions on Pages 9 and 10.

See (FIGURE 1) for Steps 1 through 3.

1. One section at a time, untape and fold housewrap over nailing fin and up against window frame. Use a utility knife or scissors and carefully trim housewrap alongside the window frame. When trimmed, housewrap must lay flat against sheathing, overlap the nailing fin, and fit tightly against the window frame. After trimming and dry fitting, tape housewrap back out of the way so bottom side is exposed. Repeat for each section of housewrap.



WARNING Do not cut into nailing fin or window frame while trimming housewrap. Damage to frame may adversely affect structural or water integrity.

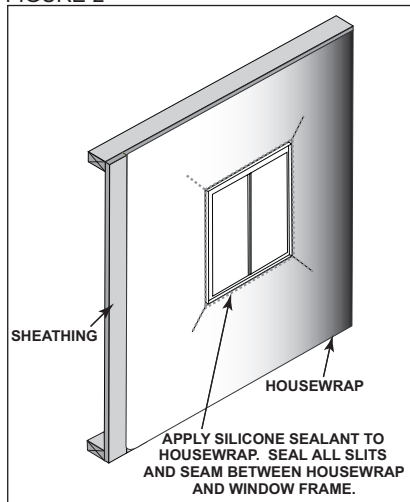
2. Apply a continuous bead of caulk to the back side of the housewrap along the edge that will be placed against the window frame. Also caulk along edges of any additional seams and at diagonal corner cuts.

3. Fold each caulked section down onto sheathing, overlapping the nailing fin and butting it tightly to the window frame. Smooth out all wrinkles and bulges.

Repeat Step 2 and 3 for each section.

4. Finish by inspecting each housewrap seam making sure each seam is sealed with silicone sealant (FIGURE 2).

FIGURE 2



Continue installation on Page 15.

Weather Barrier Self-Adhering Tape Application

FIGURE 1



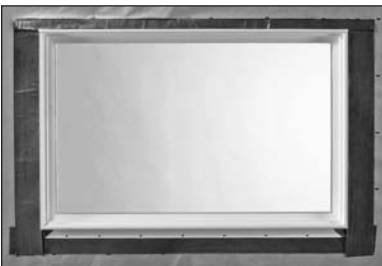
FIGURE 2



FIGURE 3



FIGURE 4



NOTE: The following **Weather Barrier Self-Adhering Tape** procedures do not apply if you have just completed **Housewrap & Caulking Finishing Details For Preserving Design Pressure Ratings Structure With Housewrap** on previous page.

For Rectangular & Regular Polygons

1. On the exterior, apply a high-quality weather barrier self-adhering tape or equivalent. Apply to the sides, starting at the top of the head nailing fin and run it down so that it extends 6" past the bottom nailing fin. Tape **must** cover the entire nailing fin, including the installation holes, the joint between the fin and the building's sheathing **and** extend at least one additional inch out onto the sheathing. Use a rubber roller to apply (FIGURE 1).

⚠ 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.

2. Use a utility knife to cut a slit in the building wrap above the head nailing fin, the entire length of the window unit **PLUS** the width of each vertical piece of weather barrier tape on both sides of the window (FIGURE 2).

3. Work weather barrier tape under slit in house wrap (FIGURE 3) and adhere to sheathing material across width of window. Horizontal weather barrier overlaps vertical weather barrier pieces on both sides and must cover the nailing fin, including the installation holes and the joint between the fin and the building's sheathing. Tape **must** extend at least one additional inch out onto the sheathing.

4. Finish by using a rubber roller, on top of house wrap, to firmly seat the horizontal piece of weather barrier tape. See (FIGURE 4) for the finished installation.

Weather Barrier Self-Adhering Tape Application

FIGURE 1



NOTE: The following Weather Barrier Self-Adhering Tape procedures do not apply if you have just completed Housewrap & Caulking Finishing Details For Preserving Design Pressure Ratings Structure With Housewrap.

For Circles and Arched Shapes

1. Use a utility knife to cut a slit in the building wrap along the curved nailing fin, around the upper part of the window unit (**FIGURE 1**).
2. Apply a high-quality weather barrier self-adhering tape or equivalent. Work weather barrier tape under slit in house wrap (**FIGURE 2**) and adhere to sheathing material. Apply starting at the bottom of the curvature and work upward in a weatherboard fashion (**FIGURE 3**). Alternate tape application from side to side. The last piece runs across the top of the arch and overlaps both of the top side pieces (**FIGURE 4**).

Tape must cover the nailing fin, including the installation holes, the joint between the fin and the building's sheathing and extend at least one additional inch out onto the sheathing.

3. Finish by using a rubber roller, on top of the housewrap, to firmly seat the weather barrier tape. See (**FIGURE 4**) for the finished installation.

FIGURE 2



FIGURE 3



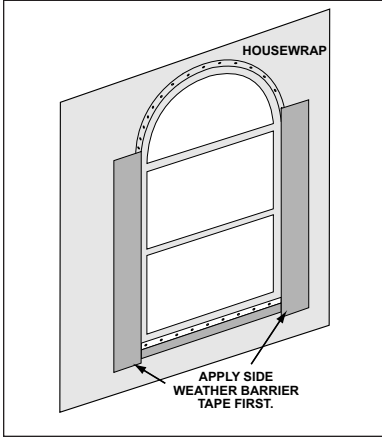
FIGURE 4



Continued on next page.

Weather Barrier Self-Adhering Tape Application (cont.)

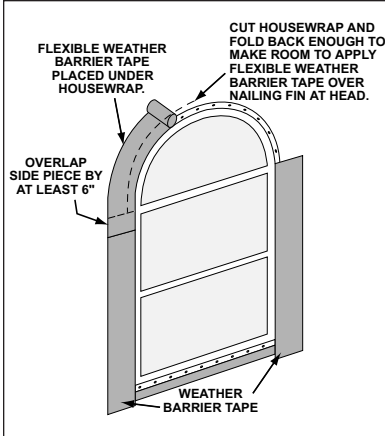
FIGURE 5



NOTE: An alternative is to use a flexible weather barrier tape that will follow curves and shapes with greater ease and flexibility.

4. Cut an opening in the building wrap as described in Step 1 on the previous page.
5. Apply side pieces of weather barrier self adhering tape first. Start at the bottom. Overlap sill flashing by at least 6" and apply side piece high enough to cover initial curve of the shape (**FIGURE 5**).
6. Start head piece of flexible weather barrier tape by overlapping side piece by at least 6". Continue running tape up and over curved shape and down the other side far enough to overlap opposite side piece by at least 6" (**FIGURE 6**).
7. For either method of weather barrier tape application finish by resealing cut portions of building wrap.
8. For flexible wrap, follow the manufacturer's instructions to complete the application.

FIGURE 6



Square and Straighten the Interior

FIGURE 1



1. For rectangular shapes, measure the entire window assembly diagonally in both directions (FIGURE 1).

2. Shim as needed (FIGURES 2 & 2A) to get the diagonal measurements exactly the same.

3. Using a level as a straightedge, place shims between the frame and the rough opening to straighten the side jamb and sill (FIGURES 3 & 4).

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

⚠ IMPORTANT: Straighten mull unit sills. Muller units must be supported with shims under the sill at each muller joint.

⚠ IMPORTANT: Do not over pack insulation.

⚠ IMPORTANT: Do not use expandable foam insulation.

Installation is ready for interior wall finish and trim.

FIGURE 2



FIGURE 3



FIGURE 4



Recommended Finishing Instructions



WARNING

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

For Vinyl and Aluminum Surfaces

Vinyl and aluminum surfaces may be cleaned with mild soap and water. Hard to remove stains and mineral deposits may be removed with mineral spirits.

- **Do NOT** clean with gasoline, diesel fuel, solvent based, or petroleum based products.
- **Do NOT** use abrasive materials against vinyl, aluminum, or glass surfaces.
- **Do NOT** scrape or use tools that might damage the surface.
- **Do NOT** paint vinyl or aluminum surfaces.

For Bare Wood Surfaces

For best results, wood should be sealed immediately upon installation or upon receipt, especially if unit is being stored for ANY length of time.

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™ 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 only oil-based primer. Use compatible oil or water-based 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 (again on all exposed sides) to each item.

-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.
- A pre-stain wood conditioner, applied before staining, will help softer woods like pine 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. Using a spar (marine) varnish as a sealer provides extra protection against sunlight and moisture. 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”.

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.



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