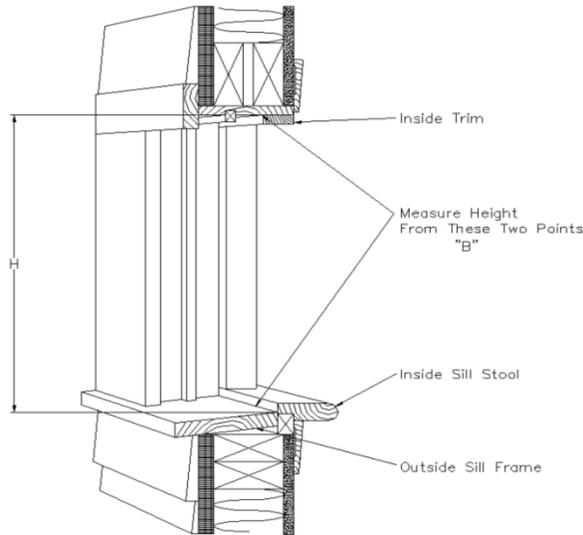
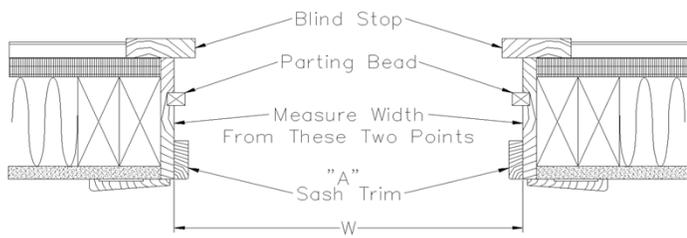


Replacement Windows Measuring & Installation Guide

Proper Measuring



Proper Measuring of Typical Wood Openings

Replacement windows are ordered and manufactured E.B. (Exact Both) size, exact width and exact height. Windows are manufactured to the nearest 1/16".

Example: A window ordered 32" x 45-1/8" will be manufactured 32" x 45-1/8".

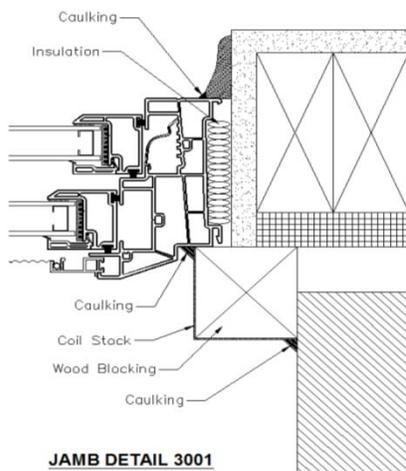
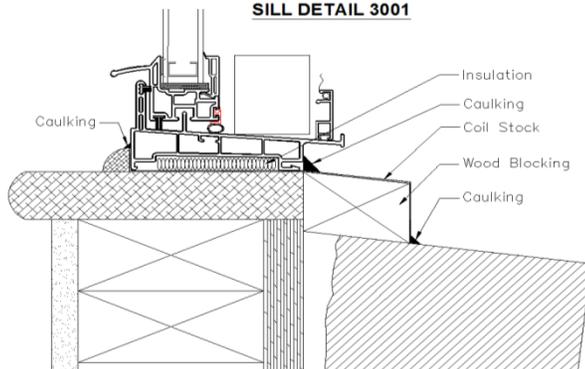
To Measure:

- 1.) Width "A": Measure between the jambs at 3 points top, middle and bottom. Use the smallest measurement.
- 2.) Height "B": Measure from back side of the sill stool to the top of the window casing on the left, right and middle. Use the smallest measurement. Cut back the dimensions to allow for squaring and leveling the window frame in the opening and insert insulation between the opening and mainframe. Normal cut back is 3/8" in the width and 1/4" in the height.

Example: Opening size 32" x 45-1/2"
Order and manufacture E.B. size 31-5/8" x 45-1/4".

Note: A.M.I. only accepts exact measurements, and is not responsible for determining window cutback sizes.

SILL DETAIL 3001



JAMB DETAIL 3001

Metal Removal

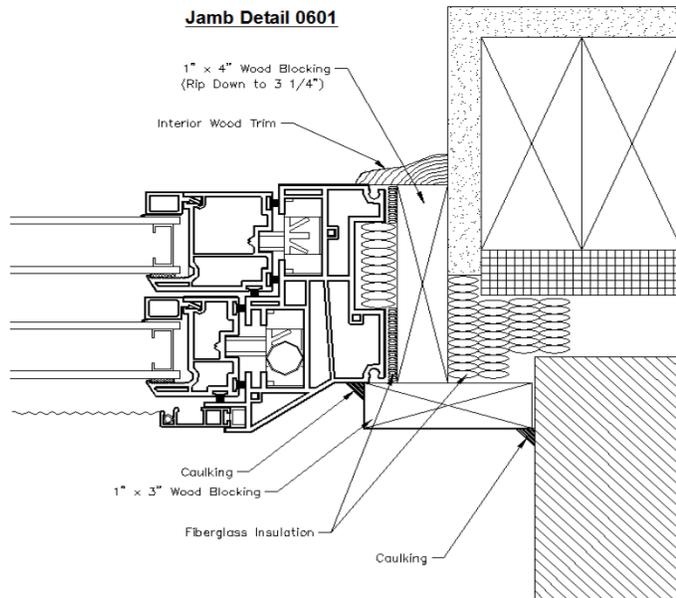
Measure the 3 width points from the plaster or drywall return. measure the 3 height points from the marble or formica sill to the header dry wall return.

Size the window to fit inside this opening, allowing for squaring and leveling. Keep in mind what material will be needed to finish the window units on the interior and exterior, whether it is caulking, vinyl or wood trim on the interior and cauld, vinyl or wood and coil stock on the exterior.

All needed installation materials should be noted so they are on hand at the time of installation.

Replacement Windows Measuring & Installation Guide

Proper Measuring



Buck Framing

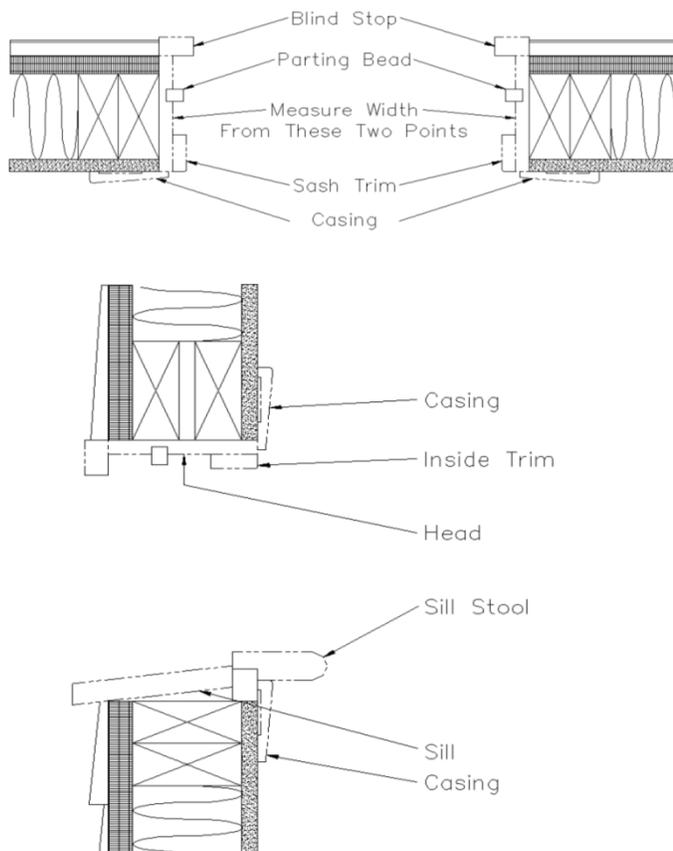
When a metal window is removed, the replacement window can be sized for a wood buck frame to line the four sides of the existing opening. A 1" x 4" can be ripped down to the depth of the replacement window (approximately 3-1/4"). To size the window for such an application, use this formula:

- 1.) Drywall return size less 1-1/2" for the wood buck = the buck frame opening size.
- 2.) Deduct 3/8" on the width and 1/4" on the height for the E.B. window size.

Example:

Drywall return size	36-1/8" x 48"
Wood buck	-1-1/2" x -1-1/2"
Woodbuck opening size	34-5/8" x 46-1/2"
Less 3/8" width & 1/4" height	-3/8" x -1/4"
Order manufactured E.B. size	34-1/4" x 46-1/4"

Proper Measuring



Bay or Bow Windows

Bay and Bow Windows come with their own jamb sections, header and seat. This is called a wood buck. When measuring, it is necessary to figure ahead to the installation and plan on removing the existing wood frame all the way down to the studs. This will provide a secure surface to anchor the bay or bow unit.

Note the phantom lines in the diagram. They indicate the window components that should be removed to reach the stud. This is the rough opening.

When measuring, it is imperative that the unit be measured to fit snugly inside the rough opening. The angle or degree of the bay (10°, 15°, 25°, 30°, 45°) and the proper wall thickness (from the interior of the drywall or plaster to the outside of the siding) needs to be determined.

Example: 1 bay unit 72" wide x 48" high
6-1/2" wall thickness with (0971, 0974, 0971) windows.

Note: Make sure the existing header is sufficient and conforms to Local and state building codes.

Replacement Windows Measuring & Installation Guide

Installation



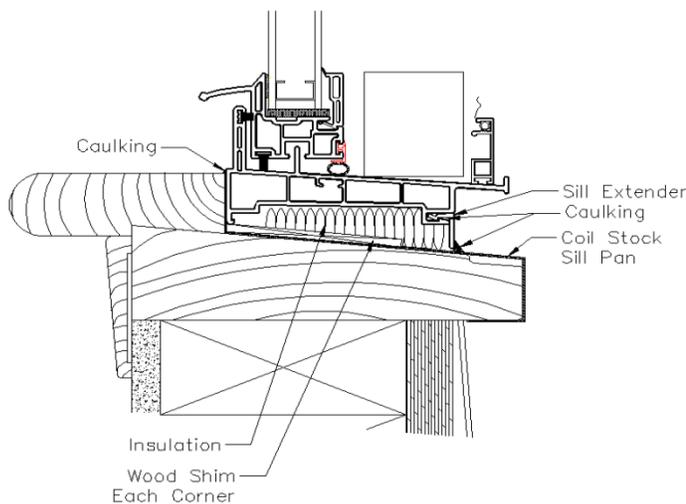
Double-Hung/Standard Wood-Sill Pan, Square, Level and Plumb

With the existing sashes removed, construct a sill pan from coil stock (or purchase a preformed sill pan). The sill pan must be made to turn up the jambs at least as far as the interior leg of the pan. All sill pan joints must be sealed with an approved caulk prior to the new window installation. The sill pan should cover all existing wood. Nail the sill pan so that the nails will be covered with the window once it is installed. Cover the nail heads with sealant prior to setting the window. Remember to always pitch coil stock away from the window so water will run off, and not sit against the window unit.

If the new window is being installed on a flat sill, insulate the window sill opening prior to setting the mainframe in place. Set the new window into the opening. With a level on the mainframe sill adjust the mainframe unit so the sill is level. Install a screw in the lower corner of the mainframe jamb. There are pre-drilled holes located behind the sash stops. Now plumb the mainframe jambs and insert the installation screws in the upper corners of the jambs. Snug the installation screws. Do not over tighten.

Make sure that the mainframe jambs and sashes make full contact with each other. A jamb adjustment screw is supplied at mid-span of the jambs to help facilitate this. Add shims around the mainframe as needed to ensure that all sash weather-stripping makes full contact with the mainframe. The weather-stripping should be compressed slightly. Insulate the jamb and header of the window using fiberglass insulation or an approved non-expanding spray foam insulation. Do not overfill the frame/rough opening gap as it may distort the frame.

Operate and tilt both sashes prior to replacing the trim to be sure that both sashes function properly and that all adjustments are complete. Reinstall the existing, or new interior trim, and caulk the interior and exterior perimeters of the window unit with an approved vinyl /wood compatible caulk.

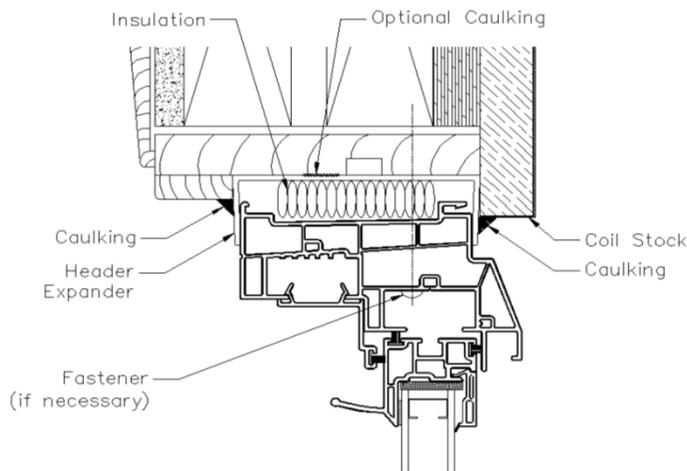


Sill Extender

For installation into openings with a sloped sill, a Sill Extender is provided to accommodate the angle of slope. Stuff fiberglass insulation, or non-expanding spray foam insulation in the void under the sill. Measure the height needed for the sill extender to cover the void and use a utility knife to score the line on the back side, closest to the desired height. Apply a narrow bead of sealant into the mainframe accessory groove and snap the sill angle into the groove. Seal the Sill Extender to the sill pan, leaving two 1" voids at each end to allow any water collected in the sill pan to escape.

Replacement Windows Measuring & Installation Guide

Installation



Optional Header Expander

A header expander may be ordered/supplied to ensure a tight fit in the height, yet allow downsizing of the window unit for leveling purposes during installation. If possible, place fiberglass insulation between the header expander and mainframe. This will prevent cold transfer and assist in keeping the expander extended. Do not use too much insulation, as this may cause a bow in the header and prevent proper locking. Caulking may be applied to the opening header to create a seal between the opening and the header. On a wide unit, a 3" pan head screw may be installed through the header and mid-span to prevent sag. Frame extenders can also be used on windows with interior & exterior accessory grooves.

Installation

Diagram A

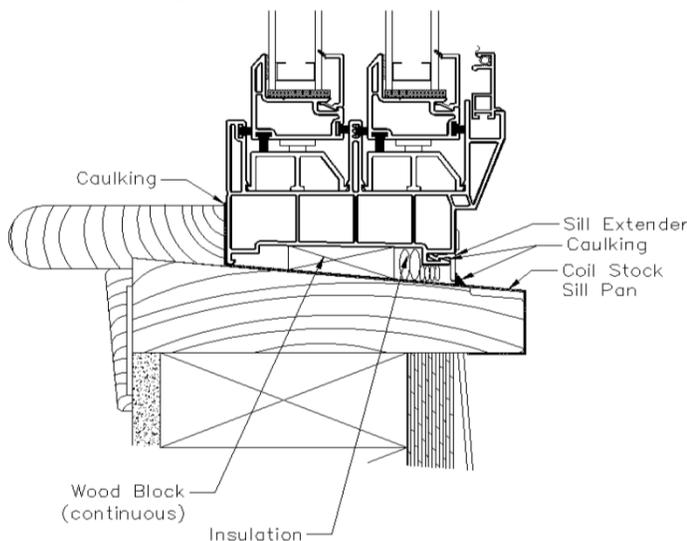
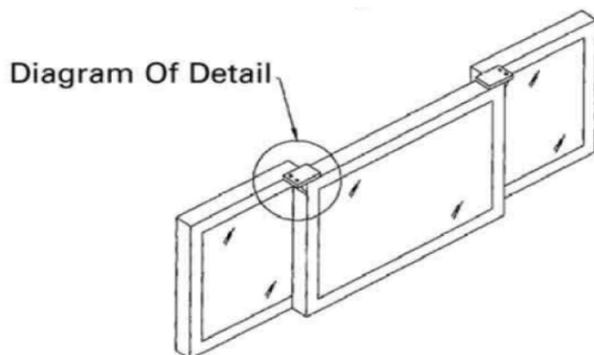


Diagram B



Horizontal Sliding 2 & 3 Lite Windows, Support

As with a Double-Hung, Horizontal Sliding windows achieve maximum performance from installation methods that dictate square frames, precise leveling and straight, tight lines between sash and mainframe.

See the Double Hung instructions for the use of a sill pan under all windows as well as shimming and insulation requirements.

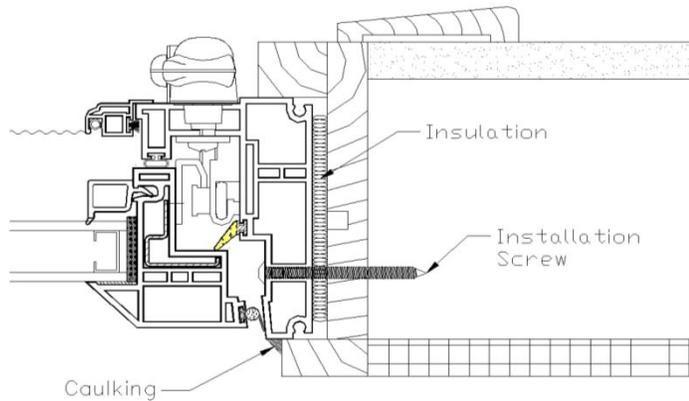
Proper support and leveling of the mainframe sill is critical. The sill should be level from side to side and interior to exterior. Though somewhat unusual, when installing into an existing sloped sill, a continuous wood sub-sill/block is recommended to support the weight of the sashes (Diagram A). The mainframe should be squared in the opening and the jambs should be plumbed and shimmed to attain straight lines. Some sliders have pre-drilled installation holes behind the sashes. If none are provided, drill a 3/16" hole through the mainframe, centered in the sash cavity 3" from each inside corner.

The sliding unit has a weep-drain system on the exterior of the sill that must not be covered by coil stock or sealant. As with the double hung, secure header with a screw at mid-span if it should sag. A sagging header will result in sashes not being able to be removed for cleaning. Check daylight measurements to be sure that the center measurement is the same as the near the side jambs. This will indicate parallel header and sill.

On a 3-Lite Horizontal Sliding Window, (2) stationary sash blocks are to be screwed into the header to secure the center sash in place (Diagram B).

Replacement Windows Measuring & Installation Guide

Installation



Casement and Awning Windows

With the Casement and Awning Window the same installation techniques apply to ensure that the window unit is installed plumb, level and square.

The pre-drilled holes in the mainframe are for installation screws. The screws are placed where they will not interfere with the sash operation. These screws will go through the mainframe and into the existing opening.

It is imperative that exterior stops and interior trim be installed with Casement and Awning Windows. There is a great deal of weight hanging outside when a casement or awning is in the open position. Proper support is essential.

Installation

Diagram "A"

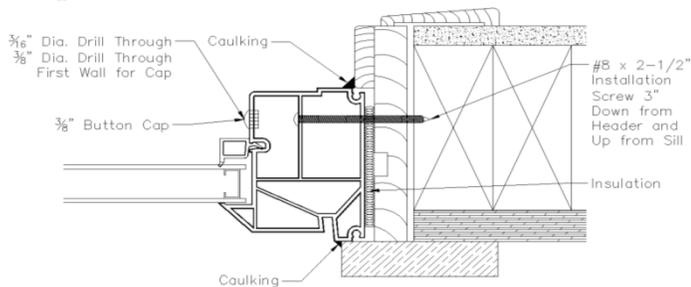
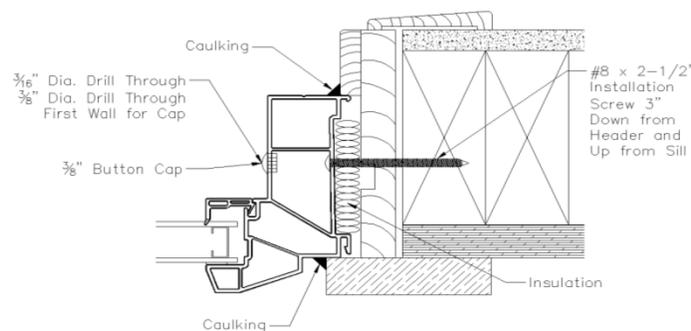


Diagram "B"



Picture Windows

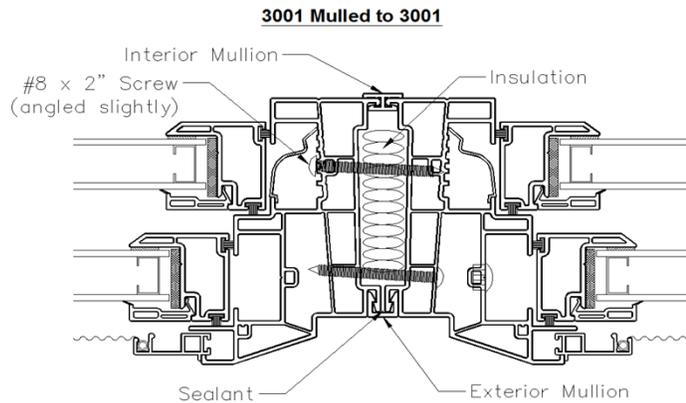
Diagram "A" illustrates a model 0970 Picture Window. Insert the installation screws through the frame as shown. Drill a 3/16" hole through the 3 layers of vinyl, then drill a 3/8" hole through the first layer of vinyl. Insert the installation screw through the first layer of vinyl so the head of the screw stops at the second layer. Cover the 3/8" hole with the color coordinated button cap so the screws are not visible.

Diagram "B" illustrates a model 3004 Picture Window. Insert the installation screws through the frame as shown. Drill a 3/16" hole through 2 layers of vinyl, then drill a 3/8" hole through the first layer of vinyl. AS with the 0970, insert the installation screw through the first layer so the head of the screw stops at the second layer. Cover the 3/8" hole with the button cap.

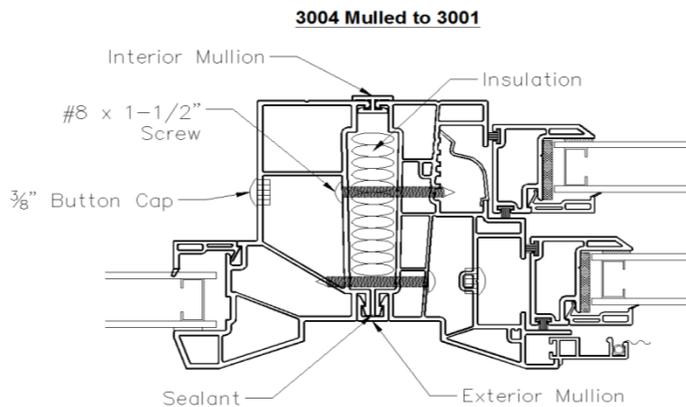
Replacement Windows Measuring & Installation Guide

Installation

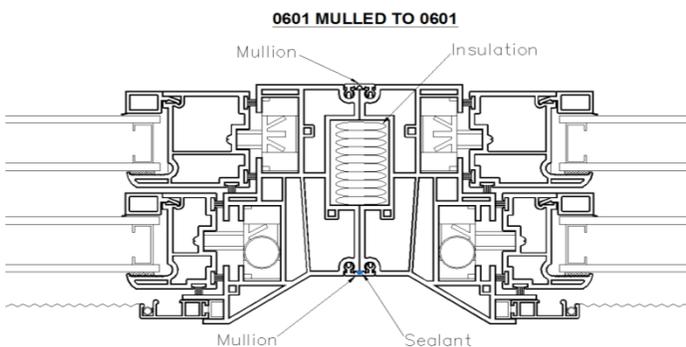
A



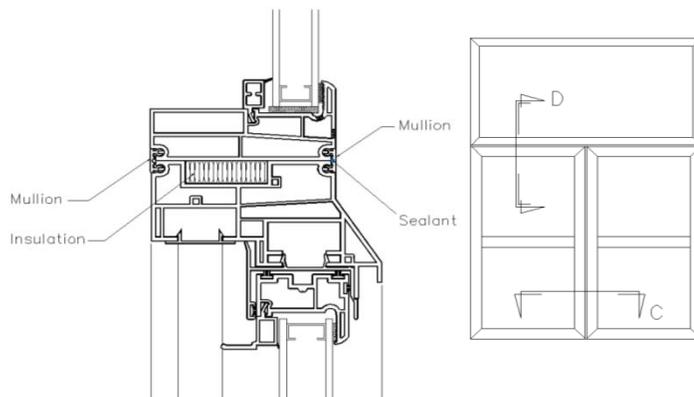
B



C



D



Mulled Units

Mulled units are ideal for large openings with multiple windows. A 2-Part mullion is used with the Mezzo 3000 Series and can be used for mulling 3001's to each other (as in Diagram A), or 3001's to 3004's (as in Diagram B).

When using mullions, it is recommended that the window openings have a continuous exterior header stop to help secure the windows in the opening. Never screw through the sills to stabilize the assembly at the bottom. A wood block or protruding screw head placed near mid-span of the unit, prior to placement of the mulled assembly, will hold the sill in place. This will prevent the sill of the mulled units from bowing outward. Use a continuous sill extender to fill the void between the existing opening and new mainframe.

Concealed installation screws should be placed through the header near the mullion junctions to keep the windows level, square and secure.

DO NOT SCREW THROUGH THE SILLS, AS WATER MAY INFILTRATE.

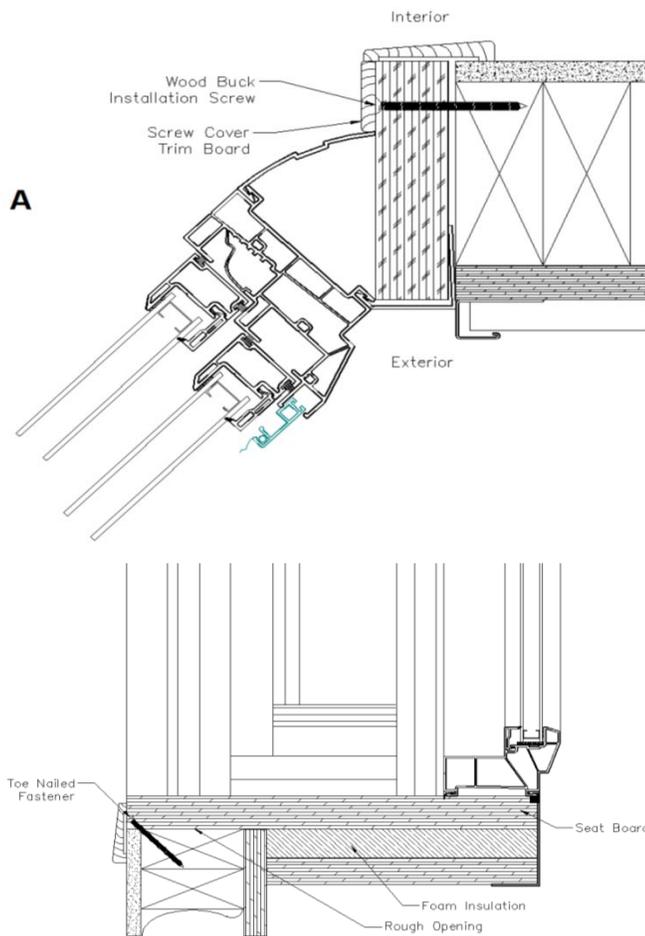
Mulling the UltraMaxx, Sheffield and Casement Series Windows can also be done easily with a 2-Part mullion (UV10) as shown in Diagram C. As with the 3000 Mezzo, the two units butt up to each other and the mullion is snapped into place. Place a small amount of sealant where the two units meet and snap the mullion in place. This will keep water and air from infiltrating from the exterior.

Diagram D illustrates how a 0614 (0970) can be stacked on top of two 0601's to fill a large opening. This is called a Transom Picture Window.

Reference comprehensive mulling instructions on the Associated Materials website Technical Center.

Replacement Windows Measuring & Installation Guide

Installation



Bay or Bow Units

Bay and Bow units should be installed in the rough opening down to the studs. Make sure the existing rough opening header is sufficient, and conforms to local and state building codes.

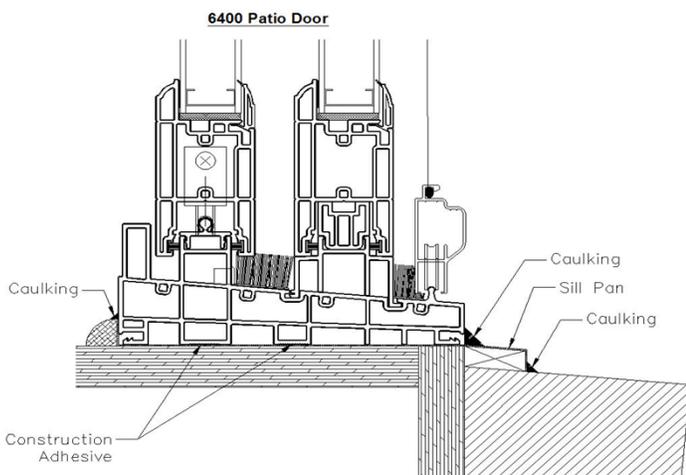
Level and square the unit in the rough opening and screw the wood buck through the jamb sections and into the wall studs (Diagram A). On the head and sill, screws can be toenailed through the buck frame edge and into the header and sill of the opening (Diagram B). This will prevent the interior header from sagging. The screw head will be concealed when the interior casing is installed.

For additional support, knee braces can be installed and anchored from the bottom of the seat to the wall of the house. A cable and turnbuckle system can also be used from the header of the wood buck frame to the wall of the house or the roof rafters in the soffit overhang.

When installing any bay or bow, if not ordered with the unit, construct a roof covering, or fascia with insulation. Insulate and seal the bottom of the seat board, if an insulated seat board was not ordered.

All exterior bare components must be insulated, covered and sealed from the elements.

Installation



Patio Doors

The 6400 and 6100 Series vinyl patio doors are shipped K. D., or knock down. That means the mainframe consists of (4) main components: the header, sill and jamb sections that are screwed together, as well as smaller ancillary parts and hardware. Every door comes with detailed assembly and installation instructions. Follow these instruction carefully.

Prior to assembly of the frame, it is imperative that the components are sealed according to the instructions to ensure the unit does not allow water penetration to the interior.

Replacement Windows Measuring & Installation Guide

Helpful Hints



Installation Professionals

It has been proven that windows and doors installed plumb, level and square out-perform those that were not. A good installation means that all sash and mainframe components join to create the seals the windows and doors were designed with.

Recycling of Materials

Scrap materials, including vinyl, wood, metals, glass, and others, generated by the installation of the new windows or doors, should be taken to their appropriate recycling centers, or manufacturing facility that reuses any of these materials, to the extent of feasibility. Check with local recycle centers for a list of products they will process, or Municipal Service Centers that can direct you to manufacturing facilities that accept specific materials. Adhere to all Federal, State, and Local guidelines where applicable.

Helpful Hints



Inspecting new window prior to demolition

Unwrap and thoroughly inspect the new window/door prior to removing the old window. Check the measurement of the new unit to the opening it will fill. Check for any shipping or material damage. If any component of the mainframe or sashes is damaged, repair or replace it prior to demolition of the old window. Moving parts, locks, balances, glass, rails, etc. can be repaired easily after the window or door is installed. After visually inspecting the window / door, shut and lock it until the old window / door is removed. This will allow the seals, locks, interlocks and weather-stripping to engage and seal. This will also make locking the units easier after installation.

Replacement Windows Measuring & Installation Guide

Helpful Hints



Insulation

Insulation of window frames is important to reduce hot and cold air from transferring between the exterior and interior. Insulate the window sill prior to setting the unit in place for slightly sloped or flat sills. Use a thin layer of insulation to prevent the mainframe sill from bowing upward. With steeper sloped sills, the insulation can be applied after the window is set into the opening.

With a wide putty knife, stuff fiberglass insulation, or spray zero expanding foam insulation, into the cavity between the mainframe and the opening. Use enough insulation to provide uniform compression of the weather-stripping on the sashes and mainframe. Too little insulation will cause gaps between the mainframe and sashes, allowing air infiltration.

Too much insulation will cause difficult sash movement and binding when tilting inward.

Helpful Hints



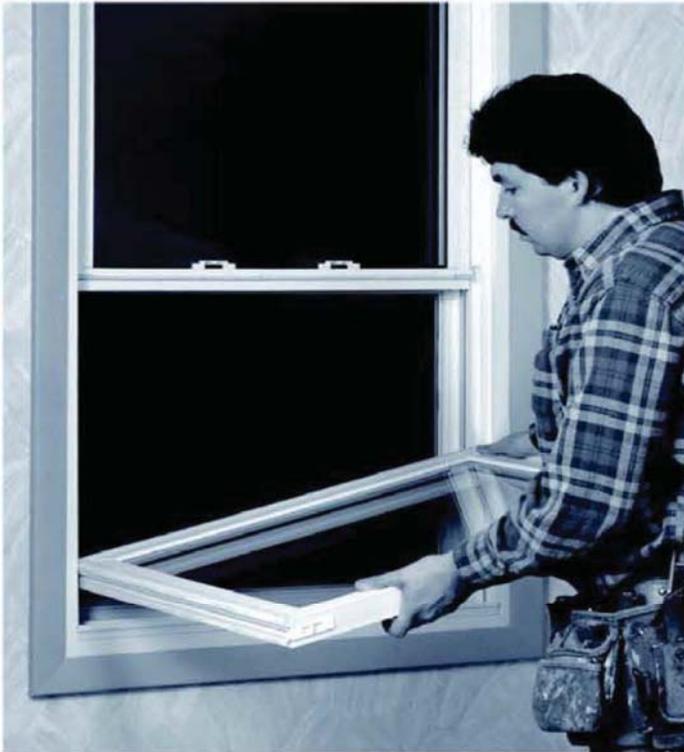
Caulking

Upon completion of the installation, make sure that the sashes operate properly before caulking. Close and lock the window. Ensure all frame and sash members are straight, without bowing. Apply caulk to the interior and exterior window perimeter, sealing the new window to the existing opening structure. Use a good approved quality sealant. Any silicone caulk must be a neutral base silicone. Silicone (or equivalent) that releases an acetic acid during cure does not adhere well to vinyl. Check the sealant manufacturer's label for specific recommendations.

The vinyl window gains strength from the surrounding wall structure. This is obtained from proper sizing, support and installation technique. The windows must remain shut and locked while caulking is applied. This will ensure that the window operates as it did during final adjustments.

Replacement Windows Measuring & Installation Guide

Helpful Hints



Removing Double-Hung and Sliding Window Sashes

Double-Hung Sashes

Caution: This procedure is for window service professionals only.

The double-hung sashes can be removed for service work. Be careful when you remove the sash as it can be very heavy.

After tilting in the sash to 90 degrees, raise both sides until the pivot bar is free from the balance shoe.

To reinstall the sash, simply reverse this procedure.

The balances are factory pre-tensioned to hold up the weight of the sash. The balance shoe (the mainframe part that receives the pivot bar) is equipped with a braking mechanism that engages when rotated 1/4 turn or more upward by the tilting action of the sash. If the balance shoe should snap or slide up, place the end of a large flat tip screwdriver in the balance shoe hole, pull the shoe down into position and twist the screwdriver 1/4 turn or until the open slot is visible. This will engage the brake.

Helpful Hints



Horizontal Sliding Sashes

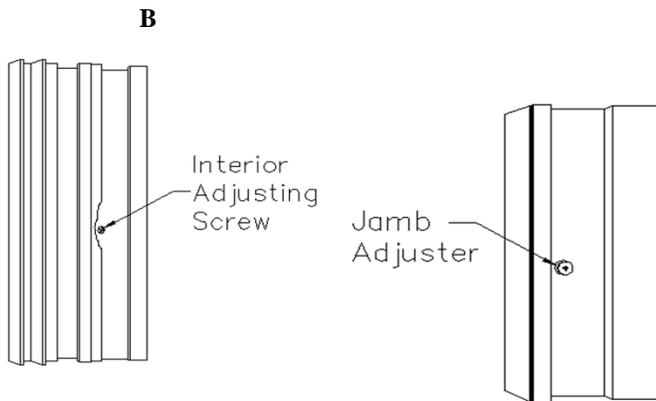
Horizontal Sliding sashes lift out for cleaning. Open the window to within 3 inches of being fully open. This will bypass the burglar blocks. Hold the sash on both sides and lift up as far as possible in the upper track. Then, pull the bottom of the sash toward you until it is clear of the window frame, lowering it out of the top track.

To reinstall the sash, simply reverse this procedure.

Caution: Sashes can be very heavy and awkward. Use two people to remove large sashes

Replacement Windows Measuring & Installation Guide

Helpful Hints



Jamb Adjusters

Jamb adjusters are located approximately midpoint of a double-hung or sliding window mainframe. They require a small flat blade screw driver to engage them into the opening. These screws are used to ensure the weather-stripping on the sash is compressed against the mainframe.

When using these jamb adjusters, tighten both sides evenly; do not adjust only one side. If only one side is adjusted, it will create poor sash and frame alignment.

Helpful Hints



Cleaning and Lubricating Windows

Standard glass cleaners are fine for cleaning glass surfaces.

Use a non-abrasive spray cleaner for cleaning vinyl frames. Do not use any petroleum based materials or solvents on glass or vinyl surfaces.

Periodic cleaning of the mainframes and sashes prolongs the life of all moving parts. Clean all tracks with cleaner and a soft rag. Dry the tracks with a clean rag and spray the tracks with food grade silicone spray. Do not use oil or other types of petroleum based lubricants. These will stay oily and attract dirt and debris, which will bind the moving parts.

Proper cleaning and lubricating will keep the window units operating for many years to come.

Replacement Windows Measuring & Installation Guide

Helpful Hints



Warranty Information

The warranty sticker on each window includes important information about the new vinyl window. It is to be left on the window frame for future reference, and includes the following information:

- 1.) Serial Number - The specific 9-digit number assigned to the individual window produced. This number is permanently kept on file and should be referred to when ordering warranty and service parts.
- 2.) P.O. Number - Customer provided purchase order number.
- 3.) Size of Window – Actual production make size of window unit.
- 4.) Date of Manufacture - Date window was produced. This information can be supplied to the manufacturer, referenced by computer, and all window part and component information will be available for years to come should there ever be a need for service.

At that time, write to the address listed on your warranty and state the nature of the complaint within 30 days of discovery. We will refer your claim to the proper representative and notify you by mail of your contact person. Please allow a reasonable amount of time for any inspection. We will process your claim based on the specific terms of the product warranty.

AAMA & NFRC / Energy Star Labels

If applied, the AAMA Gold or Silver label is to remain on the window at all times. The NFRC and Energy Star label, if applied, should only be removed by the homeowner, and filed away with the window/door literature for any future energy rebate qualifications.