Attention Installer!

We urge you to read and follow the attached installation instructions.

Failure to do so may void the warranty of this garden window unit.

Attention Homeowner!

1. All interior wood components must be properly sealed. Do not use water-based compounds!

Stain: Use an oil-based exterior stain followed by an oil-based polyurethane finish coat.

Paint: Use an oil-based exterior primer followed by an oil-based exterior finish coat.

- 2. If unit includes optional glass shelf, do not exceed weight limit of 8 pounds per square foot on the shelf!
- Follow installation instructions for optional components.
- 4. Do not overload the unit!



121310

301-577-8100

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Series 2050 Garden Window

Important Information for New Construction Installations

Flashing and Installation

 For new construction, we recommend that the three accessory vinyl flash flanges provided with the unit be used in conjunction with other flashing material to help drain water away from the window opening.

Three types of flashing material are available: flexible, self-adhesive flexible and rigid.

- 2. Apply sill flashing material prior to window installation. Extend the ends beyond the perimeter of the opening.
- 3. Caulk behind the vinyl head flange and slip the garden window unit into the opening.
- 4. Align the interior window jamb with the interior wall; drill and countersink the jamb, head board and seat board; install the #8x3" screws provided. Finish by installing the wood plugs (see drawing).
- 5. The jamb flashing can be applied in a number of ways, depending on the type of flashing material being used. Rigid flashing can be applied before caulking and screwing in the vinyl flash flanges; flexible can be applied afterwards. Overlap the sill flashing with the jamb flashing and extend above window opening.
- Cut the three exterior flash flange pieces to length, Caulk around the perimeter of the unit and wall. Attach vinyl flash flanges by screwing or nailing into the wall, keeping the flange tight against the window.
- Install head flashing material last: it should overlap and extend slightly beyond the jamb flashing material, creating a "shingled" effect.
- 8. Finish exterior wall treatment.

Installation of Optional Components Vinyl Trim and Insulation Board

We recommend the attachment of the vinyl trim and insulation board after the garden window has been installed.

- The projection of the garden window is a standard projection size of 17. The insulation board is cut to 18-3/8. Sill length and other factors could affect proper sizing. Be sure to take this measurement into account before cutting the board and vinyl trim to size.
- 2. Install vinyl trim onto the insulation board with the vinyl face of the board facing the exterior.
- Put a bead of caulk around the perimeter of the vinyl flange face which will mate against the bottom of the seat board face.
- Install weather-resistant screws up through the vinyl trim, insulation board and into the bottom of the seat board.
 Warning! Screws should not exceed 1-1/2" long! Do not overtighten!
- Position screws near four corners. (On larger units, additional screws should be used between the corners.)
- Caulk gap between seat board trim and insulation board trim. Caulk along insulation board where it meets sill area of window.

Shelving Standards and Brackets

Units up to 42" wide have two standards; units 42" up to 49" wide have three standards; units 49" up to 72" wide have four standards in the kit.

 On units with two standards, place each standard (vertical track) 1/8" in from the inside corner of the vinyl frame with the bottom edge of the standard setting on the step of the vinyl frame.

Larger units require additional standards, spaced equally between the end standards, **attached top and bottom only!** Place each standard with the notched portion down, setting on the step of the vinyl frame.

On all units, there are four black rubber blocks (2 on both sides) placed in both corners of the inside of the unit. Use these to ensure the 1/8" dimension for the vertical track location. Remove the rubber blocks with pliers once the vertical tracks have been fastened.

- 2. Mark hole locations with a pencil.
- 3. Drill pilot holes through the first wall only.
- Position vertical standard and attach using 1-1/2" screws.
 Do not overtighten screws!

Typical Installation Details: New Construction

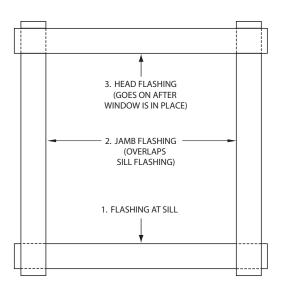
Installer Warning!

All units that exceed 72" wide or 60" high require knee brace support, because the unit exceeds standard size limitations for width or height.

Flashing Diagram

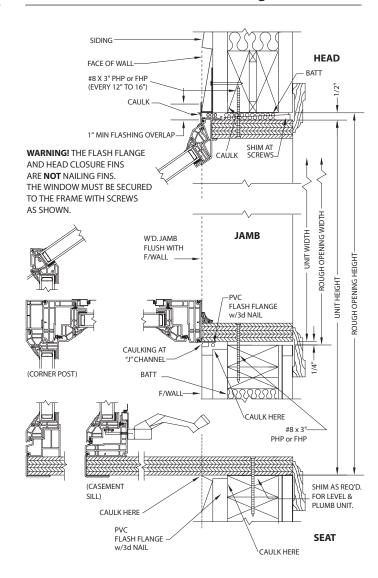
Use this sequence for flashing:

- 1. Sill
- 2. Jambs
- 3. Head



NOTE: The flashings go BENEATH the sheathing. The caulked flash flanges of the window go against the jamb and sill flashings.

Frame Construction with Siding

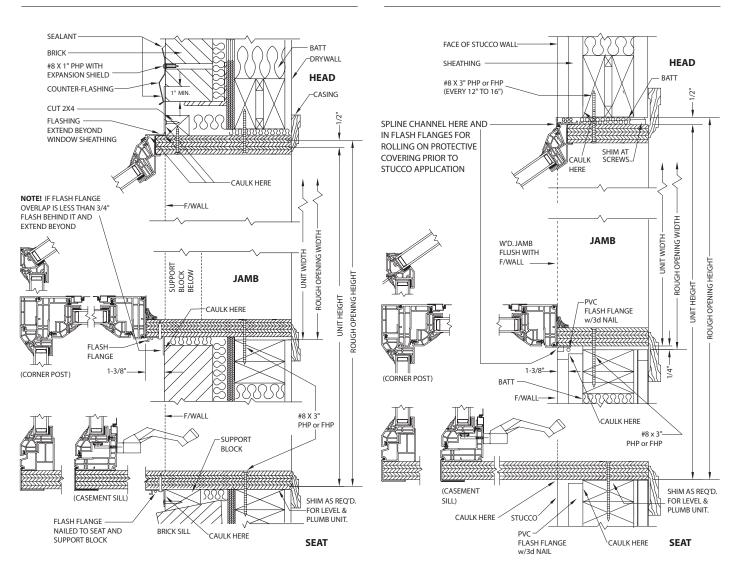


Installer Warning!

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Frame Construction with Brick Veneer

Frame Construction with Stucco



Attention Installer!

We urge you to read and follow the attached installation instructions.

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Attention Homeowner!

1. All interior wood components must be properly sealed. Do not use water-based compounds!

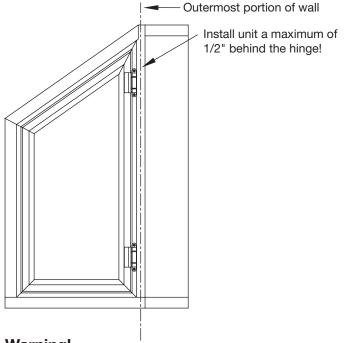
Stain: Use an oil-based exterior stain followed by an oil-based polyurethane finish coat.

Paint: Use an oil-based exterior primer followed by an oil-based exterior finish coat.

- If unit includes optional glass shelf, do not exceed weight limit of 8 pounds per square foot on the shelf!
- 3. Follow installation instructions for optional components.
- 4. Do not overload the unit!

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Important Installation Information for Retrofit Installations



Warning!

Under no circumstances should the distance from the back of the hinge to the exterior wall, J-channel, trim face or masonry face exceed 1/2".

This is the area where the wood meets the vinyl frame. LEAKAGE COULD OCCUR.

If there has been an error in measuring, we highly recommend cutting the inside of the jambs, head and seat board to accommodate this dimension rather than "cheating" the window out to be flush with the interior wall surface.

Cutting Interior Jamb, Head and Seat Board

- 1. Use new plywood blade with circular saw.
- Mark cut lines on exterior of 1-1/4" plywood.
 Use a straight edge for saw guide to avoid "freehand cutting."
- 3. Use masking tape on inside of cut area to reduce splintering and chipping of the inside laminate.

Installation of Optional Components Vinvl Trim and Insulation Board

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- 2. Install vinyl trim onto the insulation board with the vinyl face of the board facing the exterior.
- 3. Put a bead of caulk around the perimeter of the vinyl flange face which will mate against the bottom of the seat board face.
- 4. Install weather-resistant screws up through the vinyl trim, insulation board and into the bottom of the seat board

Warning! Screws should not exceed 1-1/2" long! Do not overtighten!

- 5. Position screws near four corners. (On larger units, additional screws should be used between the corners.)
- Caulk gap between seat board trim and insulation board trim. Caulk along insulation board where it meets sill area of window.

Shelving Standards and Brackets

Units up to 42" wide have two standards; units 42" up to 49" wide have three standards; units 49" up to 72" wide have four standards in the kit.

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Larger units require additional standards, spaced equally between the end standards, **attached top** and bottom only! Place each standard with the notched portion down, setting on the step of the vinyl frame.

On all units, there are four black rubber blocks (2 on both sides) placed in both corners of the inside of the unit. Use these to ensure the 1/8" dimension for the vertical track location. Remove the rubber blocks with pliers once the vertical tracks have been fastened.

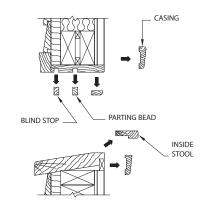
- 2. Mark hole locations with a pencil.
- 3. Drill pilot holes through the first wall only.
- 4. Position vertical standard and attach using 1-1/2" screws. **Do not overtighten screws!**

Installer Warning!

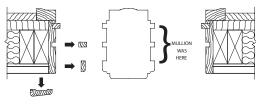
All units that exceed 72" wide or 60" high require knee brace support, because the unit exceeds standard size limitations for width or height.

Removal of Old Prime Window Frame

- 1. Remove inside trims, parting beads, and blind stops from the head.
- 2. Remove the inside stool and trim from the prime window sill.
- 3. Lightly fill batt insulation into the rough opening's open cavities.



SECTION THROUGH HEAD AND SILL

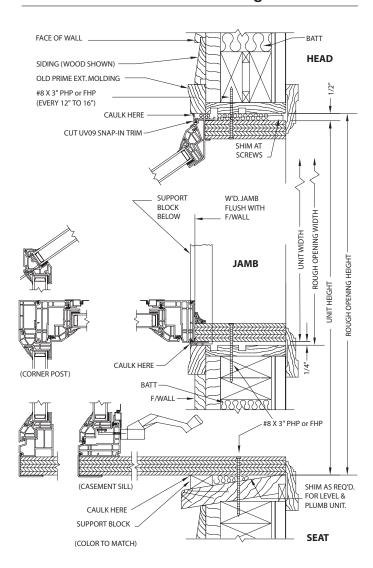


SECTION THROUGH MULLION AND JAMBS

- 4. Remove parting beads and trim from the jambs.
- 5. Remove the center mullion.

IMPORTANT! Since the mullion may be load-bearing, a lintel may have to be constructed or installed at top to prevent the wall above the opening from sagging.

Frame Construction with Siding



Installer Warning!

All units that exceed 72" wide or 60" high require knee brace support, because the unit exceeds standard size limitations for width or height.

Frame Construction with Brick Veneer **All-Masonry Construction** SEALANT SEALANT WALL THICKNESS DRYWALL BRICK BRICK HEAD #8 X 1" PHP WITH #8 X 1" PHP WITH EXPANSION SHIELD **EXPANSION SHIELD HEAD** COUNTER-FLASHING COUNTER-FLASHING WOOD SPACER TOE-BATT INSULATION NAILED TO OLD TRIM FLASHING FLASHING CAULKING W'D SPACER TOE-NAILED AT SCREWS TO OLD TRIM CUT DVO4 BEYOND CUT DVO4 BEYOND ROUGH OPENING WIDTH ROUGH OPENING HEIGHT **JAMB JAMB** 3000 CAULKING CAULK (CORNER POST) CUT DV04 JMB. ANGLE #8 X 1" PHP WITH EXPANSION SHIELD CUT 2X4 BELOW LAG SCREW W/ EXP. SUPPOŘ BLOCK SHIELD(TYP.). (CASEMENT SHIM AS REQ'D. SILL) SHIM AS REO'D FOR LEVEL & SILL) SUPPORT . FOR LEVEL & PLUMB UNIT. CUT DV04 BEYOND BLOCK CUT DV04 SILL. ANGLE PLUMB UNIT **SEAT** CUT 2X4 SPACER FACE OF WALL **SEAT**

BRICK SILL



1. What is the difference between new construction and retrofit?

The difference is in the overall jamb depth and required components:
For new construction, the flash flange on the head of the unit is left intact; for retrofit, it is removed.
Also, on a new construction unit, three more flash flange pieces are supplied (in addition to the one shown in the photo). They are installed on the sides and bottom of

A retrofit unit requires no additional components and should be sized as noted in the photograph below and in the drawings on page 3.

the unit during installation.

2. How do I determine the size of unit to order?

You should order it sized 1/2" less in height and 1/2" less in width than the rough opening.

3. Do I have to allow for insulboard in the size of the rough opening?

No, the insulboard is only as wide as the unit projection (17" for retrofit, 18.375" for new construction).

4. What is the "R" value of the insulboard?

The insulboard has an "R" value of 5.

5. This unit is going over a sink and between cabinets. How much clearance do I have for trim; what is the daylight opening?

The opening equals the width minus $(1.25" \times 2)$. For example: $35.5" - (1.25" \times 2) = 33"$ daylight opening

6. What is the clearance between the seat board and the operator? Do I have room to lay tile over the seat board?

The clearance between the seat board and the operator is 1.313."



New Construction: The flange is installed against the exterior face of the wall (either sheathing or insulation board).

As you can see in the photo, there is approximately 1.375" to the left of the flange for J-channel or exterior wall treatment. **Note:** On new construction brick or masonry installations, measure the entire wall thickness.

Retrofit: With retrofit, the full wall width should be considered: exterior face to interior face.

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New Construction / Retrofit

7. Do jamb extensions come in standard sizes?

No, this is a custom jamb made to order, so proper measurement is very important! The minumum jamb extension is 2 inches, the maximum is 4 feet.

If a garden window unit has been incorrectly ordered because of jamb, head and seat board sizing, we offer two options:

- (a) At the customer's request, we will re-work the unit to the correct jamb thickness. The customer would be responsible for shipping the unit to Ventana and would incur the costs associated with the re-work.
- (b) If that is not feasible, the installer can build out the short existing jambs, head and seat board and overlay them with .25" plywood veneer. (Although we have supplied white high-pressure laminate in the past, we do not supply veneer.)

8. What should I know about shelves, standards and brackets?

See page 4 for installation.

Units up to 42" wide need two standards; units 42" up to 49" need three standards; units 49" up to 72" wide need four standards.

To avoid breakage, it is critical that the standards be located correctly! The shelf is not tempered, the middle of the shelf must be supported, the standards and brackets are available at hardware stores.

9. How much weight can I put on a shelf?

No more than 8 lbs. per square foot.

10. What do I need to consider when ordering a shelf?

If it is a shelf to replace a damaged shelf, only the shelf is needed.

If it is for a unit which did not have a shelf for the original order, a shelf kit is required. The kit contains a shelf, brackets, standards, hardware and installation instructions.

Note: Follow the instructions when installing the standards! Damage could occur if done incorrectly!

11. Is bracing/support needed under the unit?

No, not under normal circumstances; only if large plant pots or exceptionally heavy loads are placed inside the unit, or if the unit is oversized. (We do not make oversized units and we do not supply braces.)

12. How do I install the insulation board after the unit is installed? See page 5.

13. What are the minimum and maximum sizes?

The recommended sizing parameters are as follows:

Minimum Size (inches)

Width	Height
24	30

VAZ: -IAI- III-: --I-A

Maximum Size (inches)

Width	Height
72	30 to 48
70	30 to 49
69.875	30 to 50
69.75	30 to 51
69.625	30 to 52
69.5	30 to 53
69.375	30 to 54
69.25	30 to 55
69.125	30 to 56
69	30 to 57
68.875	30 to 58
68.75	30 to 59
68.625	30 to 60
68.5	30 to 61
68.375	30 to 62
68.25	30 to 63

14. Are the screens aluminum?

Garden window screens have aluminum frames with a fiberglass mesh screen fabric.

15. Do you provide touch-up paint?

We supply bottles of touch-up paint (.6 oz) with painted profiles.

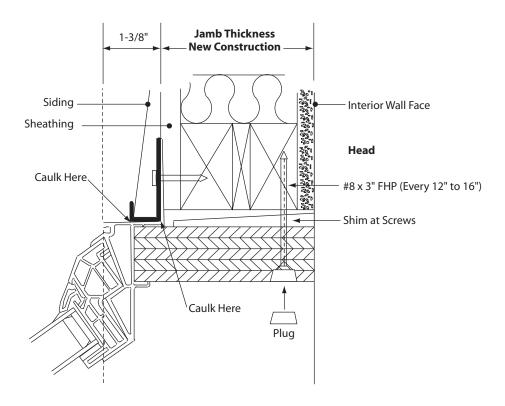
16. If my seat board is wood, what kind of stain or paint can I use?

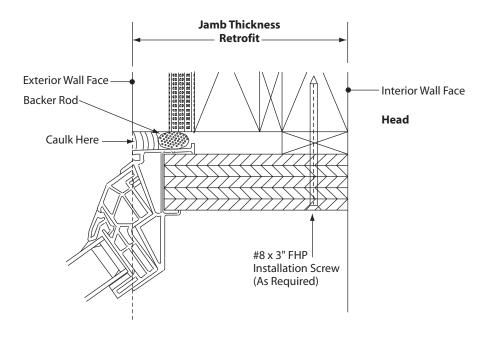
All interior wood components, including the seat board, must be properly sealed. Do not use water-based compounds!

Stain: Use an oil-based exterior stain followed by an oil-based polyurethane finish coat.

Paint: Use an oil-based exterior primer followed by an oil-based exterior finish coat.

Measuring New Construction and Retrofit



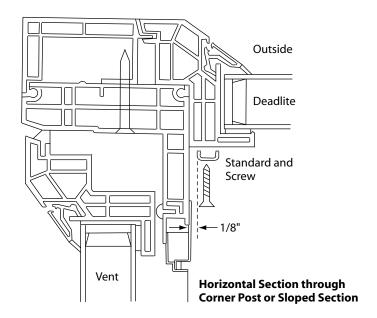


Shelf Standard and Bracket Installation

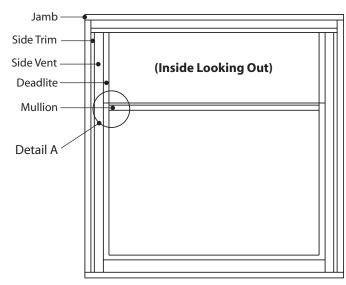
- Place standard (vertical track) 1/8" in from inside corner of vinyl frame, placing notched portion down, setting on step of vinyl frame.
 - Warning! Do not exceed 1/8" dimension or glass breakage could occur!
- 2. Mark hole locations with a pencil.
- 3. Drill pilot holes through the first wall only!
- Position vertical standard and attach using 1-1/2" screws. Do not use a screw over 1-1/2" in length and do not over-tighten screws!

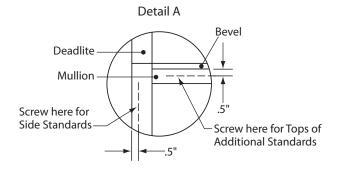
Note: Larger units require additional standards, spaced equally between end standards, attached top and bottom only!

Top view cut-away of corner post



Inside view with shelf bracket screw location





Screws used for shelf brackets must be located within the .5" areas indicated or glass breakage will occur.

The mullion dimension is from the bevel down toward the glass .5".

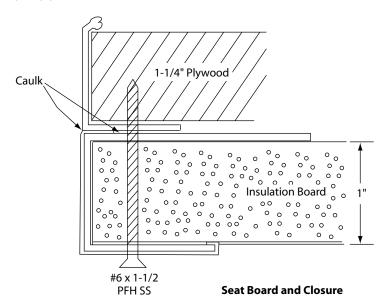
The deadlite dimension is from the inside vent toward the glass .5".

Screws can be placed along the entire length of these frame members adhering to these measurements.

Recommended screw size is #6x1.5".

Insulboard Installation

To apply the insulboard after the unit is installed, screw through the insulboard into the seat board around the perimeter of the unit.



Lock Adjustments

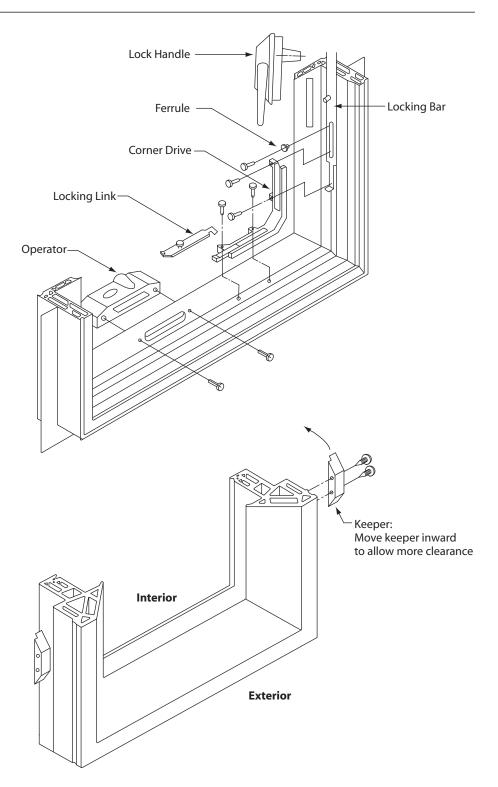
If locking system problems occur, make adjustments as explained below.

Check to see that the operator moves freely with the window in the open position. If binding occurs, the problem will be with the lock handle or corner drives: one (or both) may need to be greased or replaced. Another possibility is that the screws in the lock bar are not centered and the bar is rubbing against the ferrules.

If the locking system moves freely, close and lock the window. A binding or hard-to-lock condition indicates a tight keeper or misaligned lock bar. Removing each keeper and working the lock handle up and down may help locate the keeper/lock bar pin combination that is binding. To remedy the problem, the keeper can be relocated by moving it slightly inward (away from the sash toward the lock bar pin), and slightly upward or downward, depending on the lock bar pin location.

If visual inspection indicates a lock bar that does not run parallel with the frame, the bar slots can be opened slightly, or the ferrule can be moved outward to place the pin closer to the keeper.

A rubbing or grinding sound will be the lock bar rubbing against a ferrule. Look for this condition on the lock bar to pinpoint the lock bar pin/keeper location. Also inspect the center link between the corner drives: the bent portion of the link can be rubbing or binding on the operator if there is not enough clearance between the two components.



Glazing Procedure

Deglazing the unit

Remove the exterior bead (four pieces per IG), place a .25" wood chisel approximately 2" in from either bottom end, and push forward and downward. Place a screwdriver into the gap that develops and, while prying upward, work your way down the entire length of the bead until it lifts out.

Insert a razor blade or EZD Glazer tool between the interior surfaces of the IG and the interior vinyl wall. Cut around the entire interior surface to separate the IG; several attempts may be necessary. Remove the IG by pushing it forward and out.

Glazing the unit

Clean surfaces to which glazing tape or silicone is to be applied.

If using tape, use 1/8" x 1/2" tape for the sloped IG, and 1/16" x 1/2" glazing tape for the vertical deadlite and side vents.

Install the tape across all of the horizontal and vertical rails, trimming the length at each end. Peel back approximately 4" of red plastic coating on the two-sided tape and fold at a 90° angle into the opening. Apply a small bead of clear silicone caulk along the seams and in the corners where the glazing tapes join.

Place 1/8" setting blocks along the sill and tilt the IG into place. DO NOT block any weep openings with the setting blocks! Insert remaining blocks around the perimeter of the window. Check the sightline through the window, making sure that the spacer doesn't show.

Press the IG into position and, while holding an end of the glazing tape plastic coating, slowly pull straight down to remove the remaining coating. Do this around the entire perimeter of the inside opening.

Snap the pieces of bead into position, pushing the end into the corner. It may be necessary to adjust the bead side-to-side or up and down for the final fit.

Apply a bead of caulk to the adjoining bead corners of the sloped lite.