

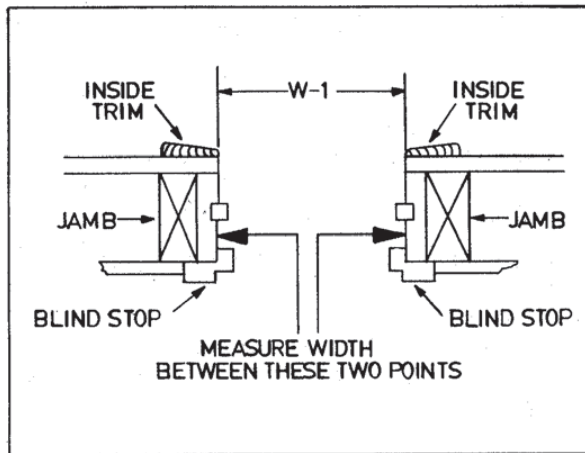
## Replacement Casement Window Measuring & Installation Instructions

WHEN INSTALLING A CASEMENT WINDOW INTO TYPICAL DOUBLE HUNG OPENING:

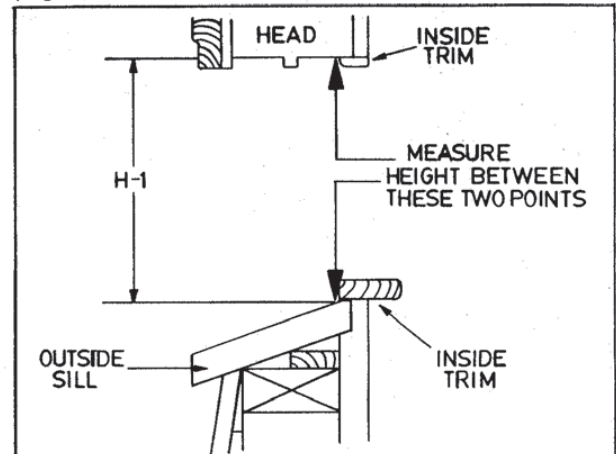
**Width** -- Measure between jambs at three points, top, middle, and bottom. Use smallest measurement (see W-1) to determine width to be manufactured, deduct 1/4" from smallest measurement. Hold size or drop to nearest 1/8", 1/4", 3/8", 1/2", 5/8", 3/4", 7/8" or full inch. (Fig. 1)

**Height** -- Measure from high point of sill to top of casing behind header trim board. Take this dimension in two locations. Use smallest measurement (see H-1). To determine height to be manufactured, deduct 1/4" from smallest dimension. Hold this size or drop to nearest 1/4", 1/2", 3/4", or full inch. (Fig. 2)

(Fig. 1)



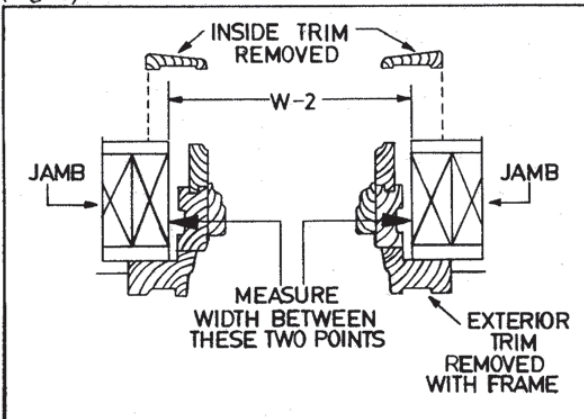
(Fig. 2)



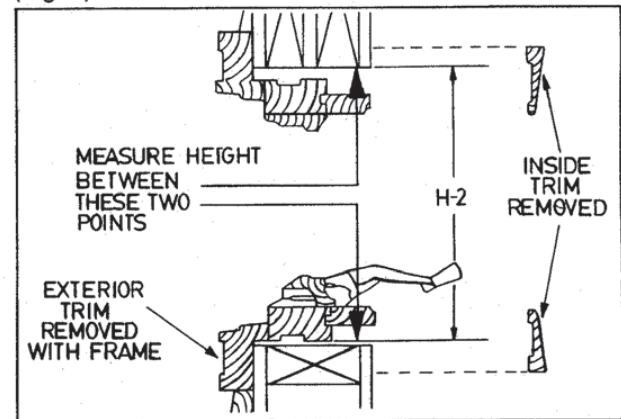
WHEN REPLACING AN EXISTING CASEMENT WINDOW OR OTHER WINDOW TYPE THAT REQUIRES REMOVAL OF EXISTING FRAME.

**Width and Height** — Remove trim and measure between studs of rough opening. Use smallest dimensions as above. (See W-2 and H-2). (Fig. 3&4)

(Fig. 3)



(Fig. 4)





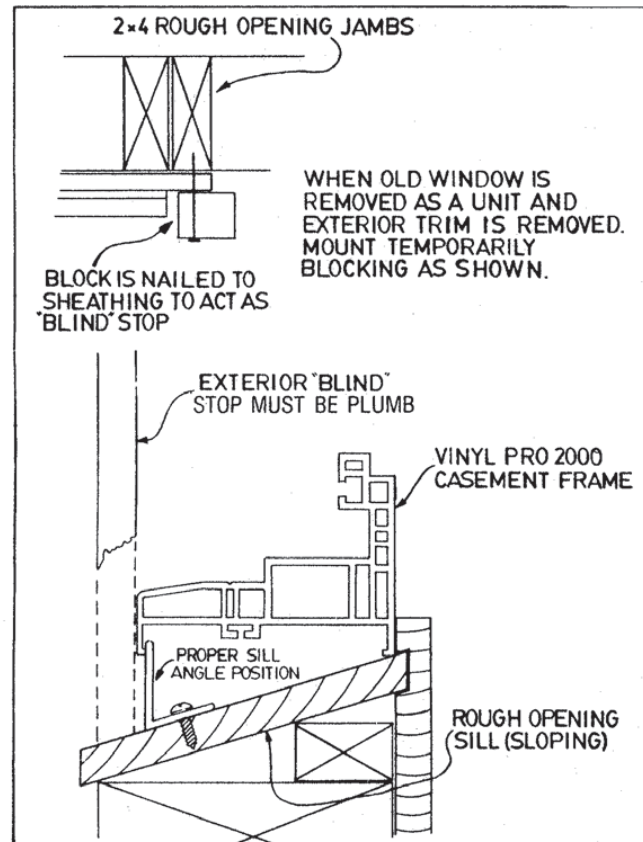
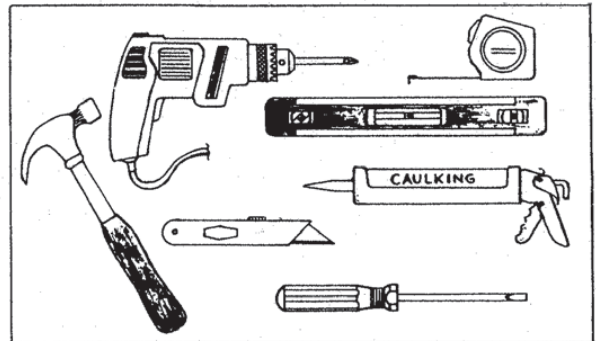
# CASEMENT WINDOW INSTALLATION INSTRUCTIONS

(Fig. 5)

## Preinstallation Check List.

Before proceeding with installation be sure that:

1. You have all tools required to complete job; phillips screw driver (electric if possible), 10"-12" level, caulking gun, small flat bladed screw driver (for jamb adjustment screw), utility knife, hammer and tape measure. (Fig. 5)
2. Before removing trim or sash, check sizing of window and opening. (Fig. 6)

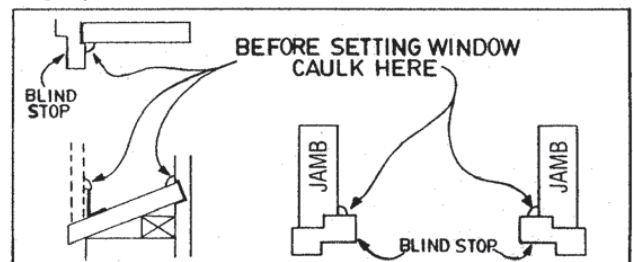


## Preparing The Rough Opening. (Fig. 6)

1. Carefully remove interior trim. Remove old sash and operating mechanisms. Clear opening as required. Remove dust, accumulated paint, loose rotted wood and debris from opening that may hinder the installation process.
2. If exterior trim is to be removed, do so at this point. Mount temporary blocking as a stop to properly position window exterior. Be sure that this blocking will allow the window to rest in a "plumb" position.
3. If rough opening has a sloped sill, apply aluminum sill angle with screws (6-#6x3/8" phillips pan head screws are supplied in installation screw pack). When positioning sill angle, it is important that it be positioned beneath window and take up the difference between sloped sill and bottom of replacement window frame.
4. If the opening has a "blind" stop and the replacement window is to be mounted against it, the blind stop must be plumb for proper installation.

5. When setting the replacement window into the opening, apply a generous bead of high quality, paintable, sealant or caulking onto the interior surface of the blind stops. (Fig. 7)

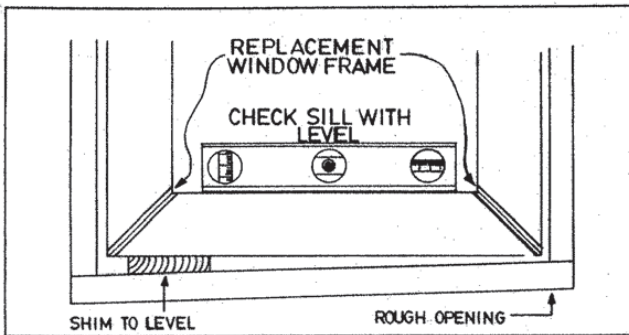
(Fig. 7)



## Positioning of Vinyl Pro 2000™ Casement Window Into Opening.

6. When the above steps have been completed, the casement window may be set into the opening. If aluminum sill angle is used, be sure to position sill of frame **over** aluminum sill angle for proper drainage. (See previous sketch). Center sill of window into opening, measuring both sides.

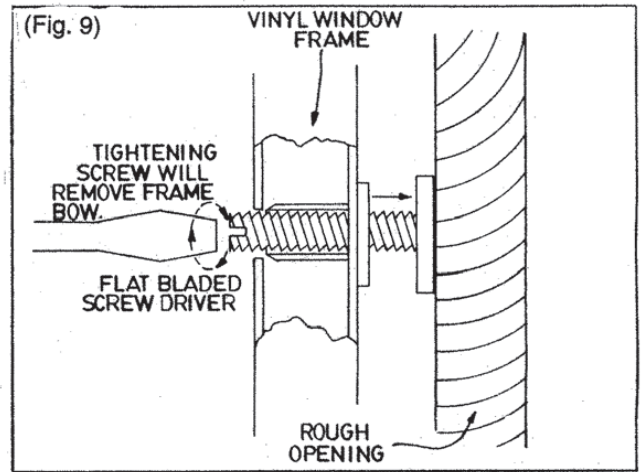
(Fig. 8)



7. Open vent(s) (or if necessary, remove vent(s) from frame). Weight of frame should be borne by "blind" stops or temporary blocking. Check sill from jamb to jamb with a level. Shim or remove wood from sill as required to assure that sill of the replacement window is level in the opening. **This step is critical for proper window operation.** (Fig. 8)

8. Fasten sill to opening first, (see step #13) using factory pre made installation screw holes. The screw package contains (8-#8x2-1/2" phillips pan head installation screws for each vent of a casement window), and 8 color matched trim caps and washers. Before driving installation screws, insert screw through clear washer, "cup" side up. Be sure sill is secured in a level and centered fashion before proceeding to next step.
9. With sill level, check jambs for squareness and "plumb". Shim jambs as necessary. With frame square and "plumb", fasten head of frame to opening using screws with washers as previously done at sill.
10. With head and sill "plumb", square, and secured into opening, check that the jambs are parallel by measuring with a tape rule. Tighten or loosen factory installed jamb adjustment screws as necessary (requires a flat bladed screw driver).
11. Drive #8x2-1/2" phillips pan head installation screws with washers into factory pre made installation screw holes in jambs, shimming above and below screws as required. Screws may be used to pull jamb(s) of replacement window toward opening. Do not over drive screws.

Check frame for squareness. Adjust screws and shims as required. (Fig. 9)



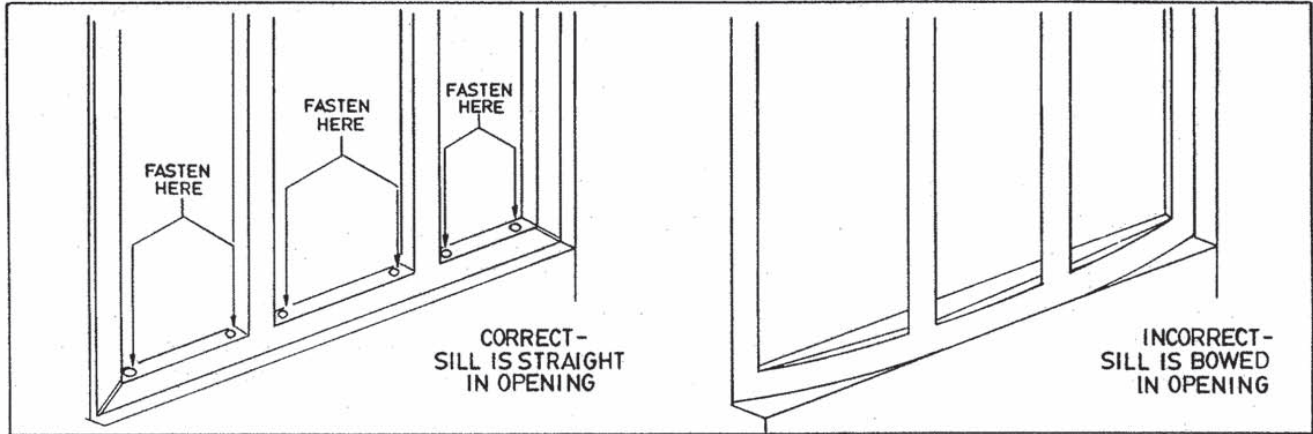
12. Once Window is secured into opening, check operation of vent(s) and locking mechanism(s). This must be done before replacement of trim. Take corrective measures as necessary to assure proper operation of window.

TROUBLE SHOOTING YOUR INSTALLATION		
SYMPTOM	PROBLEM	SOLUTION
"Locks engage properly but vent(s) can be pushed off keeper."	Jambs are bowed and are not allowing sufficient keeper bearing surface.	Check jambs for straightness. Remove bow by shimming.
"Vent(s) closes, but won't lock; too much space at head."	Jambs are not plumb.	Check jambs with level for interior to exterior plumb. Correct with shims as necessary.
"Vent(s) difficult to close... Drags on sill."	Frame is out of square or sill is not level.	Check frame for square measuring diagonally. Check sill with level. Correct as required.
"Locking mechanism is difficult to operate."	Locking bars may be "dry".	Lubricate with Silicone gel or graphite powder.



**NOTE: Additional Installation Procedure For Multiple Vent Casement Window:**

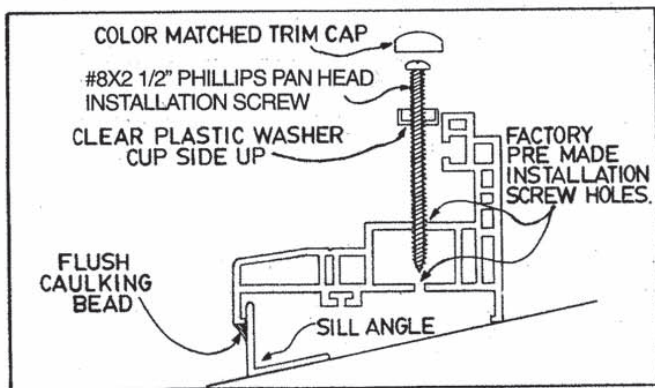
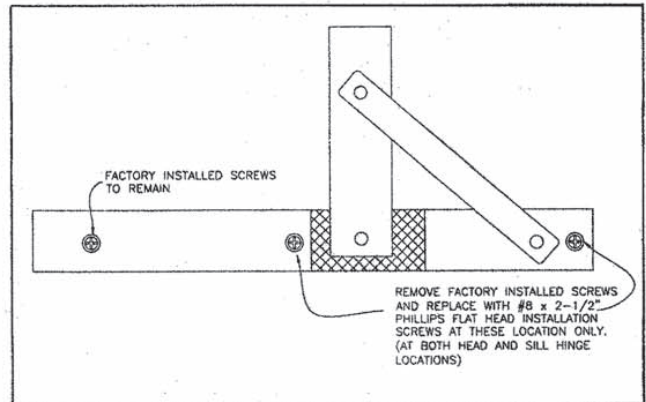
It is essential that the frame of multiple vent (or "lite") windows be straight at head and sill. Maintain the same interior to exterior dimensions at center of head and sill and at mullions. (Fig. 10)



This is best accomplished by utilizing all factory pre made installation screw holes provided in head and sill. Failure to use all installation screws may result in inconsistent vent to frame fit, and poor lock and keeper alignment.

- If operation is satisfactory, open vent(s) to approximately 60° to 90°. Starting at sill, replace factory screws in hinge with #8x2-1/2" phillips flat head installation screws provided in screw package. Set in a bead of silicone sealant. (Fig. 11). No trim washers or caps are used. **IMPORTANT NOTE:** Remove and replace one screw at a time!! Do not remove both screws at once. These 2-1/2" screws will penetrate the window frame and the hinges into the rough opening sill. Repeat at hinge at head. When this step is completed, vent(s) should "hang" level when opened.

(Fig. 11)



**Finishing Up.** (Fig. 12)

- Apply trim caps over installation screws.
- Remove any temporary blocks from exterior. Caulk exterior of opening.
- Insert batt insulation between replacement window frame and rough opening.
- Caulk interior of opening.
- Retrim inside and out as required.
- Apply caulking to sill angle and exterior frame joint as required.