V430 STOREFRONT VENT
INSTALLATION INSTRUCTIONS

Part# Y025

Sept 2015

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V430 Installation Instructions

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Section 1 – Product Description and Limitations

The V430 storefront vent systems are designed and engineered to be field glazed and installed with a limited amount of labor and tools. The V430 may be glazed into any system with a smooth surface opening that has a minimum depth of 3-1/2".

Care should be taken to verify that the V430 is installed in the opening in a manner which allows its exterior plane of glass to be flush with the exterior plane of glass of the host system.

Section 2 – General Statements and Definitions

The user is encouraged to read and understand all of the instructions prior to proceeding with installation. These instructions define the standard configuration and method of installation that may or may not apply to your project.

The instructions covered in this manual are general in nature and don't cover every possible application. Consult approved shop drawings for special applications not covered herein.

Definitions: The following terminology will be utilized throughout these instructions and has been included to better orient the reader to the areas discussed.

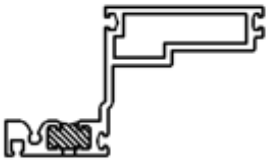
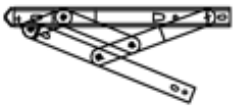
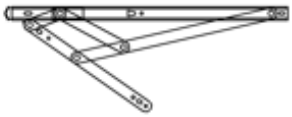
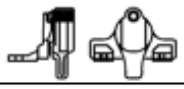
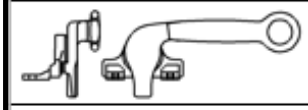
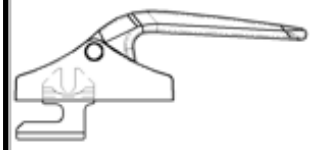
Host System Opening: Storefront or other mounting surface for the window are typically called D.L.O. (Day Light Opening).

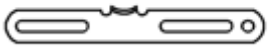
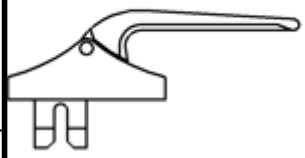
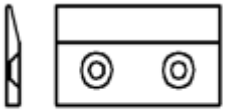
Vent Frame: The interior mounting and fixed portion of the operable window.

Vent: The operable and glazed portion of the window.

The steps and details on the following pages have been developed to aid in the assembly and installation of the V430 storefront vent system.

Section 3 – Standard Parts Identification

	28L5	Structural Glazed Vent
	28L4	Frame
	LA09 LA15 LA21 LA23	4-Bar Hinge
	LA01	90° 4-Bar Hinge Casement vents only- Minimum casement width = 19 5/8"
	SPC6	4-Bar Hinge Attachment Screw 6 per hinge
	HU11 HU10	Cam handle (RH) Cam handle (LH)
	HU12	A.C. Lock
	HU13 HU14	Pole ring cam handle (RH) Pole ring cam handle (LH)
	MFM3	Cam handle attachment screw
	HK15	Strike
	MON9	Strike attachment screw
	HA83 HA84 HA85 HA86 HA87	Single point lift handle Black Bronze White Satin nickle Satin chrome

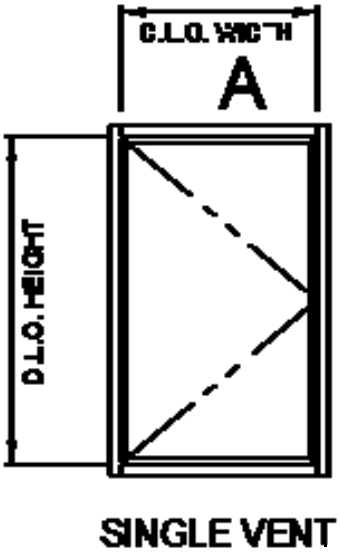
	HA82	Lift handle gasket
	MFM2	Lift handle attachment screw
	HK42	Single point lift lock keeper
	STT5	Keeper attachment screw
	HA77 HA78 HA79 HA80 HA81	Multi point lift handle Black Bronze White Satin nickle Satin chrome
	HK19	Multi point keeper
	STU8	keeper attachment screw
	HB64	Casement vent lift block
	SFZ5	Lift block attachment screw
	HK25	Pull handle
	SFC7	Pull handle attachment screw
	W142	Vent bulb gasket
	W133	Perimeter wiper gasket
	WEQ4	1/4" SSG Pre-shim gasket
	HEP1	Setting block (4) required per casement vent (8) required per projected vent

Section 4 – Size Formulas

Window and Glass Size Formulas

The V430 storefront vent systems can only be installed as single vent configurations.

Note: The host system D.L.O. horizontal and vertical dimensions must be known to calculate the sizes. Glass and window size formulas for the V430 units are provided below.



SINGLE VENT

Window Size Formula

Window Width = Host system D.L.O. Width – 1/4”
Window Height = Host system D.L.O. Height – 1/4”

Structural Glazed Glass Size Formula

Glass width = Window Width – 1 3/4”
Glass Height = Window Height – 1 3/4”

Section 5 – SSG V430 Vent Glazing

Step 1
Unlock the cam locks and open the vent to expose the hardware. Remove the vent from the vent frame by removing the screws from the hinges. Be sure to mark the vent to correspond with the appropriate frame. This is to insure that the vent is reinstalled correctly.

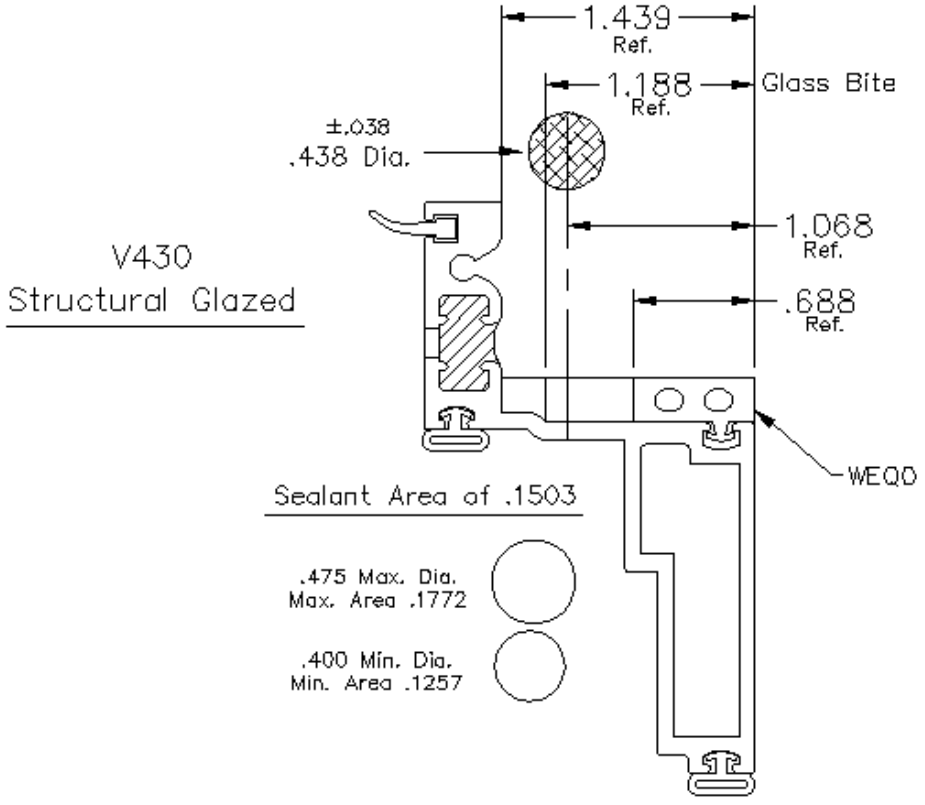
Step 2
Lay the vent face up on a flat, smooth working surface.

Step 3
Make sure that the glazing surfaces of the vent are free from oil and metal shavings. Clean the glazing surfaces as needed with alcohol. (Do not use glass cleaners).

Step 4
Insert a continuous row of pre-shim gasket WEQ0 around the vent perimeter glazing leg. Insert the gasket beginning at each end of the frame and work toward the middle then work out any waves toward the ends forming tight joints. Do not stretch the gasket.

Step 5
Run a continuous bead of structural silicone sealant behind the preset as shown below.

Step 6
Keeping the glass level and centered within the vent material, lower the glass into place.



Section 5 – SSG V430 Vent Glazing

Step 7

Insert two (2) HEP1 - 1/4" x 1" x 4" setting blocks on each side of the glass 6" from the corners, as required, based on the configurations shown on the previous page. Adjust the blocks as required to keep the vent square.

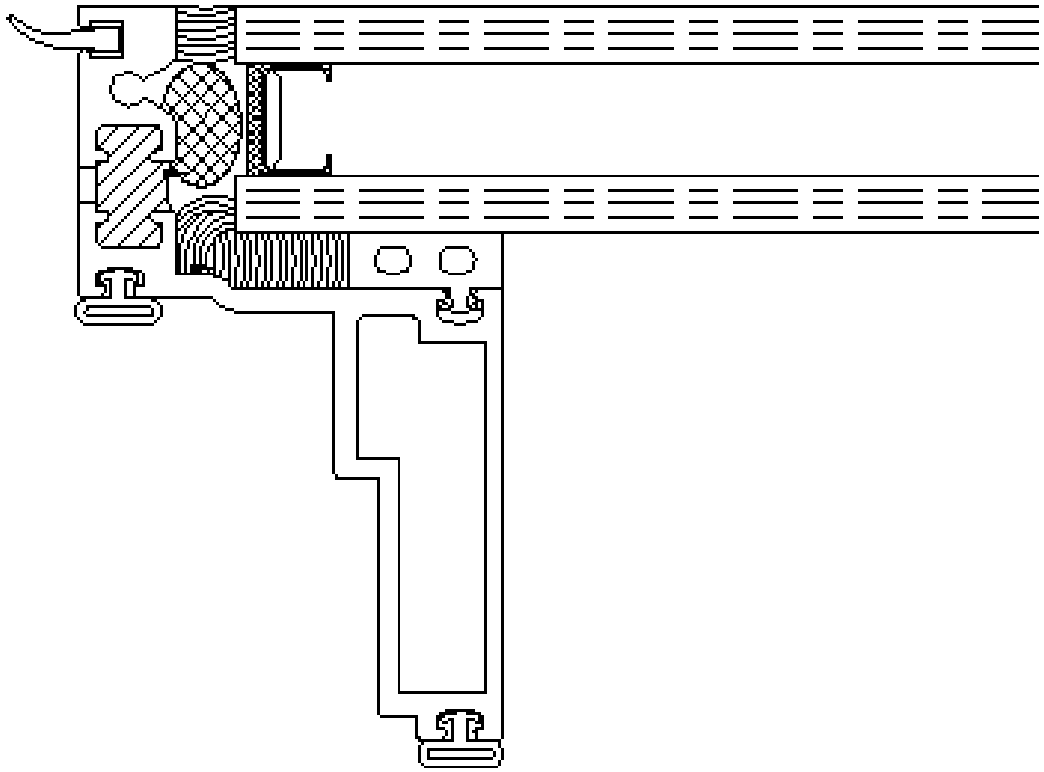
Step 8

Insert backer rod material between the glass and the vent material around the entire perimeter except at setting block locations. The backer rod needs to be recessed far enough to leave the end of the outer glass lite exposed. See below.

Step 9

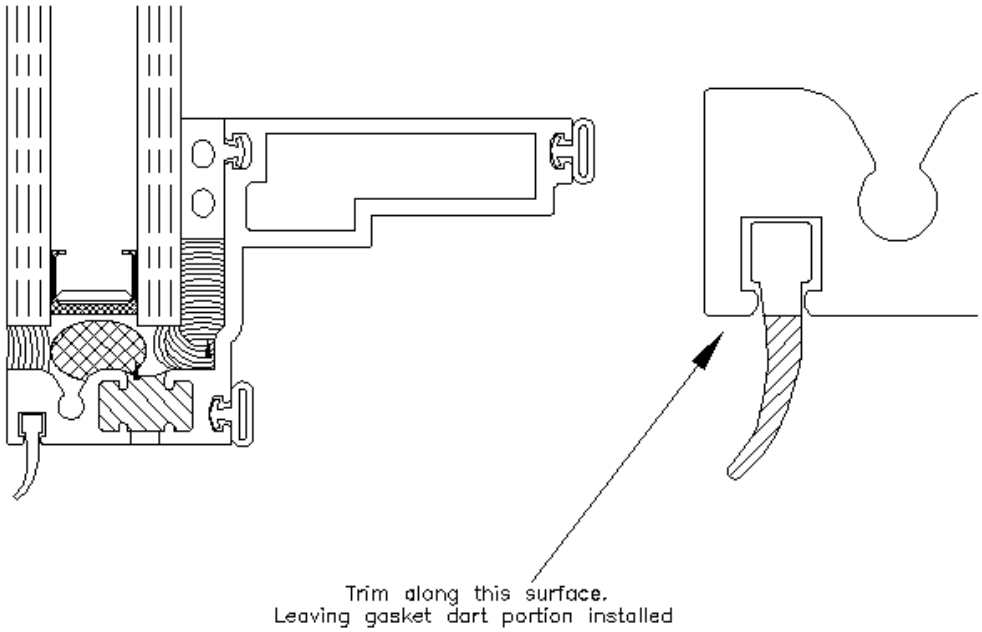
Mask off the outside edges of the glass and vent to minimize cleanup and provide a clean appearance. Fill the void between the glass and the vent with structural sealant. Tool in sealant and remove the masking tape before a skin begins to form. See below

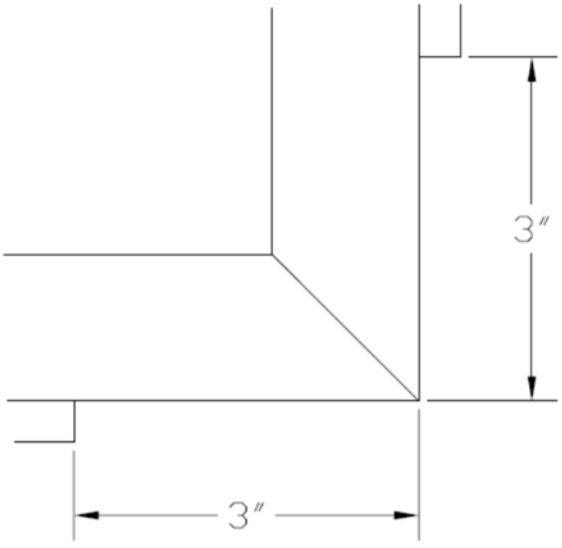
An overnight setup is required to allow the silicone to partially cure before movement of the unit.



Section 6 – Vent Gasket Preparation

The exterior weatherstrip flap is to be trimmed at the sill to jamb corners. Trim the weatherstrip 3” from the sash corner both horizontally and vertically. See below.



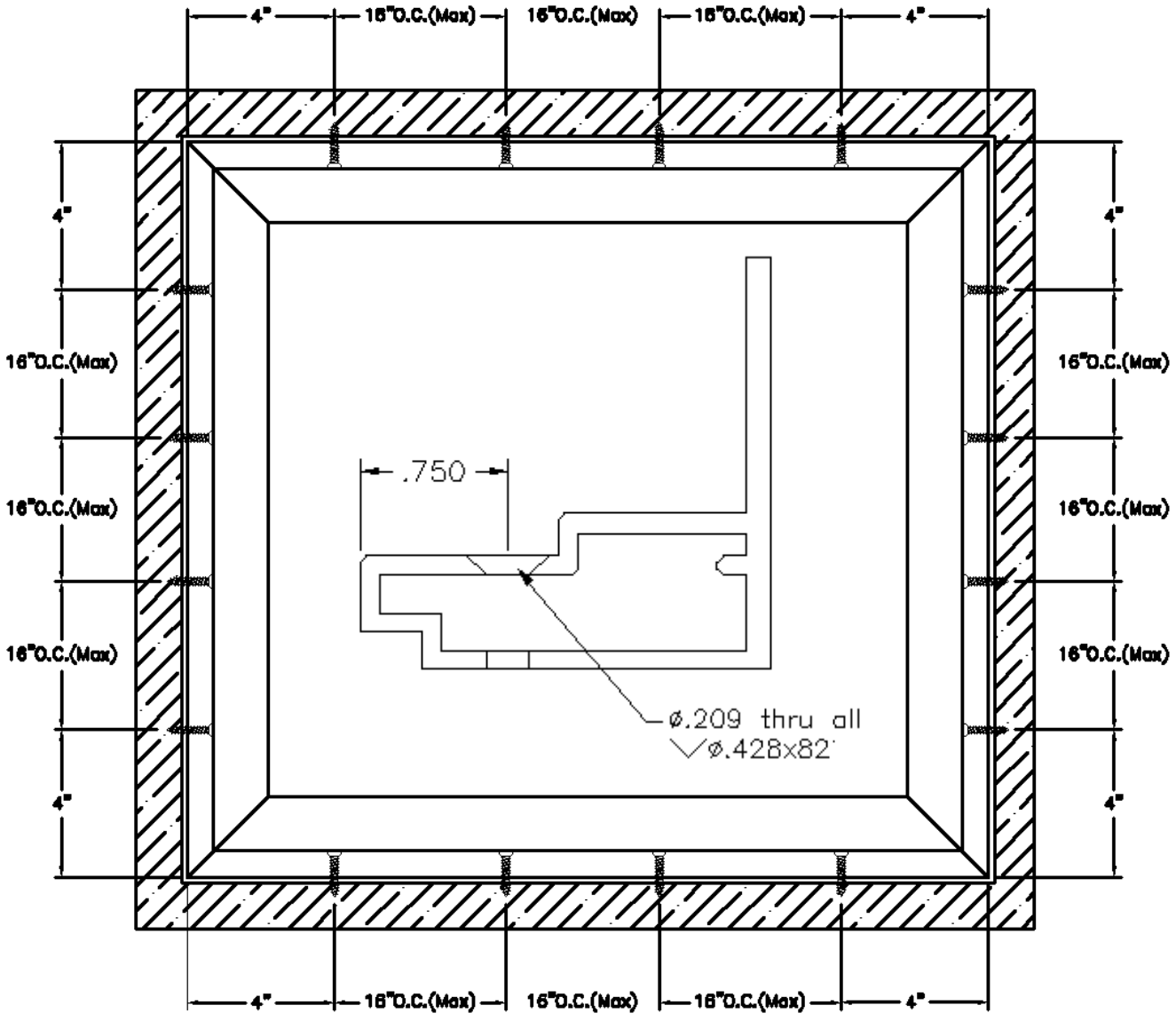


Section 7 – V430 Frame Installation

Step 1

The vent frame is mounted into the opening of the host system by first drilling and countersinking attachment holes in the vent frame. Drill .209" diameter (No. 4 drill) mounting holes at the Vent frame and countersinking for No.10-12 FH-SMS screws, at 3/4" from exterior face of vent frame placed at 4" from the ends and 16" on center maximum (unless otherwise specified by shop drawings). See below.

NOTE: Be sure not to re-drill or countersink through the hinge mounting holes.



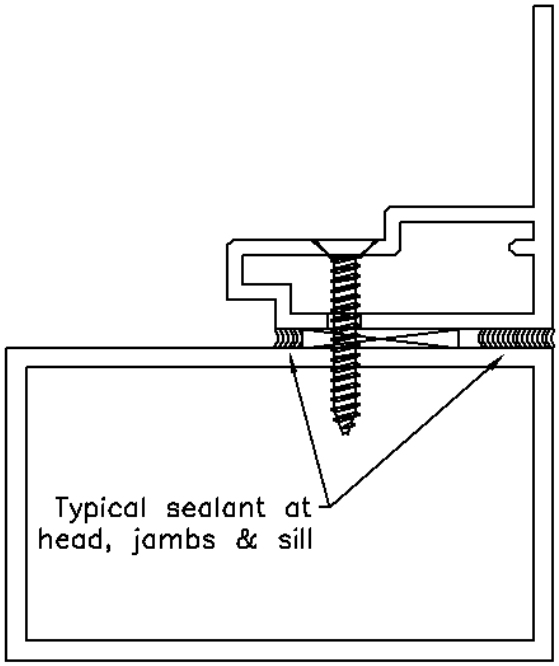
Section 7 – V430 Frame Installation

Step 2

Place the vent frame into position keeping a consistent offset from the interior face of the host system to the interior face of the vent frame. Place 1/8" shims at the mounting screw location and clamp the vent frame into place. Using the vent frame as a guide, drill .155" diameter (No. 25 drill) holes into the host system. Secure the vent with #10-12 x 1-1/4" flat head sheet metal screws unless otherwise specified by the shop drawings.

Step 3

Prior to installing the window, refer to picture below for required sealing locations. If casement vents are used, see Section 8 for lift block installation. If projected windows are used, continue to Step 4 for vent installation.

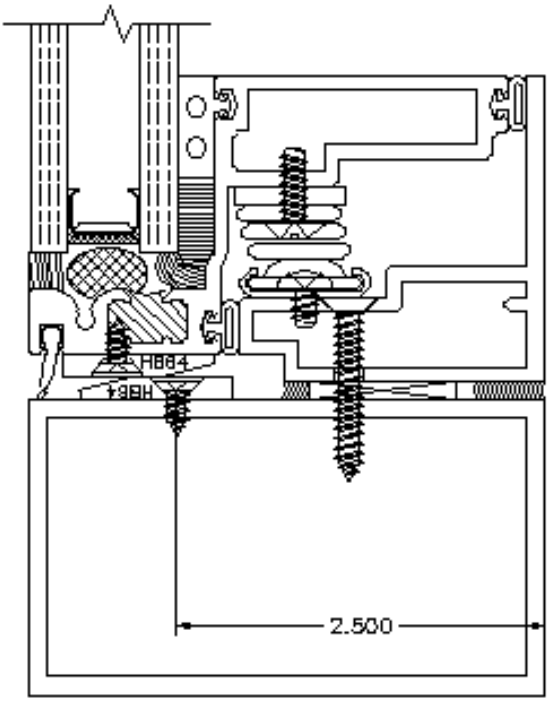


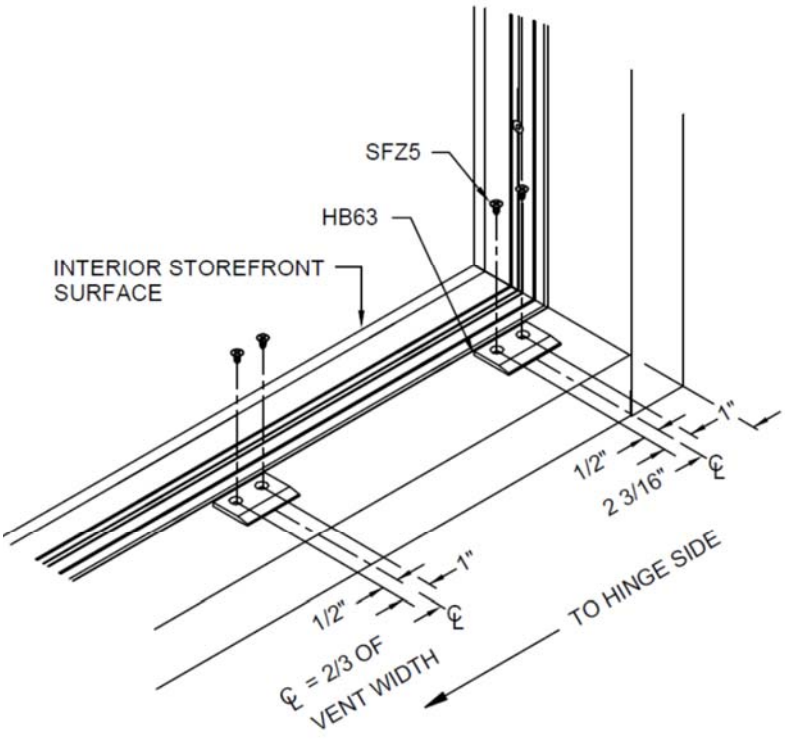
Step 4

Reinstall the vent into the vent frame. Be sure to mount the hinge to the same location as preinstalled by EFCO. See Section 9 on page 11.

Section 8 – Casement Lift Block Installation

Due to the weight of the vent, lift blocks are used to elevate the vent upon closing. Elevating the vent aligns the gaskets and cam locks to the proper location. All V430 casement vents receive one (1) or two (2) pairs of lift blocks, depending on the vent size. Casement vents over 30" wide will receive two (2) pairs and vents under 30" will receive one (1) pair. The blocks are designed to be located directly over each other. The vent portion of the lift block pair will be preinstalled by EFCO.





Step 1

Locate the center line of the lift block HB64 as required per the vent size. See above. Check that this matches the center line of the lift block(s) mounted on the vent.

Step 2

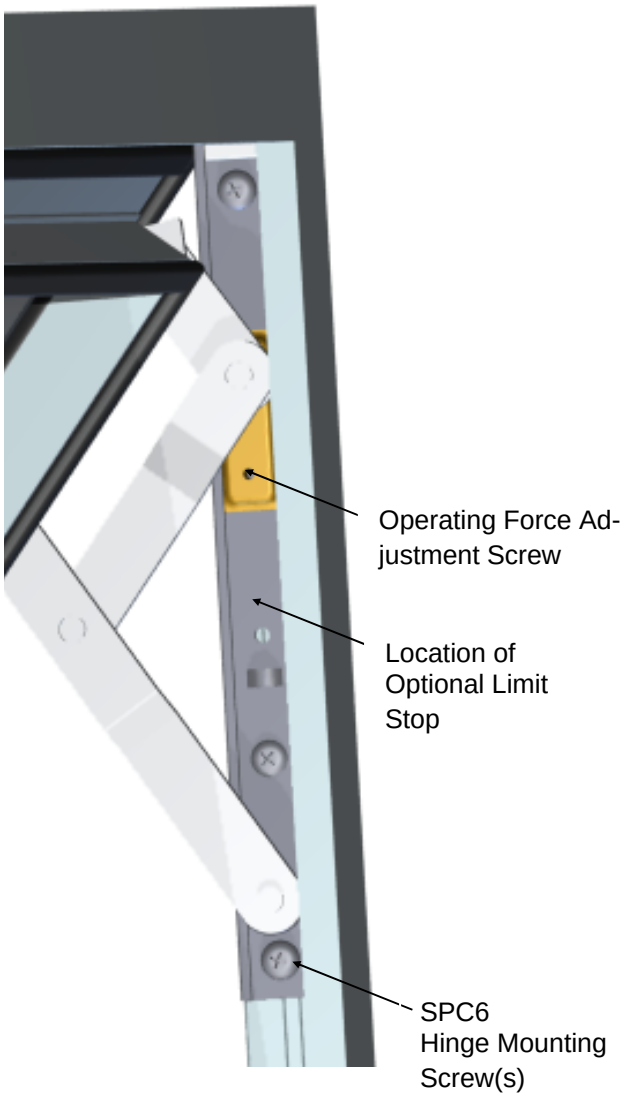
Drill (2) .140" diameter (No. 28 drill) holes per block through the storefront framing as shown above,and install with (2) SFZ5 fasteners per lift block.

Step 3

The operable vent may now be installed. Reinstall the operable vent to the vent frame. Be sure to mount the vent and hinges in the same locations preinstalled by EFCO. See section 9 on Page 11.

Section 9 – Vent Removal and Adjustment

Unlock the vent and open the operable vent far enough to expose the hinge attachment screws SPC6 at the vent frame. See below. Support the vent and remove the six (6) hinge attachment screws from the vent frame. Note: If the vent is equipped with an optional limit stop, this will need to be removed before the vent will open far enough to expose the mounting screws. The vent can now be removed from the exterior. Reinstall the vent in the reverse order.



The hold open force for the vent can be adjusted by a set screw located in the hinge friction shoe. See Figure 25. Open the vent far enough to access the set screw. Turn the screw clockwise to increase the friction, counterclockwise will decrease the friction. Adjust both hinges equally, make small adjustments, and check operation.