



General Installation
Instructions for
Quaker windows

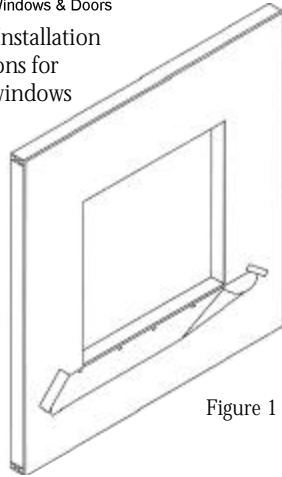


Figure 1

PURPOSE

Flashing is a piece of waterproof or water-resistant sheet material that bridges the joint between the window/door frame and the adjacent construction for the purpose of preventing water penetration.

Most wall leaks can be attributed to lack of flashing, poor flashing, or deteriorated flashing. Flashing actually helps drain water away from the window/door to the exterior.

FLEXIBLE FLASHING

Flexible flashing is typically a product consisting of two sheets of paper, reinforced with a water resistant material. Flexible flashing materials are typically applied to the fenestration product with sealant or attached to the rough framing/sheathing with staples prior to the fenestration product being sealed to the face of the flashing. Flexible flashing must be at least 9" wide when used in conjunction with window and door installation.

A

APPLY FLASHING

1. Cut sill flashing material to length (see Figure 1).
2. Apply the horizontal sill flashing level with the top edge of the rough opening frame. Each end of the sill flashing should extend approximately 9" beyond the rough opening at the jamb condition (see Figure 2)
3. Fasten the top edge of the sill flashing to the framing with staples (see Figure 2).

B

INSTALL WINDOW (METHOD "A")

1. Use a sealant recommended by the manufacturer (see Table 1).
2. Apply a continuous bead (bedding joint) of sealant to the back side of the mounting flange on the interior surface (see Figure 2).
 - a. Apply the sealant in line with the pre-punched holes or slots on the mounting flange when provided (see Figure 2).
 - b. Never leave holes uncovered.
3. Immediately set the window into the opening (see Figure 2).
4. Select and apply shims.
5. Fasten upper corner (on the side, not on the top) in place through the mounting flange. Do not drive the fastener all the way in.
6. Adjust the shims and check the window for level, plumb, and true.

7. Make sure the window is square, operates smoothly, and operable sash are sitting square in their openings.
8. Tack the corner diagonally opposite the upper corner that was tacked first.
9. Continue to fasten sides, top, and bottom, rechecking the unit to ensure it is set plumb, level, square, and true.
10. Fastener heads should not over compress the flange.

(TABLE 1) SEALANT ADHESION GUIDE

	Silicon	Polyurethane	Latex (meeting ASTM C920)	Latex	Solvent Released	Butyl Tape
Aluminum Mill Finish	Yes	Yes	Yes	Some	Yes	Yes
Kynar	Yes	Yes	Yes	Some	Yes	Yes
Aluminum Anodized	Yes	Yes	Yes	Some	Yes	Yes
Standard Paint	Yes	Yes	Yes	Some	Yes	Yes
Asphalt Bldg. Paper	Yes	Yes	Yes	Yes	NR	Yes
Brick	Yes	Yes	Yes	Some	Yes	NR
Concrete	Yes	Yes	Yes	Some	Some	No
Copper	Yes (1)	Yes	Some	Some	Yes	Yes
EIFS	Yes	Some	Some	NR	NR	NR
Fiberglass	Yes	Yes	Some	Some	Some	Yes
Galvanized Steel	Yes (1)	Some	Some	Some	Yes	Yes
Glass	Yes	Some	Yes	Some	Yes	Yes
Painted Surfaces (2)	Yes	Yes	Yes	Yes	Yes (3)	Yes
Polyethylene	Some	Some	No	No	Yes	Yes
Polystyrene Foam Board	Yes	Yes (3)	Yes	Some	NR	Yes
Stucco	Yes	Yes	Yes	Some	Some	NR
House Wrap	Some	Some	Some	Some	Some	Yes
Vinyl	Some(1)	Some	Some	Some	Some	Some
Wood	Yes	Yes	Yes	Yes	Yes	Yes

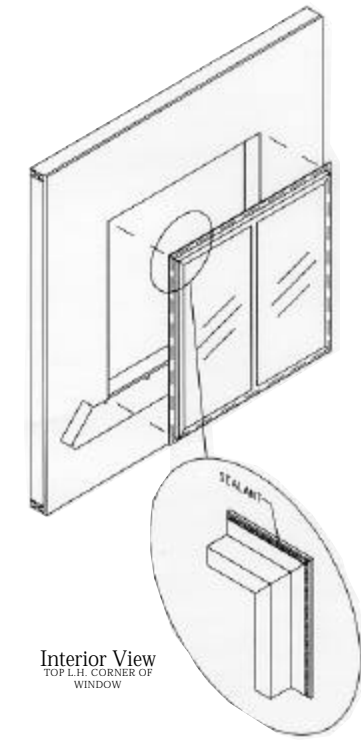
(TABLE 2) SEALANT APPLICATION GUIDE

	Silicon	Polyurethane	Latex (meeting ASTM C920)	Latex	Solvent Released	Butyl Tape
Header Expander	Yes	Yes	Yes	Some	Some	NR
Sill Extender	Yes	Yes	Yes	Some	Some	NR
Sill Angle	Yes	Some	Yes	NR	Some	NR
Blind Stop	Yes	Yes	Yes	Yes	Yes	NR
Sill Capping	Yes	Some	Yes	NR	Some	NR
Interior Trim & Stool	NR	Yes	Yes	Yes	NR	NR
Mull Seal	Yes	Yes	Some	NR	NR	NR
Behind Mounting Flange(4)	Yes	Yes	Some	Some	Some	Yes
Wall Stool	Yes	Yes	Yes	Some	Some	NR
Exterior Perimeter (4)	Yes	Yes	Yes	Some	Some	NR
Exterior Casing	Yes	Yes	Yes	Some	Some	NR
Panning	Yes	Yes	Yes	NR	Some	NR
Box Frame to Opening	Yes	Yes	Yes	NR	Some	NR
Under Flashing (5)	Yes	Yes	Some	Some	Some	Yes
Threshold	Yes	Yes	Some	NR	Some	NR
Under Door Sill Pan	Yes	Yes	Some	NR	Some	NR

(TABLE 3) FASTENER SELECTION GUIDE

Fastener Material	Fastener Exposure	Performance Requirement
Steel - Cadmium Plated	Not Visible after Installation	ASTM B766 (8 Microns Thick)
	Visible after Installation	Not Recommended
Steel - Zinc Plated	Not Visible after Installation	ASTM B633 (8 Microns Thick)
	Visible after Installation	Not Recommended
Steel - Nickel/Chrome Plated	Not Visible after Installation	ASTM B 456 Type SC 2
	Visible after Installation	Not Recommended
Magnetic Stainless Steel	Not Visible after Installation	Recommended
400 Series Min. 16% Chrome	Visible after Installation	Not Recommended
Nonmagnetic Stainless Steel	Not Visible after Installation	Recommended
300 Series	Visible after Installation	Recommended

- (1) = Neutral Cure Silicone Only
- (2) = Check Paint Individually
- (3) = Check for Compatibility
- (4) = Match sealant movement capability to anticipated joint movement
- (5) = Check adhesion and compatibility to mating services
- NR = Not Recommended
- Some = Many are not Adequate
- Yes = Majority are Adequate



Interior View
TOP L.H. CORNER OF WINDOW

Figure 2
Apply sealant to back side of flange and install window (Method "A")

C

INSTALL JAMB FLASHING

- Install jamb flashing on the left and right sides of the rough opening. Follow the steps below to apply jamb flashing:
1. The jamb flashing should be long enough to extend approximately 8 1/2" beyond the head and sill of the rough opening.
 2. Apply a continuous bead (bedding joint) of sealant to the exposed mounting flange at the side jambs of the installed window (see Figure 3).
 - a. Apply the bead vertically over the pre-punched holes and/or over the fastener heads, being sure to seal any penetrations or voids.
 3. Continue the sealant bead vertically 8 1/2" above the rough opening at the head of the window to allow for application of the top portion (8 1/2") of the jamb flashing into sealant in the next step (see Figure 3)
 4. Install jamb flashing so the side edge covers the sealant bead. Press the flashing into the sealant (see Figure 4).
 - A) top edge of jamb flashing should extend 8 1/2" maximum above the opening and be imbedded in sealant.
 - B) The bottom of the jamb flashing should lie over the top of the sill flashing.
 5. Use staples to attach the jamb flashing.
 - a. Do not staple jamb flashing below the bottom of the window because the weather resistant barrier will be slipped underneath the sill flashing later.

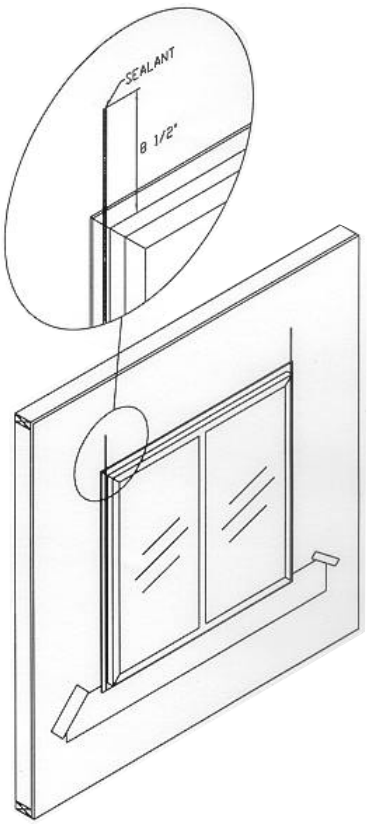


Figure 3 Apply sealant on flanges and to head above (Method "A")

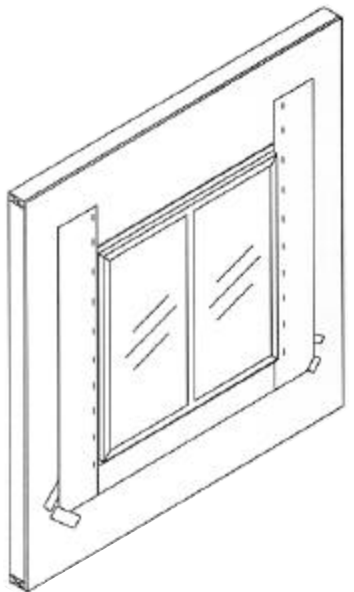


Figure 4 Apply jamb flashing (Method "A")

Caution: The building shall be constructed in such a manner as to secure or support the flashing to prevent destruction or displacement prior to installation of the weather-resistant barrier. The flashing shall never be left unsupported and vulnerable to wind damage.

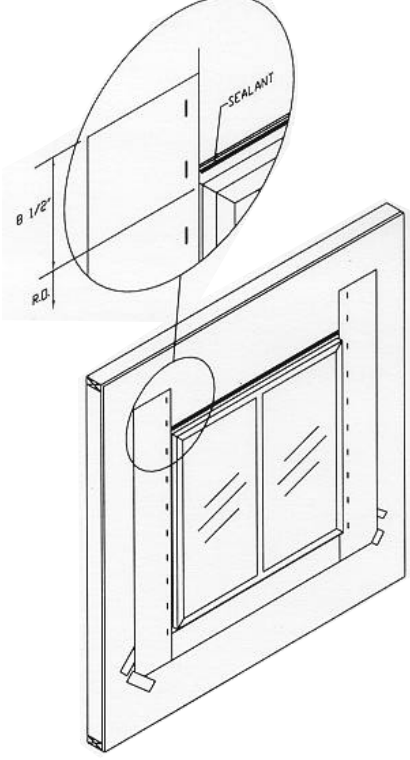


Figure 5 Sealant applied at head of window (Method "A")

D

HEAD FLASHING (Method "A")

1. Apply a bead of sealant at the head (over the face of the mounting flange) of the installed window, directly over the fasteners and/or pre-punched holes (see Figure 5). Do not extend the bead of sealant beyond the jamb mounting flange. Press head flashing into the sealant bead previously applied until the sealant appears along the bottom edge. This should remove any voids or air pockets behind the flashing.
2. Attach the head flashing with staples along the top edge (see Figure 6).

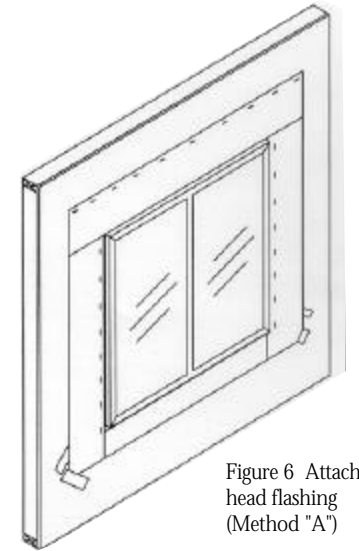


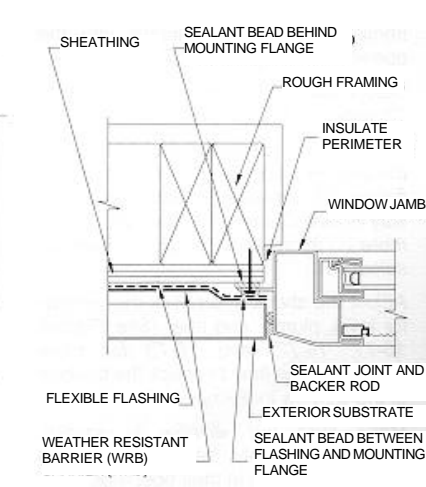
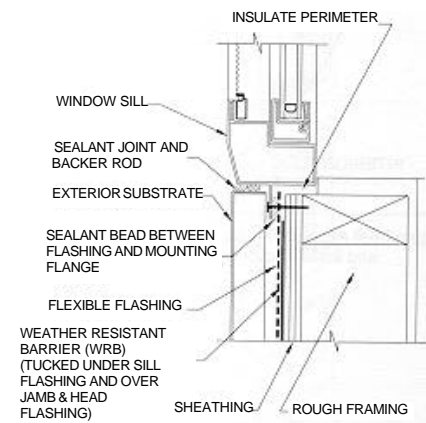
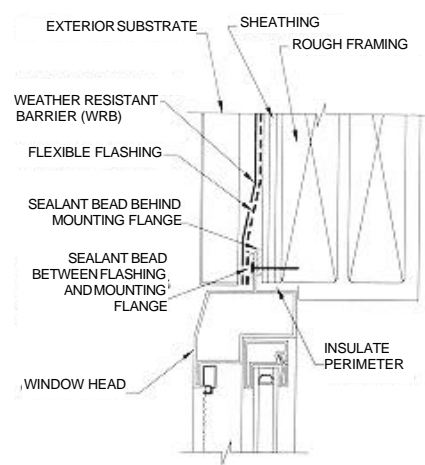
Figure 6 Attach head flashing (Method "A")

E

APPLICATION OF WEATHER-RESISTANT (Method "A")

Install the weather resistant barrier as outlined below. The weather resistant barrier may be installed by trades other than the window installer. The contractor shall coordinate this work as required.

1. In weather-board fashion, starting at the base of the wall and working toward the top, install the weather resistant barrier to the face of the building framing or sheathing.
2. At the sill of the windows, tuck the weather resistant barrier under the sill flashing.



INSTALLATION TOLERANCES

The chart below provides guidelines for installers regarding installation tolerances for finishing work. This chart indicates acceptable deviations (plus or minus) from level, plumb, square, straight, and true as suggested by ASTM. Stricter tolerances may be dictated by the manufacturer, therefore the installer should consult with the manufacturer regarding their specific requirements.

	Unit Shimming Tolerance (+/-) Nominal		Method of
	Inches	Inches	
Level (Horizontal Measurement)	1/32"	1/8"	Level & steel rule or tape
Plumb (Vertical Measurement)	1/32"	1/8"	Level or plumb line and steel rule or tape
True (In Plane Measurement)	1/32"	1/8"	Using string across corners
Straight / True (Measure of Straightness)	1/64"	1/16"	Level or plumb line and steel rule or tape
Square (Diagonal Measurement)	NA	1/8"	Steel rule or tape