

Post-Set Panning System



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Assembly and Installation Guidelines for Post-Set Panning Systems

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Installation Guideline Disclaimer

This document contains general installation guidelines for Graham Architectural products and does not address each particular condition or installation. Shop drawing installation details may vary from these Guidelines as these Guidelines do not address each particular condition so any variances should be addressed by the design professional. These Guidelines do not address the structural adequacy on any installation and such should be addressed by a design professional. Anchorage to existing or proposed wall conditions are not addressed in this document. Sealant compatibilities and application details should be reviewed by the sealant manufacturers. This document does not address the interface between the window system and the buildings weather barrier system and should be reviewed by the waterproofing consultant. It is generally recommended that insulation be installed in all voids created in the installation of a thermally improved system, but the application of insulation in wet areas needs to be addressed by the design professional and the particular type of insulation may need to be specified.

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Thank you for your purchase of Graham Architectural Windows. These instructions include the assembly and installation of the panning system. Read these instructions before starting any installation.

Receiving, Handling, and Storage

The proper receiving, handling and storage of windows and accessories is critical to the performance of the products throughout their service life. Abuse of the products during these processes will affect their operation and appearance. Even if the effects are not immediately noticed, they could surface later in the life of the product. The following are precautions that need to be followed.

Receiving: Prior to receiving the shipment of the products, ensure that there is an adequate location to receive the windows and panning and enough manpower and equipment to off load the products.

- Depending on the glass configuration and the size of the windows, the windows may be extremely heavy. A loading dock or glass manipulator may be needed to offload the windows or doors without damaging them. Contact Graham Architectural to determine the weight of any windows that are over 40 square feet.
- Most trucking companies allow a 3 hour off-loading time, and will charge a detention fee if the truck is not off-loaded within that time period. That should be considered when determining the location where the truck will be off-loaded and how much manpower will be needed to complete the process.
- Ensure that the storage location is close to the off-loading area. The product storage area must meet the requirements listed in the “Storage” section below.
- Ensure there is an area available to assemble the panning and store the assembly.

Handling: HANDLE CAREFULLY – DO NOT DROP.

- It's recommended to use a glass manipulator for large or heavy units. Ensure that there is enough manpower to lift and maneuver the windows. Use glass cups when possible. Only use material handling equipment that will not damage the finish of the products.
- Be careful handling windows with pre-loaded sash or vents. Make sure pre-loaded sash or vents are fully locked prior to moving windows. Never have fingers or hands inside the operating area of a sash or vent.
- Do not use any of the hardware or grids for lifting or manipulating the window or door. Glazed products must always be transported vertically.
- When moving assembled panning, don't twist or rack the assembly.

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Storage:

- The storage location for any finished products must be cordoned off to prevent damage from other trades, such as moving equipment.
- Stack assembled panning vertically and on its sills with adequate separation so surfaces will not rub together. All products should be stored on top of wood blocking to protect the finish. Blocking will also be needed between the panning and any object that can damage the panning. Ensure that the products cannot be blown over by the wind, and limited to stacking of five (5) units before alternate support is given.
- Follow the storage requirements for windows, which are listed in the installation manuals for those products.
- Storing the panning in the building is preferred, as long as they are not in a high traffic area. If storing outside, the products must be covered in a manner that will prevent water and dirt from getting into the products.
- Protect all products from paint, weld spatter, construction debris, cement, plaster, terrazzo, and other construction materials, which include, but are not limited to, alkali based materials or caustic cleaners. This must be removed immediately to prevent damage to the finish of the aluminum.
- If the panning has been wrapped in a transparent plastic protective wrap, this wrap cannot be on the product for more than 90 days from the date of manufacturing, otherwise, it will be very difficult to remove protective wrap from the panning finish.
- Prior to applying sealants, the surfaces must be cleaned and prepared as directed by the sealant manufacturer.

CAUTION – Panning is not to be used as ladders, scaffolds, or supports. Installed products are not to be used as construction entrances, unless adequate protection to the sill and jambs is provided. Damage to any products from any construction activity will void the product warranty for the products in question.

Note: Copies of these instructions can be downloaded from www.grahamwindows.com/architectural-resources/technical-information/

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General Installation Instructions

A. Upon delivery carefully check that all pannings have been received undamaged. If any of the pannings have been damaged, immediately notify your Graham Representative.

B. The window sill will need adequate support. The sill panning must be level in accordance with Table 1.

Table #1	Installation Tolerances (+/- Target)		
	Inches/foot	Inches Maximum	Method of Measurement
Level (Horizontal Measurement)	1/32"	1/8"	Measure sill using level
Plumb (Vertical Measurement)	1/32"	1/8"	Measure jambs using level or plumb bob
True (In Plane Measurement)	1/32"	1/8"	Attach strings across corners. Measure where they cross
Extrusion Straightness	1/64"	1/16"	Measure with straight edge.
Square (Diagonal Measurement)	N/A	1/16" ^{**} 1/8" ^{**}	Measure diagonal corners (Difference/2)
* Openings up to 20 sq. ft. **Openings 20 sq. ft. and over			

Note: Panning cannot support the weight of a window.

C. All work should start from established bench marks and column center lines established by the architectural drawings and the general contractor.

D. The sequence of installation should be coordinated with the job superintendent so delays are prevented.

E. Be aware of allowable edge distance requirements for the fasteners into the substrate, especially when the substrate is masonry. Refer to the fastener manufacturer's instruction for proper usage.

F. Seal the exterior in accordance with the shop drawings.

G. Insulate between the window frame and the rough opening.

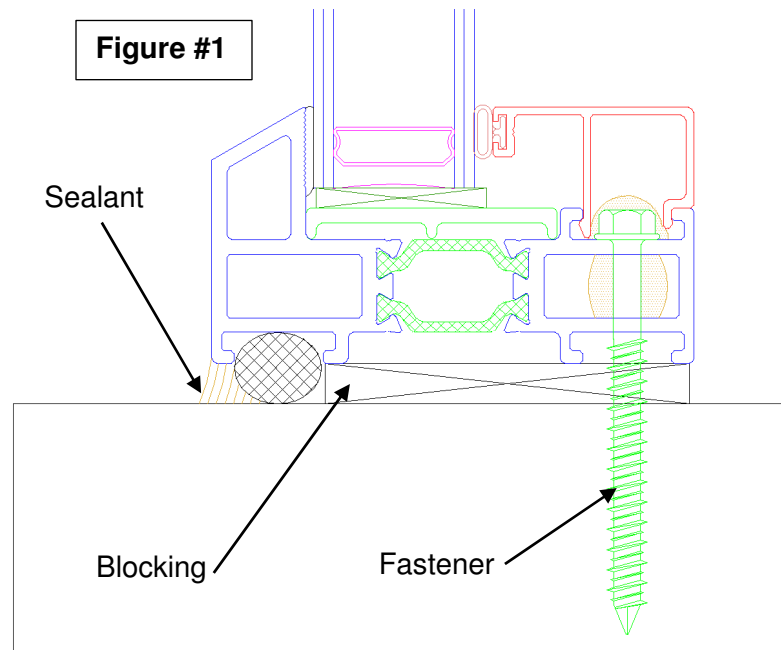
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Window Installation:

- The window will need to be installed prior to the panning being installed. The window can either be installed with trim and clip, or using a through frame installation method.
- Follow the installation instructions for the window that is being installed.
- Blocking will be needed to position the window frame in a manner that will provide space for the installation of the panning.
- If possible, the window frame should be sealed to the rough opening. As an alternative, flashing can be used to collect any water that by-passes the seal between the panning and the exterior cladding/finish, and drain it back to the exterior.

Through Frame Installation

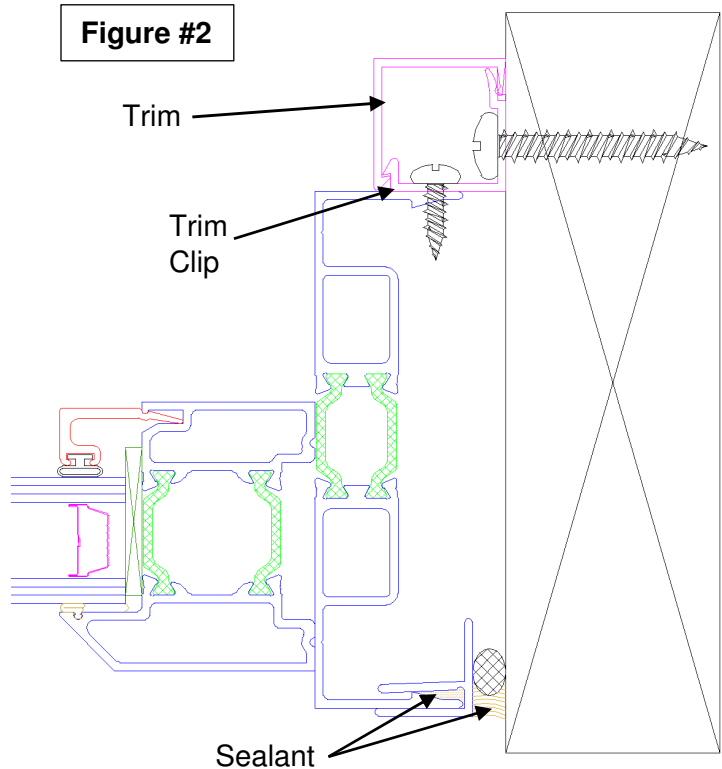
- Position the frame in the opening. Be careful not to twist or rotate the frame during handling or installation.
- The fastening schedule will generally be determined by a structural engineer. If a fastening schedule has not been specified, Graham Architectural recommends applying fasteners a maximum of 9 inches from each corner, and then a maximum of 18 inches apart. (Note: Recommended fastening does not apply to projects that have blast mitigation or hurricane requirements)
- Apply shims and/or blocking at specified locations (See Figure 1). The window must be level, plum and square in accordance with Table 1.
- When fastening through the window frame, seal the heads of the fasteners before and after installation.



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Trim and Clip Installation

- A. If trim and clip are used, trim clips can be full length or 3" long sections. If sections are used, they will need to be lined up in order for the trim cover to snap in place.
- B. The trim clip to window fastener must be a minimum of #8 x 1/2" screw, or heavier as required to meet project design loads. The trim clip must be attached to the rough opening before attaching it to the window. The trim clip to rough opening fastener is dictated by the substrate.



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recommends that the fastener is greater than, or equal to, that of the fastener used at the clip to window (as required to meet project design loads). (See Figure #2)

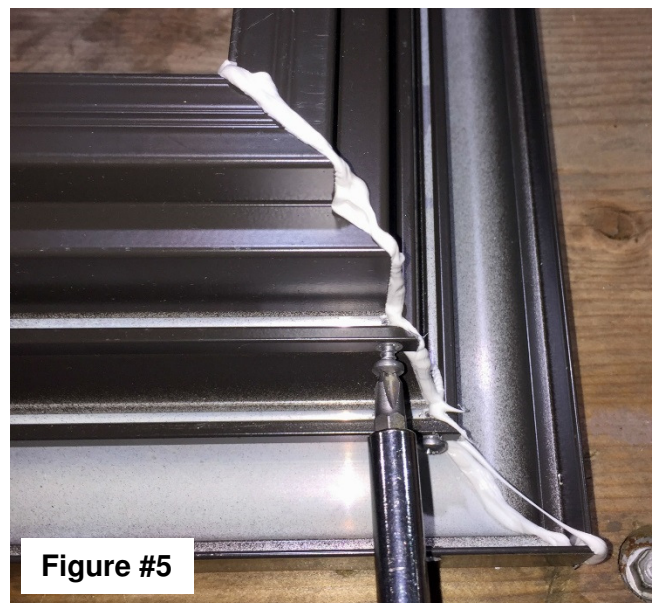
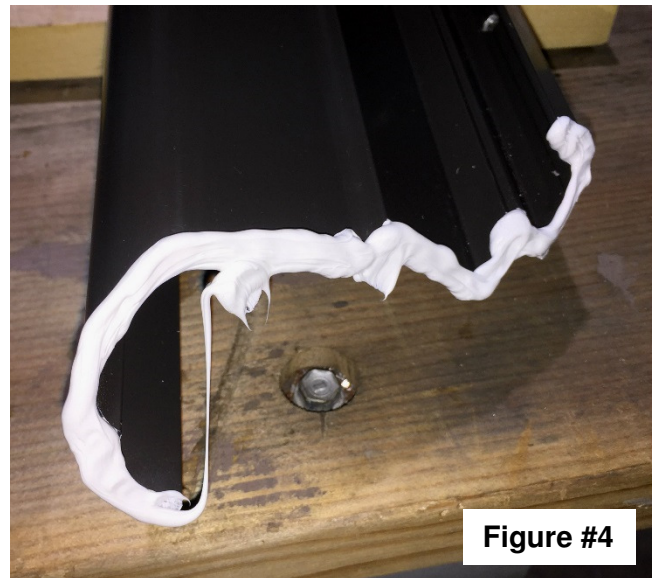
- C. The fastening schedule will generally be determined by a structural engineer. If a fastening schedule has not been specified, Graham Architectural recommends applying fasteners a maximum of 9 inches from each corner, and then a maximum of 18 inches apart. (Note: Recommended fastening does not apply to projects that have blast mitigation or hurricane requirements)
- D. The head and (if used) the sill trim covers are field cut to size. Snap trim covers on using a rubber mallet, or a block of wood with a hammer. Be careful not to dent or scratch the finish on the trim cover when installing it.
- E. The jamb trim covers are field cut to size. Snap trim covers on using a rubber mallet, or a block of wood with a hammer.
- F. The window must be level, plum and square in accordance with Table 1 shown on the previous page.

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Panning Assembly

- A. Gather the parts required for the opening and ensure all of the required parts are present. Lay out the parts of the panning system on a large flat area, which will protect the finish of the parts (See Figure #3).
- B. Clean all the areas that are going to be sealed with isopropyl alcohol, and dry with clean rag prior to applying sealant.
- C. Profile the top ends of the jamb extrusions with a silicone based sealant (See Figure #4).
- D. If the top corners use corner keys, insert the panning corner keys in both ends of the head panning. Attach the head panning to the jamb panning with the corner keys. Snug the corner key fasteners, but DO NOT tighten. If the top corners use screws, hold the corners together and install the screws. Snug the screws, but DO NOT tighten the screws (See Figure #5).

Note: White sealant used for illustration purposes. Color matched sealant should be used.



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- E. Profile the bottom end of the jamb panning with silicone based sealant (See Figure #6).
- F. Fasten the sill to the jambs with the #6 Phillips head screws provided by Graham, however do not tighten the screws (See Figure #7).
- G. Before fully tightening the assembly/corner key screws, make sure the corners are lined up. Tighten all of the assembly/corner key screws.
- H. Back-seal the interior side of the panning corners, including additional sealant over the screw threads and the screw heads (See Figure #8). At the end of the sill panning, there will be a hole at the panning attachment leg. Fill this hole with sealant (See Figure #9).



Figure #6

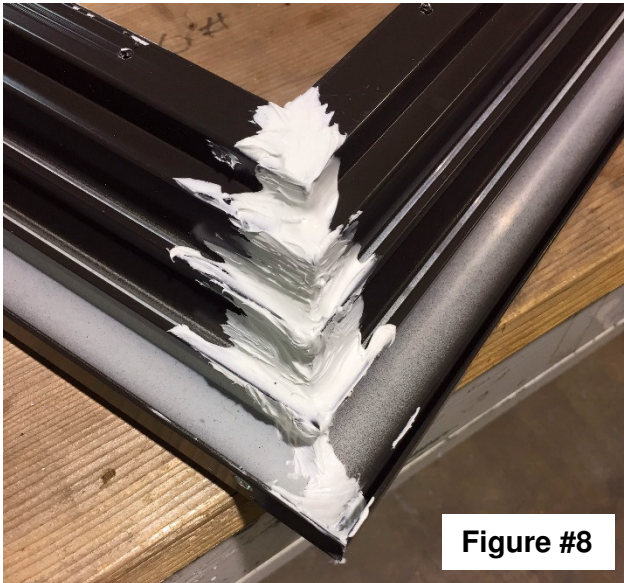


Figure #8

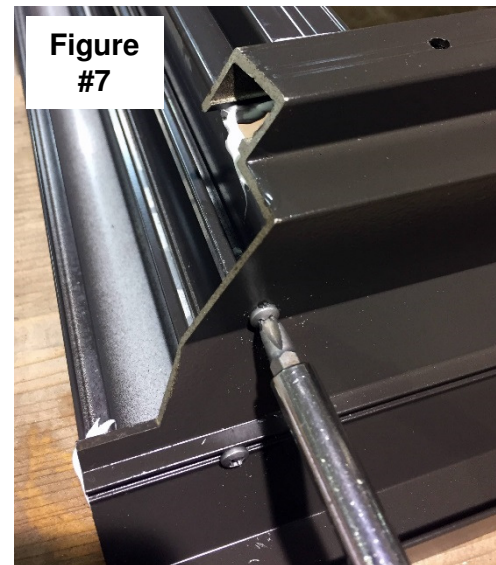


Figure #7

Note: White sealant used for illustration purposes. Color matched sealant should be used.

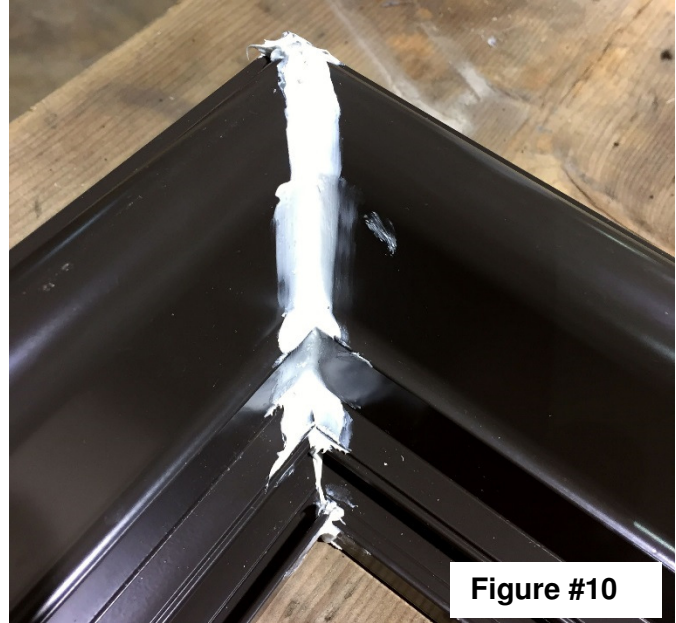


Figure #9

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- I. Tool the sealant squeeze-out on the exterior side of the panning corners. Add additional sealant if necessary. (See Figure #10). Clean up the excess sealant at the corner (See Figure #11).
- J. Allow the sealant to cure before moving the assembled panning.

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Panning Attachment

- A. Apply a back-seal to the panning where it will make contact with the window frame (See Figure #12). As an alternative, a cap bead between the panning and the window frame can be applied after the panning is attached (See Figure #14).
- B. Center and square the panning on the window opening and attach with the screws provided (See Figure #13). Apply fasteners a maximum of 9 inches from each corner and then a maximum of 18 inches apart.
- C. If a back-seal was used (as in Step A), clean up the squeeze out from between the panning and the window frame.
- D. Seal over the screw heads and snap on the exterior trim/cover (See Figure #14).
- E. If a back-seal was not used, apply a cap seal between the panning and the window frame.
- F. Install backer rod and seal the perimeter of the panning (See Figure #14).

