



Service Manual



Boyd window systems meet not only *our* high performance standards, but also those of **AAMA's Certified Testing Program**. So, whether it's a **C-Rated, AW-Rated, Impact Resistant, or Blast and Impact** systems, rest assured you are receiving a proven system for your project.

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In the event of any conflict between the Boyd Aluminum Mfg. Co. Service Manual and the recommendations of the American Architectural Manufacturing Association (AAMA), the recommendations of AAMA shall control.

Glass Care and Maintenance

1. General Overview and Contact

Boyd Windows are tested, manufactured, and supplied in accordance with AAMA standards, specifications, and requirements; however Boyd Aluminum can not protect against adverse environmental conditions, extreme or unusual use of the products provided in the field. The information contained in this manual has been compiled for general and typical window types. Boyd can not warrant or guarantee products that are used in any manner other than normal use and results may differ from those expressed in this manual. Due to custom applications, design, and specifications of this industry some of the information may not apply and should be analyzed and reviewed before action is taken. Users of material should conduct their own tests to verify that material is applicable for the field application.

In the event that a part or piece has broken or become defective please send requests for information or possible replacement to:

Boyd Replacement Department
Boyd Aluminum
P.O. Box 1565
Springfield, MO 65801

Or Call

P: 800-737-2800
F: 417-862-1232

Or Visit

www.boydaluminum.com

Glass Care and Maintenance

1.1 General Cleaning

Glass should be washed, rinsed and dried during the different phases of construction. This will help prevent the accumulation of foreign debris to adhere and distort glass from its original quality. For most glass except specialty or coated glass, use mild soap, clean with soft and particle free cloths, or sponges. Use of a slightly acidic cleaning solution can be used on glass, but immediate rinsing with clean water must be completed. Use of a rubber squeegee for streak free viewing is acceptable. Check with project glass manufacturer for specific cleaning instructions.

**Glass Informational Bulletin****GANA 01-0300****Proper Procedures for Cleaning Architectural Glass Products**

Architectural glass products play a major role in the comfort of living and working environment of today's homes and commercial office spaces. By providing natural daylight, views of the surroundings, thermal comfort and design aesthetics, glass usage and condition often affect our selection of where we live, work, shop, play and seek education.

Architectural glass products must be properly cleaned during construction activities and as a part of routine maintenance in order to maintain visual and aesthetic clarity. Since glass products can be permanently damaged if improperly cleaned, glass producers and fabricators recommend strict compliance with the following procedures for properly cleaning glass surfaces.

As dirt and residue appear, interior and exterior glass surfaces should be thoroughly cleaned. Concrete or mortar slurry which runs down (or is splashed on) glass can be especially damaging and should be washed off as soon as possible. Before proceeding with cleaning, determine whether the glass is clear, tinted or reflective. Surface damage is more noticeable on reflective glass as compared with the other glass products. If the reflective surface is exposed, either on the exterior or interior, special care must be taken when cleaning, as scratches to the reflective glass surface can result in coating removal and a visible change in light transmittance. Cleaning tinted and reflective glass surfaces in direct sunlight should be avoided, as the surface temperature may be excessively hot for optimum cleaning. Cleaning should begin at the top of the building and continue to the lower levels to reduce the risk of leaving residue and cleaning solutions on glass at the lower levels. Cleaning procedures should also ensure that the wind is not blowing the cleaning solution and residue onto already cleaned glass.

Cleaning during construction activities should begin with soaking the glass surfaces with clean water and soap solution to loosen dirt or debris. Using a mild, non-abrasive commercial window washing solution, uniformly apply the solution to the glass surfaces with a brush, strip washer or other non-abrasive applicator. Immediately following the application of the cleaning solution, a squeegee should be used to remove all of the cleaning solution from the glass surface. Care should be taken to ensure that no metal parts of the cleaning equipment touch the glass surface and that no abrasive particles are trapped between the glass and the cleaning materials. All water and cleaning solution residue should be dried from window gaskets, sealants and frames to avoid the potential for deterioration of these materials as the result of the cleaning process.

It is strongly recommended that window washers clean a small area or one window, then stop and examine the surface for any damage to the glass and/or reflective coating. The ability to detect certain surface damage, i.e. light scratches, may vary greatly with the lighting conditions. Direct sunlight is needed to properly evaluate a glass surface for damage. Scratches that are not easily seen with a dark or gray sky may be very noticeable when the sun is at a certain angle in the sky or when the sun is low in the sky.

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The glass industry takes extreme care to avoid glass scratches by protecting all glass surfaces during glass manufacturing and fabrication, as well as during all shipping and handling required to deliver the glass to the end user. A large percentage of damaged glass results from non-glass trades working near glass. This will include painters, spacklers, ironworkers, landscapers, carpenters and others who are part of the construction process. They may inadvertently lean tools against the glass, splash materials onto the glass and/or clean the glass incorrectly, any of which can permanently damage glass.

One of the common mistakes made by non-glass trades people, including glass cleaning contractors, is their use of razor blades or other scrapers on a large portion of the glass surface. Using 2, 3, 4, 5 inch and larger blades to scrape a window clean carries a large probability for causing irreparable damage to glass.

The entire industry of glass manufacturers, fabricators, distributors, and installers neither condones nor recommends widespread scraping of glass surfaces with metal blades or knives. Such scraping will often permanently damage or scratch the glass surfaces. When paint or other construction materials cannot be removed with normal cleaning procedures, a new 1" razor blade may need to be used only on non-coated glass surfaces. The razor blade should be used on small spots only. Scraping should be done in one direction only. Never scrape in a back and forth motion as this could trap particles under the blade that could scratch the glass. This practice may cause hairline concentrated scratches, which are not normally visible when looking through the glass, but may be visible under certain lighting conditions.

Jobsite storage and construction conditions can lead to stains on the glass surface. Cleaning and removal of such stains may require the use of a more aggressive cleaning solution and procedure. If conditions are found that cannot be cleaned using the above procedures, contact the glass supplier for guidelines on stain removal.

Members of the Glass Association of North America (GANA) publish information relating to jobsite protection and cleaning of architectural glass products. In order to ensure long-term performance of the glass in a building, GANA encourages glazing contractors, general contractors, building management and owners to be aware of conditions that can damage glass and to follow the handling and cleaning guidelines provided by their glass producer and fabricator.

Consult the GANA website (www.glasswebsite.com) for additional information on glass and glazing applications and links to members providing additional technical resources.

The Glass Association of North America (GANA) has produced this Glass Information Bulletin solely to provide general information as to basic proper procedures for cleaning architectural glass products. The Bulletin does not purport to state that any one particular type of glass cleaning process or procedure should be used in all applications or even in any specific application. The user of this Bulletin has the responsibility to ensure the cleaning instructions from the glass supplier are followed. GANA disclaims any responsibility for any specific results relating to the use of this Bulletin, for any errors or omissions contained in the Bulletin, and for any liability for loss or damage of any kind arising out of the use of this Bulletin.

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GANA 01-0300

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Quick-Reference Guide to Cleaning Architectural Glass Products

The following "Do's" and "Do Not's" are offered as a supplement to the Glass Association of North America (GANA) Glass Informational Bulletin – *Proper Procedures for Cleaning Architectural Glass Products*:

The following are things to DO:

- DO clean glass when dirt and residue appear
- DO determine if coated glass surfaces are exposed
- DO exercise special care when cleaning coated glass surfaces
- DO avoid cleaning tinted and coated glass surfaces in direct sunlight
- DO start cleaning at the top of the building and continue to lower levels
- DO soak the glass surface with a clean water and soap solution to loosen dirt and debris
- DO use a mild, non-abrasive commercial window cleaning solution
- DO use a squeegee to remove all of the cleaning solution
- DO dry all cleaning solution from window gaskets, sealants and frames
- DO clean one small window and check to see if procedures have caused any damage
- DO be aware of and follow the glass supplier's specific cleaning recommendations
- DO caution other trades against allowing other materials to contact the glass
- DO watch for and prevent conditions that can damage the glass
- DO read the entire GANA bulletin on glass cleaning before starting to clean glass

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The following are things to NOT do:

- DO NOT start cleaning without reading the entire GANA bulletin on glass cleaning
- DO NOT use scrapers of any size or type for cleaning glass
- DO NOT allow dirt and residue to remain on glass for an extended period of time
- DO NOT begin cleaning glass without knowing if a coated surface is exposed
- DO NOT clean tinted or coated glass in direct sunlight
- DO NOT allow water or cleaning residue to remain on the glass or adjacent materials
- DO NOT begin cleaning without rinsing excessive dirt and debris
- DO NOT use abrasive cleaning solutions or materials
- DO NOT allow metal parts of cleaning equipment to contact the glass
- DO NOT trap abrasive particles between the cleaning materials and the glass surface
- DO NOT allow other trades to lean tools or materials against the glass surface
- DO NOT allow splashed materials to dry on the glass surface

This bulletin was developed by the GANA Tempering Division - Construction Subcommittee and approved by the Tempering Division - Standards & Engineering Committee and GANA Board of Directors. This is the original version of the document as approved and published in March 2000.



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Glass Care and Maintenance

1.3 Care During Installation

Cleaning of glass and windows must be done and monitored during all stages of installation and construction. Upon arrival to the jobsite and installation, windows and glass should be wiped down and cleaned. Cleaning during the construction phase of the glass and windows should be soaked with clean water, then a mild soap solution to loosen any dirt, dust and debris. Use a non-abrasive or cloth brush to apply a non-abrasive cleanser to the glass. Before the cleanser becomes dry, use a squeegee and dry glass. Make sure not to hit, nick, or scratch glass with any metal or sharp object. After drying glass and window frame, a blue max or similar protective film may be applied to protect from new construction debris, dust, paint, welding spatter, or contaminants; provided that these must be tested prior to application to avoid damaging the finish.

Finish Care and General Maintenance

2. Anodized Aluminum Cleaning and Maintenance.

2.1 General Cleaning

Cleaning products for terrazzo, cement, plasters, and many cleaning materials used to clean masonry, and many other materials, are very harmful to anodized and painted finishes and should not be allowed to come in contact with the window system. In the event that any does come in contact, it should be removed immediately with mild soap and water. Start at the top of material and soak the entire location with water and mild soap solution to remove soil and large pieces of debris. Start by wiping with a non-abrasive brush in a horizontal manner and then a vertical (top to bottom) motion. Rinse cleaning materials with clean water and dry with a clean non-abrasive cloth.

2.2 Removal of debris and oils

Cleaning of anodized aluminum surfaces should be in accordance with AAMA 609 & 610-02 "Cleaning and Maintenance Guide for Architecturally finished Aluminum".

ATTENTION Use of duct tape, masking tape, and similar products to painted aluminum surfaces will produce permanent adhesion of tape to the finish. This adhesion will promote adhesion failure of finish to aluminum surface upon removal of the tape. If protective coatings are required, these should be tested prior to application and removed prior to using field applied sealants during installation. Always refer to protective coating manufacturer for compatibility of different finishes.

3. Painted Aluminum Cleaning and Maintenance.

3.1 General Cleaning

Cleaning products for terrazzo, cement, plasters, and many cleaning materials used to clean masonry, and many other materials, are very harmful to anodized and painted finishes and should not be allowed to come in contact with the window system. In the event that any does come in contact, it should be removed immediately with mild soap and water. Start at the top of material and soak the entire location with water and mild soap solution to remove soil and large pieces of debris. Start by wiping with a non-abrasive brush in a horizontal manner and then a vertical (top to bottom) motion. Rinse cleaning materials with clean water and dry with a clean non-abrasive cloth.

3.2 Removal of debris and oils

Cleaning of painted aluminum surfaces should be in accordance with AAMA 609 & 610-02 "Cleaning and Maintenance Guide for Architecturally finished Aluminum".

ATTENTION Use of duct tape, masking tape, and similar products to painted aluminum surfaces will produce permanent adhesion of tape to the finish. This adhesion will promote adhesion failure of finish to aluminum surface upon removal of the tape. If protective coatings are required, these should be tested prior to application and removed prior to using field applied sealants during installation. Always refer to protective coating manufacturer for compatibility of different finishes.

4. Maintenance Schedule for Windows and Sliding Doors.

4.1 Quarterly

- ☒ Blow or vacuum out dust, dirt and debris from sliding track and sills of windows.
- ☒ Remove any debris within window system as it may cause deficiency in hardware operation.
- ☒ Clean sand or debris from all working mechanisms; hinges, latches, limit stops, rollers, and any specialty parts.
- ☒ Polish external hardware to protect finish. Non-abrasive products can be purchased at most local retailers.

4.2 Annually

- ☒ Blow or vacuum out dust, dirt and debris from sliding track and sills of windows.
- ☒ Remove any debris within window system as it may cause deficiency in hardware operation.
- ☒ Clean sand or debris from all working mechanisms; hinges, latches, limit stops, rollers, and any specialty parts.
- ☒ Polish external hardware to protect finish. Non-abrasive products can be purchased at most local retailers
- ☒ Check exterior perimeter caulking and interior seals and repair as needed.
- ☒ Adjust hardware to allow for proper engagement, operation, and performance.

4.3 Frequently

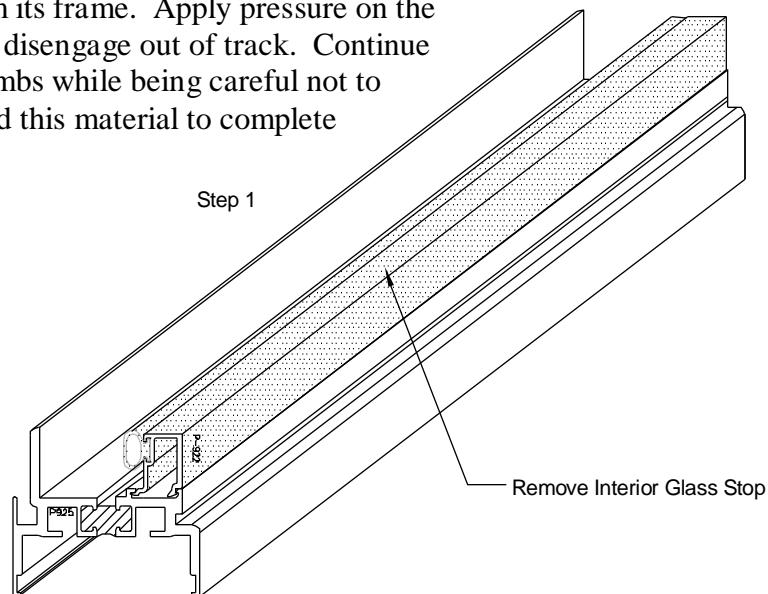
- ☒ Wash exterior and interior windows and glass per the above mentioned methods. Be aware not to scratch or damage material or glass.
- ☒ Blow or vacuum out dust, dirt and debris from sliding track and sills of windows.
- ☒ Lubricate and oil all rollers, hinges, and moving hardware.
- ☒ Lubrication should be applied after 1200 cycles per operating hardware set.

Boyd Reglazing Instructions

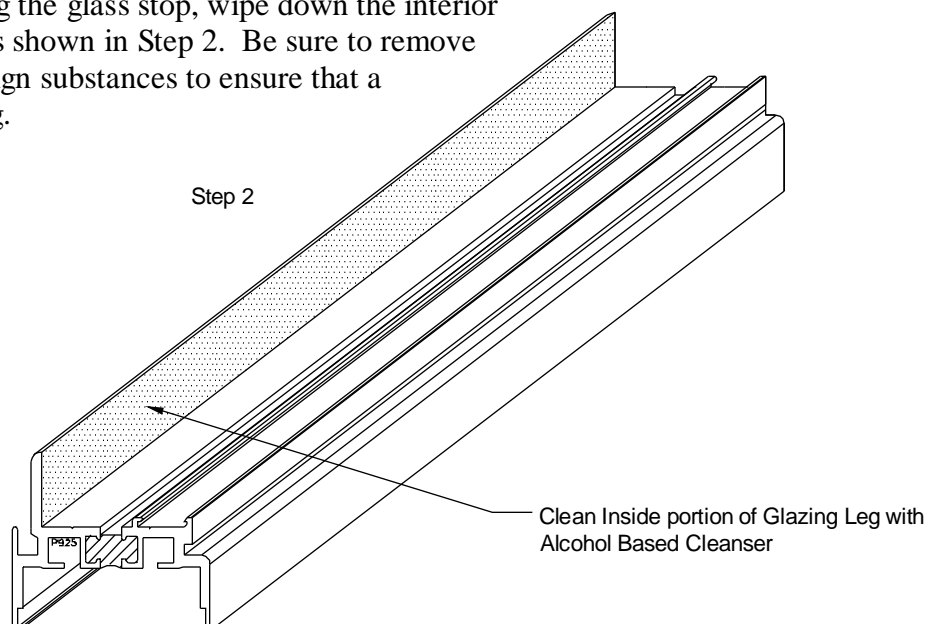
5. Boyd Reglazing Instructions Butyl Tape Glazing

This Process is a typical glazing application for Boyd Products and should be followed, but final field glazing may differ based on project specifics. Fixed lite glazing is shown, but projected glazing is similar.

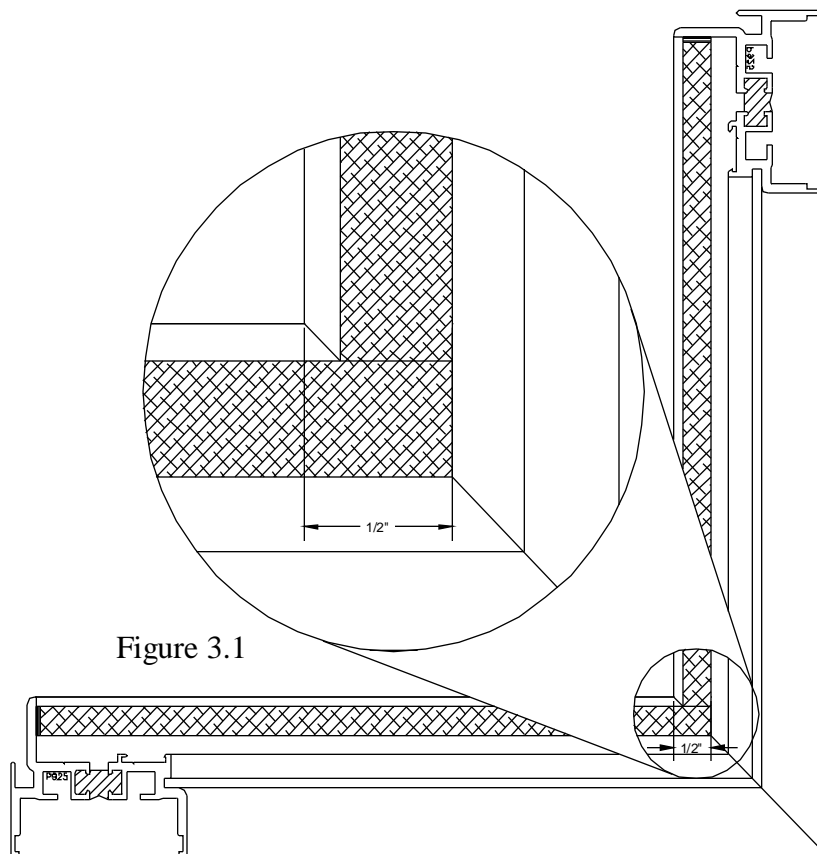
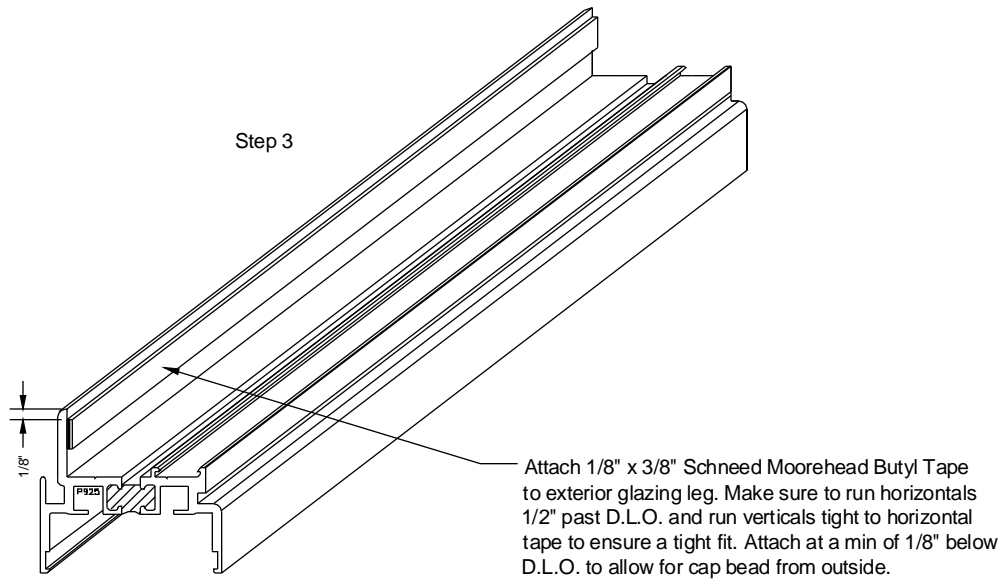
Once the window system has been properly shimmed, anchored, plumbed and sealed, the next step is to glaze the frame. As you can see in the drawing below (Step 1) the first step is to remove the installed interior glass stop from its frame. Apply pressure on the interior side of the glass stop to disengage out of track. Continue this process for the head and jambs while being careful not to damage material. You will need this material to complete the glazing process.



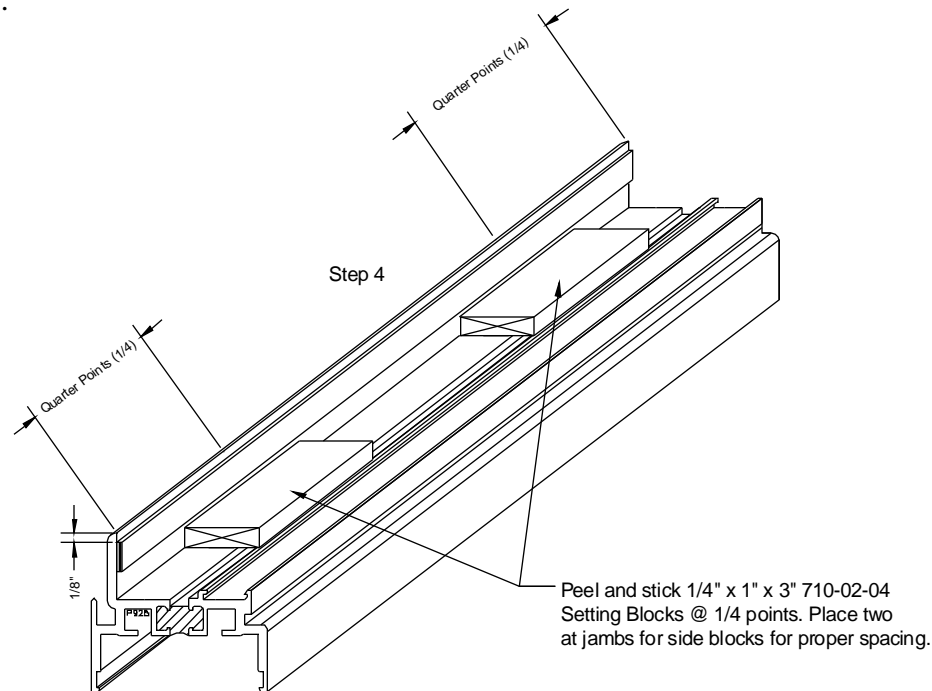
Place your glass stop in a safe place and label by either location or elevation so that you can reuse as shown in Step 6. Upon removing the glass stop, wipe down the interior side of the exterior glazing leg as shown in Step 2. Be sure to remove any and all contaminants or foreign substances to ensure that a clean surface is ready for glazing.



After cleaning the glazing and removing any impurities, apply the Schneid Moorehead Butyl Tape 1/8" below the day light opening (D.L.O.) of framing. Run the horizontals 1/2" past the D.L.O. and butt the verticals into the horizontal tape. (See Step 3 and Figure 3.1 below for clarification.) For grid applications see Figure 9.1.



After Butyl Tape application, peel backing off of setting block and attach to sill and jamb. Locate setting blocks at (industry standard $\frac{1}{4}$ points, but verify with glass manufacturer) as shown in Step 4 and Figure 4.1.



In-swing and out-swing casements must be cross blocked to prevent sag and drag of sash. See figure 10.1.

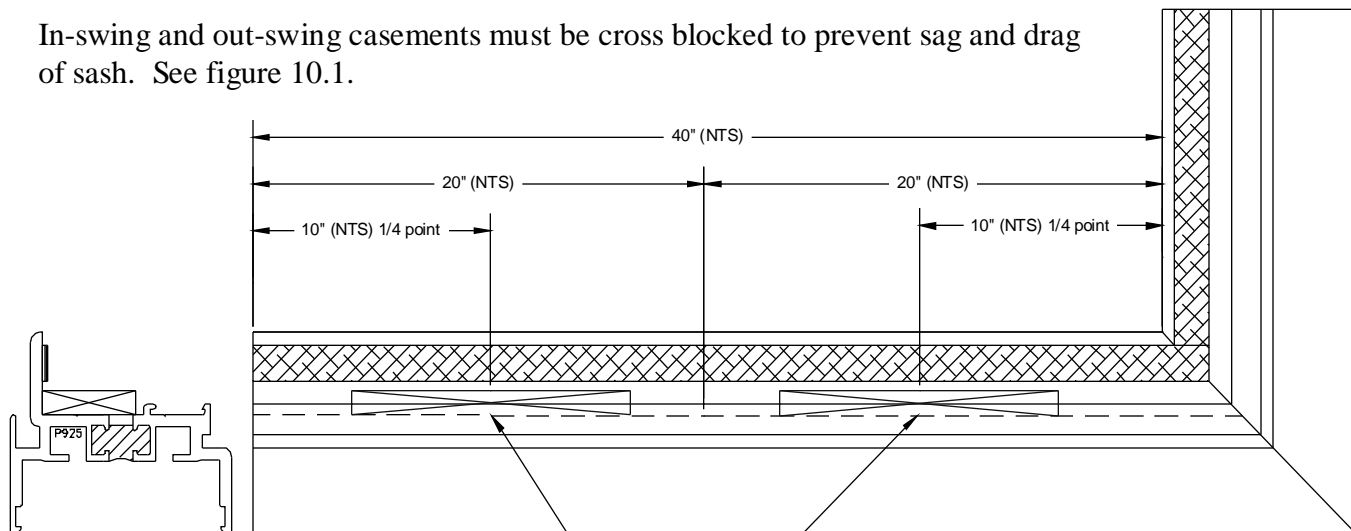
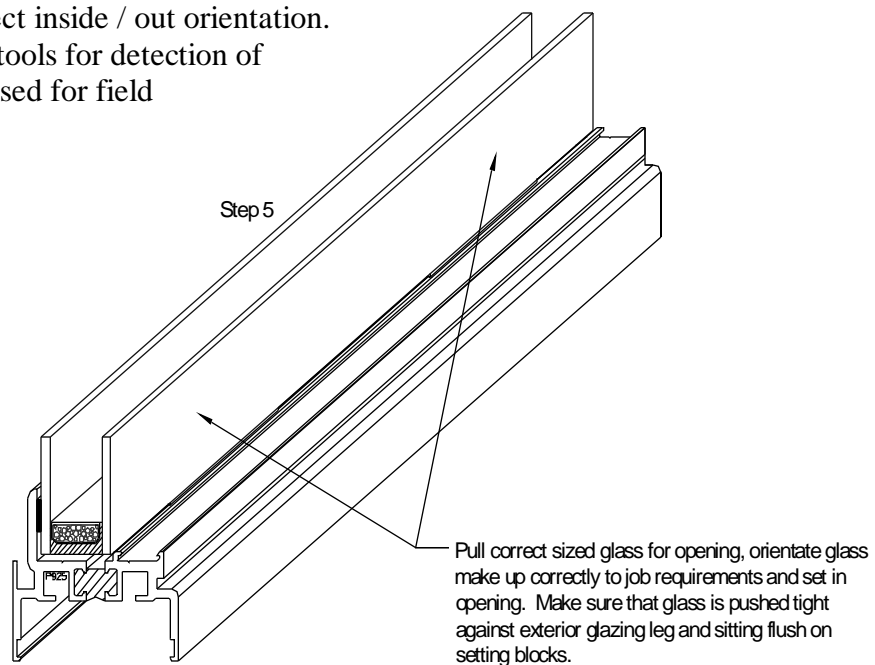


Figure 4.1

Peel and stick $\frac{1}{4}$ " x 1" x 3" 710-02-04 Setting Blocks @ $\frac{1}{4}$ points. Quarter Points are determined by taking the day light opening and dividing by 4. This dimension is C/L for the setting block

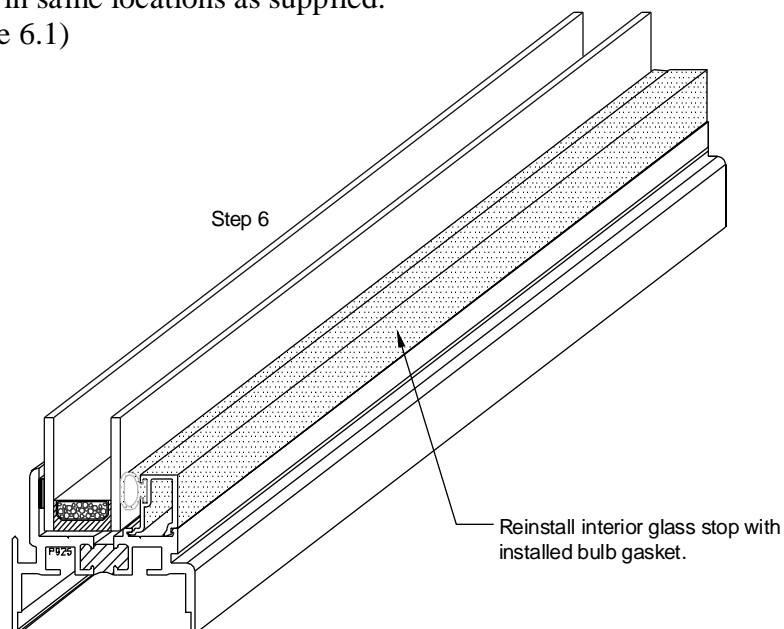
After the setting and side blocks have been installed, the framing is ready for glass. Locate the correct size, color, and or configuration of glass for the unit being glazed and locate as in Step 5.

*****Important***** Orient glass for Low-e, tints, special coatings and glass make up as the project requires. Boyd will not and can not be responsible for stickers on glass based on correct inside / out orientation. Boyd recommends that proper tools for detection of tints, coating, or laminates be used for field glazing and installation.



Retrieve the previously supplied glass stops that were taken out and marked from Step 1. Drive front leg into the race way and engage glass stop by rotating back in to framing. Remember to reuse marked and correct glass stop in same locations as supplied.

(See Step 6 and Figure 6.1)



Engage front leg of Glass Stop by rolling extrusion as shown in 6.1. Apply pressure from top to engage back leg of Glass Stop for proper compression.

Roll Glass Stop for front leg engagement.

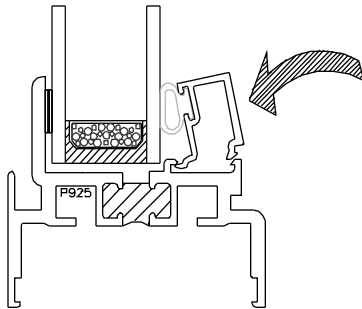
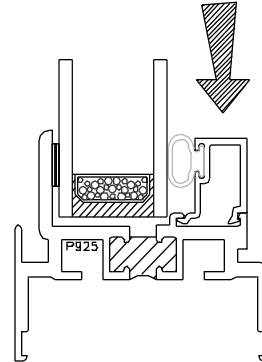
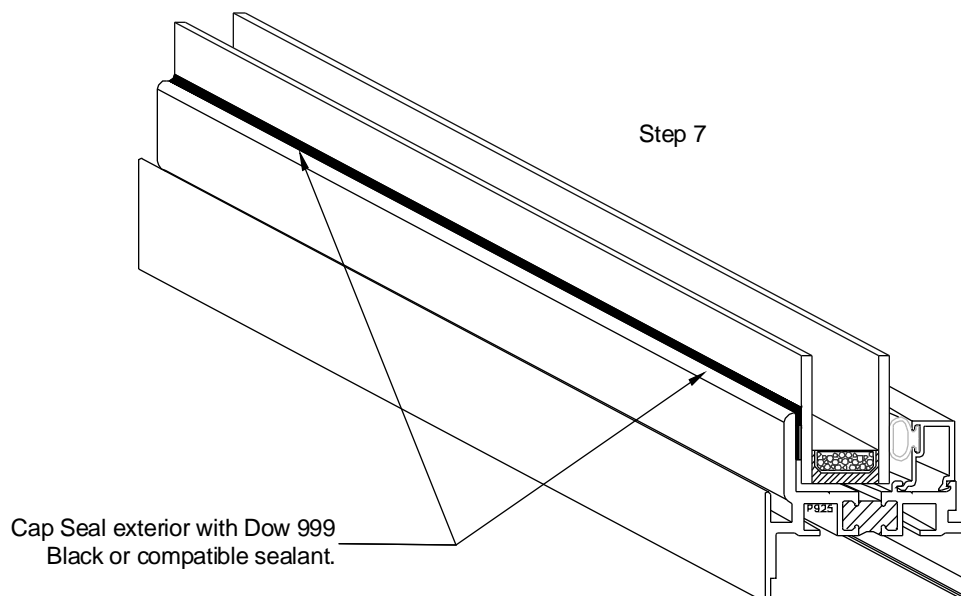


Figure 6.1

Apply pressure to engage leg on Glass Stop.

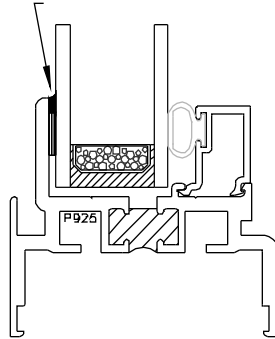


Proceed to the outside and apply a cap bead seal between the glass and exterior glazing leg of the frame. While applying cap bead be sure to check for bubbles, or holes in continuous seal. Cap Bead must be applied by using either DOW 999 or a compatible sealant. Sealant compatibilities are responsibility of glazing team or contractor. (See Step 7 and Figure 7.1)



Apply sealant properly so that cavity between glass, butyl tape, and exterior leg is filled and sealed completely. Tool the sealant so that a clean and proper fillet cap bead is visible.

Cap Seal exterior with Dow 999
Black or compatible sealant.



Assembled Grid Glazing application

1/16" x 3/8" Schneid Moorehead
Butyl Tape between grid and glazing leg.

1/8" x 3/8" Schneid Moorehead
Butyl Tape between glass and grid.

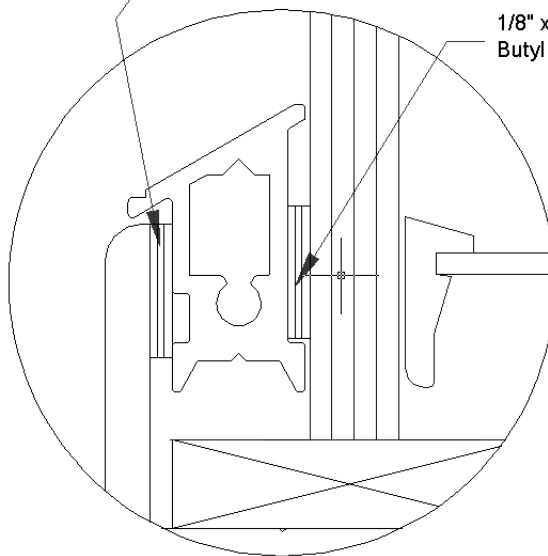


Figure 9.1

Setting blocks on casements must be crossed blocked.

Place setting blocks as noted in Figure 10.1 for proper distribution of weight. Place setting block 6" (six inches) from the edge of locking rail at sill and jamb.

Place setting blocks at 6" from edge at hinge jamb and sill. Place block at hinge jamb 6" from head rail. Setting blocks marked with X must be tight for proper performance of hardware. Hinge right shown, hinge left opposite.

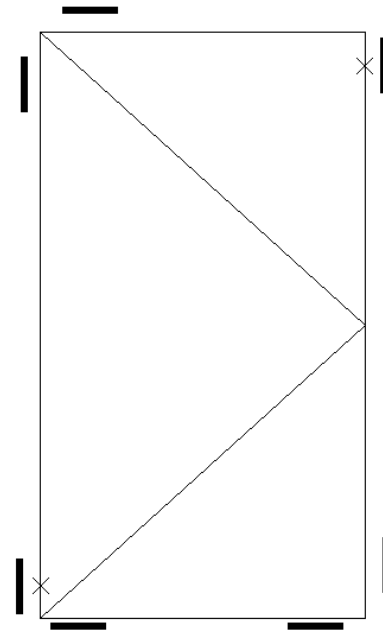


Figure 10.1

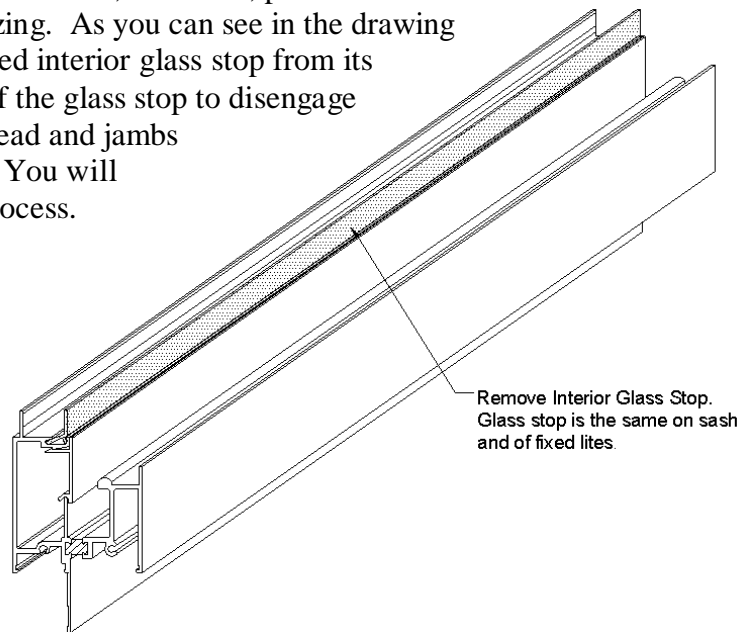
If any questions or items need to be addressed, contact your nearest Boyd Representative prior to proceeding with any glazing applications.

6. Boyd Reglazing Instructions Wet Glazing

This Process is a typical glazing application for Boyd Products and should be followed, but final field glazing may differ based on project specifics. Fixed lite glazing is shown, but operable sash glazing is similar.

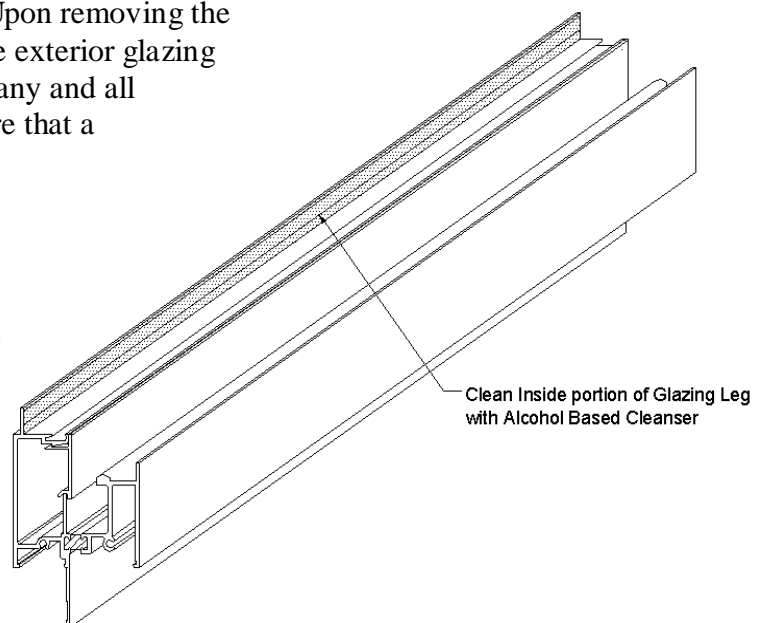
Once the window system has been properly shimmed, anchored, plumbed and sealed, the next step is to prep frame for glazing. As you can see in the drawing (Step 1) the first step is to remove the installed interior glass stop from its frame. Apply pressure on the interior side of the glass stop to disengage out of track. Continue this process for the head and jambs while being careful not to damage material. You will need this material to complete the glazing process. Glazing material is sent loose for Boyd Aluminum 600 & 300 series windows.

Step 1



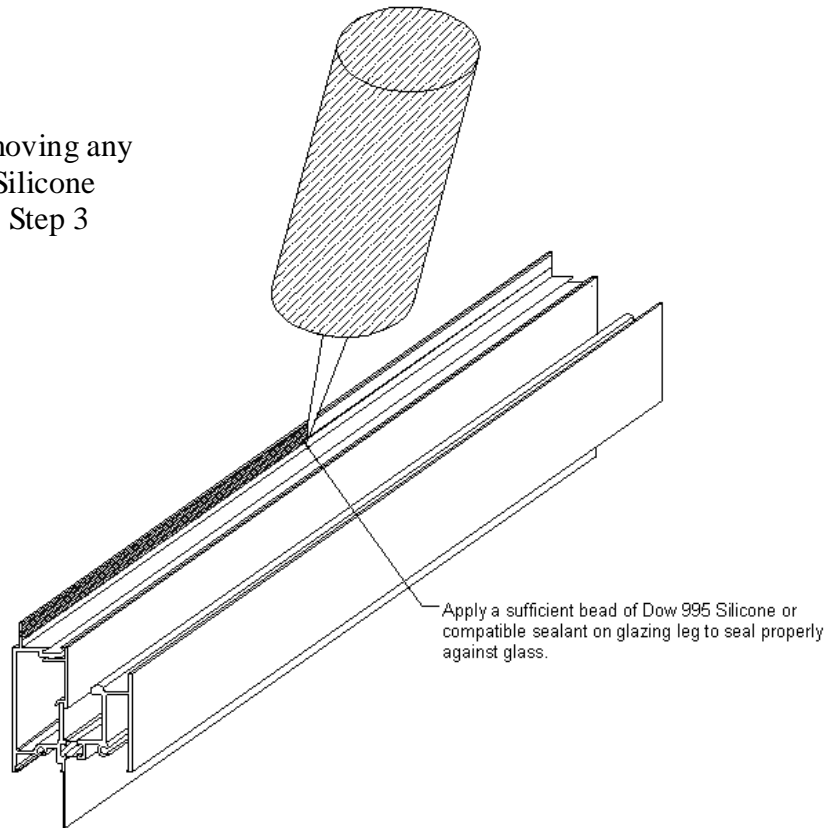
Place your glass stop in a safe place and label by either location or elevation so that you can reuse as shown in Step 6. Upon removing the glass stop wipe down the interior side of the exterior glazing leg as shown in Step 2. Be sure to remove any and all contaminants or foreign substances to ensure that a clean surface is ready for glazing.

Step 2

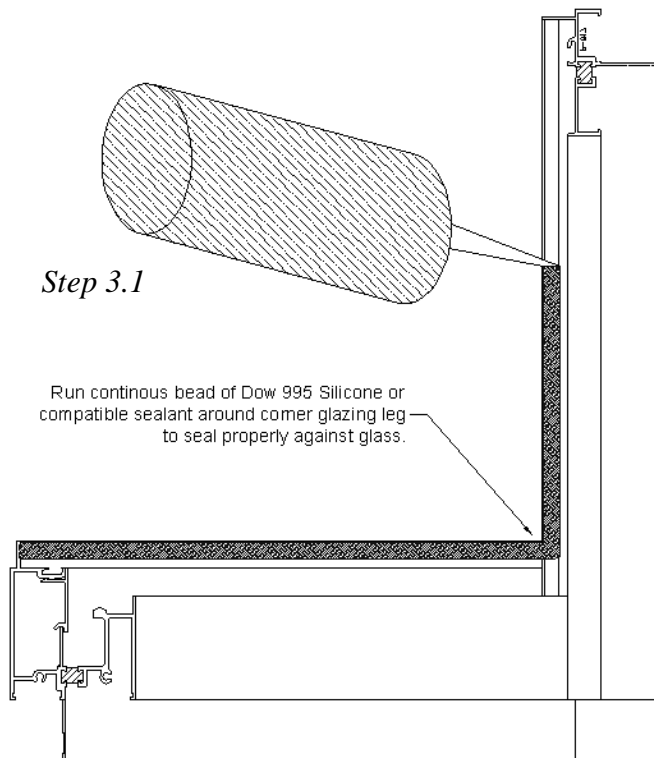


After cleaning the glazing leg and removing any impurities, apply a bead of Dow 995 Silicone or compatible sealant for glazing (See Step 3 and Step 3.1 below for clarification.)

Step 3



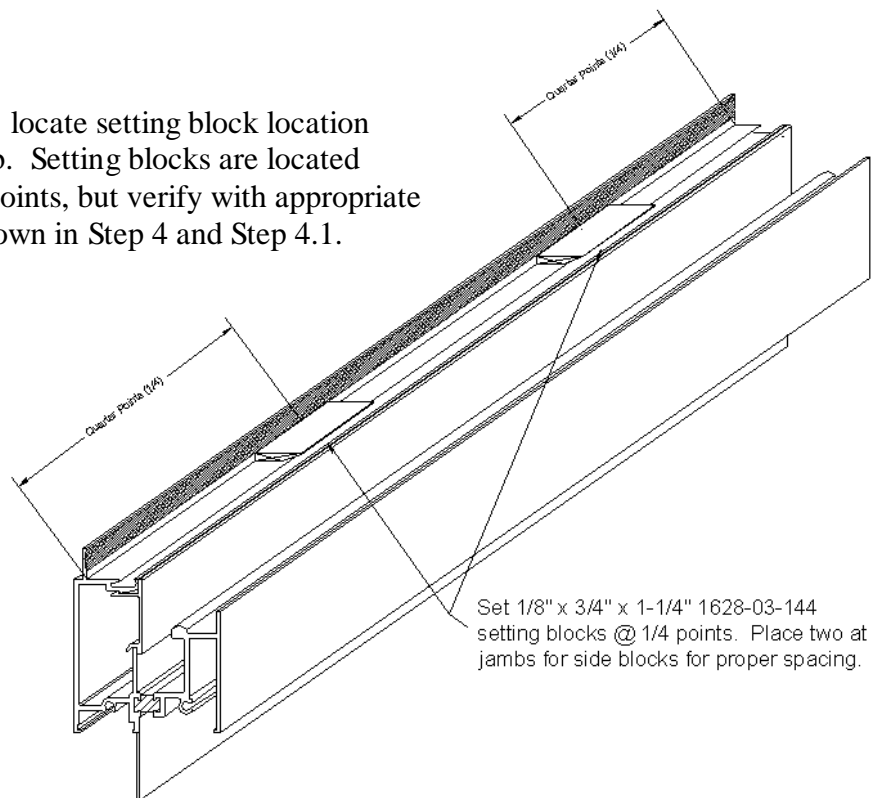
Step 3.1



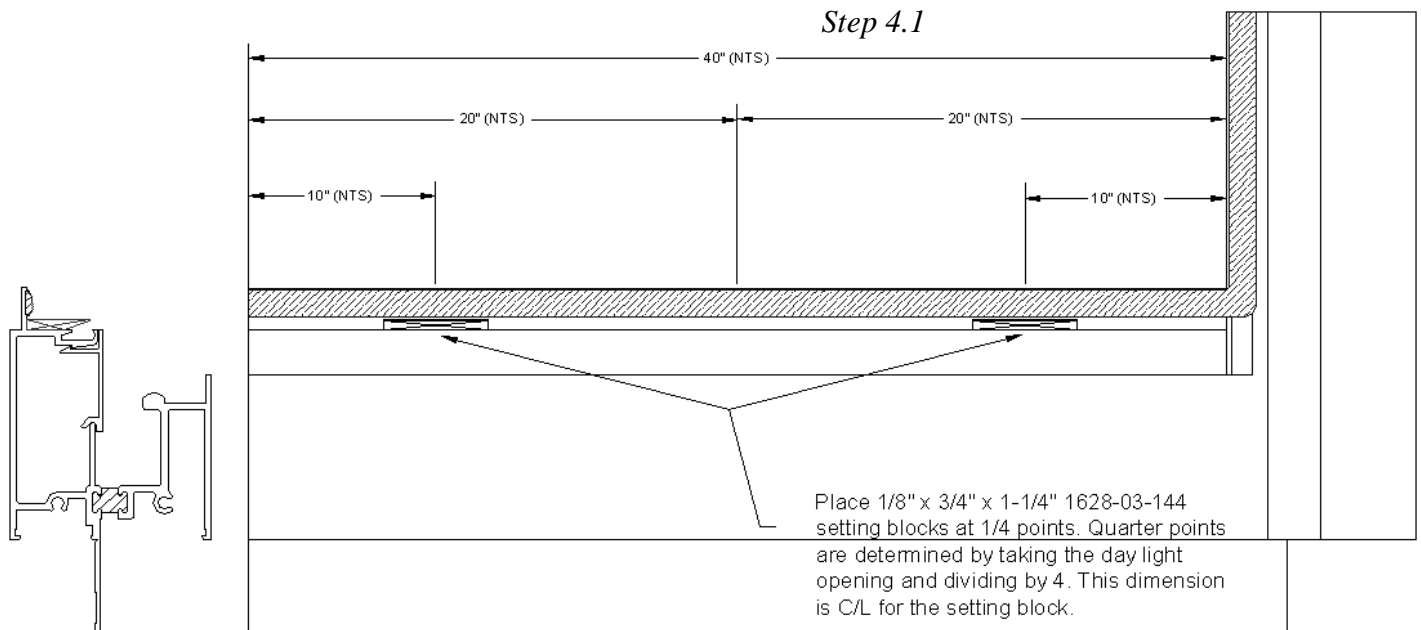
Run continuous bead of Dow 995 silicone or compatible sealant around corner for proper glazing and proper seals against frame and glass.

After silicone application, locate setting block location and attach to sill and jamb. Setting blocks are located at (industry standard) $\frac{1}{4}$ points, but verify with appropriate glass manufacturer, as shown in Step 4 and Step 4.1.

Step 4



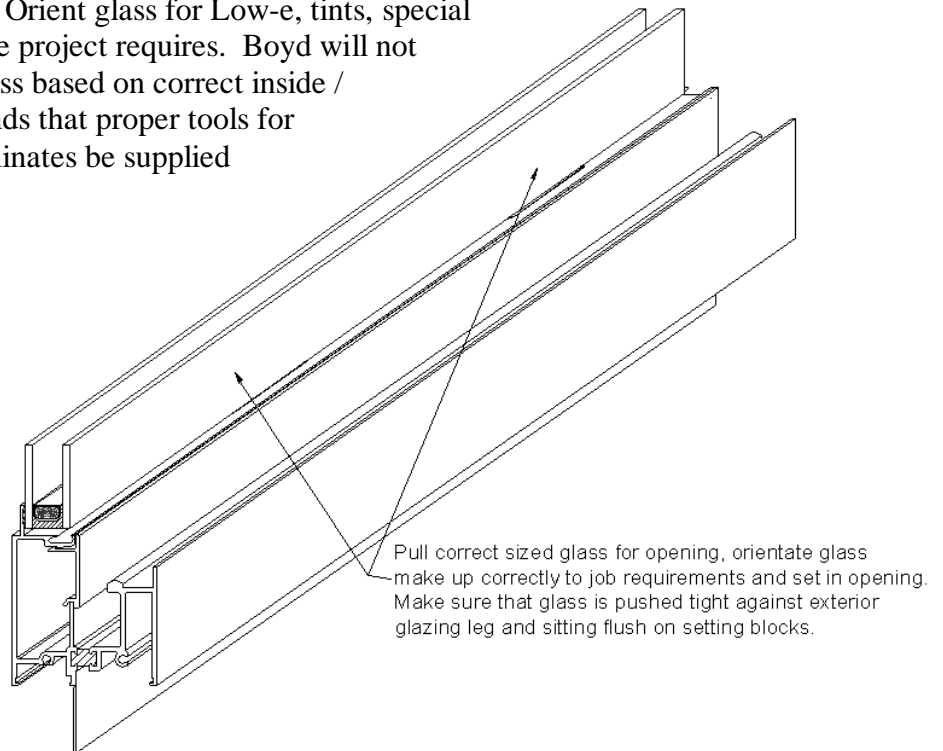
Step 4.1



After setting blocks have been installed, the window is ready for glass.

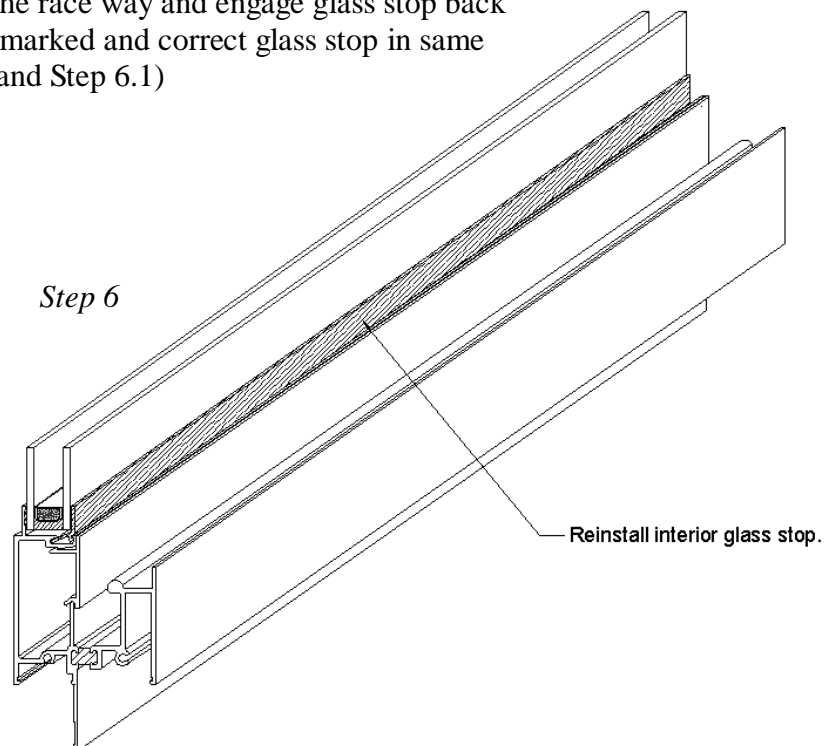
*****Important***** (Note Step 5) Orient glass for Low-e, tints, special coatings and glass make up as the project requires. Boyd will not be responsible for stickers on glass based on correct inside / out orientation. Boyd recommends that proper tools for detection of tints, coating, or laminates be supplied for field glazing and installation.

Step 5

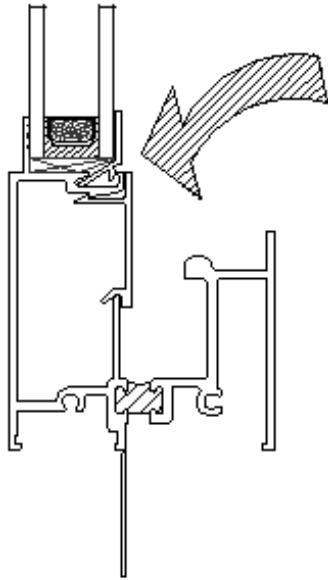


Retrieve the previously supplied glass stops that were taken out and marked from Step 1. Drive front leg into the race way and engage glass stop back in to framing. Remember to reuse marked and correct glass stop in same locations as supplied. (See Step 6 and Step 6.1)

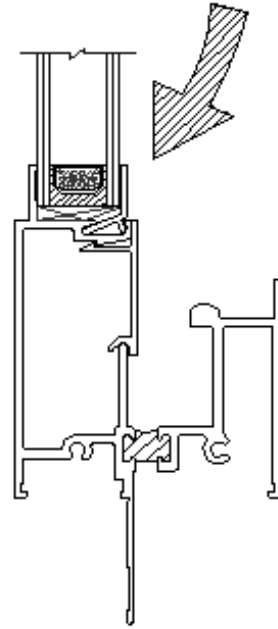
Step 6



Engage front leg of Glass Stop by rolling extrusion as shown in step 6.1. Apply pressure from top to engage back leg of Glass Stop for proper compression.



Step 6.1



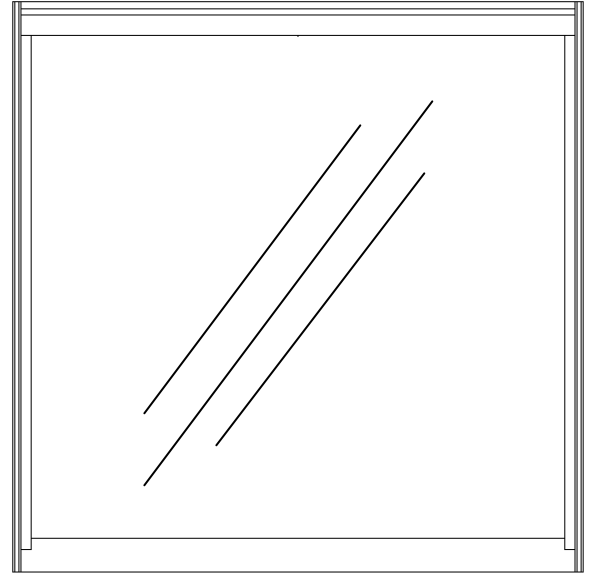
If any questions or items need to be addressed, contact your nearest Boyd Representative prior to proceeding with any glazing applications.

7. Boyd Reglazing Instructions Marine Gasket Glazing

This process is a typical glazing application for Boyd products and should be followed, but final field glazing may differ based on project. Sash glazing is shown, but fixed glazing is similar.

Once the window system has been properly shimmed, anchored, plumbed and sealed, the next step is to prep frame for glazing. As you can see in Figure 1, the first step is to remove the sash from its frame (slider/ single hung / double hung). Place sash panels in a protected area as not to damage material. You will need this material to complete the glazing process.

Figure 1



Take sash panels and remove corner assembly screws from the jambs (Figure 2).

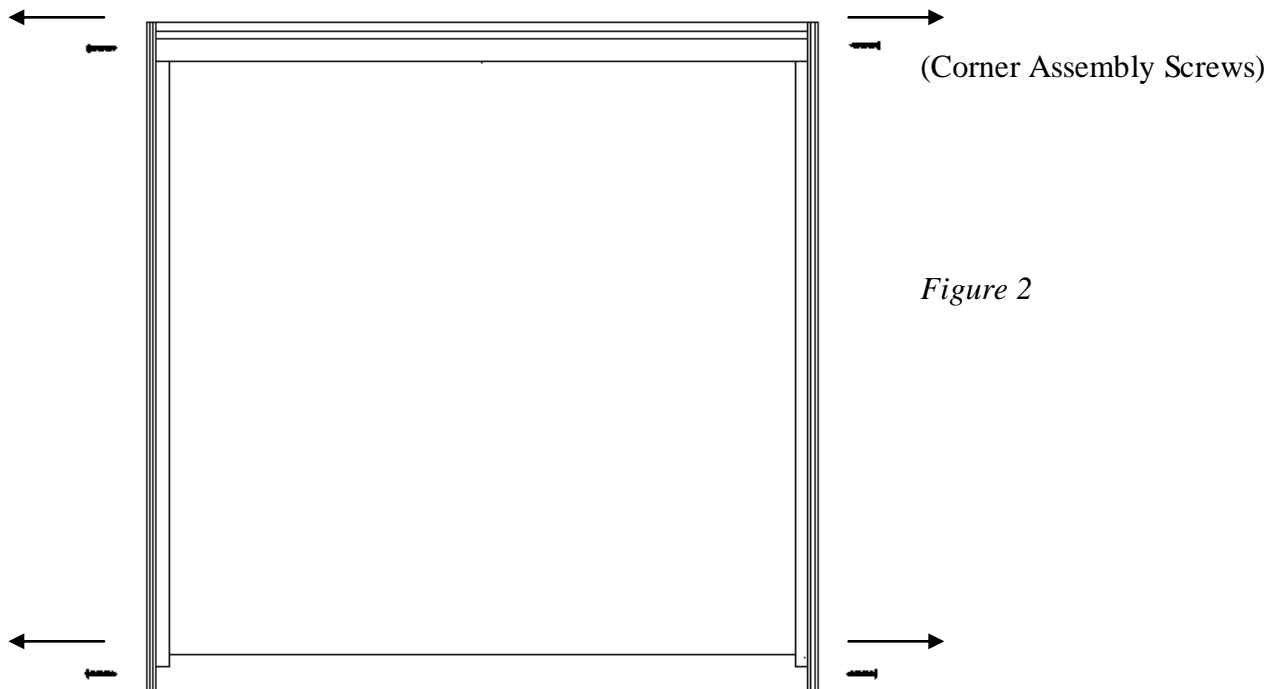


Figure 2

After removing assembly screws, pull sash apart into 4 separate pieces. Do not damage or lose members as you will need them to glaze and reglaze sash (Figure 3).

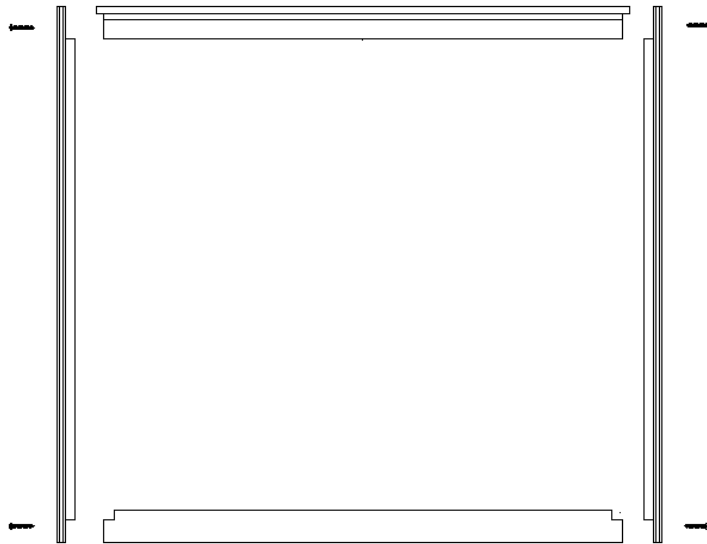


Figure 3

Take correct sized glass for sash panel and start applying correct depth marine gasket. Start at top centerline of glass to apply marine gasket (Figure 4). Make sure that edge is cut straight and clean

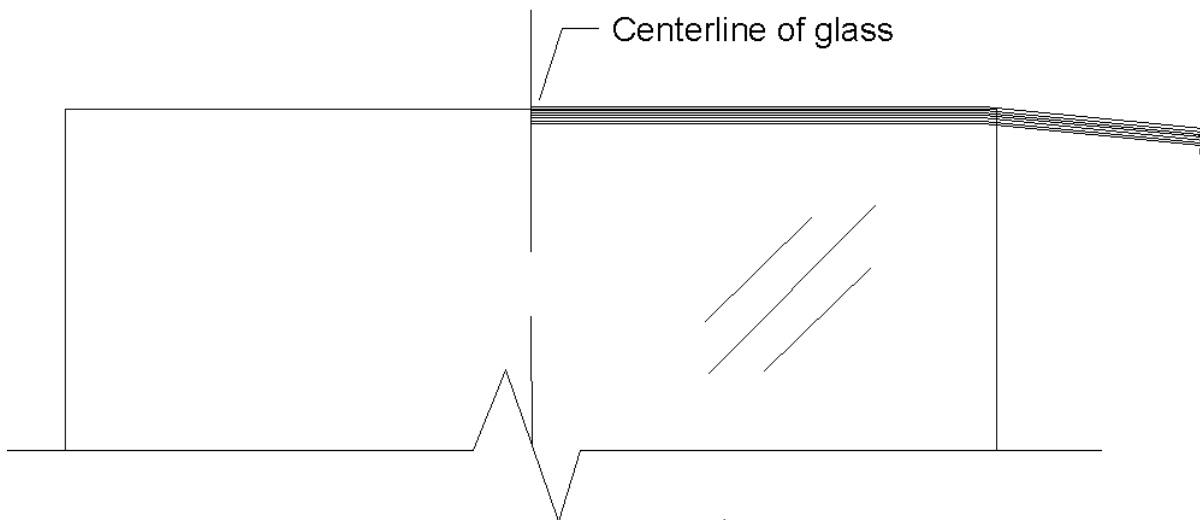
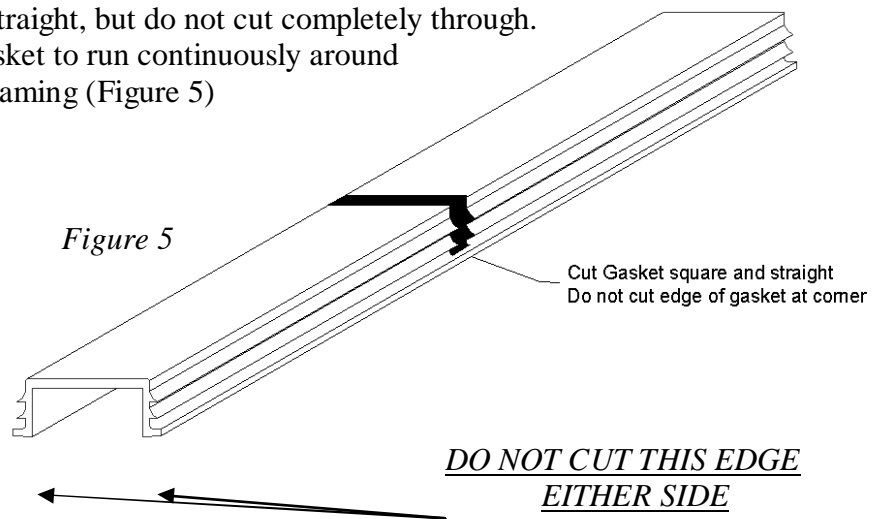


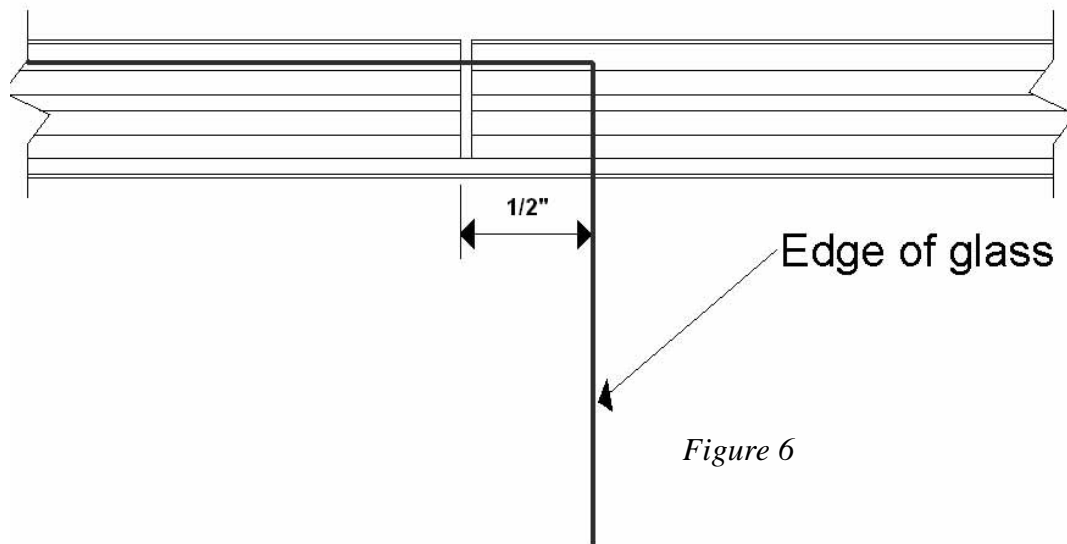
Figure 4

Cut gasket square and straight, but do not cut completely through. Leave lower edge of gasket to run continuously around interior portion of the framing (Figure 5)

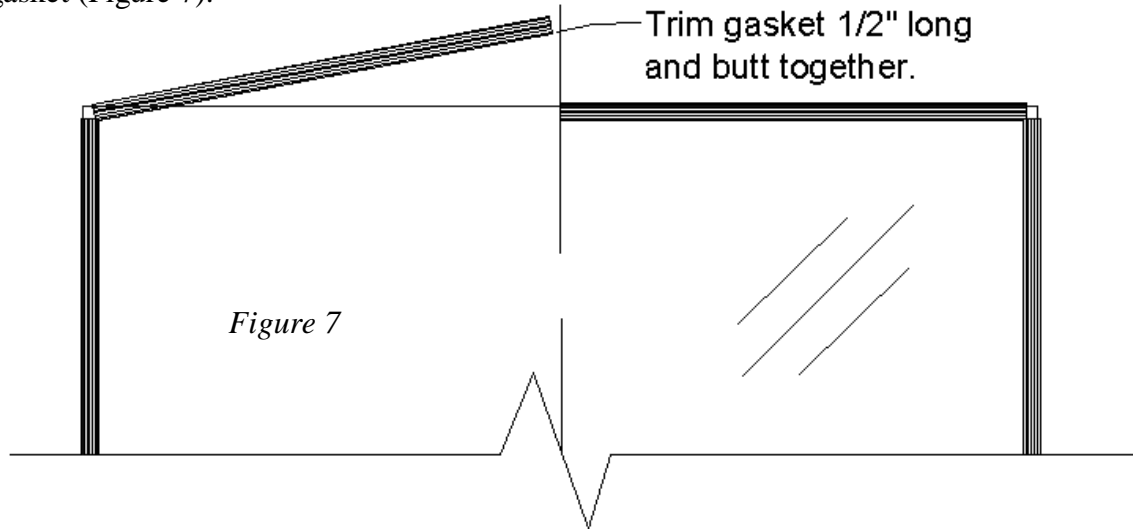


Make sure to cut gasket straight at 1/2" behind the edge of glass. Do not cut edge as it is needed to turn corner of assembly (Figure 6)

**Cut Marine Gasket 1/2"
back from edge of glass**

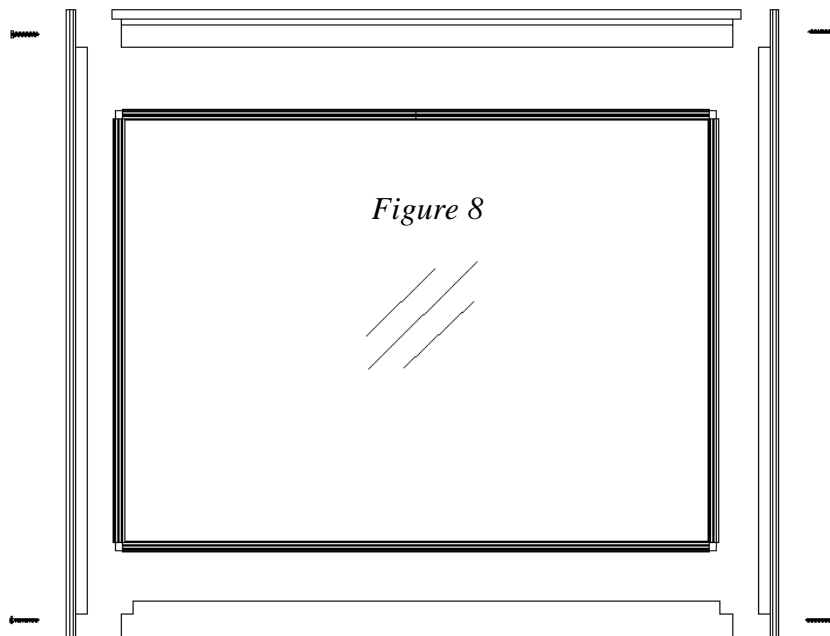


Continue with gasket around all four corners of the glass. Be sure to run gasket continuously, as this is needed for assembly. Trim gasket 1/2" long and pull back to butt up tight against the starting edge of the gasket (Figure 7).



*****Important***** Orient glass for Low-e, tints, special coatings and glass make up as the project requires. Boyd recommends that proper tools for detection of tints, coating, or laminates be used for field glazing and installation.

Attach jamb members on glass and center on glass height. Place head and sill on glass and reattach assemblies with screws (Figure 8). Reinstall sash in correct framing.



If any questions or items need to be addressed, contact your nearest Boyd Representative prior to proceeding with any glazing applications.

Sash Removal and Reinstallation

8. Boyd Side Load Sash Removal and Reinstall

This Process is a typical side load sash removal instructions. Double Hung windows must remove the lower interior sash first and then the upper outer sash. Failure to follow these instructions correctly may lead to injury or damage due to falling sashes. Read completely and follow for proper and correct sash removal and installation.

Once the window system has been properly shimmed, anchored, plumbed and sealed, the next step is to unlock and lift the sash. Lift sash to clear top of interior sill by min of 4" (See Figure 1).

Figure 1



Reach under sash and release balance shoe clip on left and right side.

Figure 2

Balance shoe clip released for hold down (Figure 3).

Figure 3



Push sash down to within 1" of closing completely. This will push sash clips past hold down notches in frame. Lift sash until balance shoe catches in frame notch (Figure 4).



Figure 4



Let sash rest on clipped balances. Use a phillips head screwdriver to unscrew, but do not remove, screw on sash cap / guide (Figure 5).

Figure 5

After disengaging tilt sash screw, slide caps to center of window. This will allow sash to shift to either side for removal.

Lift sash off of balance shoe clips and move to side. Sash can be moved to either side for removal as left side is shown for removal (Figure 6). Rotate sash to inside to clear opposite frame rail for removal.



Figure 6

Remove sash from frame and proceed with proper maintenance, cleaning, or reglazing as needed. Make sure that sash is secured and controlled as dropping sashes may cause damage or injury. Follow these instructions to prevent both from happening. If window unit is a double hung, repeat process for upper sash.



To reinstall sash, repeat process in reverse order. After sash reinstallation, double check to make sure that proper adjustment and spacing in sash caps are done for proper operation of sash.

If you have any questions or items that need to be addressed, contact your nearest Boyd Aluminum Representative prior to proceeding with any applications.

9. Boyd Tilt Window Sash Removal and Reinstall

This process is a typical tilt in sash removal instructions. For Double Hung windows you must remove the lower interior sash first and then the upper outer sash. Failure to follow these instructions correctly may lead to injury or damage due to falling sashes. Read completely and follow for proper and correct sash removal and installation.

Once the window system has been properly shimmed, anchored, plumbed and sealed, the next step is to unlock and lift the sash. Lift sash to clear top of interior sill by minimum of 1" (See Figure 1).

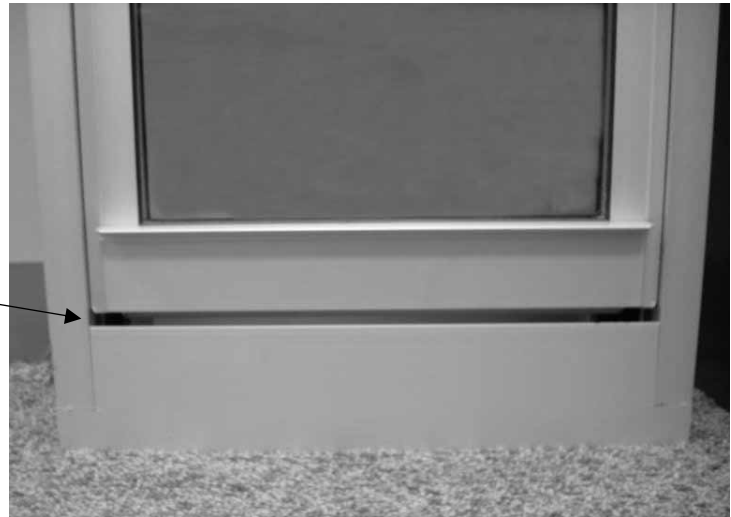


Figure 1



Use a 9/32" Allen wrench (Hex Key) to unscrew, but do not remove, tilt lock screw. (See Figure 2).

Figure 2

*Figure 3*

After disengaging tilt sash screw, move screw towards center of window (Figure 3). This will disengage tilt sash lock from jamb and allow sash to tilt to inside.

Tilt sash to the interior of window to a full horizontal position (Figure 4). Make sure that sash is secured and controlled as dropping sashes may cause damage or injury.

*Figure 4*

*Figure 5*

Remove sash from frame by removing tilt pin from the pivot shoe assembly. Proceed with proper maintenance, cleaning, or reglazing as needed. If window unit is a double hung, application repeat process for upper sash.

To reinstall sash repeat process in reverse order.

If you have any questions or items that need to be addressed, contact your nearest Boyd Aluminum Representative prior to proceeding with any applications.

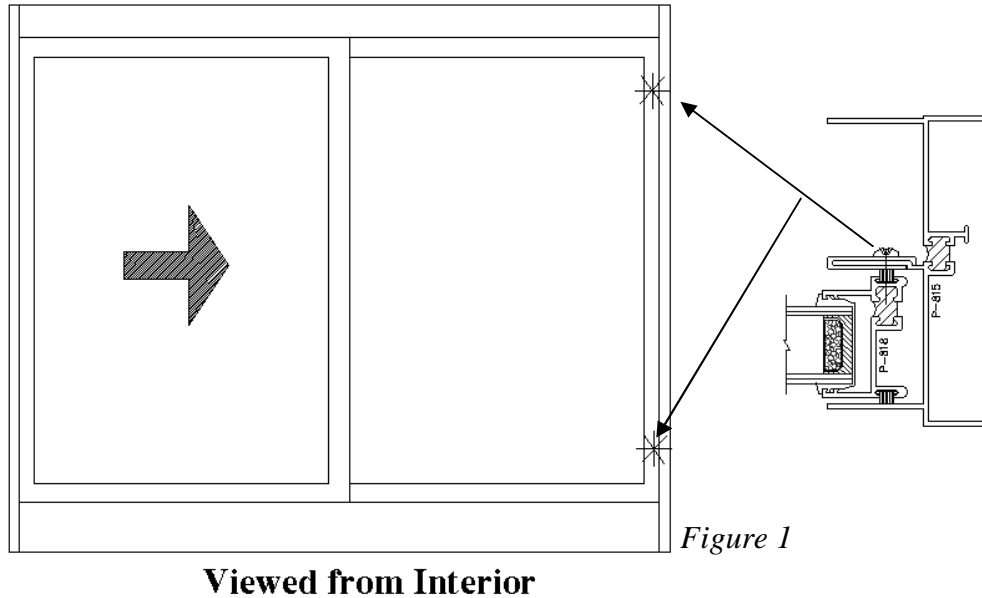
Tilting the sash to horizontal position allows locks on balances shoes to engage. From the horizontal position, (Figure 5) rotate either side up and remove sash from frame.

Figure 6

10. Boyd Slider Sash Removal and Reinstall

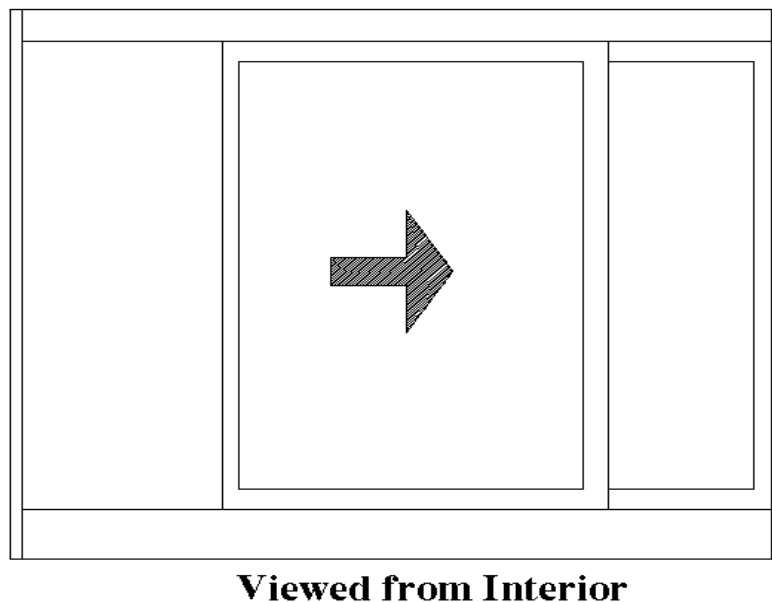
This process is a typical slider sash removal instruction. Failure to follow these instructions correctly may lead to injury or damage due to falling sashes. Read completely and follow for proper and correct sash removal and installation.

Once the window system has been properly shimmed, anchored, plumbed and sealed, the next step is to remove the lock down screws on the fixed panel (Figure 1). These are located on the fixed panels on an OX, XO, OXO at the jamb. These screws are located at the sill on an XOX or XOO configuration.



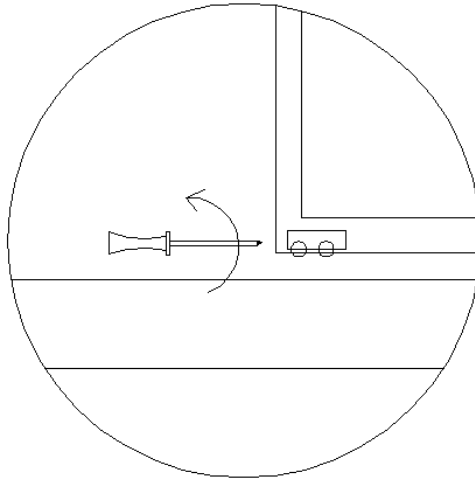
Open sash to middle of frame (See Figure 2).

Figure 2

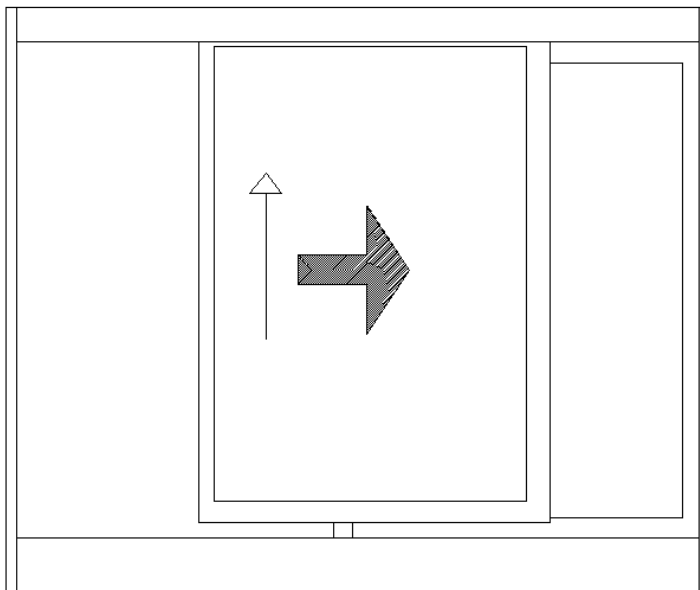


Slide sash to center location of frame. Use a phillips head screwdriver, turn roller adjustment screw counter clockwise to lowest setting point to clear frame (Figure 3).

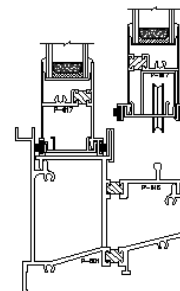
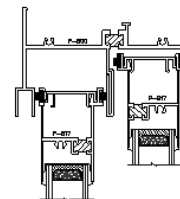
Figure 3



Lift sash up in head as shown in Figure 3.1.

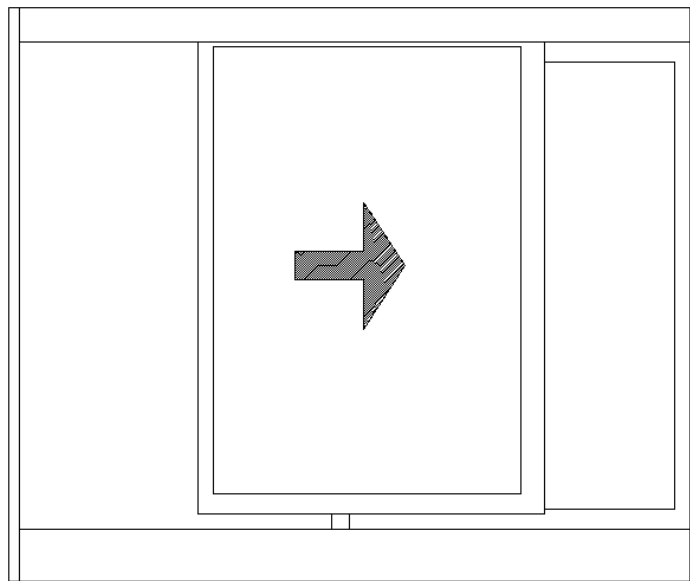


Viewed from Interior

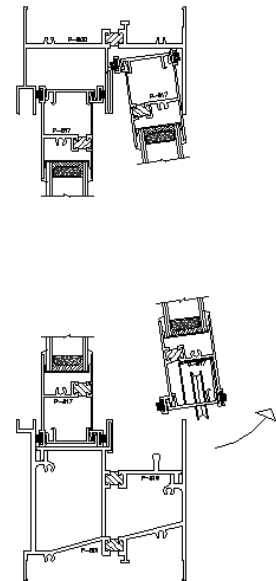


Tilt sash bottom to the interior to a full horizontal position (Figure 4). Make sure that sash is secured and controlled as dropping sashes may cause damage or injury. Follow these instructions to prevent both from happening.

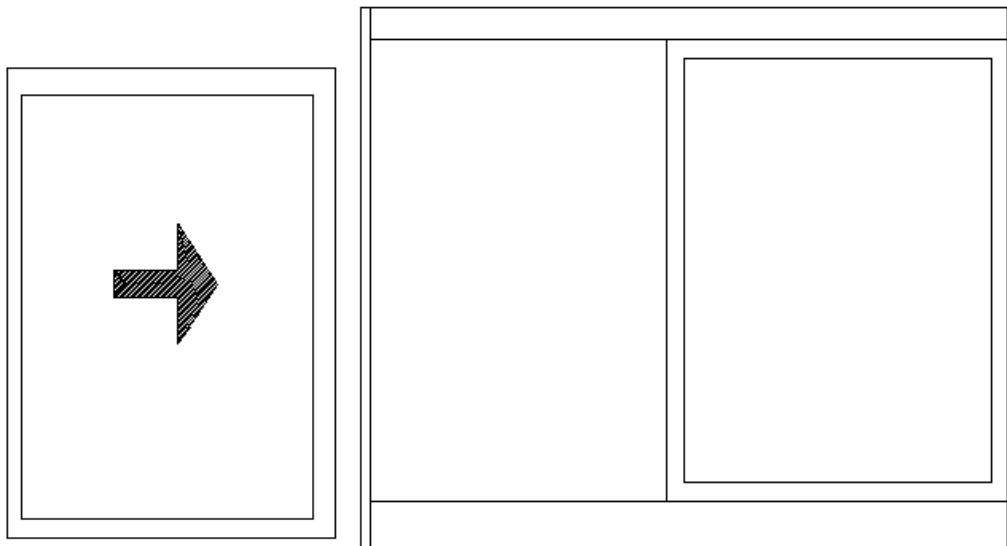
Figure 4



Viewed from Interior

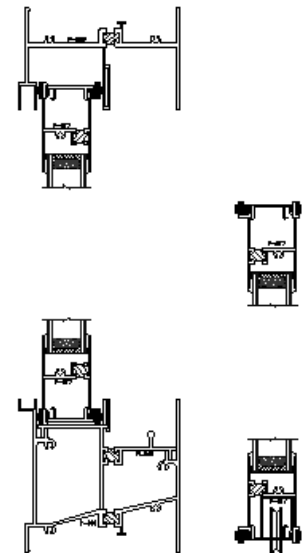


After removing sash repeat these steps for the fixed panel (Figure 5).



Viewed from Interior

Figure 5



To reinstall fixed or sliding sash repeat process in reverse order. If you have any questions or items that need to be addressed, contact your nearest Boyd Aluminum Representative prior to proceeding with any applications.