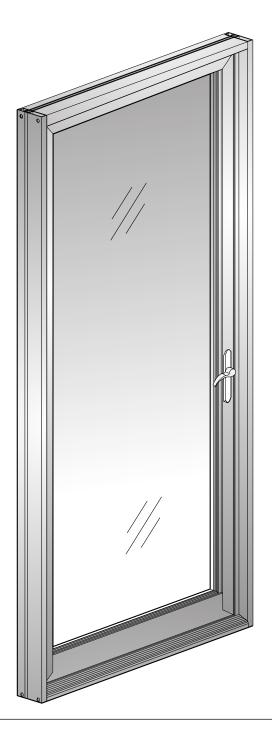
INSTALLATION INSTRUCTIONS

SERIES 900TERRACE DOOR





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HANDLING, STORAGE, AND PROTECTION OF ALUMINUM

The following precautions are recommended to protect the material against damage. Following these precautions will help ensure early acceptance of your products and workmanship.

A. HANDLE CAREFULLY.

All aluminum materials at job site must be stored in a safe place, well removed from possible damage by other trades. Cardboard wrapped or paper interleaved materials must be kept dry.

B. CHECK ARRIVING MATERIALS.

Check for quantity counts and keep records of where various materials are stored. Check for damages during shipping.

C. KEEP MATERIALS AWAY FROM WATER, MUD, AND SPRAY.

Prevent cement plaster or other materials from damaging the finish.

D. PROTECT THE MATERIALS AFTER ERECTION.

Protect erected frame with polyethylene or canvas splatter screen. Cement, plaster, terrazzo, other alkaline solutions, and acid based materials used to clean masonry are harmful to the finish. If any of these materials come in contact with the aluminum, immediately remove with water and mild soap.

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GENERAL INSTALLATION NOTES

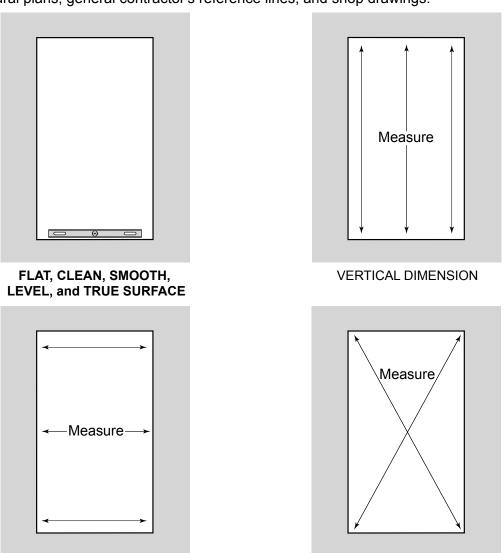
Recommended guidelines for all installations:

- 1. **REVIEW CONTRACT DOCUMENTS.** Check shop drawings, installation instructions, architectural drawings, and shipping lists to become thoroughly familiar with the project. The shop drawings take precedence and include specific details for the project. Note any *field verified* notes on the shop drawings prior to installing. The installation instructions are of a general nature and cover most conditions.
- 2. INSTALLATION. All materials are to be installed plumb, level, and true.
- 3. **BENCH MARKS.** All work should start from bench marks and/or column lines as established by the architectural drawings and the general contractor with guaranteed accuracy. Working from these datum points and lines determine:
 - a) The plane of the wall in reference to offset lines provided on each floor.
 - b) The finish floor lines in reference to bench marks on the outer building columns.
 - c) Mullion spacing from both ends of masonry opening to prevent dimensional build-up of daylight opening.
- **4. SURROUNDING CONDITIONS.** Make certain that construction which will receive your materials is in accordance with the contract documents. If not, notify the general contractor in writing and resolve differences before proceeding with work.
- 5. **ISOLATION OF ALUMINUM.** Aluminum to be placed in direct contact with uncured masonry or incompatible materials should be isolated with a heavy coat of zinc chromate or bituminous paint. (CRL Cat. Nos. BC5GL or BC17A)
- 6. SEALANTS. Sealants must be compatible with all materials with which they have contact, including other sealant surfaces. Consult with sealant manufacturer for recommendations relative to joint size, shelf life, compatibility, cleaning/priming, tooling, adhesion, etc. It is the responsibility of the *Glazing Contractor* to submit a statement from the sealant manufacturer indicating that glass and glazing materials have been tested for compatibility and adhesion with glazing sealants, and interpreting test results relative to material performance, including recommendations for primers and substrate preparation required to obtain adhesion. The chemical compatibility of all glazing materials and framing sealants with each other and with like materials used in glass fabrication must be established. This is required on every project.
- 7. **FASTENING**. Within the body of these instructions "fastening" means any method of securing one part to another or to adjacent materials. Only those fasteners used within the system are specified in these instructions. Due to the varying perimeter conditions and performance requirements, perimeter and anchor fasteners are not specified in these instructions. For perimeter and anchor fasteners refer to the shop drawings or consult the fastener supplier.
- 8. BUILDING CODES. Due to the diversity in state/provincial local, and federal laws and codes that govern the design and application of architectural products, it is the responsibility of the individual architect, owner, and installer to assure that products selected for use on projects comply with all the applicable building codes and laws.

 U.S. Aluminum exercises no control over the use or application of its products, glazing materials, and operating hardware and assumes no responsibility thereof.
- COORDINATION WITH OTHER TRADES. Coordinate with the general contractor any sequence of the installation that
 involves other trades in the project (i.e. framing, fire proofing, back-up walls, partitions, ceilings, mechanical ducts,
 converters, etc.).
- **10. CARE AND MAINTENANCE.** Final cleaning of exposed aluminum surfaces should be done in accordance with AAMA 609.1 for anodized aluminum and 610.1 for painted aluminum.
- 11. WATER HOSE TEST. As soon as a representative amount of the wall has been glazed (500 square feet or 46.5 m²) a water hose test should be conducted in accordance with AAMA 501.2 specifications to check the installation. On all jobs the hose test should be repeated every 500 square feet (46.5 m²) during the glazing operation.

BEFORE INSTALLATION

- 1. The rough opening should be checked for the correct size as determined by tolerances listed in the architectural specifications and the shop drawings. See DETAIL A.
- 2. Verify rough opening size has 1/2" (12.7 mm) clearance in both width and height to the frame. For the Low Profile Door, allow 1/2" (12.7 mm) clearance in the width and 1/4" (6.3 mm) in the height. Verify framing is plumb, straight,
 - and true around rough opening. Measure the opening at each end and at the center, vertically and horizontally. Make corrections to openings as required. Measure opening diagonally to check for square. Chip away concrete high points to create a clean, smooth, and level surface.
- 3. Establish the face of the door line at the head, sill, and jambs. This reference is to be arrived at by using the architectural plans, general contractor's reference lines, and shop drawings.



NOTE: For proper door operation and drainage, it must be installed PLUMB and LEVEL on a CLEAN and SMOOTH SURFACE.

HORIZONTAL DIMENSION

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DETAIL A

SQUARE

GLAZING INSTRUCTIONS

These instructions assume that the installer has adequate trade knowledge in aluminum glazing systems and aluminum entrance installation guidelines and procedures. This includes frame leveling and squaring techniques, surface cleaning for sealant application, and perimeter seal waterproofing. The following instructions give product specific installation information required to ensure proper product performance. In the event of adverse field installation conditions, it is the responsibility of the installer to contact U.S. Aluminum for recommendations and support prior to product installation.

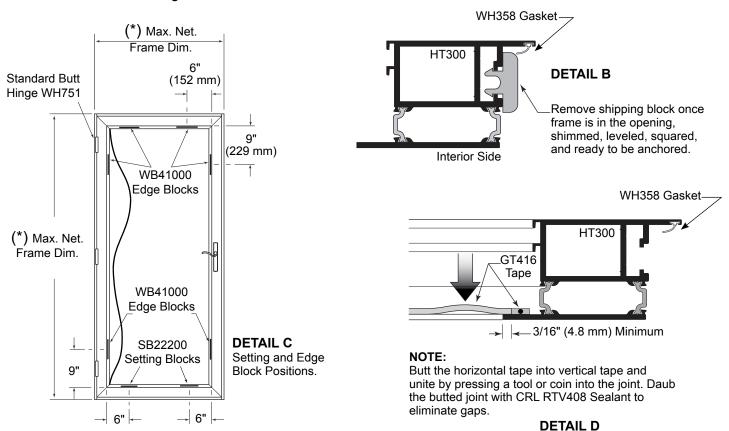
GLAZING THE DOOR

GLASS SIZE = Daylight Opening (D.L.O.) + 1" (25.4 mm)
NOTE: This formula does not take into account glass tolerances.
Consult glass manufacturer before ordering glass.

Inspect all received materials for damages during shipping prior to glazing or installation.

- 1. Remove temporary shipping blocks located at top and bottom rails and hinge and lock stiles. **See DETAIL B.** (12.7 mm)
- 2. Clean glazing fins with IPA Cleaner using the 2 rag method, prior to applying pre-shimmed glazing tape.
- 3. Apply POLYshim II glazing tape, GT416 1/8" X 3/8" (3.2 X 9.5 mm), to stiles. Inset 3/16" (4.8 mm) to allow for cap bead. Apply tape to the top and bottom rails, butting tight to the vertical tape, leaving an extra amount at each end to ensure a tight joint. **See DETAIL D**.
- 4. Place WB41000 Edge Blocks in door as shown in **DETAIL C.**
- Cut wedge gasket to size. Gaskets should be cut 1/8" (3.2 mm) longer per foot of Daylight Opening to allow for shrinkage.
- 6. Place SB22200 Setting Block as shown in **DETAIL C.**

(*) Refer to test report

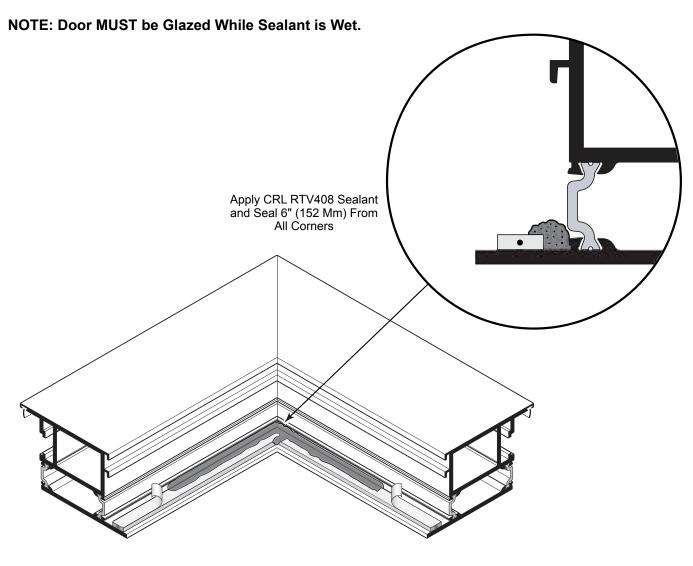


GLAZING THE DOOR (CONTINUED)

- 7. Clean glass edges with IPA Cleaner and wipe clean with the 2 rag method. Avoid touching edges after cleaning.
- 8. Prior to glazing, peel protective paper from the glazing tape. **DO NOT TOUCH** exposed tape surfaces with fingers or any tool.

NOTE: Do not leave glazing tape surface unprotected, remove paper just prior to setting glass.

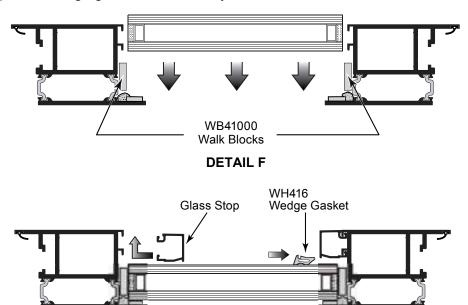
9. Apply a 6" (152 mm) bead of CRL RTV408 Sealant at each corner of glazing tape. Sealant should fill reveal and cover approximately half of inside edge of tape as shown in **DETAIL E**.



DETAIL E

GLAZING THE DOOR (CONTINUED)

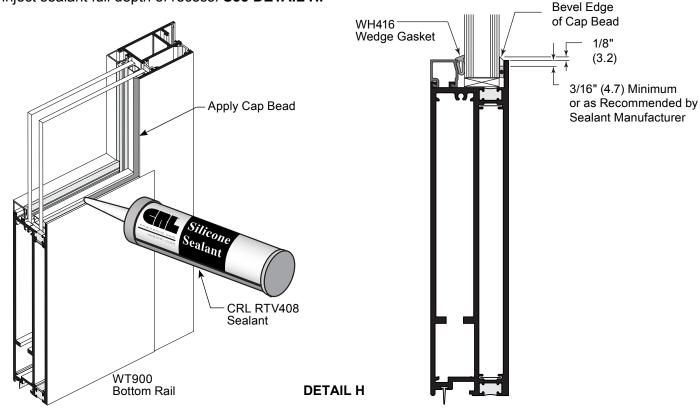
- 10. Place glass square into opening pressing firmly against glazing tape. See DETAIL F.
- 11. Install glass stops and wedge gaskets immediately. See DETAIL G.



NOTE: Glass Stop and Wedge Gasket are Shipped with Door Frame.

DETAIL G

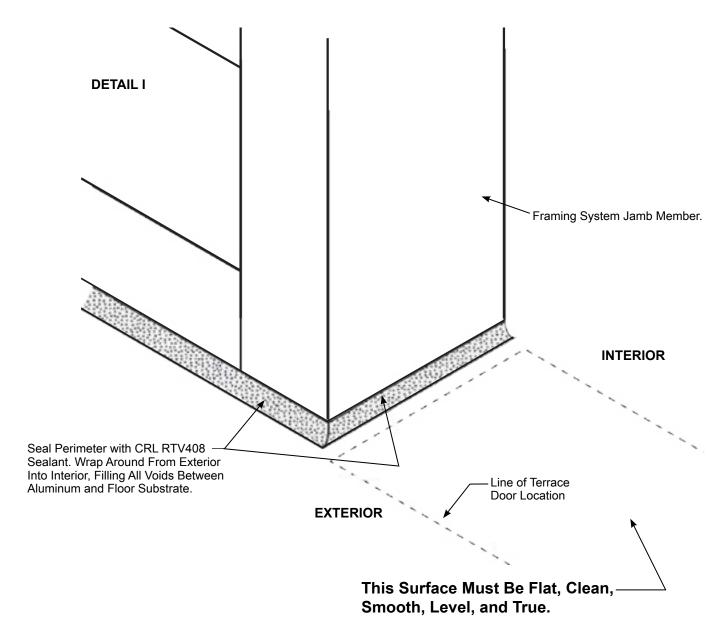
12. Apply cap bead of CRL RTV408 sealant a full perimeter between glazing fin and glass, be sure to inject sealant full depth of recess. **See DETAIL H.**



INSTALLATION PREPARATION

1. If installing within a framing system, installer must make sure the perimeter sealant of the framing system is properly sealed. The perimeter seal must have full coverage from exterior to interior and be compatible with sealant to be used with terrace door installation, **See DETAIL I.**

NOTE: Some conditions may require sill pan flashing within door and sidelite opening. Consult approved shop drawings for any flashing installation requirements.



2. If the aluminum Threshold is to be directly installed on concrete, a Bituminous Coating **Must Be Applied** to the bottom surface of the Threshold to protect it from electrolysis and corrosion. Simply spray on the protective barrier to a clean and dry surface and **allow to dry** before installation. Bituminous products can be ordered from CRL using Cat. No. BC5GL for a 5 gallon bucket or Cat. No. BC17A for an aerosol can.

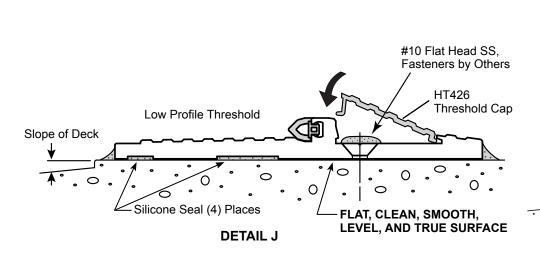
INSTALLATION - TERRACE DOOR WITH LOW PROFILE THRESHOLD

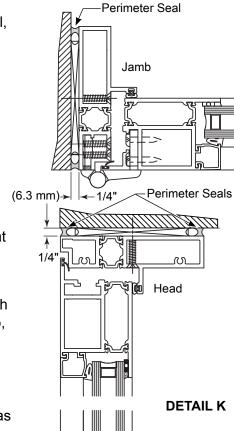
Note:

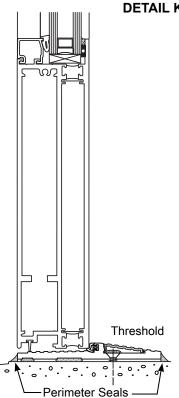
- 1. Stand Door and Frame into the rough opening that is flat, smooth, level, and true.
- 2. Using the mounting holes in the Threshold as a guide, drill 3/16" (4.7 mm) Dia. hole in the concrete.
- 3. Remove the Door and Frame.
- 4. Using the 3/16" (4.7 mm) Dia. holes as a guide, drill and install #10 Anchors

(Supplied by others). Remove all debris from the Sill area for a proper sealing surface. Surface must be clean.

- 5. Set the Frame and Door in a bed of Silicone, see **DETAIL J.**
- 6. Mount the plumb, level, and true Threshold to the Anchors with #10 Flat Head, Stainless Steel screws, (Supplied by others).
- 7. Open and support the Door.
- 8. Using the pre-drilled mounting holes as a guide, shim Jambs and attach with #10 Stainless Steel fasteners, checking that the Door is still plumb, level, and true.
- 9. Repeat the above method for the Head.
- 10. Close Door and check the locking process.
- 11. Add required perimeter seals to the Interior and Exterior of the Frame as shown in **DETAIL K**.
- 12. Seal over all screw heads. Snap in Threshold Cap.





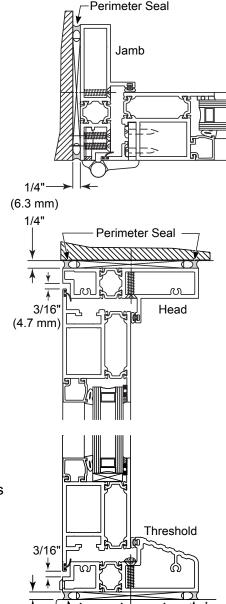


E ALUMINUM

INSTALLATION - STANDARD OUT-SWING THRESHOLD

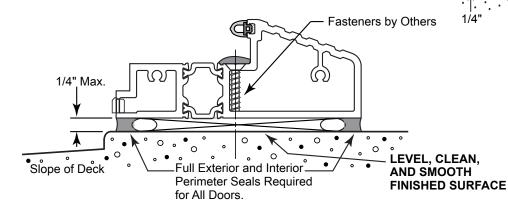
Note:

- 1. Stand Door and Frame into the rough opening that is flat, smooth, level, and true.
- 2. Shim Door Frame to be **Plum**, **Level**, **and True**. The gap between the Frame and Door should be 3/16" (4.7 mm) on all sides.
- 3. Open and support Door to allow the installation of Anchors.
- 4. Using the pre-drilled holes in the Threshold as a guide, drill 3/16" (4.7 mm) Dia. holes into the concrete below.
- 5. Using the pre-drilled holes in the Jamb and Head as a guide, drill Pilot holes for #10 Flat Head, Stainless Steel screws.
- 6. Close and lock the Door.
- 7. Remove the Frame and Door.
- Remove all debris and clean the Sill area surface for Silicone.
- 9. Set the Frame and Door in a bed of Silicone.
- 10. Mount the plumb, level, and true Threshold to the Anchors with #10 Flat Head, Stainless Steel screws, (Supplied by others).
- 11. Open and support the Door.
- 12. Using the pre-drilled mounting holes as a guide, shim Jambs and attach with #10 Stainless Steel fasteners, checking that the Door is still plumb, level, and true.
- 13. Repeat the above method for the Head.
- 14. Close Door and check the locking mechanism.
- 15. Add required perimeter seals to the Interior and Exterior of the Frame as shown in **DETAIL L**.



DETAIL L

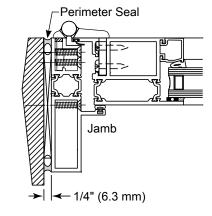
Perimeter Seal

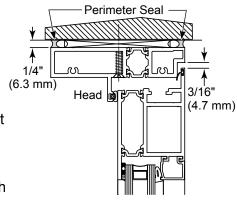


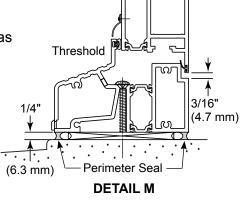
INSTALLATION - IN-SWING THRESHOLD

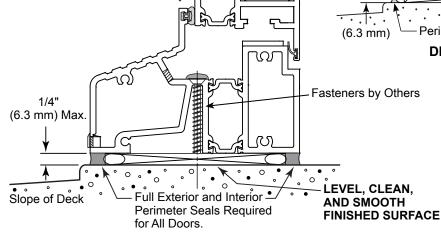
Note:

- 1. Stand Door and Frame into the rough opening that is flat, smooth, level, and true.
- 2. Shim Door Frame to be **Plum**, **Level**, **and True**. The gap between the Frame and Door should be 3/16" (4.7 mm) on all sides.
- 3. Open and support Door to allow the installation of Anchors.
- 4. Using the pre-drilled holes in the Threshold as a guide, drill 3/16" (4.7 mm) Dia. holes into the concrete below.
- 5. Using the pre-drilled holes in the Jamb and Head as a guide, drill Pilot holes for #10 Flat Head, Stainless Steel screws.
- 6. Close and lock the Door.
- 7. Remove the Frame and Door.
- 8. Remove all debris and clean the Sill area surface for Silicone.
- 9. Set the Frame and Door in a bed of Silicone.
- 10. Mount the plumb, level, and true Threshold to the Anchors with #10 Flat Head, Stainless Steel screws, (Supplied by others).
- 11. Open and support the Door.
- 12. Using the pre-drilled mounting holes as a guide, shim Jambs and attach with #10 Stainless Steel fasteners, checking that the Door is still plumb, level, and true.
- 13. Repeat the above method for the Head.
- 14. Close Door and check the locking mechanism.
- 15. Add required perimeter seals to the Interior and Exterior of the Frame as shown in **DETAIL M**.



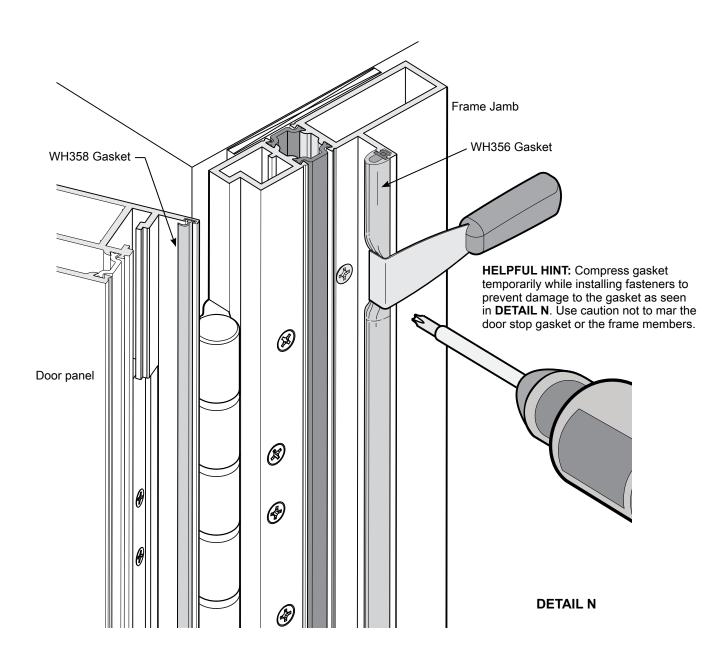






INSTALLATION (continued)

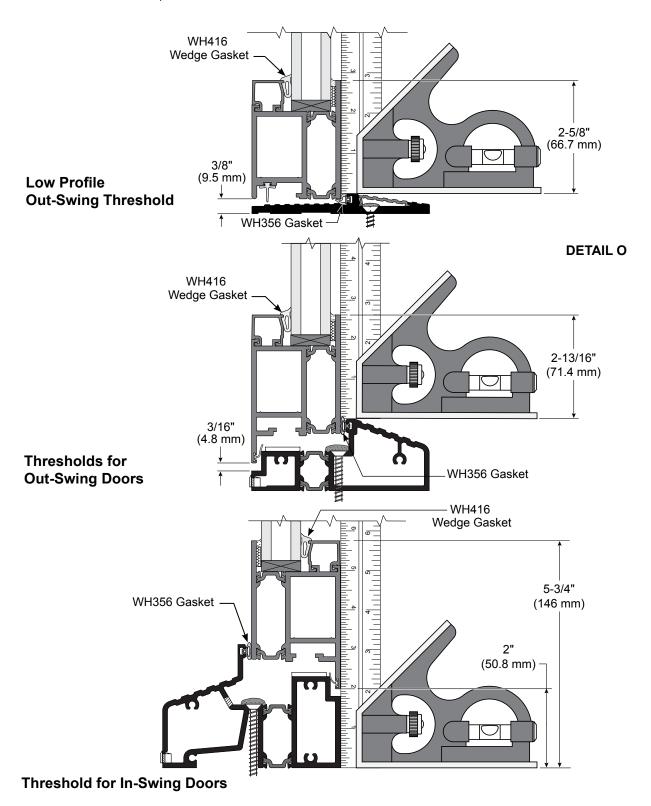
1. Install frame plumb and square. Shim frame as required. Shims are to be positioned at each fastener and hinge location.



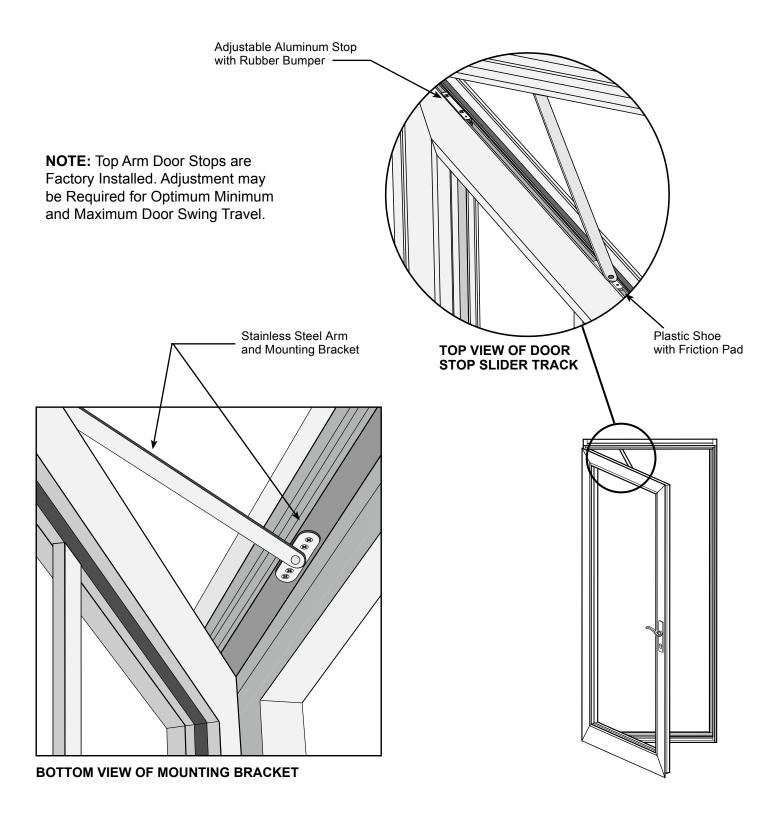
- 2. Seal over heads of each anchor screw and tool sealant smooth.
- 3. Apply perimeter sealant continuously to the full perimeter of interior and exterior of door frame. Sealant must be compatible with perimeter sealant of any adjacent framing system. Refer to approved shop drawing for any job specific sealant requirements. Follow sealant manufacturer's guidelines for cleaning, surface preparation, and application.

INSTALLATION (continued) - FRAME ALIGNMENT

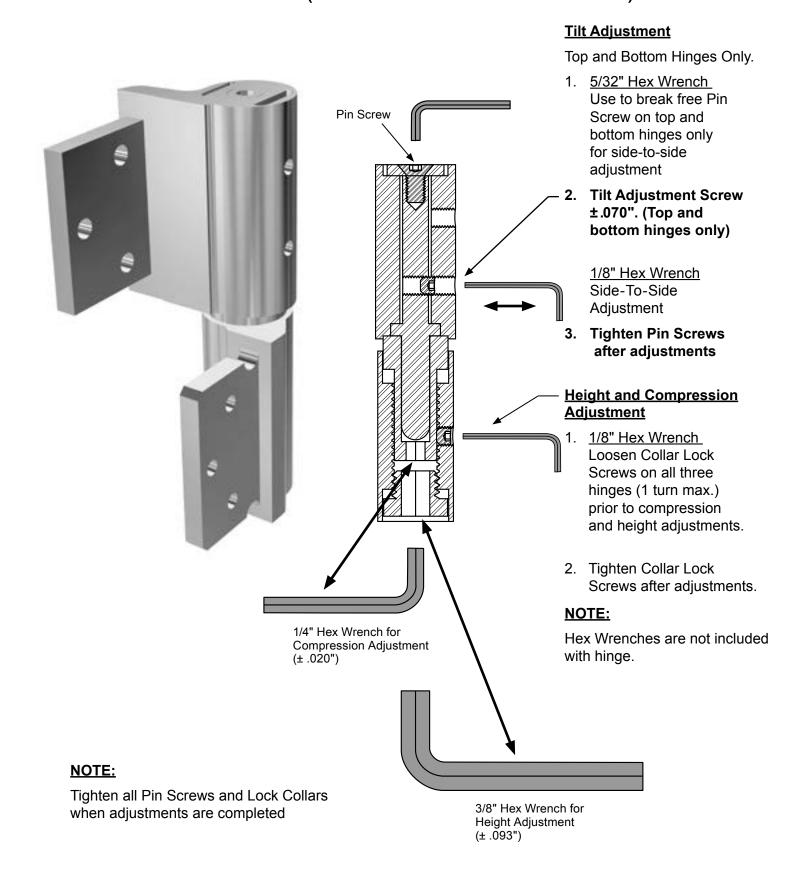
Proper compression on the surrounding bulb gasket is crucial in keeping water out. There should be an 3/16" (4.8 mm) gap between the door leaf and the frame opening on all four sides. Check the height of the bottom rail with the threshold, See DETAIL O.



DOOR STOP ADJUSTMENT

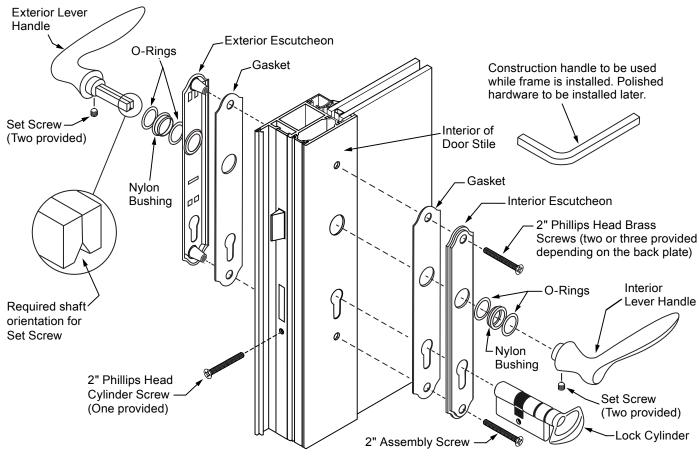


HINGE ADJUSTMENT (OPTIONAL COMPONENT)



DOOR HANDLE INSTALLATION

Install lever handle and cover plates as directed per hardware manufacturer's Service Installation Booklet included within hardware package. **DETAIL P** shows exploded view.



DETAIL P

MAINTENANCE OF HOPPE HARDWARE

GENERAL CARE AND MAINTENANCE

Regular care and maintenance are required to extend the life and functionality of any product. Here are some guidelines to help things run smoothly with your door hardware.

Maintain proper adjustments to hinges, locks, strikes, rollers, cams, and other moving components to ensure full operation of door and hardware. Note and repair any structural problem that may cause warping or sagging of the frame, resulting in the misalignment of door and hardware. Remove debris and clean areas where normal door operation occurs. Inspect areas around the threshold, strike openings, grooves, and moving parts.

Where keyed lock cylinders are used, apply dry graphite to the keyway at least once a year. Graphite available at most hardware stores and locksmiths.

DO NOT paint or apply wood stain, dry wall compound, silicone or putty over door hardware. Building materials may seep into or become lodged in the hardware. Cover or mask hardware during remodeling projects.

DOOR HANDLE INSTALLATION (CONTINUED)

MAINTENANCE OF HOPPE HARDWARE (continued)

HARDWARE FINISHES

Regular care can enhance the longevity and surface appearance of the finishes used on the handle hardware. Surface staining can still occur as a result of regular use and accelerated under harsh environmental conditions.

STAINLESS STEEL

The popularity of stainless steel has made this finish highly sought after by architects. Stainless steel is rust-resistant due to the alloy components of chrome and nickel. Regular washing with warm, clean water and a mild detergent followed by a clean water rinse can help reduce the appearance of surface stains. If stains do occur, use only a stainless steel cleaner and follow the manufacturer's instructions. DO NOT USE brass cleaners, household cleansers, abrasive cleansers, or steel wool on any of the hardware surfaces.

When hardware corrosion is problem, applying a protective product like Boeshield T-9 may be required. First clean hardware as described above and carefully apply Boeshield T-9 to the metal surfaces only. Keep the Boeshield T-9 product away from wood or other oil absorbing surfaces to prevent any staining. Wipe off any excess product.

BRASS

Hoppe brass handles are forged from solid brass for strength and durability. Each brass handle has a blemish-free surface protected with a clear lacquer to reduce scratching and to provide a lasting beauty with minimal care. To clean brass, only use water and a soft cloth. DO NOT use brass cleaners as it will remove the protective coating.

DARK BRONZE METALLIC (F82)

The desirable matte appearance of this finish complements any door design, but this finish tends to hold dust particles and finger prints more readily than a polished surface. Surface spots and stains should be cleaned immediately with water and a soft cloth. For white calcified deposits, use a solution of one part vinegar and one part water to clean. DO NOT allow vinegar solution to come in contact with other surfaces. Rinse with water after cleaning and apply a protective coating of Boeshield T-9 or equivalent.

OIL RUBBED BRASS AND OIL RUBBED BRONZE

Hardware with finishes of oil rubbed brass and oil rubbed bronze (ORB) are designed to change in color and appearance over time. These finishes should only be cleaned if necessary by rinsing with water. Repeated cleaning and rubbing with a cloth may change the initial appearance.

ALUMINUM

Hoppe aluminum handles are made of high quality, rust resistant alloys with an anodized finish to protect against corrosion and light scratches. No special care is needed for aluminum, just water and a soft cloth for some light cleaning.

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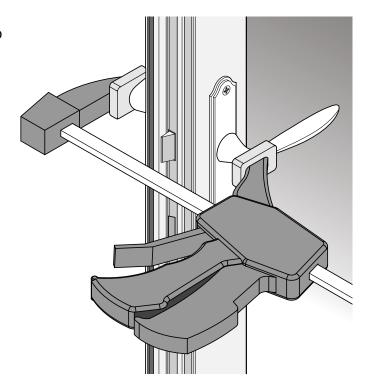
DOOR HANDLE INSTALLATION (CONTINUED)

RESOLVING WATER INFILTRATION AT THE THUMB-TURN AND HANDLE:

- 1. Apply a small amount of silicone sealant to the inside surface of the exterior Escutcheon Plate Gasket.
- 2. Apply a small amount of silicone grease or petroleum jelly to the O-Rings.
- 3. Apply silicone grease or petroleum jelly around the Thumb-turn Shaft entrance into the Interior Escutcheon.
- 4. If an Exterior Key Cylinder is present, apply silicone grease or petroleum jelly into the Key Hole.

NOTE: Lever Handle O-Rings must be properly installed and compressed in order to provide adequate sealing against water intrusion.

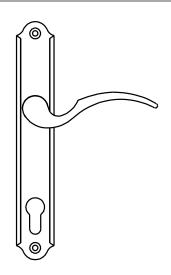
Suggestion: Use a 512QC Quick-Grip Bar Clamp over the handles to compress the assembly while tightening the handle set screws. This will ensure that the O-Ring Seals are properly seated during the handle installation. **See DETAIL Q**



DETAIL Q

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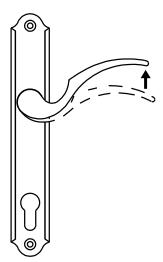
SWING DOOR HANDLE OPERATION



TO LOCK AN AUTOMATIC SYSTEM

Make sure that the door is fully shut and latched. Multi-points will engage automatically when the auto-release pin hits the strike plate mounted on the jamb.

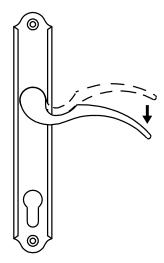
Use a key or the thumb-turn to engage the dead-bolt after the multi-points are engaged.



TO LOCK A MANUAL SYSTEM

After the door is fully closed and latched, lift the handle to engage the multi-points before engaging the dead-bolt.

Use a key or the thumb-turn to engage the dead-bolt after the multi-points are engaged.



TO OPEN BOTH SYSTEMS

Disengage the dead-bolt with a key or the thumb-turn, push the handle down until multi-points are retracted, and then open door.

Handles and back plates vary in style.

Click here to watch Video

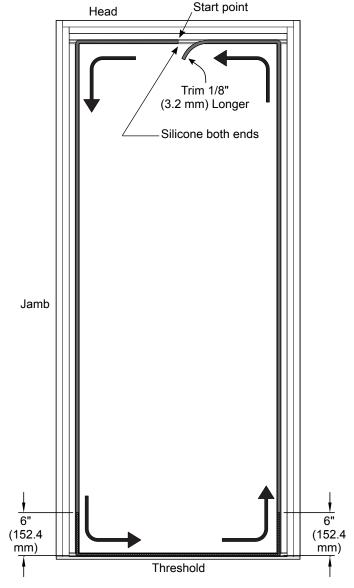
NOTE: Activation of the multi-point hardware will remain the same regardless of handle style.



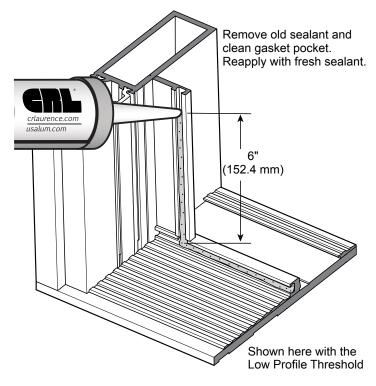
REPLACING THE WH356 INTERIOR GASKET



- 1. Remove existing gasket.
- 2. Remove old sealant and clean corner.



DETAIL S



 Run a continuous bead of silicone in the threshold's gasket pocket the length of the threshold and 6" (152.4 mm) up each jamb from the corners.

DETAIL R

(DETAIL R)

4. Insert the replacement WH356 gasket into the frame Head gasket pocket. Start in the middle of the Head and run a CONTINUOUS length of gasket, (Do Not Cut Gasket), around each corner, ending up back at the center of the Head leaving an 1/8" (3.2 mm). Apply silicone to the ends of the gasket and join together, see **DETAIL S.**

PARTS LIST

