

## Door Manual

# CRL Panic Handle PA100Z Series For All Glass Door

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#### **IMPORTANT: PLEASE READ BEFORE INSTALLING THE HANDLE**

The following instructions will reduce your chances of experiencing problems during installation, and ensure smooth, trouble-free operation of the handle.

## DOOR FABRICATION (Panic Handle Installation)

### Introduction

Congratulations on your selection of the CRL Panic Handle System. The CRL system is designed to allow maximum view and a contemporary look to your all glass doors. The CRL system is UL listed and includes a "Dogging" feature which allows the owner to defeat the locking action during business hours.

By following the instructions in this manual, we believe you will experience a trouble free installation of the system.

Should you have any question about this system or any other CRL products, please contact us at (800) 421-6144 or visit our website at [crlaurence.com](http://crlaurence.com).

### Parts List

Parts you will be handling during the Handle Removal from the packaging and during the Handle Installation to the door:

- ✓ Flat Head Socket Screw
- ✓ Actuator Post With Cylinder Operating Pin and Handle Return Pin With Spring
- ✓ Nylon Bushing for Triple Holes
- ✓ Cylinder Housing or Retainer Plate When No Cylinder is Used
- ✓ Adapter Block With Installation Screw
- ✓ Threaded Pin
- ✓ Exterior Handle Retainer with Rubber Bushing
- ✓ Cap and Rubber Bushing

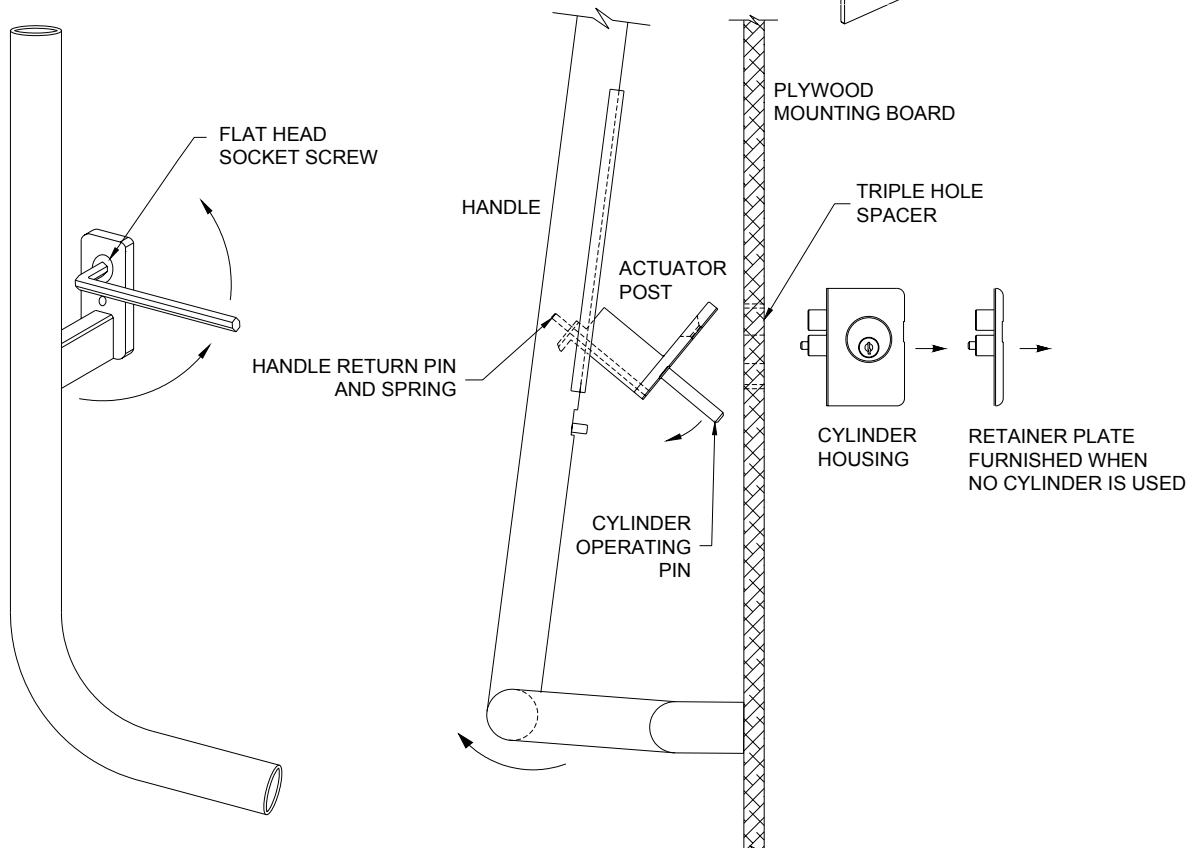
### Tools and Supplies needed:

- 1 set - CRL supplied Allen wrenches
- 1 set - CRL supplied Nylon Bushings (see Nylon Bushing Selection)
- 1 ea - 10" Non-Marring Channel Lock Pliers (optional)
- 1 ea - CRL Spanner Wrench (MPHSW)
- 1 ea - CRL supplied Thread Locker
- 1 ea - Rubber strip, i.e. 1/8" thick rubber setting block

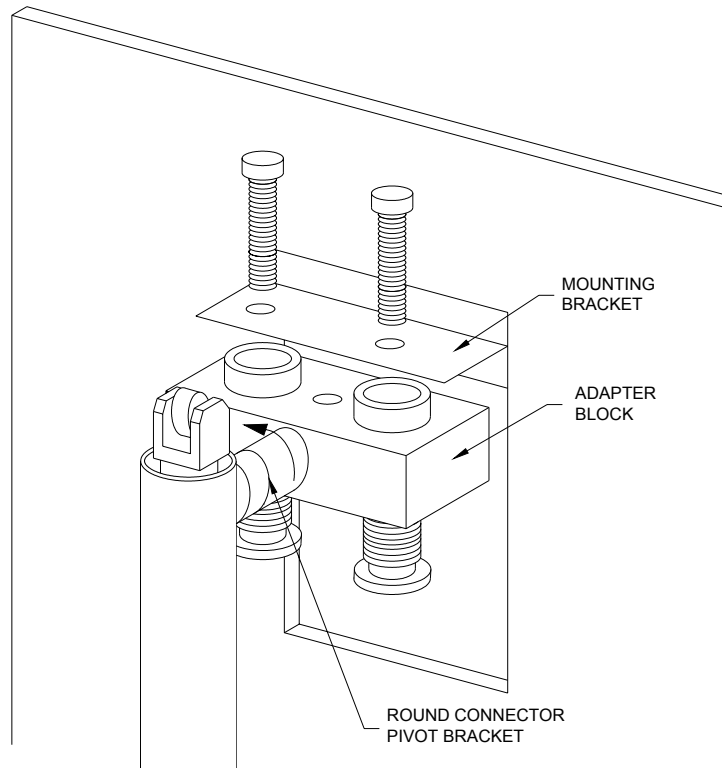
## Removal from Packaging

The Handle comes mounted on the Mounting Board inside the wooden crate. To remove the handle from the board, please follow steps 1 through 4. →

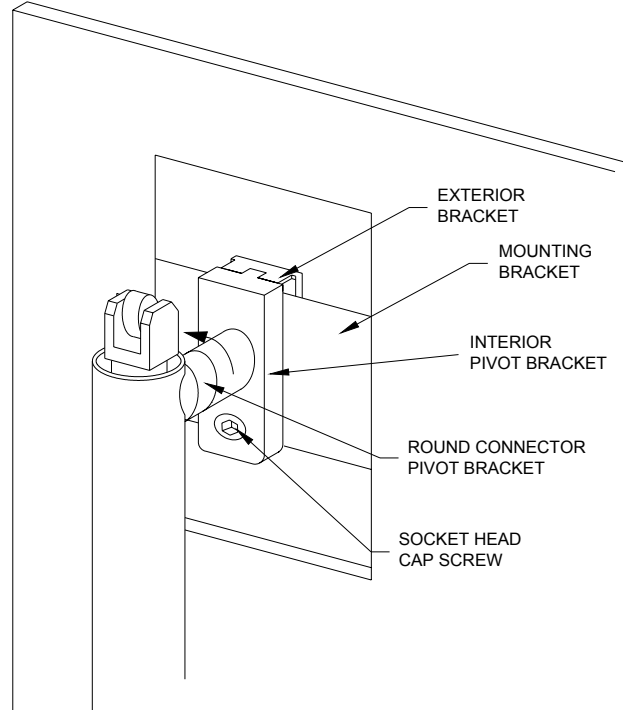
1. To remove the Actuator Post: Unscrew flat head socket screw with Allen wrench, being careful that the keyed actuator device or exterior retainer plate does not fall from the backside of the plywood mounting board. Now lift the handle away from plywood to gain access to the actuator post tilt the actuator post toward the horizontal handle section, then remove. Be careful not to lose the cylinder-operating pin, handle return plunger and spring, or the triple hole bushing. ↓



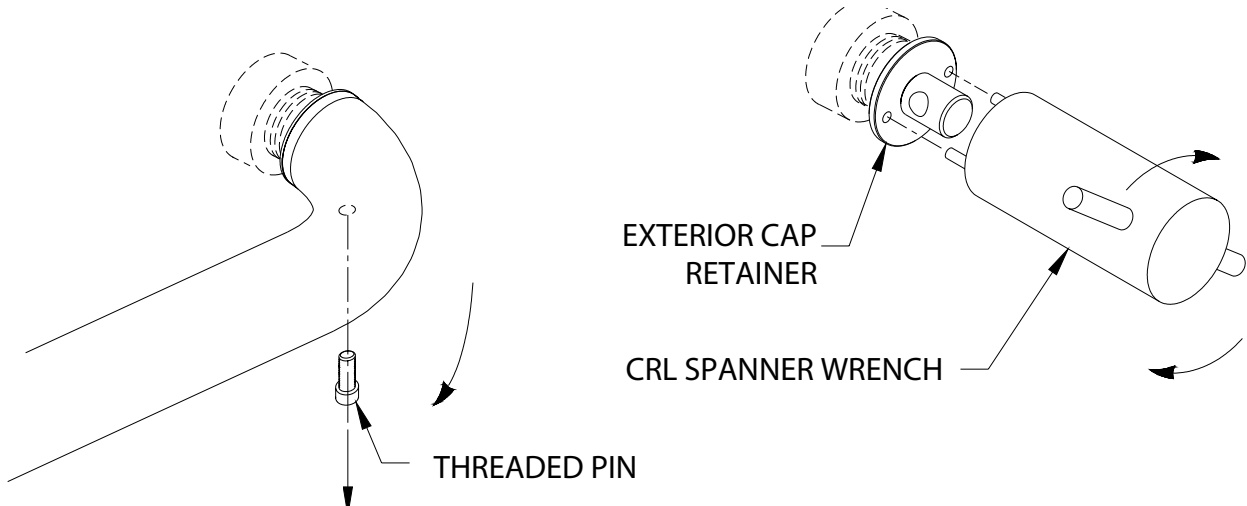
2. FOR RAIL MOUNT HANDLE. Rotate round connector pivot fitting counter clockwise and remove from Adapter Block. Note: Use pliers and rubber strip (to protect finish) for removal of round connector. →



- 2.A. FOR GLASS MOUNT HANDLE. Remove Socket Head Cap Screw from Interior Pivot Bracket and Exterior Bracket. Be careful not to lose Gaskets located between Interior and Exterior Brackets. →



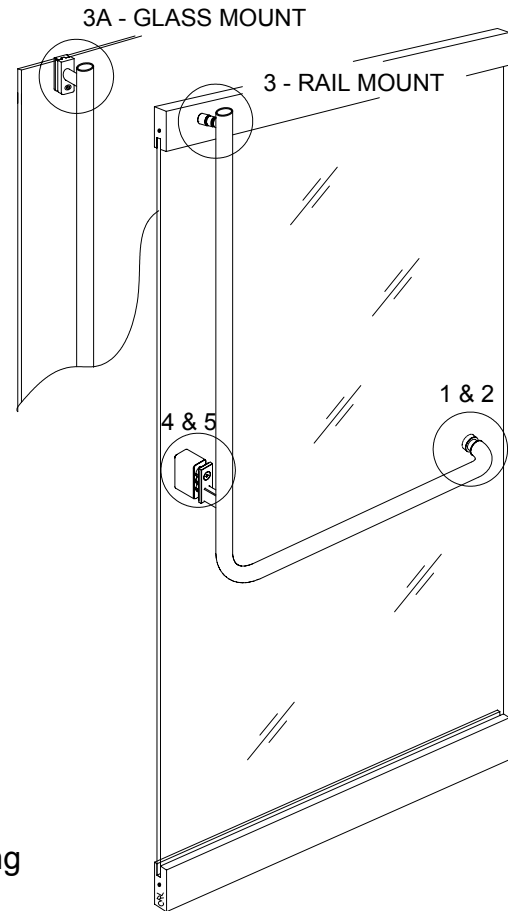
2. Remove threaded pin from bottom of horizontal handle and pull horizontal handle away from plywood. Use the **CRL Spanner Wrench** (part number MPHSW) to remove exterior cap retainer and rubber bushing. ➤



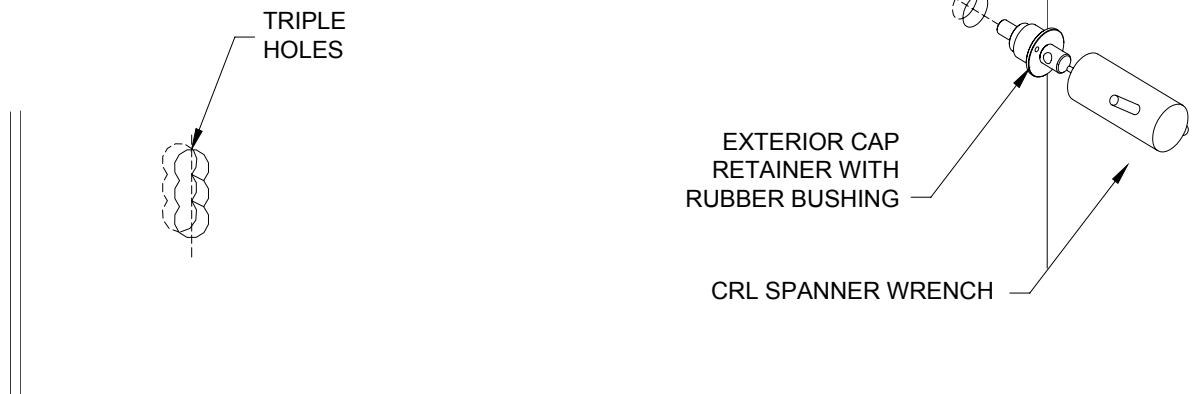
Apply **THREADLOCKER** to all fasteners used to mount handle on doors.

**Installation of Handle to Door:**

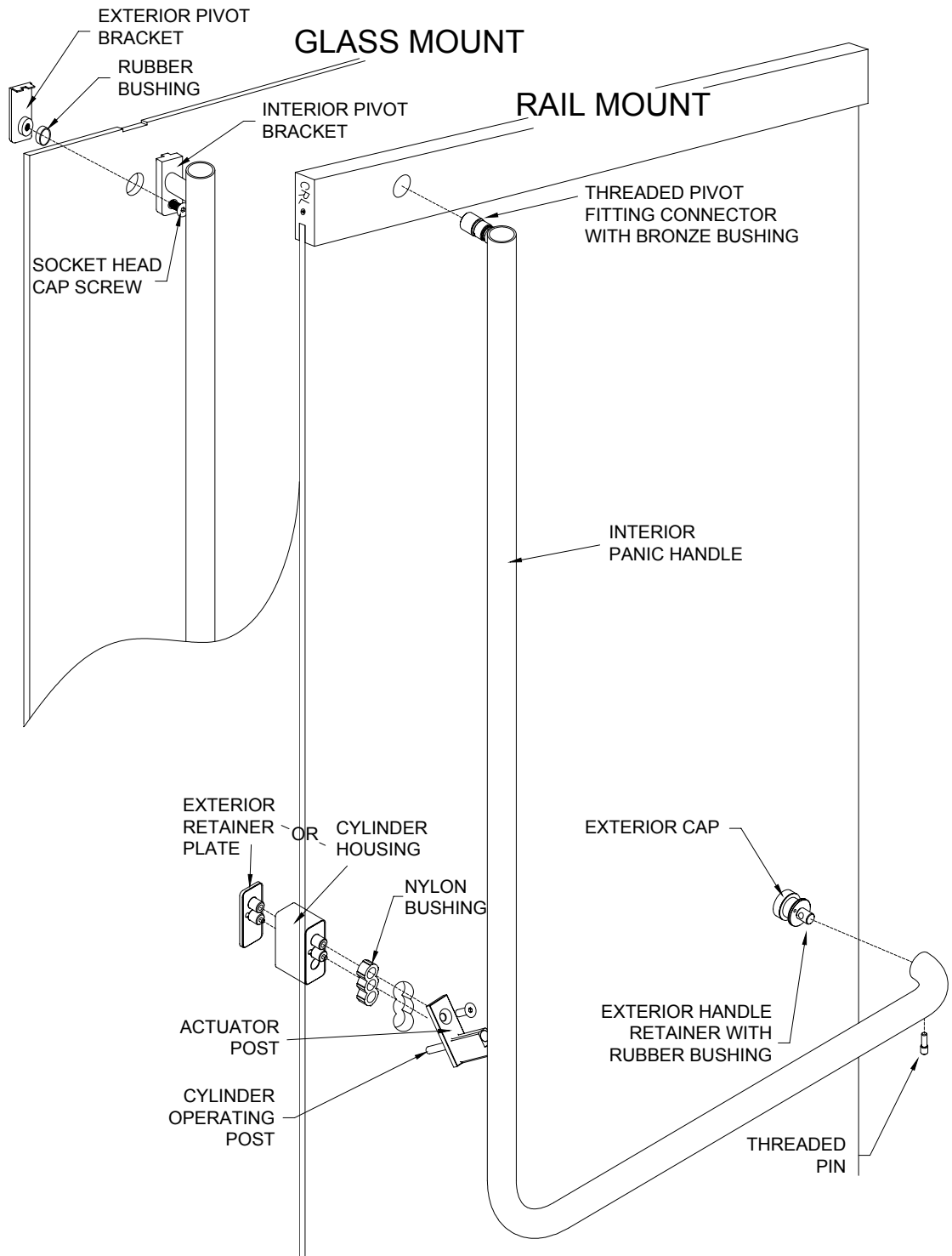
- Lay glass flat with the exterior side facing down on a pair of saw horses.
- Attach Door Rails (if applicable) positioning the mounting hole in the rail at the inside fedge of door. CRL Door Rail System Installation instructions attached.



1. Push exterior cap retainer with rubber bushing through glass hole from interior side, into exterior cap, and tighten with CRL spanner wrench. Cap may be tightened with pliers and rubber strip. ↓



- Place interior panic handle over pivoting end of exterior cap retainer, first rotating the pivoting projection so that the cross hole is aligned to the hole in the horizontal bar. Insert threaded pin and tighten with Allen wrench.

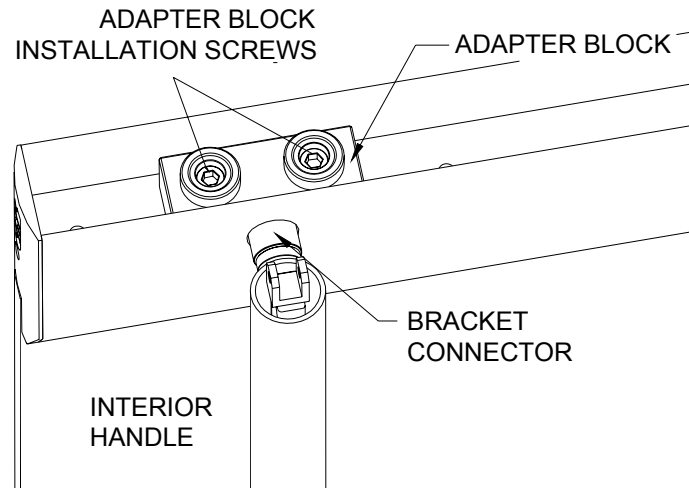


3. **RAIL MOUNT HANDLE:** Tighten the threaded pivot bracket connector to the adapter block at the top of the door.

Adapter block is mounted inside the top rail with two bolts using predrilled holes.

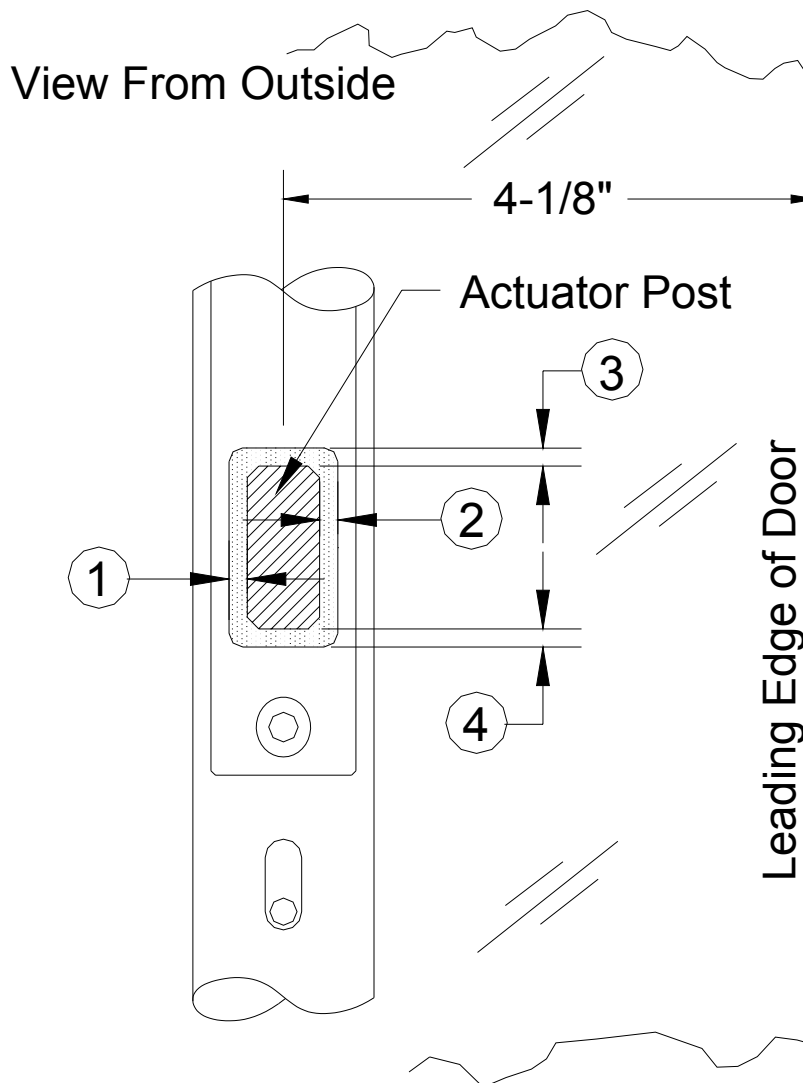
Position/height of this block is adjustable for best alignment with the "bracket connector" hole on the rail.

If experiencing difficulties aligning top pivot bracket connector with the hole on the rail, please refer to the CRL Door Rails installation instructions for possible adjustments of the top rail.



- 3.A. **GLASS MOUNT HANDLE.** Insert rubber bushing into glass hole at top of glass door. Place exterior pivot bracket against exterior side into notched portion of glass. Align interior handle with exterior pivot bracket and tighten low head cap screw.
4. Insert Nylon Bushing into the triple hole cutout in glass. Note that CRL provides four bushings and only one is to be used.  
Please see the **Actuator Post Alignment** and **Nylon Bushing Selection** instructions on following pages for this **critical procedure**.
4. Lift handle and insert actuator post containing cylinder operating pin, return spring and return plunger into handle. Place flat base of actuator post against glass over the triple hole nylon bushing. Insert keyed actuator device or exterior retainer plate into nylon bushing in glass. Screw actuator post to either keyed actuator device or exterior retainer plate.



**CRITICAL PROCEDURE****Actuator Post Alignment**

To ensure proper handle operation the Actuator Post must be centered within the rectangular slot in the handle.

View the Actuator Post where it enters the rectangular slot in the handle, through the door glass.

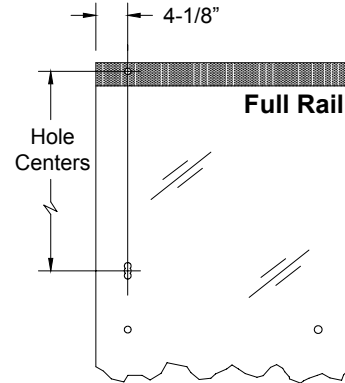
With the handle undogged in the operational position, dimension "1" should be smaller than dimension "2". Dimension "3" and "4" should be equal.

With the handle dogged in the unlocked position, dimension "2" should be smaller than dimension "1". Dimension "3" and "4" should be equal.

**CRITICAL PROCEDURE**

**Nylon Bushings Selection**

CRL has provided four nylon bushings to make this critical alignment an easy task. These bushings are offset in one or more directions to correct for misalignment of holes in the glass. The next page will help to determine which bushing will provide the best alignment.

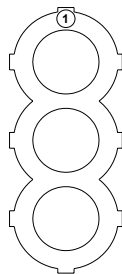


Use Bushing #1 when the "Hole Centers" dimension is correct and the 4 1/8" dimension from door's edge is accurate.

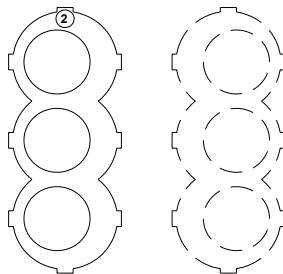
Use Bushing #2 when the "Hole Centers" dimension is correct and the 4 1/8" dimension from door's edge is 1/16" off either direction in the width of the door.

Use Bushing #3 when the "Hole Centers" dimension is 1/16" off either direction in the height of the door and the 4 1/8" dimension from door's edge is accurate.

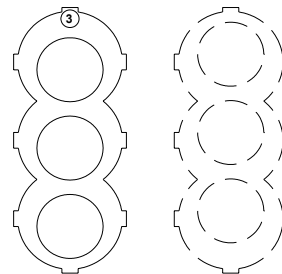
**Bushing #1**



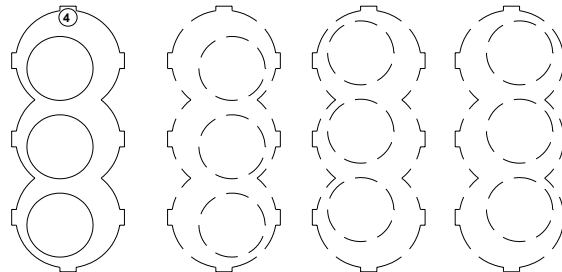
**Bushing #2**



**Bushing #3**



**Bushing #4**



Use Bushing #4 when the "Hole Centers" and the 4 1/8" dimension from door's edge are both off 1/16" in either direction.

- This completes the Panic Handle installation to the door. Please be careful not to lift the door with any portion of the Panic Handle.
- When handling the Door assembly, it is recommended to use CRL RB200 Roller-Blocks for supporting the corner of the door rail while rolling into the vertical position. This will prevent damage to the end cap.

## DOOR INSTALLATION

### Introduction

Congratulations on your selection of the CRL Panic Handle System. The CRL system is designed to allow maximum view and a contemporary look to your all glass doors. The CRL system is UL listed and includes a "Dogging" feature which allows the owner to defeat the locking action during business hours.

By following the instructions in this manual, we believe you will experience a trouble free installation of the system.

Should you have any question about this system or any other CRL products, please contact us at (800) 421-6144 or visit our website at [crlaurence.com](http://crlaurence.com).

### Parts List

Single or Double Adjustable Door Stops with required installation screws.  
Keys, supplied with Panic Handle Door Installer Manual.

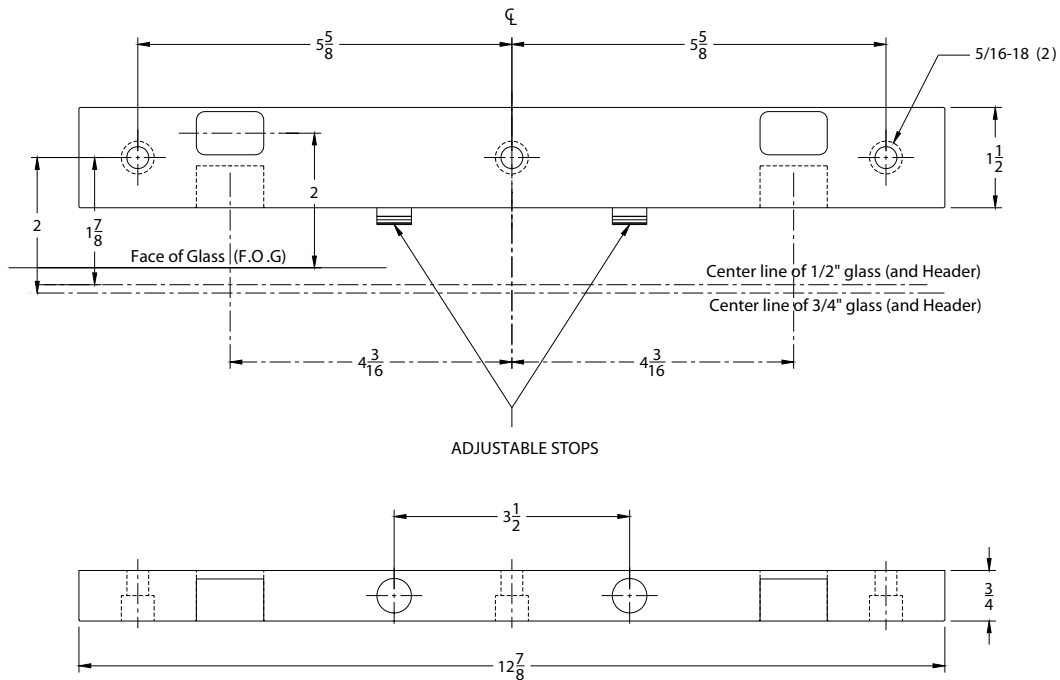
### Tools and Supplies needed:

- 1 ea - 1/8" Allen Wrench, supplied with Panic Handle
- 1 ea - 1/4" Allen Wrench, supplied with Door Stop
- 1 ea - Thread Locker, supplied with Door Stop

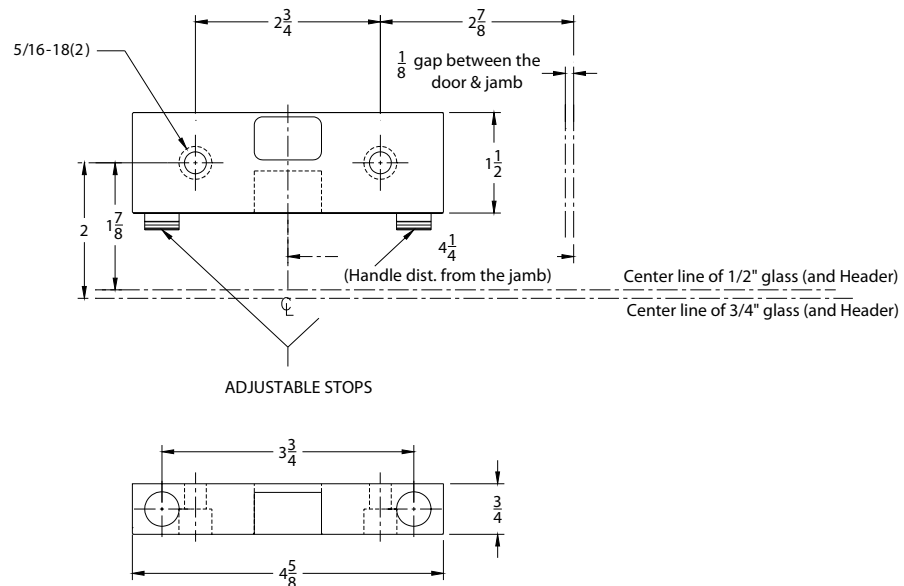
## Header Preparation for Single and Double Adjustable Door Stops with MANUAL STRIKE

Prepare Header with threaded holes sized and located as illustrated

### DOUBLE DOOR



### SINGLE DOOR



## Installation and Adjustment of Door Stop/ Strike Door Stop with MANUAL STRIKE

### INSTALLATION

Install strike in header using provided socket head cap screws. Apply thread locker to bolt threads prior to tightening with Allen wrench.

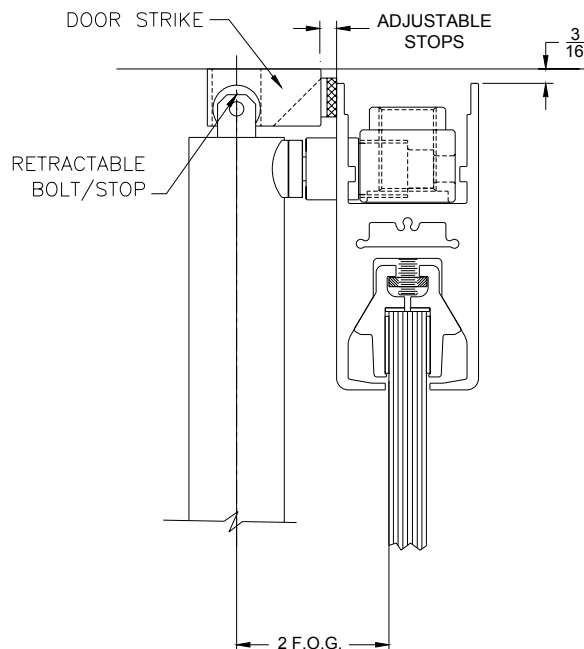
After door installation, when the door closes and comes to rest on the rubber stop pad(s) the retractable bolt should automatically move upward engaging the strike as illustrated. Distance from the Face of the Glass (F.O.G.) to the center of the handle should be 2".

If retractable bolt is not engaging with the strike, door stops should be moved in, or if retractable bolt is loose inside the strike (doors are rattling), stops should be moved out.

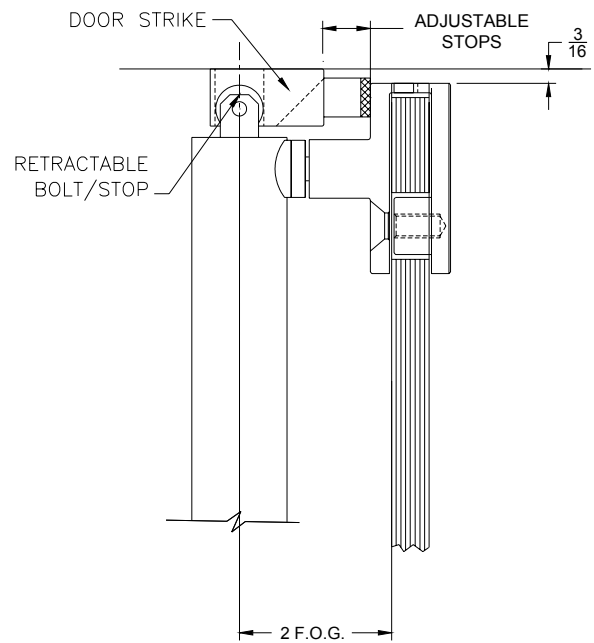
### ADJUSTMENT

To adjust the stop, remove the rubber end piece which uncovers a socket for a 1/4" Allen wrench, insert wrench and rotate in or out as needed. One full turn is equal to approximately 1/16" of adjustment.

## DOOR STOP / STRIKE APPLICATIONS



DOOR RAIL MOUNTING

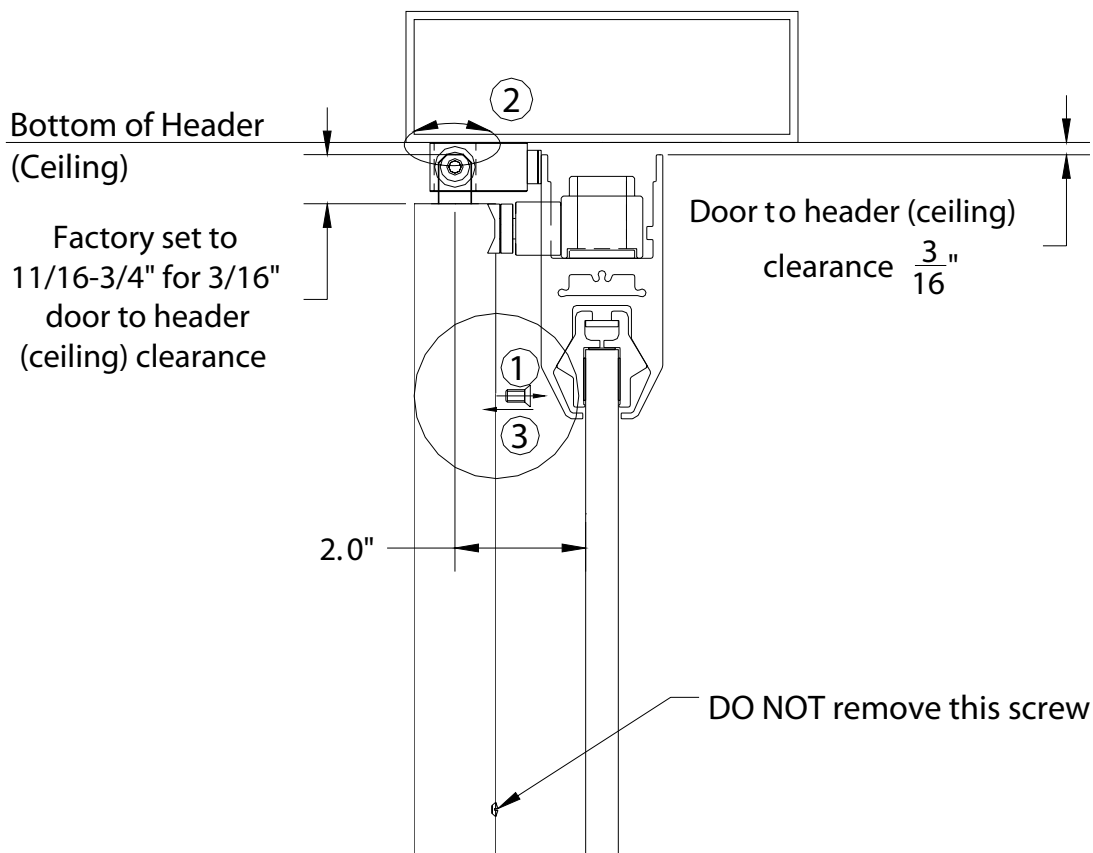


DIRECT TO GLASS MOUNTING

## Bolt Adjustment for Proper Engaging With the Strike

1. The retractable bolt can be adjusted up and down. The centerline of the roller at the top of the retractable bolt should penetrate the strike for a minimum 1/8". The maximum upward adjust is 3/4" measured from the top of the handle tubing to the top of the bolt that retains the roller.
2. To make this adjustment, with an Allen wrench, remove the flat head screw at the top of Panic Handle. DO NOT Remove the Slotted Head Screw.
3. Rotate the bolt in either direction full 360° turn to obtain desired height adjustment.
4. Rotate bolt to align interior threaded hole with countersunk hole in tubing.
5. Replace flat head screw.

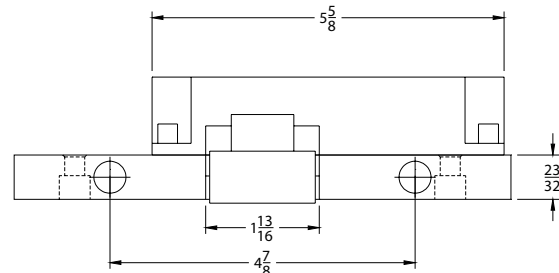
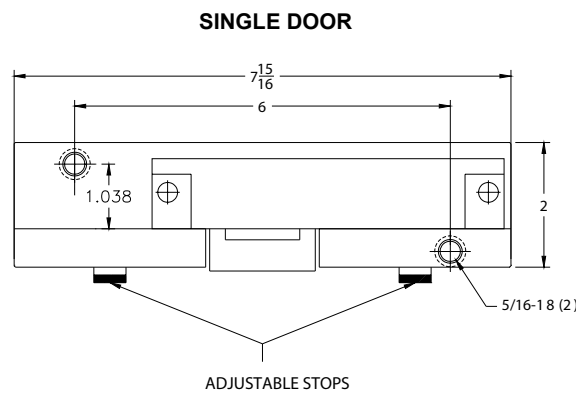
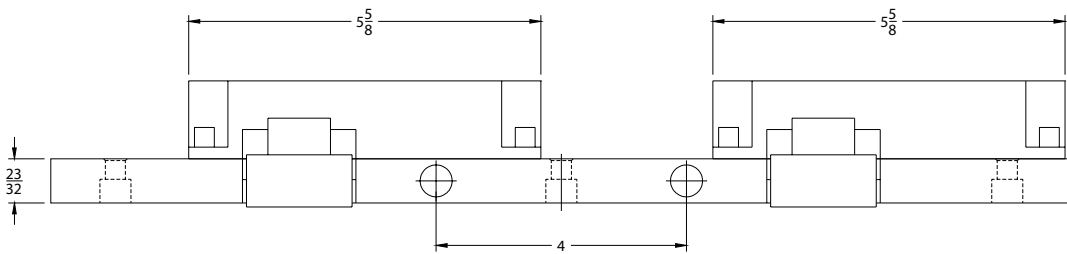
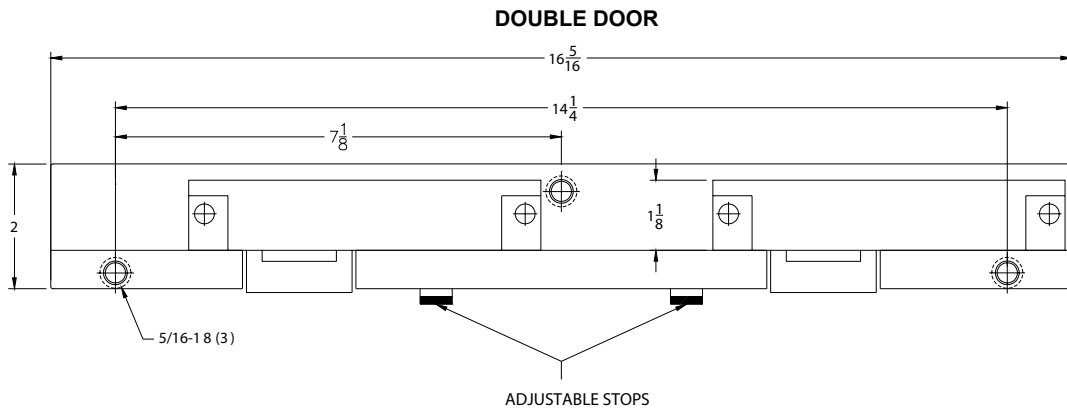
FAILURE TO REPLACE THIS SCREW WILL ALLOW RETRACTABLE BOLT TO RANDOMLY ROTATE CAUSING THE BOLT TO IMPROPERLY ENGAGE THE STRIKE.



**OPTIONAL**

**(E) Header Preparation for Adjustable Door Stops with ELECTRIC STRIKE**

Your Electric Stop / Strike comes with header preparation template. Prepare Header with threaded holes sized and located as illustrated

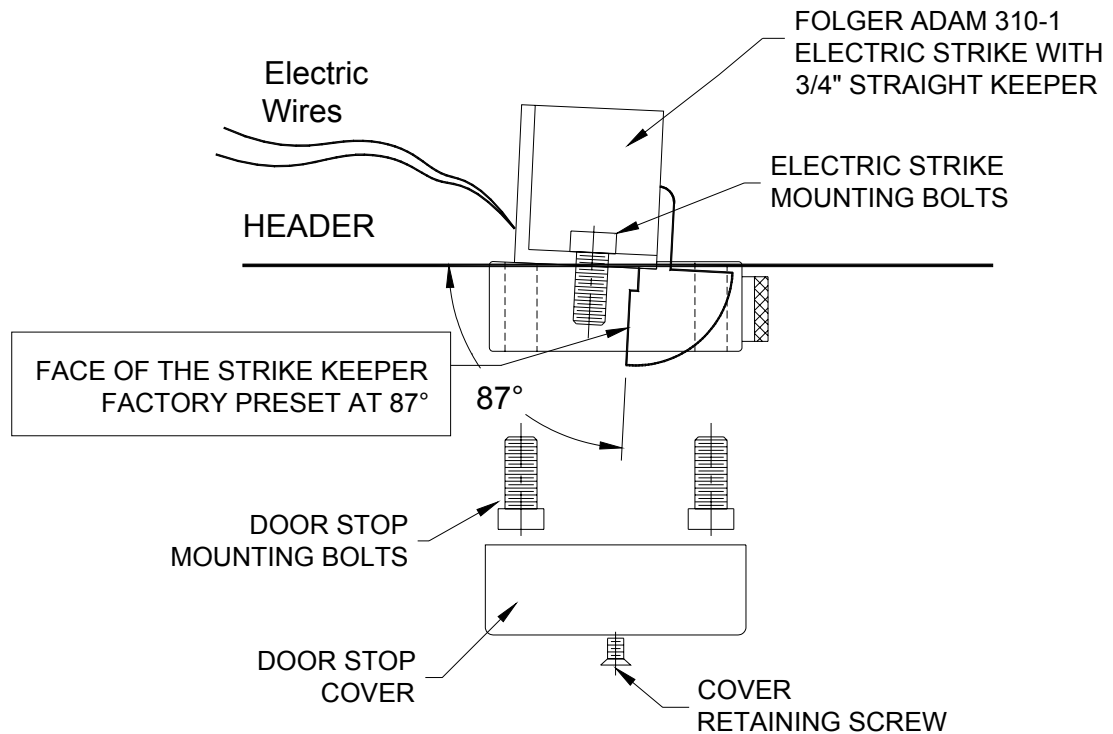


**(E) Installation and Adjustment of Door Stop - Strike.  
 Door Stop with ELECTRIC STRIKE**

**INSTALLATION**

Remove Cover Retaining Screw and Door Stop Cover.  
 Install Door Stop - Strike in header using provided socket head cap screws (Door Stop Mounting Bolts show on the illustration). Apply thread locker to bolt threads prior to tightening with Allen wrench. Replace Door Stop Cover and fasten with Cover Retaining Screw.

**INSTALLATION OF DOOR STOP WITH ELECTRIC STRIKE**



**IMPORTANT NOTE FOR ELECTRIC STRIKE REPLACEMENT.**

Face of the Strike Keeper **MUST** be set at 87 deg. as illustrated.

To replace Electric Strike:

- Turn off power to electric strike.
- Remove Cover Retaining Screw and Door Stop Cover.
- Remove Door Stop Mounting Bolts and gently lower Door Stop-Latch Keeper.

**DISCONNECT ELECTRICAL WIRING**

- Remove Electric Strike Mounting Bolts and install New Electric Strike.
- Reconnect wires to new Electric Strike using appropriate wire connectors.
- Apply Threadlocker and tighten Electric Strike Mounting Bolts.
- Mount Door Stop / Latch Keeper in header, and Replace Door Stop Cover.
- Turn on power to Electric Strike.
- Verify that the strike operates properly.



## Adjustment of Door Stop - Strike

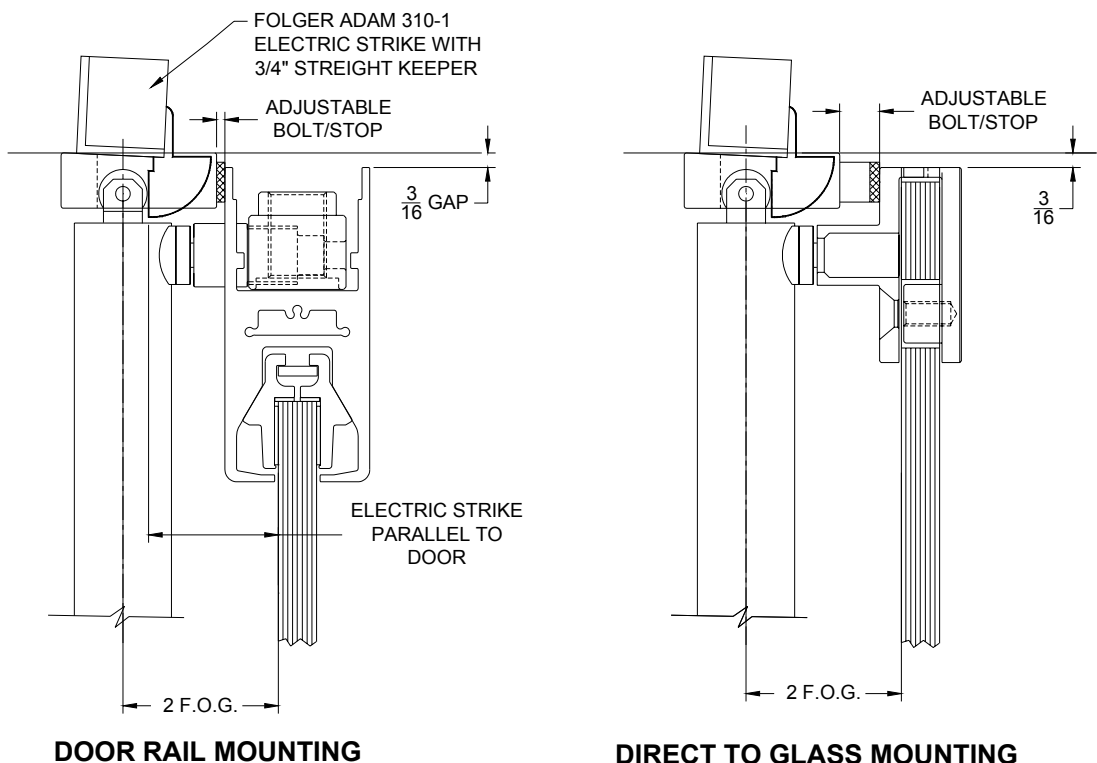
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If retractable bolt is not engaging with the strike, door stops should be moved in, or if retractable bolt is loose inside the strike (doors are rattling), stops should be moved out.

### ADJUSTMENT

To adjust the stop, remove the rubber end piece which uncovers a socket for a 1/4" Allen wrench, insert wrench and rotate in or out as needed. One full turn is equal to approximately 1/16" of adjustment.

## DOOR STOP / EL. STRIKE APPLICATIONS



This completes the door installation.

## HANDLE CARE AND MAINTENANCE

### Introduction

Congratulations on your selection of the CRL Panic Handle System. The CRL system is designed to allow maximum view and a contemporary look to your all glass doors. The CRL system is UL listed and includes a "Dogging" feature, which allows the owner to defeat the locking action during business hours.

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### Care and Cleaning

#### Stainless Steel

Mirror and Satin polished Stainless Steel are one of the most durable and easiest finishes to maintain.

#### Mirror Polished Stainless Steel:

Mirror polished stainless steel finishes should be cleaned with a foam spray cleaner, such as:

**CRL Sprayway - Stainless Steel Polish & Cleaner SW841** cleans, polishes and protects stainless steel without hard rubbing and polishing. Resists finger prints, grease and water splatter. Helps preserve the factory finish and wiped with a clean, dry cloth, such as:

**CRL Lint Free Shop Wipes 1550** are made with four plies of strong, white paper and reinforced in both directions with an extra ply of tough nylon. These rugged towels will stand up to the most demanding shop work. 1550 wipes can absorb many times their weight in liquids. CRL Glass Wipes are virtually lint free.

Such foam cleaners can be used as often as necessary.

Liquid solutions may cloud or scratch polished stainless steel finishes.

For periodic maintenance, mirror stainless can be polished with:

**CRL Autosol® Shine 1188AS** cleans, restores and polishes all metal surfaces and will protect against corrosion and tarnishing. Mild abrasives help to remove built-up tarnish, oxidation and even rust, leaving behind a protective coating, which helps to condition the metal and protect against corrosion while providing a longer lasting shine.

**Do not** use circular motions when polishing.

### **Satin Polished Stainless Steel (Brushed):**

Satin polished stainless steel finishes should be cleaned like Mirror polished Stainless Steel, just **with** circular motions in the same direction as the grain texture.

For periodic maintenance, satin stainless steel can be rubbed with an abrasive pad, such as:

- Scotch-Brite General Purpose Hand Pad 7447 by 3M, or
- Scotch-Brite Ultra Fine Hand Pad 7448 by 3M, or
- Scotch-Brite General Purpose Scrubbing Pad 9650 by 3M.

The finish should always be rubbed in the same direction as the grain texture.

### **Brass / Bronze**

Polished and Satin finish applied to brass or bronze must be routinely maintained to retain the desired appearance. The darkening or black spotting on the brass or bronze surface is simply oxidation taking place. If left untreated brass and bronze will eventually turn entirely, but unevenly, dark. This dark oxidized state is the natural color of all copper alloys.

Frequency of the treatment of brass and bronze finishes depends on use and abuse, location, weather conditions, or exposure to marine air.

CRL does not recommend any protective coating over the brass or bronze finish. These coatings provide only temporarily reprieve from the eventual oxidation that will occur on any brass or bronze finish.

Lacquer finishes are susceptible to scratching and abrasion. Once the surface of the lacquer has been damaged, oxidation will take place. Oxidation of the brass or bronze will appear as black spots. Scratches in the lacquer coating cannot just be covered up or sprayed over. Repair requires the stripping of the lacquer from the entire part using solvents. Then the lacquer must be re-applied.

Brass and bronze are beautiful metals but require continual maintenance to retain its luster.

### **Mirror Polished Brass or Bronze**

Mirror polished copper alloys should be periodically cleaned, when it begins to tarnish, with a brass polishing cream that uses low-level abrasives such as:

**CRL Autosol® Shine 1188AS** cleans, restores and polishes all metal surfaces and will protect against corrosion and tarnishing. Mild abrasives help to remove built-up tarnish, oxidation and even rust, leaving behind a protective coating, which helps to condition the metal and protect against corrosion while providing a longer lasting shine. The liquid or cream polish should be used in accordance with the manufacturer's recommended instructions for safety and use.

**Do not** use circular motions when polishing.

### **Satin Polished Brass or Bronze:**

Satin polished copper alloy finishes should be cleaned by rubbing with an abrasive pad such as:

- Scotch-Brite General Purpose Hand Pad 7447 by 3M, or
- Scotch-Brite Ultra Fine Hand Pad 7448 by 3M, or
- Scotch-Brite General Purpose Scrubbing Pad 9650 by 3M

The finish should always be rubbed in the same direction as the grain texture.

### **Satin, Oxidized and Oil Rubbed Bronze:**

Regularity is the key to a successful maintenance program. A schedule should be arranged providing periodic cleaning with regular inspections in the interim. The schedule should differentiate between interior and exterior surfaces and those surfaces subject to handling, scuffing and abrasion. When a regular maintenance program is followed, most installations can be maintained by oiling or waxing. Surfaces pre-finished or naturally weathered to the statuary bronze shades should be maintained by periodic oiling with Lemon Oil, Lemon Grass Oil or high-grade paraffin oil. Oil and wax coatings look best when applied with a well-impregnated, clean soft cloth followed by rubbing with a second, clean soft cloth to remove excess oil or wax. Frequency of oiling or waxing is as important as the oil or wax used. Newly installed metal should be oiled weekly for the first month in order to build up a protective film. Metals subject to heavy traffic should be oiled or waxed at one to two-week intervals. Where traffic is moderate to light, monthly treatment may suffice. In non-traffic areas, quarterly or semiannual applications are feasible. Frequency could also be determined when the metal finish appears dull and dry. The frequency of oiling will decrease over time as layers of oil build up to create a protective surface and result in what is known as oil rubbed bronze. Considering a typical building entrance, door handles, push plates or bars, and kick plates as well as the door stiles and rails, would normally be exposed to heavy traffic. The doorframe and adjacent window wall framing usually receive less handling and would be considered a moderate to light traffic area. Transoms, canopies and similar metal elements normally out of reach would be classed as non-traffic areas. We recommend that a professional maintenance company be hired to do any of the field restoration, (like Stuart Dean Company, [www.stuartdean.com](http://www.stuartdean.com)).

### **Finishes Coated with Clear Baked Enamel or Clear Enamel or Clear Lacquer:**

Finishes coated with a clear baked enamel, clear enamel or clear lacquer coating can be cleaned periodically by gently wiping with a mild soap and water solution, rinsed with clean water and wiped with a clean, dry cloth. No Brass cleaners or polish, no oil or abrasive cleaners or ammonia.

When fingerprints become visible, the coated metal should be wiped with a soft dry or damp cloth as soon as possible.

We do not recommend any protective lacquering of brass and bronze door hardware. Lacquer wears off in certain use areas leaving a non-uniform or spotty finish. The areas most affected are those where the handles contact the metal. Furthermore, rings worn on the fingers can cause the lacquer to be removed thus exposing the scratches of the lacquer.

However, protective lacquer will retard aging but not eliminate and will eventually have to be re-done. If proper maintenance is followed, you will be able to elongate the times between refinishing.

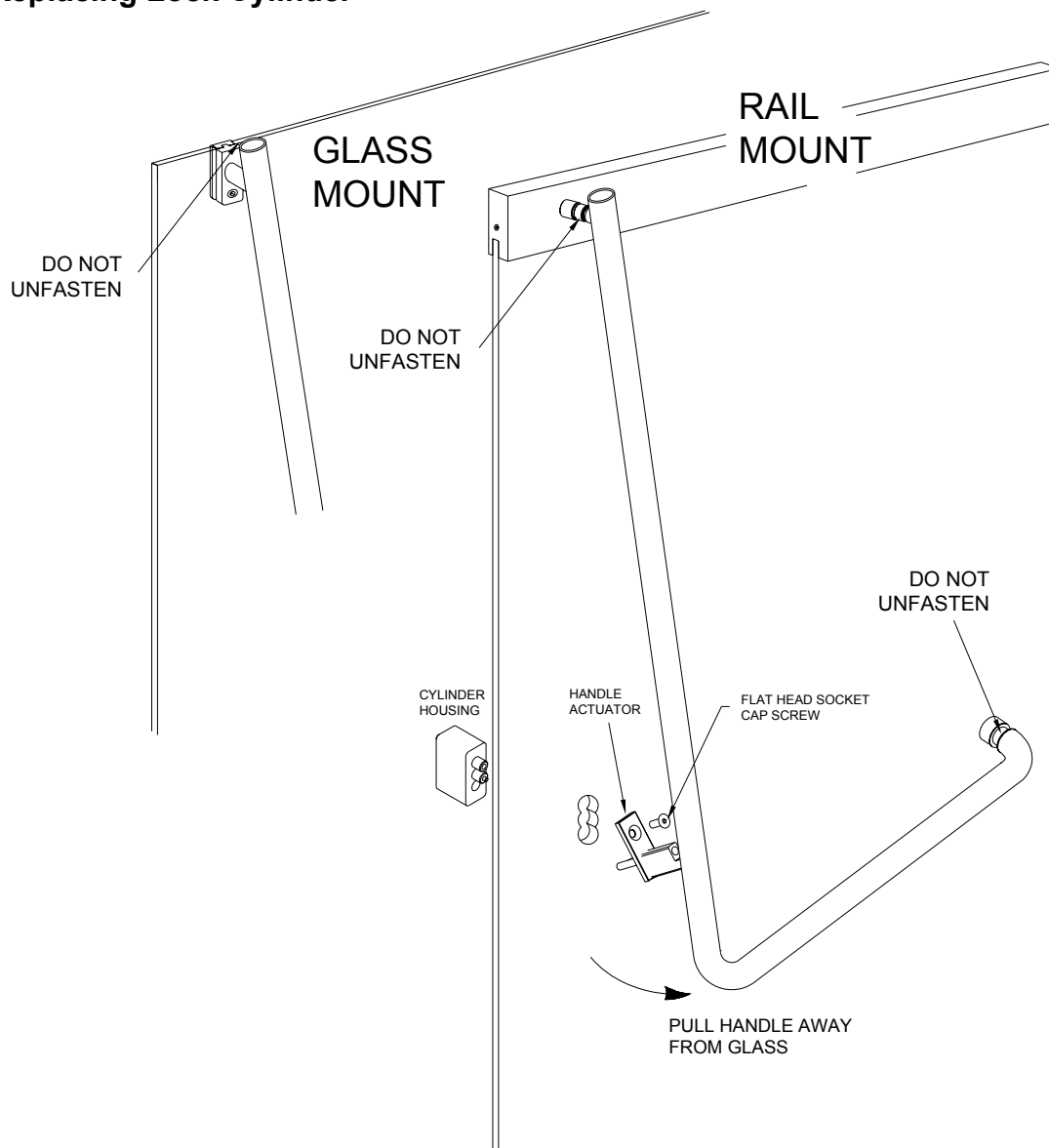
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## Routine Maintenance

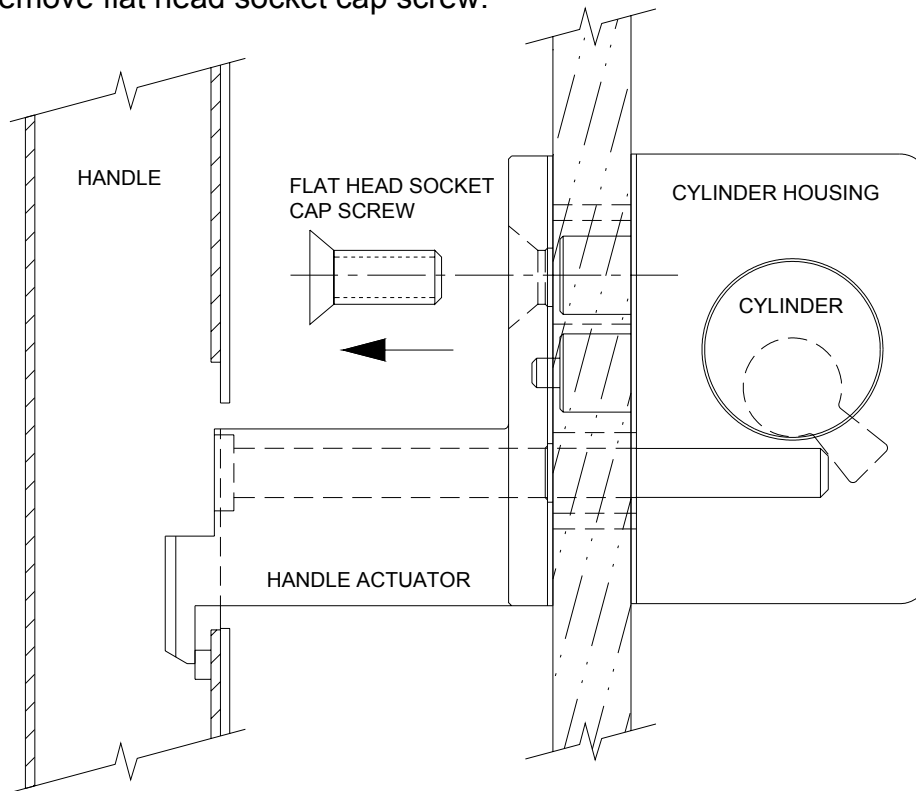
Under normal operating conditions, your CRL Panic Handle system should require no maintenance over the life of the system other than cleaning the bars. However, if you experience difficulty with the operation of the system, please **do not attempt to repair the system yourself**. Please contact the original installer or contact CRL at (800) 421-6144 x 7700.

## Repair and Replacements

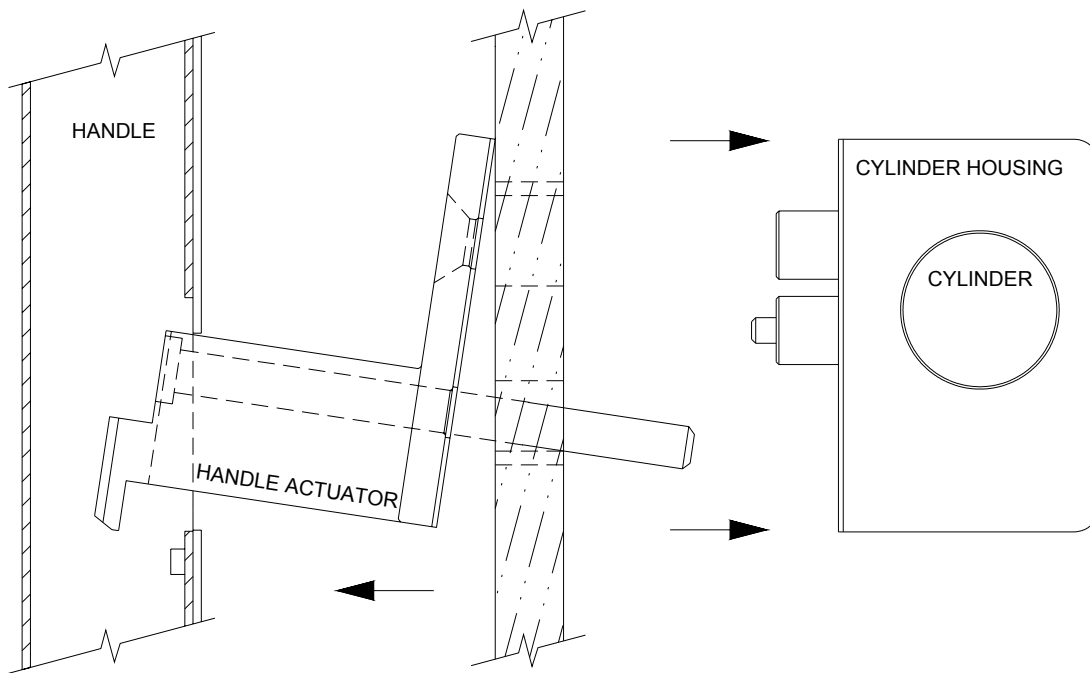
### Replacing Lock Cylinder



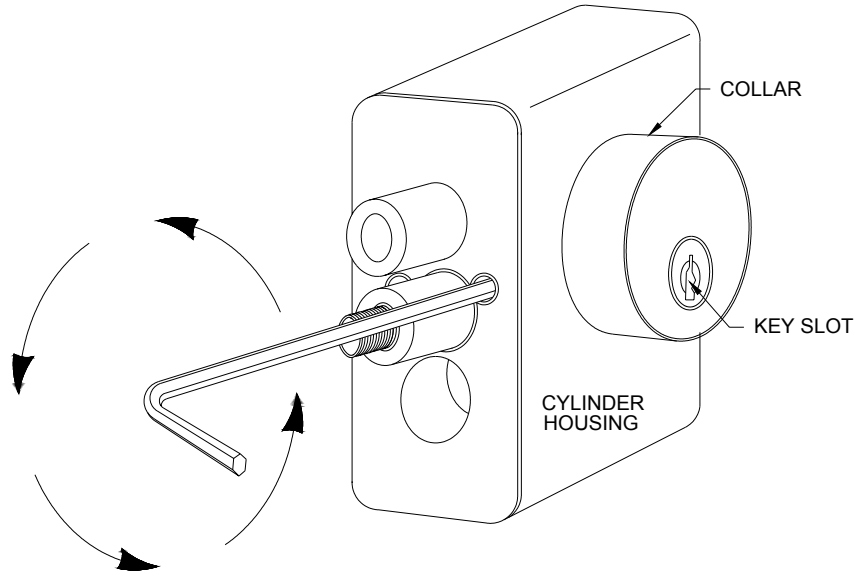
1. Hold on to exterior cylinder housing.
2. Remove flat head socket cap screw.



3. Pull handle away from glass. Remove handle actuator from handle.



4. Loosen set screw holding cylinder in place with an Allen wrench.



5. Remove old cylinder and check to see if tailpiece matches new cylinder tail piece. Also the length of the new cylinder must be the same as the old one. A cylinder of any other length will require a new length collar. Wind in new cylinder until it stops inside the collar ring. Key slot should be on bottom of cylinder nearest the floor.
6. To reassemble system, Insert handle actuator into panic handle and place against door (reverse of step 3 on page 6).
7. Replace cylinder housing and attach to handle actuator with flat head socket cap screw (reverse of step 2 on page 6).

