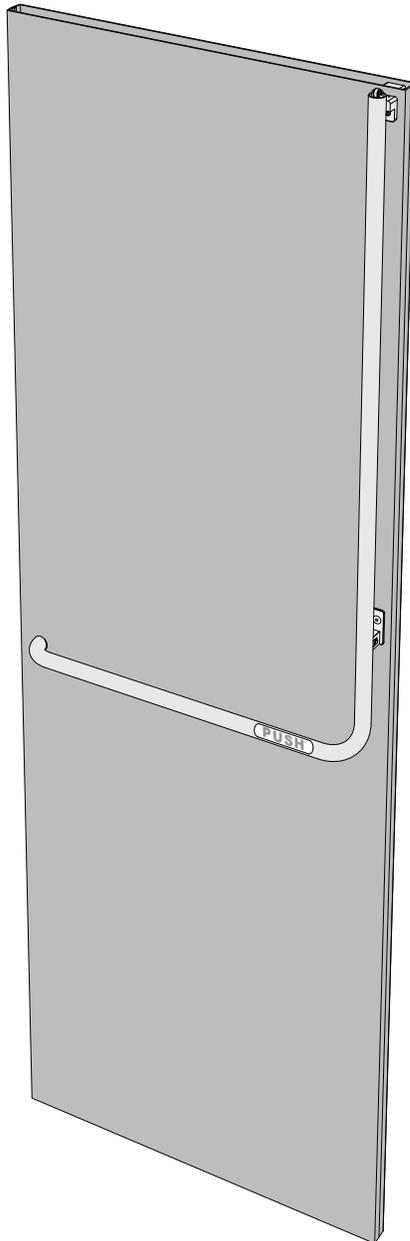


# INSTALLATION INSTRUCTIONS

## PANIC HANDLES FOR HOLLOW METAL DOORS



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Phone: (800) 262-5151 • Fax: (866) 262-3299  
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## 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 web site 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 on the door:

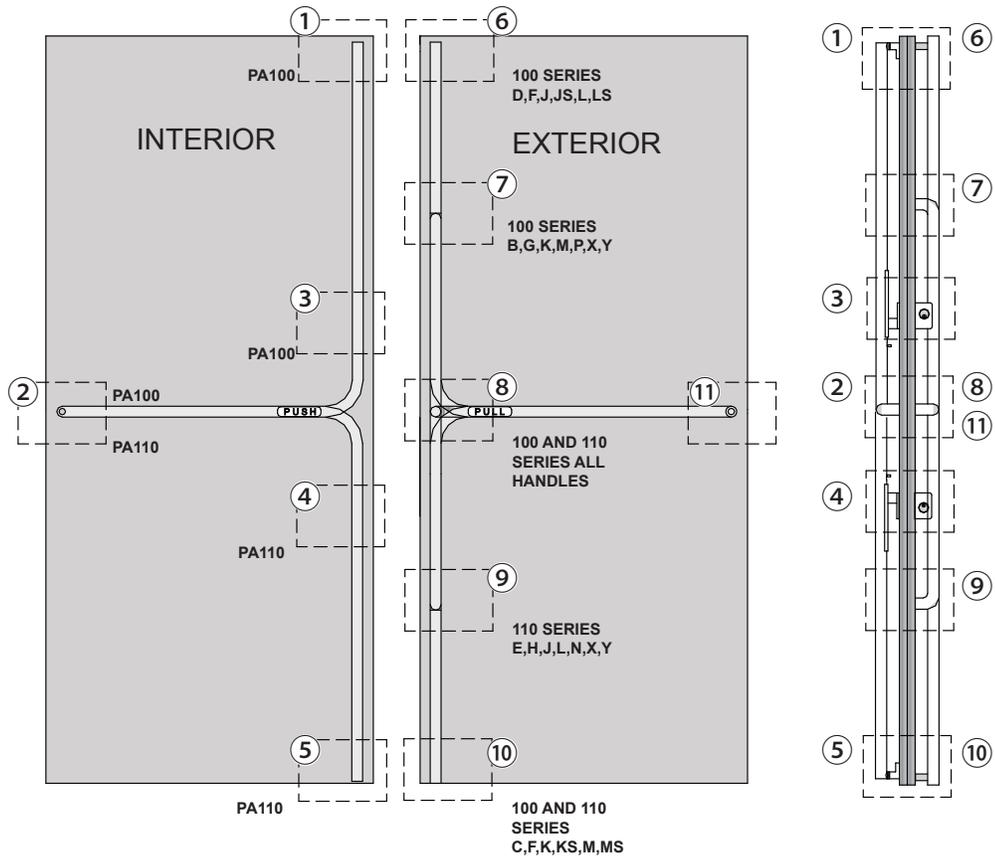
- ✓ Flat Head Socket Screw
- ✓ Actuator Post with Cylinder Operating Pin and Handle Return Pin with Spring
- ✓ Nylon Bushing for Triple Holes
- ✓ Cylinder Housing or Retainer Plate when No Cylinder is Used
- ✓ Adapter Block with Installation Screw
- ✓ Threaded Pin
- ✓ Exterior Handle Retainer with Rubber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

## Tools and Supplies needed:

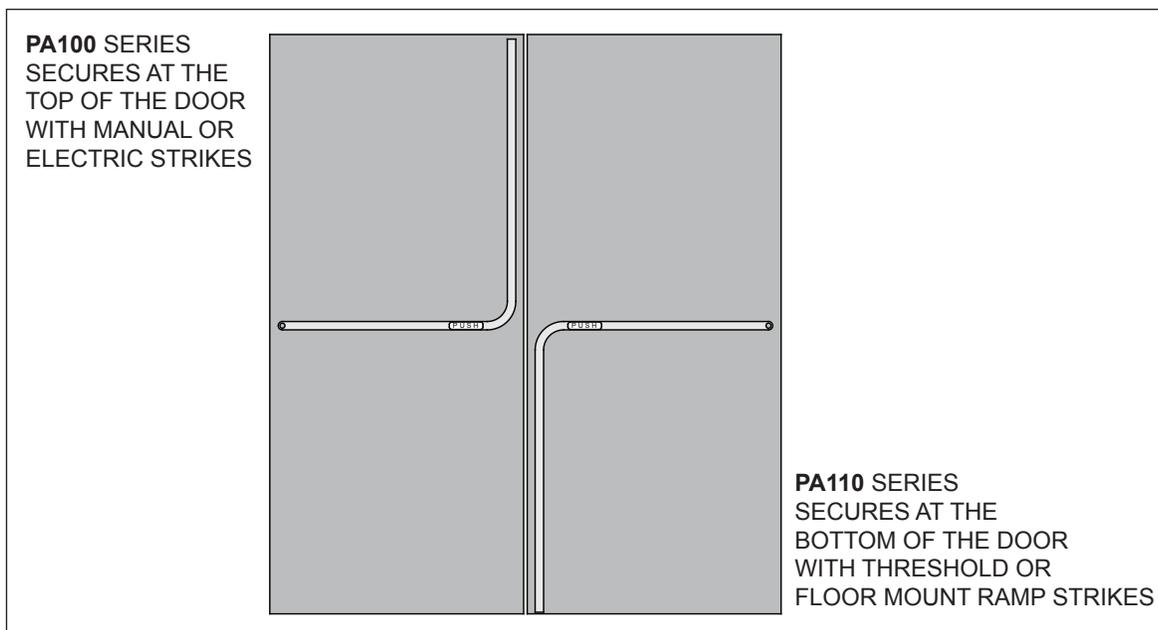
- 1 set - CRL Supplied Allen Wrenches
- 1 set - CRL Supplied Nylon Bushings (see Nylon Bushing Selection)
- 1 ea - 10" Non-Marring Channel Lock Pliers (Optional)
- 1 ea - CRL Spanner Wrench (MPHSW)
- 1 ea - CRL Supplied Thread Locker
- 1 ea - Rubber Strip, i.e., 1/8" Thick Rubber Setting Block

# Section Details

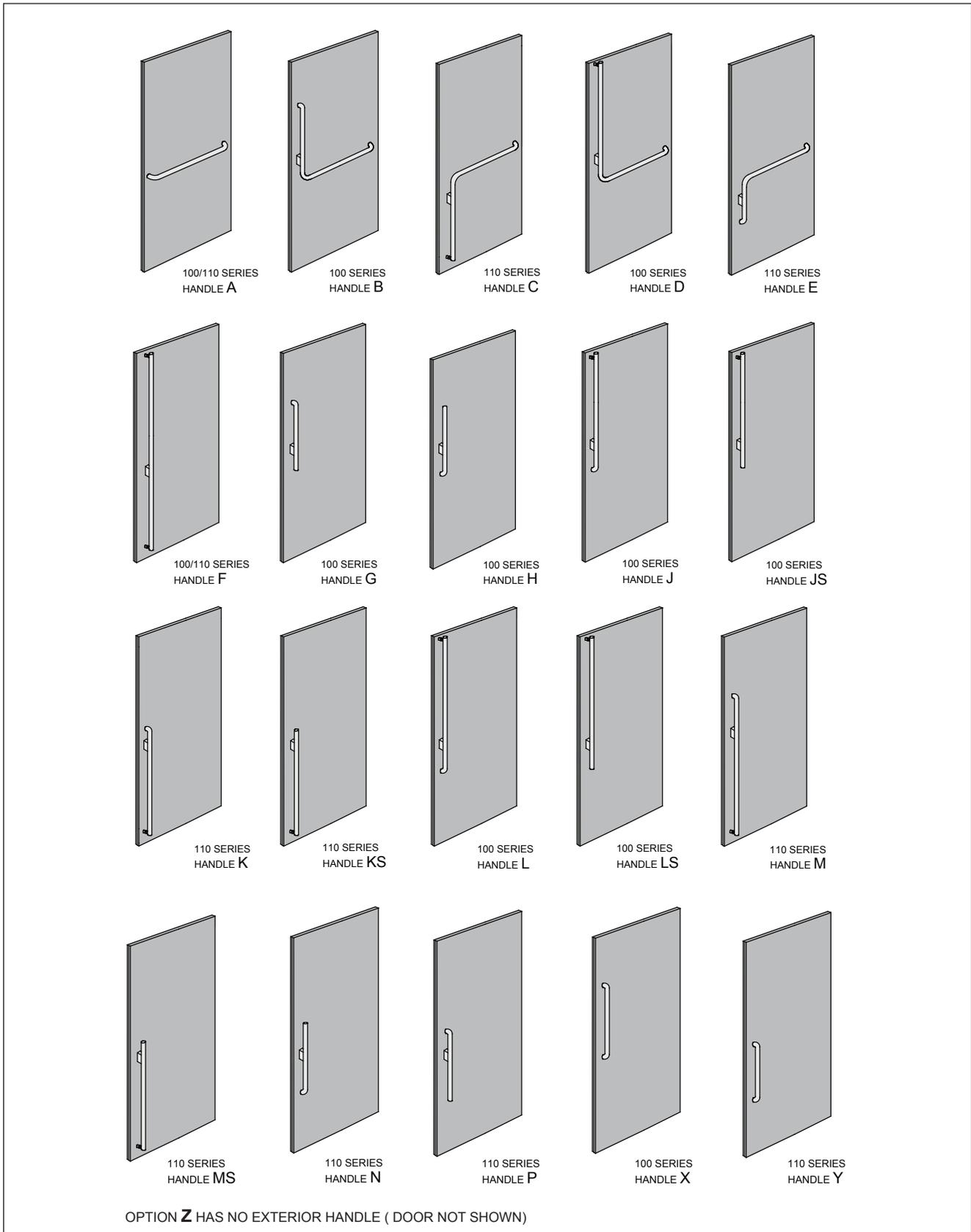
Diagrams in this manual refer to the connection sections below.



## Interior Handle Selection



# Exterior Handle Selection



## Panic Handle Installation

**IMPORTANT: DO NOT MIX HANDLE PARTS.  
PIVOT JOINTS ARE FABRICATED AND SHIPPED TO MATCH EACH HANDLE ASSEMBLY.**

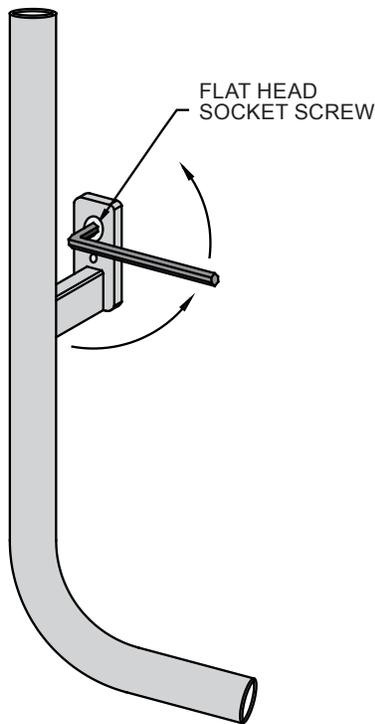
All C.R. Laurence Panic Handles are shipped fully assembled and tested, in a heavy-duty wooden crate and attached to a plywood carrier sheet for maximum protection. It is a good idea to observe how the unit is assembled before you remove it.

We recommend that you disassemble and remove the Panic Handle from the plywood carrier and reassemble it directly onto the door. The following steps will guide you through the process.

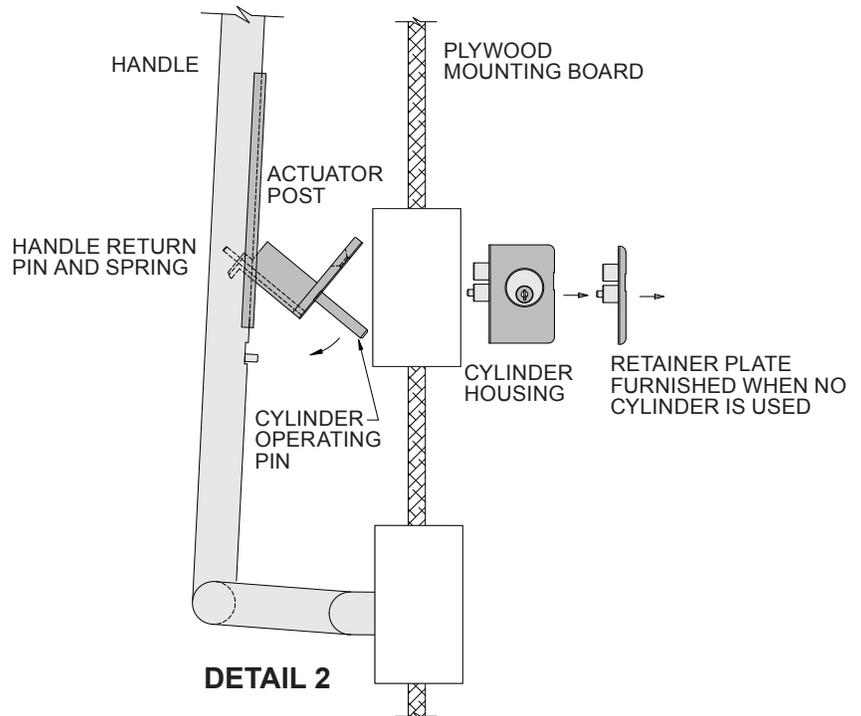
### Step 1: REMOVAL OF THE INTERIOR HANDLE AND ACTUATOR POST

Remove the flat head socket screw from the mounting plate of the interior handle. (Detail 1)

Take precautionary steps to ensure that the keyed actuator device and the exterior retainer plate do not fall from the mounting board and become damaged. Lift the handle away from plywood to gain access to the actuator post. Tilt the actuator post up or down toward the horizontal handle section and remove. The cylinder operating pin, handle return plunger with spring, and the triple hole bushing must be held from falling out of place when removing the handle. (Detail 2)



DETAIL 1



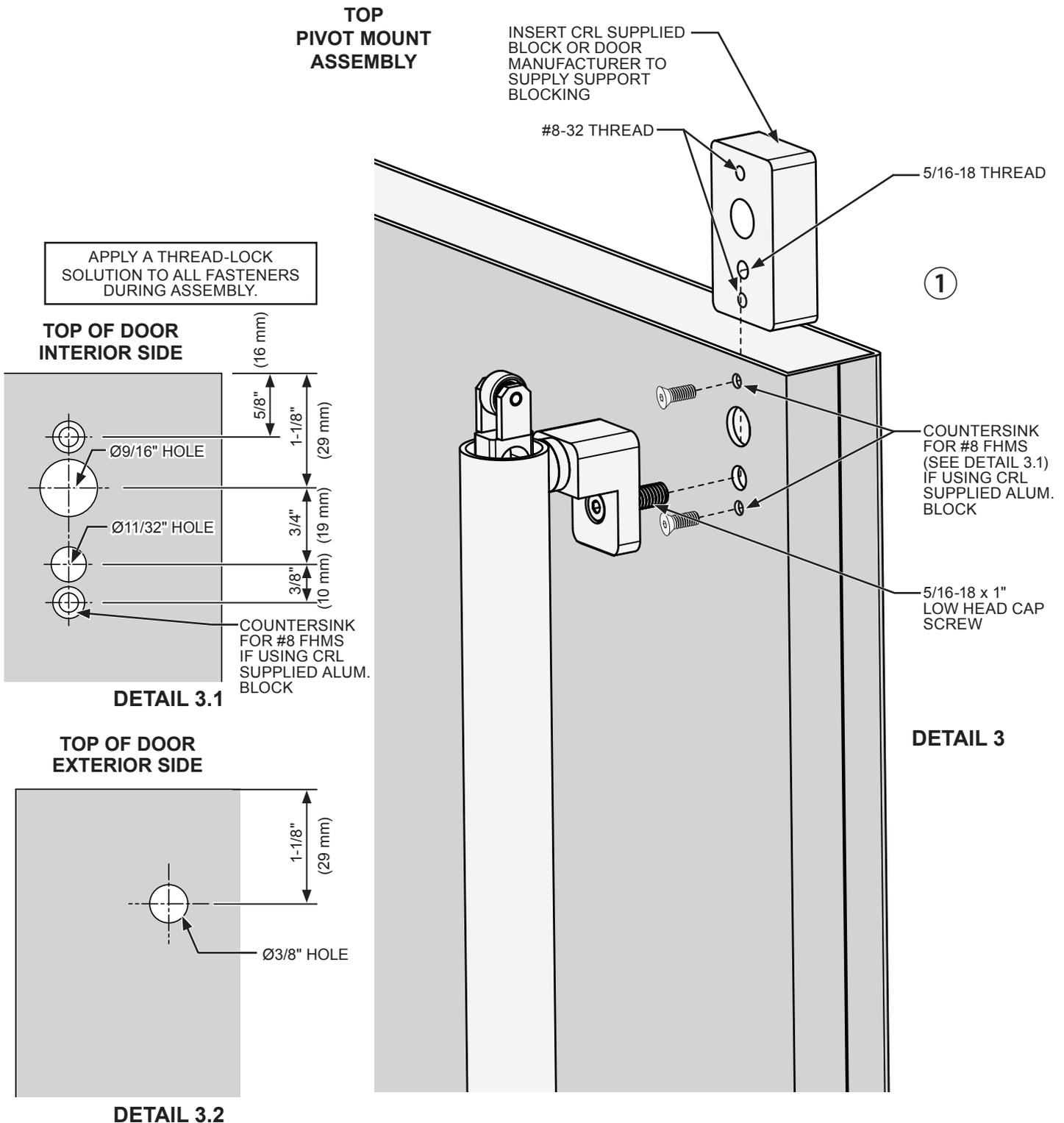
DETAIL 2

**NOTE:** PA100 interior handle is illustrated in Detail 1. PA110 would curve downward but the removal procedures would be the same.

# Panic Handle Installation (Continued)

## Step 2: ATTACHMENT OF THE TOP PIVOT MOUNT ASSEMBLY (PA100 SERIES ONLY)

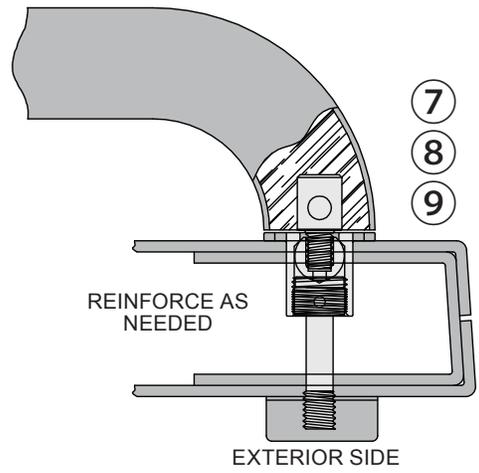
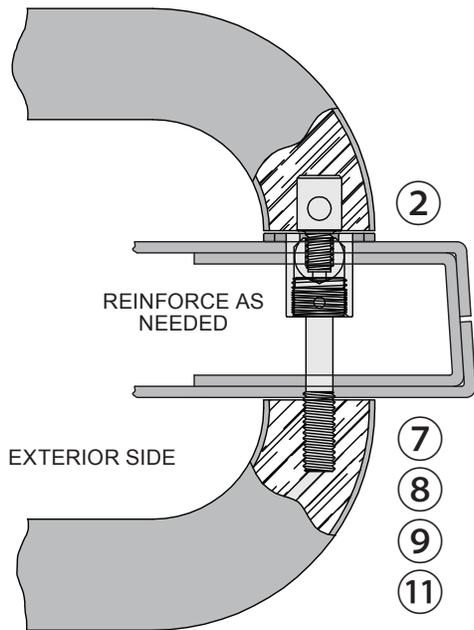
The PA100 models attach to the top of the door. Insert the Mounting Block through the top of door and fasten in place with two #8-32 FHMS. The Top Pivot Body is attached using the 5/16 - 18 X 1" Low Head Socket Cap Screw.



# Panic Handle Installation (Continued)

## Step 3: ATTACHMENT OF THE CENTER PIVOT ASSEMBLY

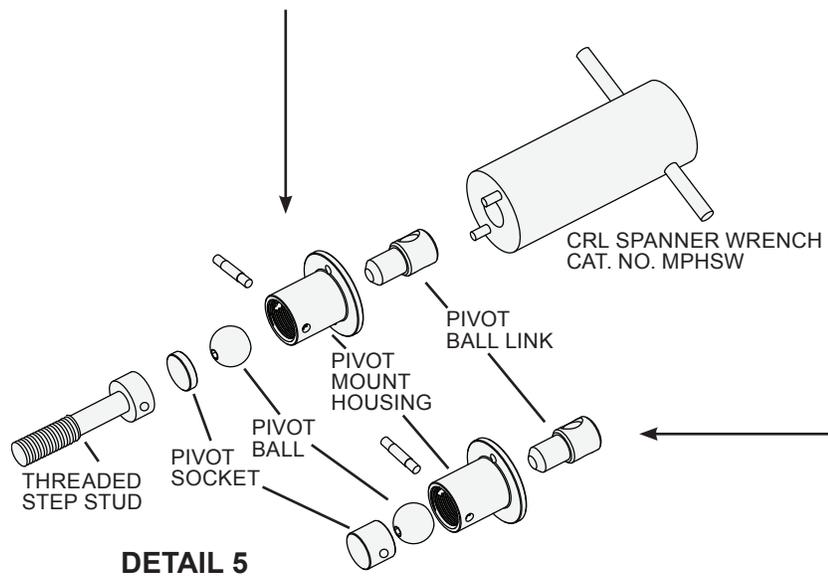
All PA100 AND PA110 models will require a center pivot attachment. (See page 4) The interior handle must pivot freely in order to activate the latching mechanism. The exterior handle (if required) is a non-operating handle. (Detail 4)



**DETAIL 4**

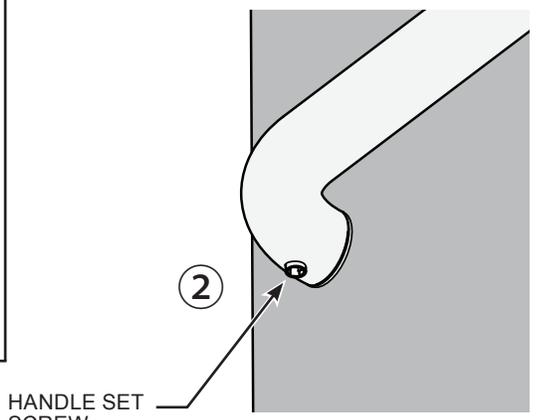
**SINGLE HANDLE POSITION**

**BACK-TO-BACK HANDLES**



**DETAIL 5**

APPLY A THREAD-LOCK SOLUTION TO ALL FASTENERS DURING ASSEMBLY



**DETAIL 6**

HANDLE SET SCREW

The lower end of the PA handle is held in place by a 1/4 X 20 handle set screw.

## Panic Handle Installation (Continued)

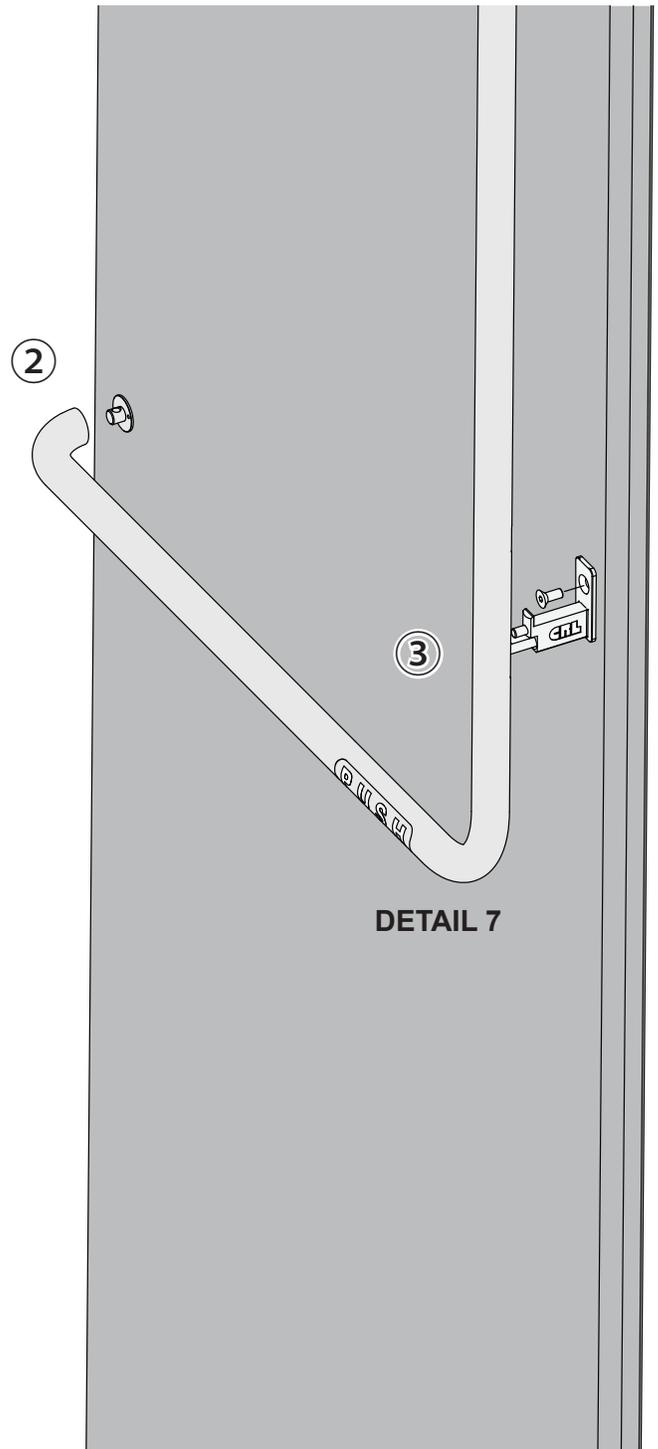
The back-to-back handle position requires that the entire pivot system, on page 8, be fully assembled before inserting through the door stile and into the exterior panic bar. (Detail 4)

Use the CRL Spanner Wrench to tighten the assembly. (Detail 5)

Attach the Interior Panic Bar to the protruding Pivot Ball Link using the handle set screw. (Detail 6)

If using a single handle installation, the pivot system should also be fully assembled before installation. Tighten securely with the CRL Spanner Wrench. (Detail 4)

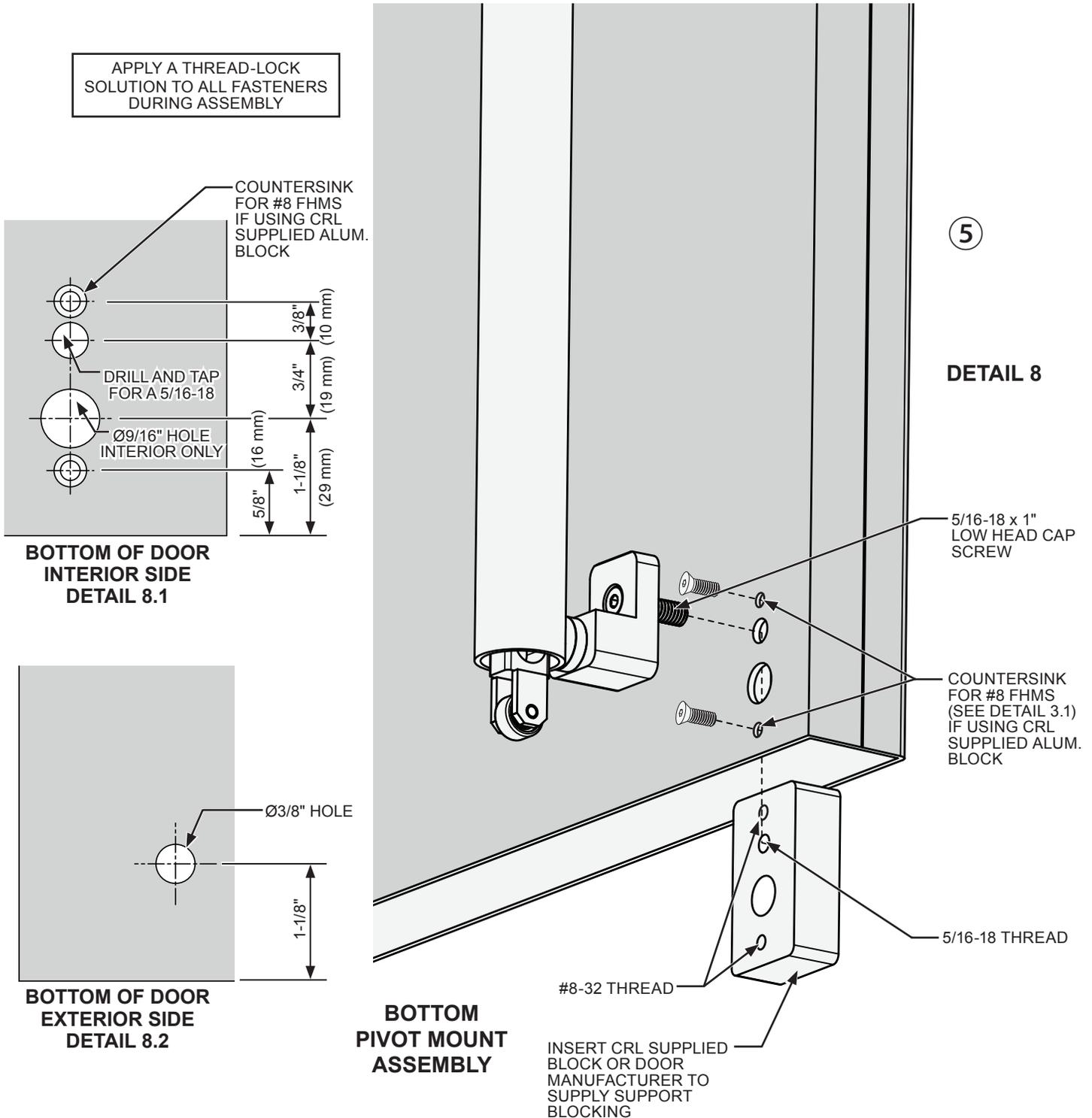
The center of the PA handle attaches to the Actuator Post with a 1/4 - 20 X 1" Flat Head Socket Screw which also holds the optional Lock Cylinder and Housing in place. To ensure proper handle operation, the Actuator Post must be centered within the rectangular slot in the handle.



# Panic Handle Installation (Continued)

## Step 4: ATTACHMENT OF THE BOTTOM INTERIOR PIVOT MOUNT ASSEMBLY (PA110 SERIES ONLY)

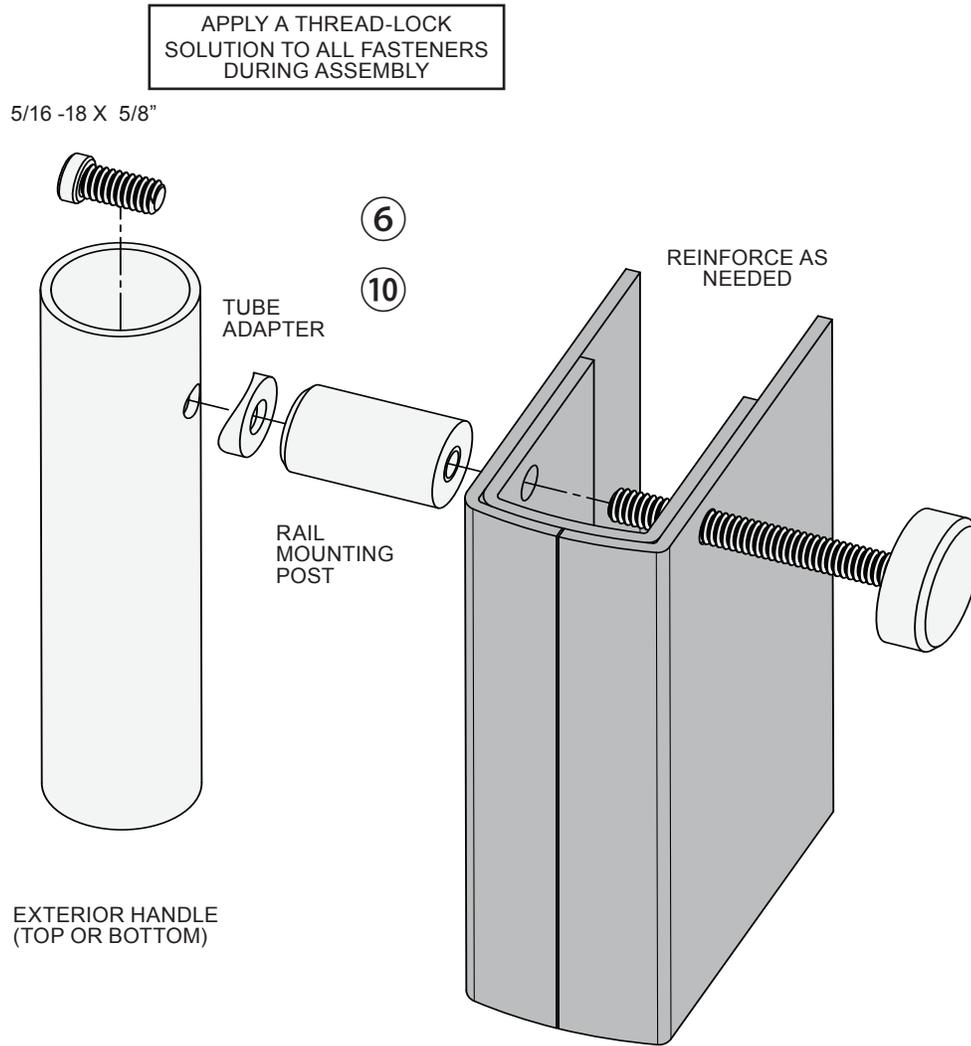
The PA110 Series panic bars attach to the bottom of the Aluminum Door stile, see Detail 8. The latching mechanism interlocks with a hole in ramp of the door threshold. Installation is the same as a top mount assembly on page 7.



# Exterior (Non-Operating) Panic Handle Installation

## Step 5: ATTACHMENT OF TOP AND BOTTOM EXTERIOR HANDLES

The top and bottom attachment point for all EXTERIOR panic handles is illustrated below.



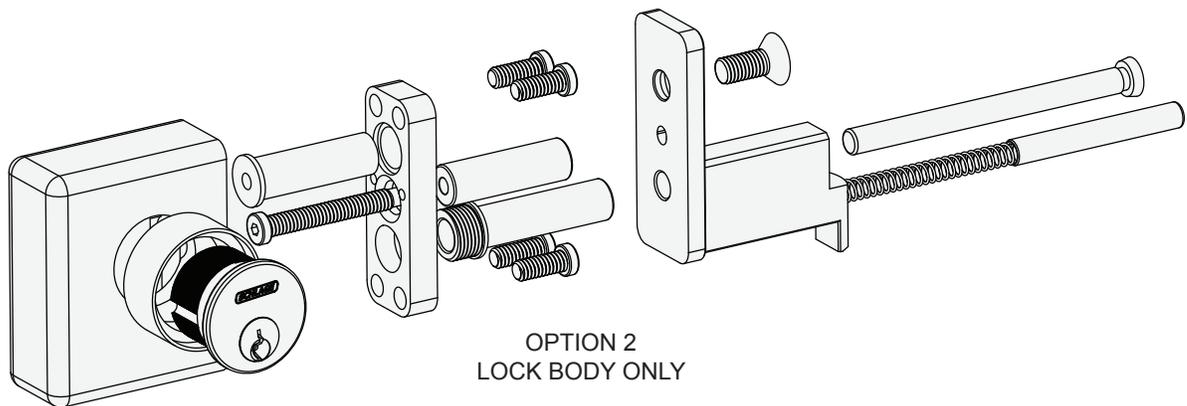
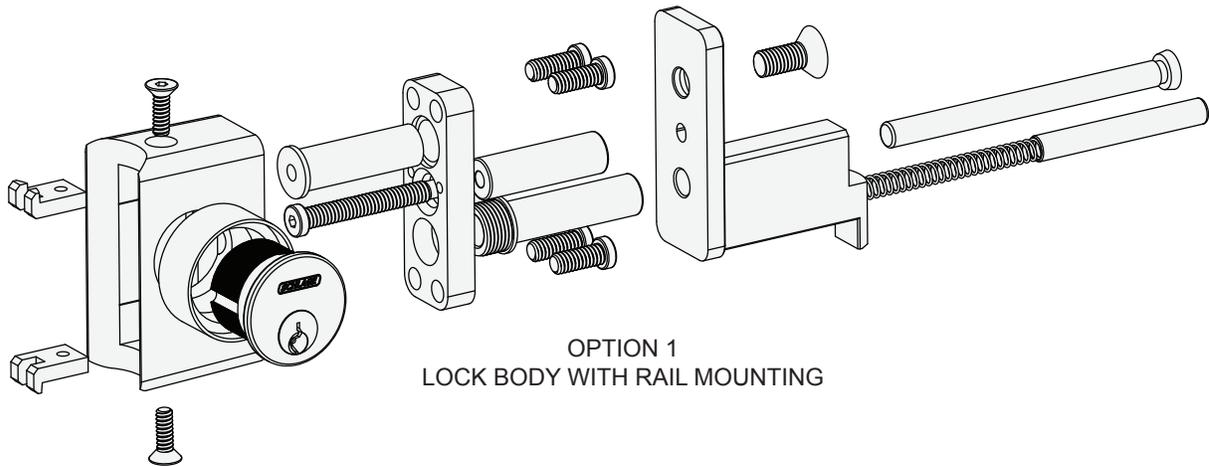
**DETAIL 9**

APPLY A THREAD-LOCK SOLUTION TO ALL FASTENERS DURING ASSEMBLY

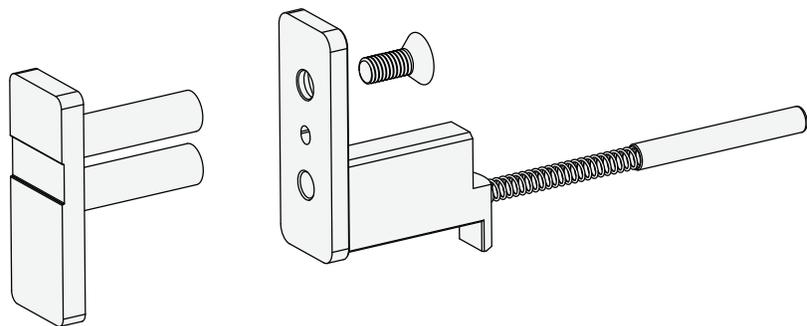
## Lock Options

### Step 6: ATTACHMENT OF THE LOCK MECHANISM

The PA100 and PA110 are available with and without locking mechanisms. Exterior Panic Bar styles A, X, and Y are either Option 2 or 3. All others are either Option 1 or 3. Identify your style and follow the illustrated details below for assembly.



DETAIL 10



**This completes the Panic Handle installation to the door. Please be careful not to lift the door with any portion of the Panic Handle.**

## Lock Options Available

	Lock Option 1		Lock Option 2		Lock Option 3	
	100	110	100	110	100	110
A	-	-	✓	✓	✓	✓
B	✓	-	-	✓	-	✓
C	-	✓	✓	-	✓	-
D	✓	-	-	✓	-	✓
E	-	✓	✓	-	✓	-
F	✓	✓	-	-	-	-
G	✓	-	-	✓	-	✓
H	✓	-	-	✓	-	✓
J	✓	-	-	✓	-	✓
JS	✓	-	-	✓	-	✓
K	-	✓	✓	-	✓	-
KS	-	✓	✓	-	✓	-
L	✓	✓	-	-	-	-
LS	✓	✓	-	-	-	-
M	✓	✓	-	-	-	-
MS	✓	✓	-	-	-	-
N	-	✓	✓	-	✓	-
P	-	✓	✓	-	✓	-
X	✓	-	-	✓	-	✓
Y	-	✓	✓	-	✓	-
Z	-	-	✓	✓	✓	✓

## 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 7770.

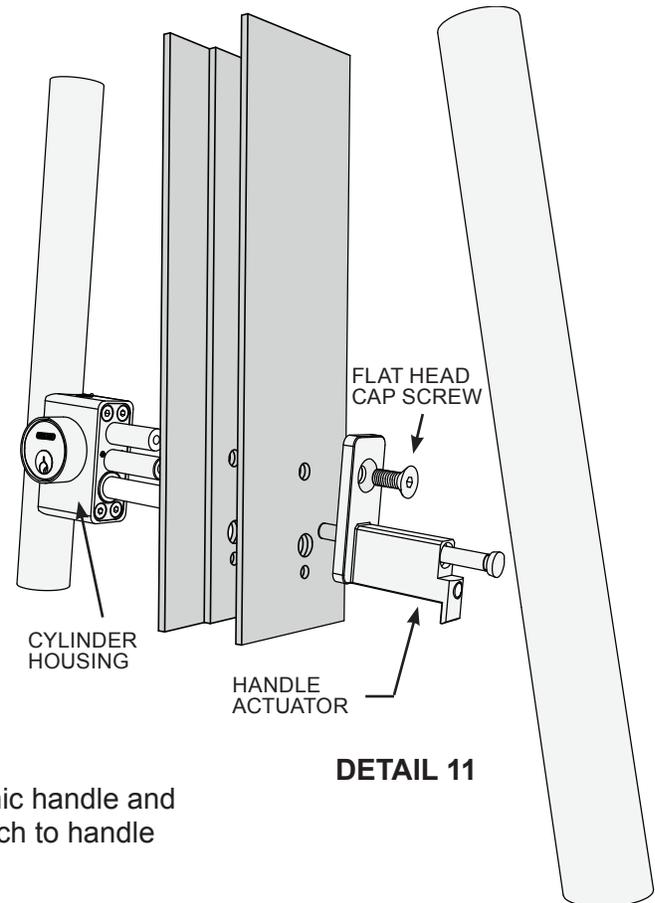
## Repair and Replacement of Lock Cylinder

Hold on to exterior Cylinder Housing and remove the flat head socket cap screw. Pull interior handle away from door frame to access and remove the Handle Actuator. Do not disconnect either of the Pivot Mounts that hold the Panic Bar to the door frame. (Detail 10)

Remove the set screw in the Cylinder Housing and remove the old cylinder.

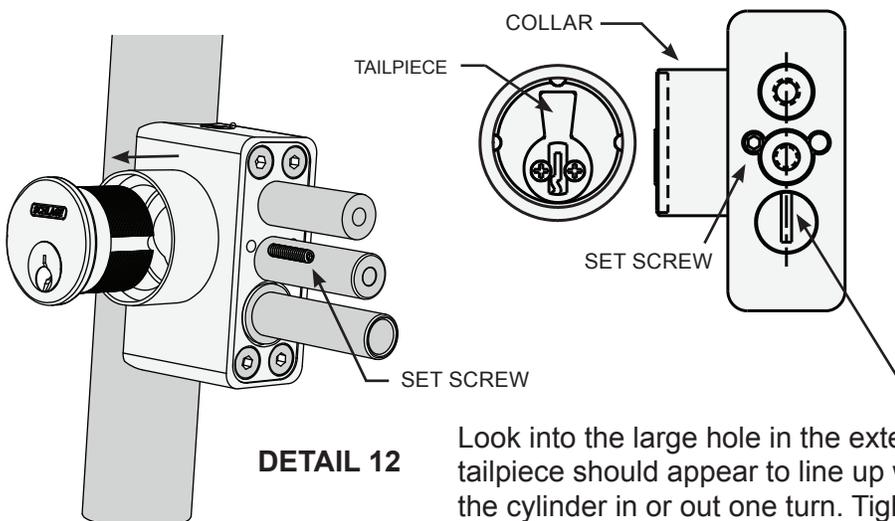
Check to see if tailpiece matches new cylinder tailpiece. Also, the length of the new cylinder must be the same as the old one. A cylinder of any other length will require a new length collar.

Wind in new cylinder until it stops inside the collar ring. Key slot should be on bottom of cylinder nearest the floor.



DETAIL 11

To reassemble system, insert handle actuator into panic handle and place against door. Replace cylinder housing and attach to handle actuator with flat head socket cap screw.



DETAIL 12

Look into the large hole in the exterior cylinder housing. Turn the key. The tailpiece should appear to line up with the centerline of the hole. If not, turn the cylinder in or out one turn. Tighten the set screw when complete.

# Actuator Inspection and Maintenance

## Critical Inspection Points:

### 1. Sliding Dog:

Inspect the Sliding Dog for unusual wear or marks. It should be smooth, straight, and slide easily when inserted.

*Remedy:* Clean or replace if necessary.

### 2. Spring and Ball:

Check for dirt and debris build up. This is often the cause of sticking or a slow return to the latching position.

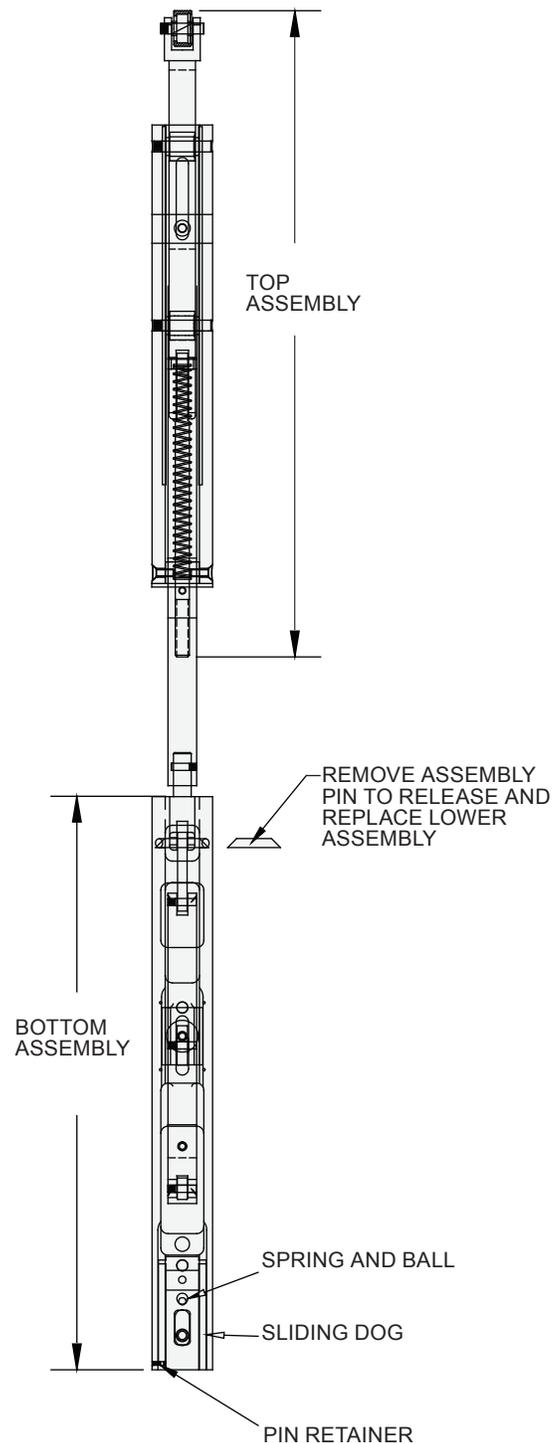
*Remedy:* Clean and lubricate.

### 3. Lower and Upper Bodies:

Carefully inspect both units for build up of debris, metal shavings, and old lubrication residue.

*Remedy:* Saturate with a spray cleaner like CRL Solvent and Degreaser (Cat. No. CRL60) followed by a blast of compressed air to free any remaining debris. Complete the process with a liberal application of a spray lubricant like CRL Metal Lube (Cat. No. 1200).

RE-INSTALL THE ASSEMBLIES. It is not necessary to separate the top and bottom units unless you are replacing them.



## Handle Care and Cleaning

### **Stainless Steel**

Mirror and Satin Polished Stainless Steel are two 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 Cat. No. CRL841 Stainless Steel Polish & Cleaner that cleans, polishes, and protects stainless steel without hard rubbing and polishing. Resists fingerprints, grease and water splatter. Helps preserve the factory finish.

Wipe with a clean, dry cloth such as the CRL 1550 Lint Free Shop Wipes that 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 and are virtually lint-free.

For periodic maintenance, mirror stainless can be polished with CRL 1188AS Autosol® Shine which 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.

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

Satin (brushed) 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.

### **Brass/Bronze**

Both are a softer metal. Regular inspection and maintenance is recommended.

#### **Satin (Brushed) Brass or 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 temporary 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 1188AS Autosol® Shine, which 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.