

# 8000 Series Door Closer

Parallel Rigid Arm (PR) or CloserPlus® (CLP) Series  
Non Hold Open or Hold Open,  
Installation Instructions

## ⚠ WARNING

This product can expose you to lead which is known to the state of California to cause cancer and birth defects or other reproductive harm. For more information go to: [www.P65warnings.ca.gov](http://www.P65warnings.ca.gov).

**Non-Hold Open Models**  
PR8101, PR8301, PR8501,  
CLP9101, CLP8301, CLP8501

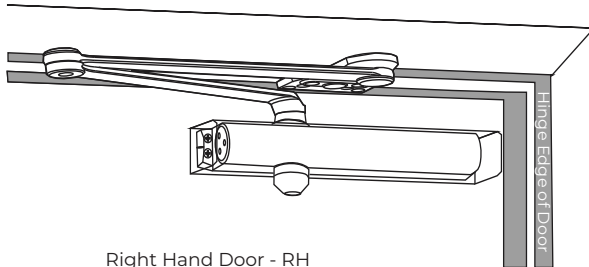
**Hold Open Models**  
PR8101H, PR8301H, PR8501H,  
CLP9101T, CLP8301T, CLP8501T

READ AND FOLLOW ALL INSTRUCTIONS.  
SAVE THESE INSTRUCTIONS.

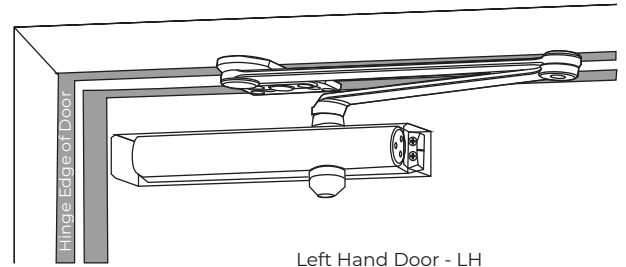
**CAUTION** An incorrectly installed or improperly adjusted door closer can cause property damage or personal injury. These instructions should be followed to avoid the possibility of misapplication or misadjustment. **CAUTION**

### Standard Frame Installation

Closer mounts on opposite to hinge (push) side of door. PR8301 Parallel Rigid Non-Hold Open arm illustrated. Slim Line Cover shown.  
Refer to pages 3 and 4



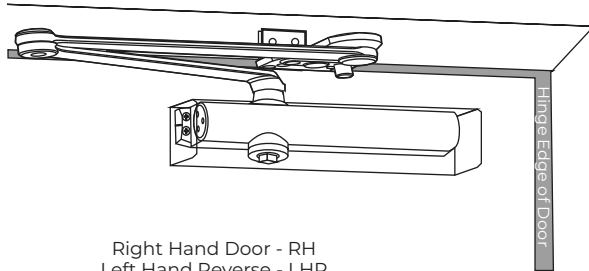
Right Hand Door - RH  
Left Hand Reverse - LHR



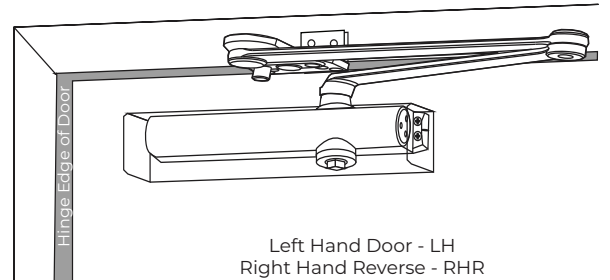
Left Hand Door - LH  
Right Hand Reverse - RHR

### Narrow Frame Installation

Closer mounts on opposite to hinge (push) side of door. CLP8501 CloserPlus arm illustrated. Full Cover shown.  
6890 and 6891 accessories required for this application (supplied separately).  
Refer to pages 3 and 4



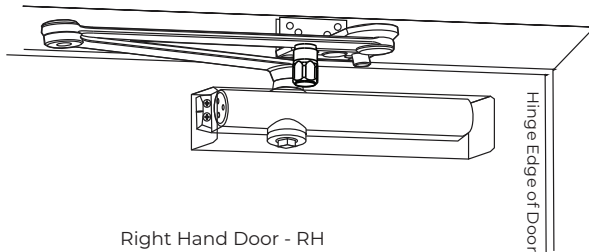
Right Hand Door - RH  
Left Hand Reverse - LHR



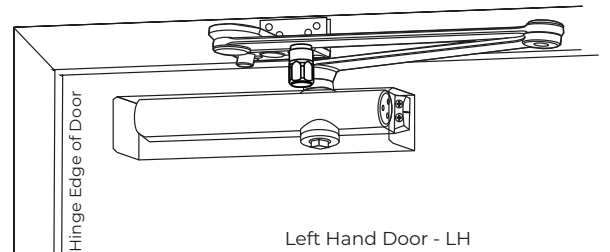
Left Hand Door - LH  
Right Hand Reverse - RHR

### Flush Partition Installation

Closer mounts on opposite to hinge (push) side of door. CLP8101T CloserPlus arm with Thumbturn Hold Open illustrated.  
Closer Cover not shown. 2019L accessory required for this application (supplied separately).  
Refer to pages 3 and 4



Right Hand Door - RH  
Left Hand Reverse - LHR



Left Hand Door - LH  
Right Hand Reverse - RHR

### Additional Closer Options:

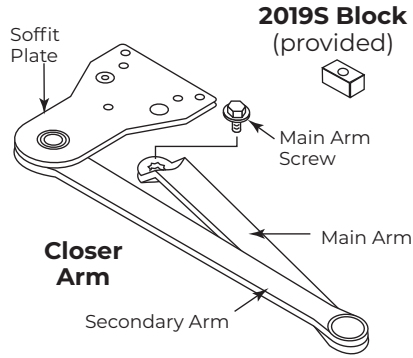
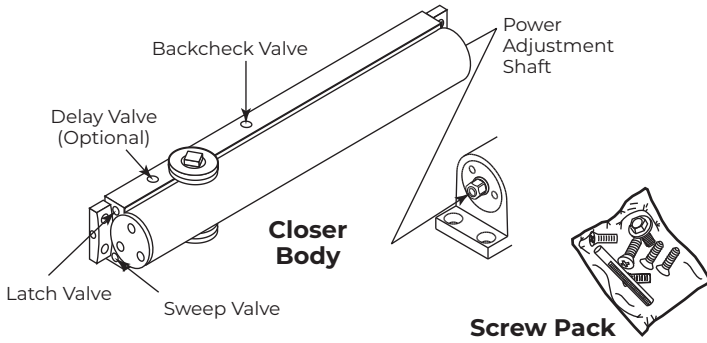
- "DA" indicates Delayed Action closing
- "H" indicates Hold Open function for "PR" prefix units. Arm is handed.
- "T" indicates Thumbturn actuated Hold-Open control for "CLP" prefix units

### Optional Accessories:

- 8148 Drop plate
- 2019L, 6890, 6891 Soffit Plate Accessories

# 8000 Series Parallel Rigid Arm (PR) or CloserPlus® (CLP)

## Components



## Optional Accessories

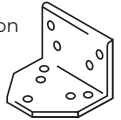
For Blade Stop  
6891 Spacer



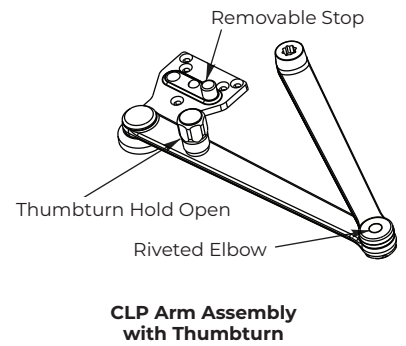
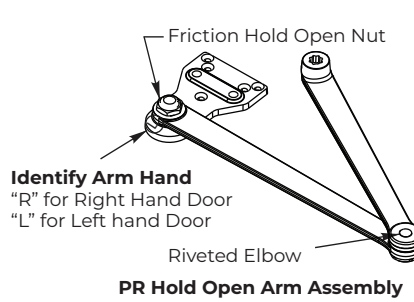
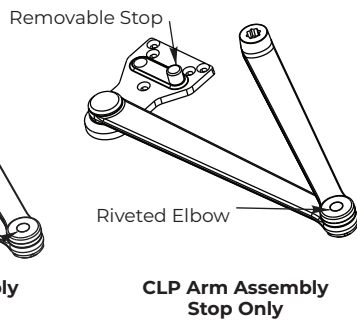
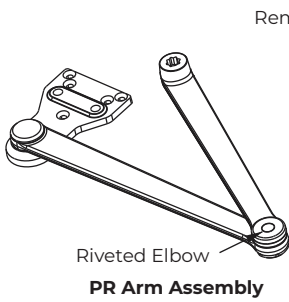
For Frame or  
Blade Stop  
6890 Bracket



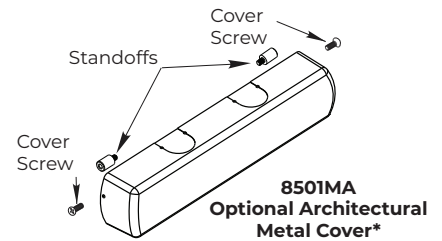
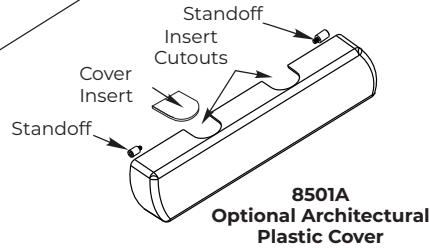
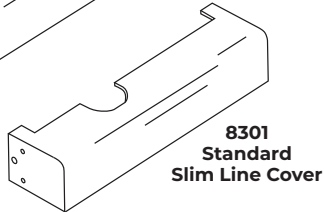
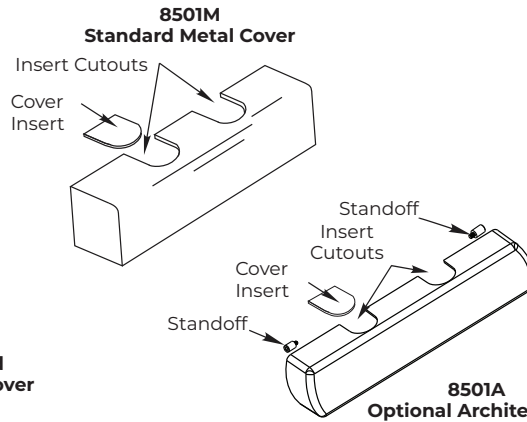
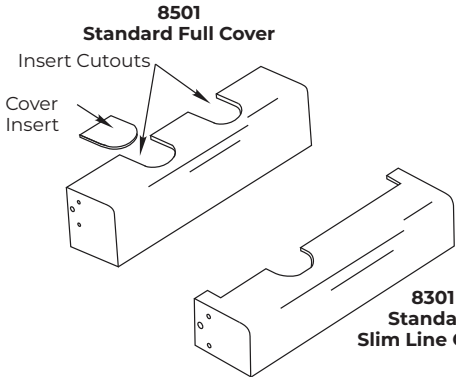
For Flush Partion  
2019L Bracket



## Arm Options



## Cover Options



**\*NOTE:**  
"Closers with the 'PR' prefix"  
cannot be installed on  
doors swinging beyond  
120° when using the  
8400A or 8400MA covers

| Preparation for Fasteners |                                |                   |   |
|---------------------------|--------------------------------|-------------------|---|
| Fasteners                 |                                | Door or Frame     | Drill-Sizes   |
| Standard                  | Self-Drilling Screw            | Aluminum or Metal | No drill required   |
|                           |                                | Wood (see Note)   | 3/16" (4.30mm) (pilot hole required)  |
|                           | 1/4"-20 Machine Screw          | Metal             | Drill: #7 (0.201" dia)<br>Tap: 1/4"-20  |
| Optional                  | Sleeve nuts and bolts          | Hollow Metal      | 9/32" (7mm) through;<br>3/8" (9.5mm) door face opposite of closer                     |
|                           |                                | Aluminum or Wood  | 3/8" (9.5mm) through  |
|                           | Through-bolts and grommet-nuts | All               | 9/32" (7mm);<br>3/8" (9.5mm) dia. x 3.8" (9.5mm) deep on door face opposite of closer |

**NOTE:** Pilot hole required when using self-drilling screws for wood door/frame applications.

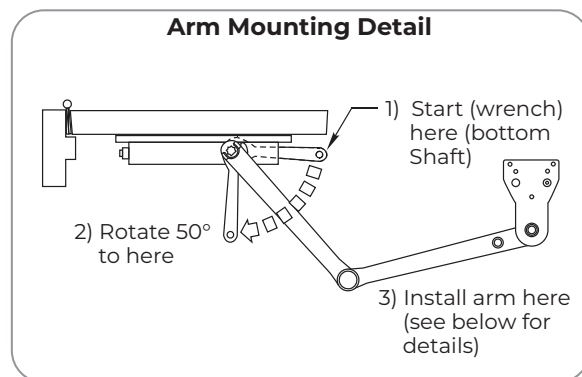
# 8000 Series Parallel Rigid Arm (PR) or CloserPlus® (CLP)

## Installation Sequence

- Select angle of opening and use dimensions (shown on page 4) and Dimension Chart below to locate 4 holes on stop side of door for closer body (or 8148 drop plate, only if required, see page 5) and 5 holes on stop and/or rabbet for Soffit Plate. For applications not covered in these instructions, a separate template will be required.
- Prepare door and frame for fasteners. See "Preparation for Fasteners" on page 2.
- Set approximate closer power for door size using Power Adjustment Chart below. Use 1/8" hex wrench supplied to adjust Power Adjustment Shaft (set at 8 turns from factory). 20 turns maximum. Turn nut **CLOCKWISE** to **Increase**, **COUNTERCLOCKWISE** to **Decrease** power. See Page 6 for the illustration of this step.
- Mount 8148 Dropplate if required (see page 5).
- Install closer with **power adjustment shaft toward hinge edge of door**.  
**NOTE:** If using full metal cover, cover mounting clips must be slipped under ends of closer when closer is being mounted. Clips should project 1/4" (6mm) beyond each end of closer.
- For suffix "H" only**, check that hand of arm matches hand of door. See arm illustration on page 2 for location of arm handing mark.
- With the door closed, close valves 'S' and 'L'. Using a wrench, turn the pinion shaft 50° or more to permit proper alignment of **arm mark** with **pinion flat** - 'L' for Left hand door. 'R' for Right hand door.
- See Arm Mounting Detail and Main Arm Installation at right below.  
**CAUTION:** Closer arm is under spring tension and may be difficult to rotate.
- Reopen valves 'S' and 'L' by turning counter clockwise.
- With door closed, align soffit plate with mounting holes in frame. Fasten soffit plate to frame with flat head screws provided. Use spacer blocks 2019S or 6891, if required.  
**CAUTION:** Closer arm is under spring tension and may be difficult to rotate.)
- Make closer adjustments (see page 6) before installing cover  
**NOTE:** DO NOT back valves out of closer or a leak will result.
- Install cover (see page 6).  
**NOTE:** Architectural Covers 8400A and 8400MA CAN NOT be used with "PR" prefix closers that are installed for doors openings in excess of 120°.

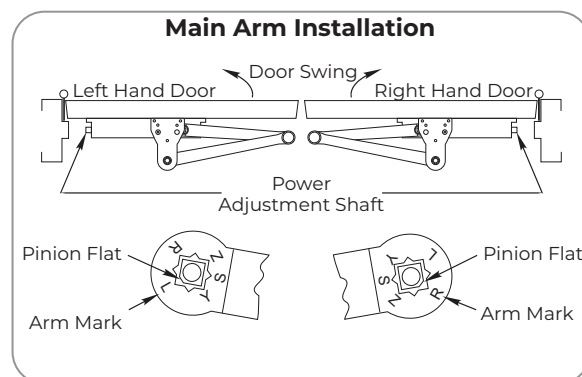
| Installation Dimensions Chart   |                              |                |                 |                 |                |                |                |                |               |  |
|---------------------------------|------------------------------|----------------|-----------------|-----------------|----------------|----------------|----------------|----------------|---------------|--|
|                                 | Dim                          | 85°-90°        | 90°-95°         | 95°-100°        | 100°-105°      | 105°-110°      | 110°-115°      | 115°-120°      | 120°-180°     |  |
| PR8101/ *<br>PR8301/<br>PR8501  | A                            | 3-3/4<br>(95)  |                 |                 |                |                |                |                | 1-1/4<br>(32) |  |
|                                 | B                            | 9-1/2<br>(241) |                 |                 |                |                |                |                | 7<br>(178)    |  |
| CLP8101/<br>CLP8301/<br>CLP8501 | Butt Hinges or Offset Pivots | A              | 5-1/2<br>(140)  | 4-3/4<br>(121)  | 4<br>(102)     | 3-3/8<br>(86)  | 2-3/4<br>(70)  | 2-1/8<br>(54)  |               |  |
|                                 |                              | B              | 11<br>(279)     | 10-1/4<br>(260) | 9-1/2<br>(241) | 8-7/8<br>(225) | 8-1/4<br>(210) | 7-5/8<br>(194) |               |  |
|                                 | Center Pivots                | A              | 5-3/8<br>(137)  | 4-5/8<br>(117)  | 3-7/8<br>(98)  | 3-1/4<br>(83)  | 2-5/8<br>(67)  | 2<br>(51)      |               |  |
|                                 |                              | B              | 10-7/8<br>(276) | 10-1/8<br>(257) | 9-3/8<br>(238) | 8-3/4<br>(222) | 8-1/8<br>(206) | 7-1/2<br>(191) |               |  |

\*Series PR8501A and PR8501MA CAN NOT be installed for 120° to 180° door openings.

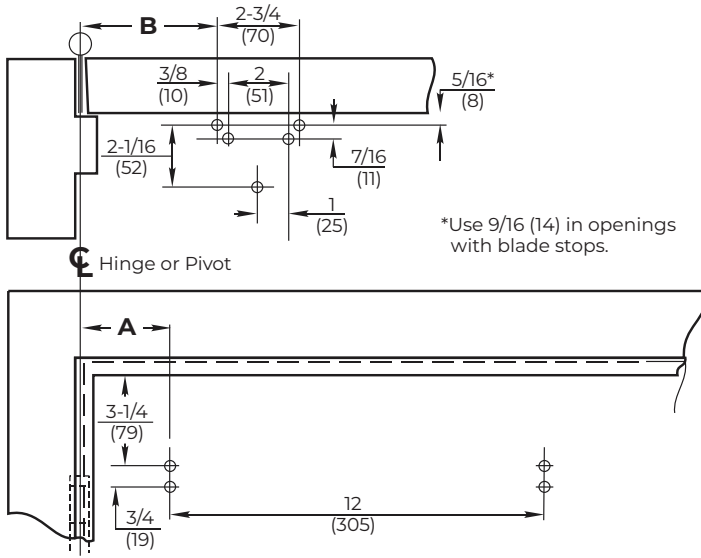


| Power Adjustment Chart                                |          |                      |                      |                       |                        |
|---|----------|----------------------|----------------------|-----------------------|------------------------|
| Full Clockwise Turns of Closer Power Adjustment Shaft |          |                      |                      |                       |                        |
|   | Door     | 28"-32"<br>(71-81cm) | 33"-36"<br>(84-91cm) | 37"-42"<br>(94-107cm) | 43"-48"<br>(109-122cm) |
| PR8101/PR8301/PR8501                                  | Interior | 7                    | 10                   | 13                    | 16                     |
|   | External | 9                    | 12                   | 15                    | 18                     |
| CLP8101/CLP8301/<br>CLP8501                           | Interior | 9                    | 11                   | 13                    | 15                     |
|   | External | 10                   | 12                   | 14                    | 16                     |

**NOTE:** Maximum of twenty (20) turns (360°) of Power Adjustment Shaft. Closer is shipped set at mid power setting.

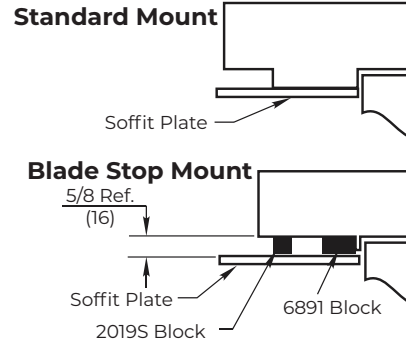


**Standard Frame**

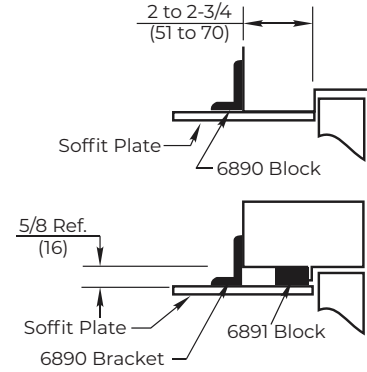
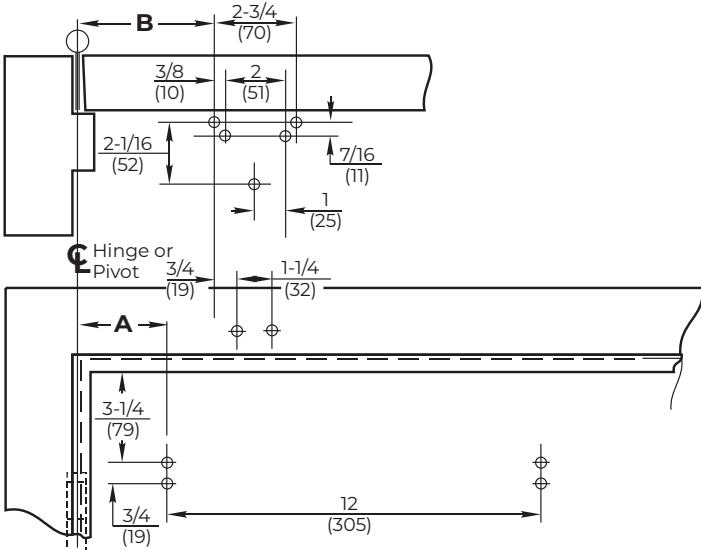


**NOTES:**

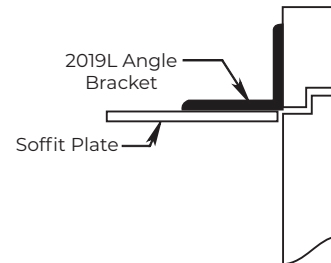
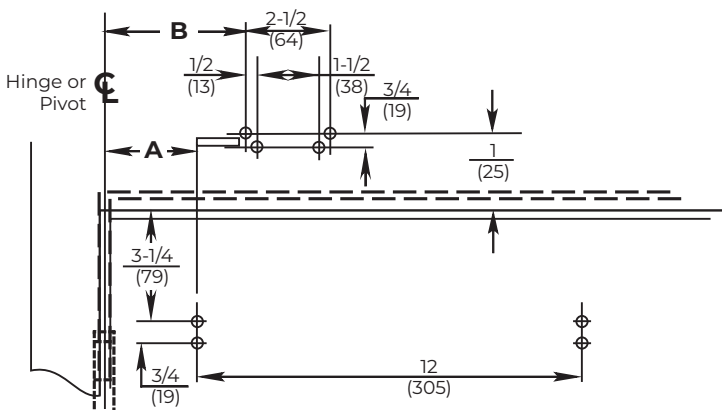
- Do Not Scale Drawing.
- Left Hand Door Shown.
- Same dimensions apply for Right Hand
- Door measured from centerline of pivot point.
- Dimensions are in inches (mm).
- See page 3 for A & B dimension values.



**Narrow Frame**



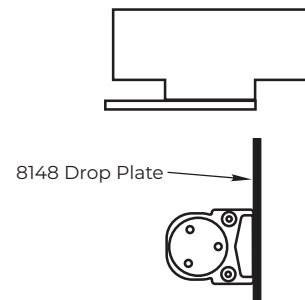
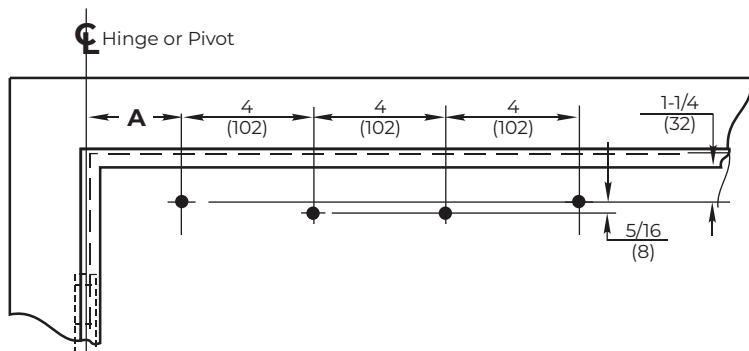
**Flush Partition**



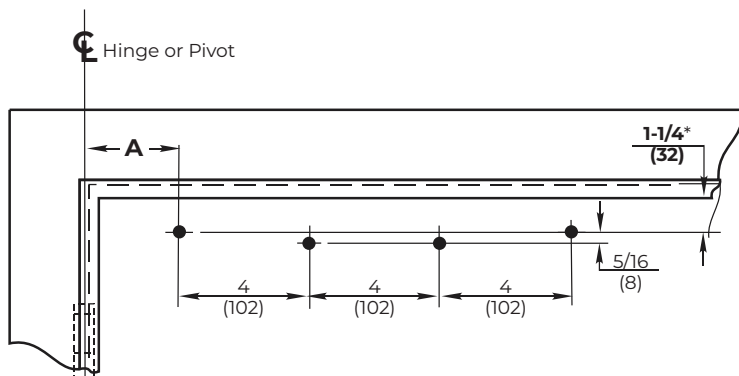
# 8000 Series Parallel Rigid Arm (PR) or CloserPlus® (CLP)

## 8148 Drop Plate Mounting Holes

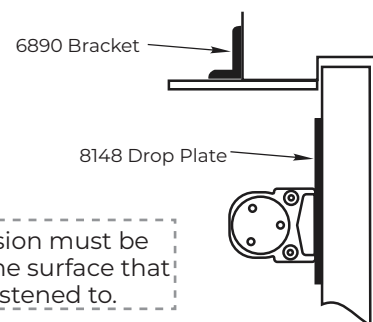
### Standard Frame



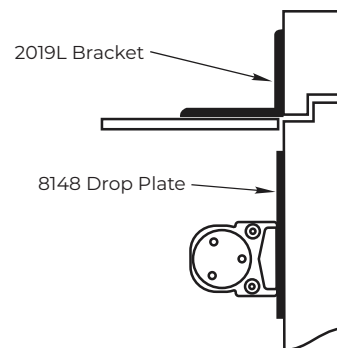
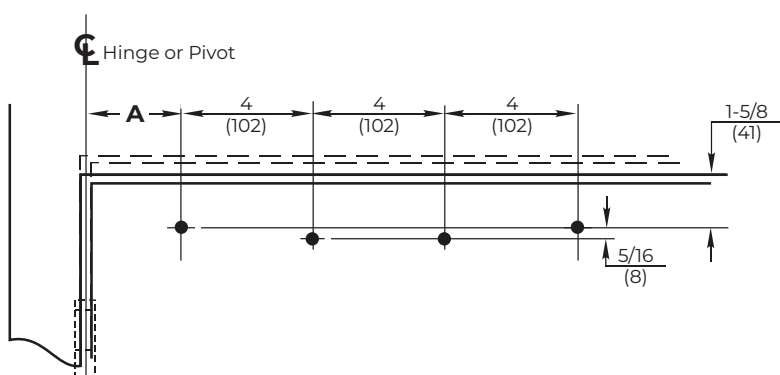
### Narrow Frame



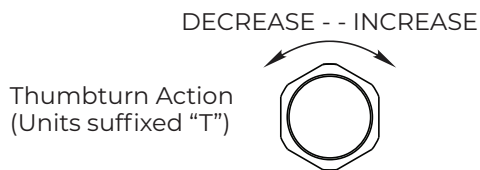
**\*NOTE:** This dimension must be taken from the same surface that the Soffit Plate is fastened to.



### Flush Partition



**Thumbturn Hold Open Feature** ("CLP" prefixed units only)  
The Thumbturn Hold Open feature is controlled by the knob located on the arm of the unit. Turning this knob clockwise will engage the Hold Open mechanism and increase the Hold Open force. Turning this knob counterclockwise will reduce the Hold Open force and disengage the Hold Open mechanism.



**Friction Hold-Open Feature** ("PR" prefixed units only)  
Hold door open to opening angle desired and tighten holder-adjustment-nut (wrench supplied) or use 1" Box or Open End wrench.



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## Adjustments

### Closing Power Adjustment (8X01 closers only) –

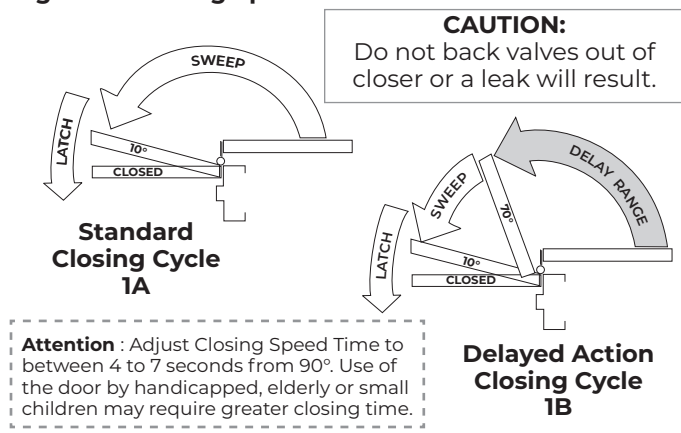
Using “Power Adjustment Chart” from Page 3, select the correct number of turns for power adjustment shaft that corresponds with the installation. With 1/8” hex-key provided, rotate adjustment shaft full 360° clockwise turns to desired setting. After closer has been installed and proper adjustments made to the sweep and latch, it may be necessary to readjust spring power for good closing action.

### Control Valve Adjustments (See Figure 2)

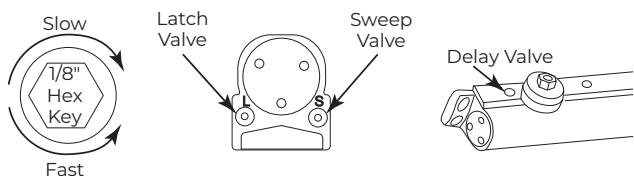
### Closing Speed Controls (Figure 1A or 1B and 2)

- Valve “S” Controls Sweep Range
- Valve “L” Controls Latch Range
- Valve “D” Controls Delay Range (optional)

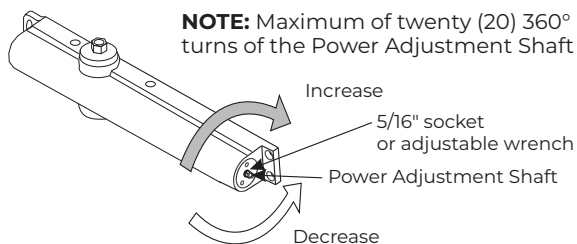
**Figure 1 - Closing Speed Controls**



**Figure 2 - Closing Speed Controls**



**Figure 3 - Closing Power Controls**



### Opening Cycle

“Backcheck” valve controls the strength of cushioning in Backcheck Range. NEVER close this valve completely – it is not to provide a positive stop. (Figure 4 and Figure 5)

### Cover (See Figure 6)

Full cover: Slide cover insert into the un-used cutout in cover. Install cover using screws provided.

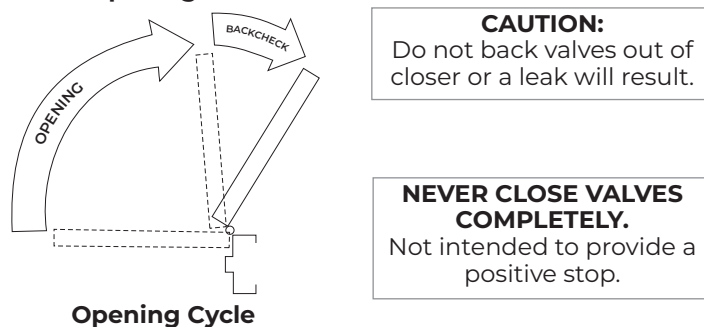
Slim Line cover: Install cover using screws provided. Install pinion cap onto pinion shaft by hand or with a Phillips screw driver - DO NOT OVER TIGHTEN.

Metal cover: Fasten cover to mounting clips with screws provided.

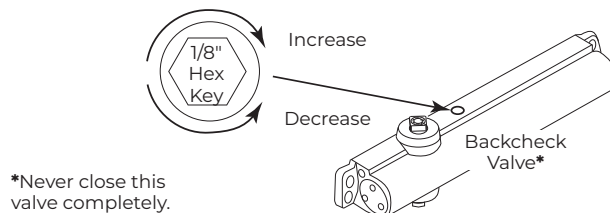
Architectural Metal Cover: Remove cover insert where pinion is located. Install standoffs in ends of closer. Install cover using screws provided.

Architectural Plastic Cover: Slide cover insert into the un-used cutout in cover. Install standoffs in ends of closer. Snap cover over standoffs.

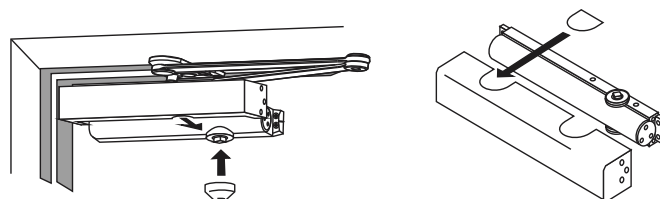
**Figure 4 - Opening Door Control**



**Figure 5 - Backcheck Control**



**Figure 6 - Cover Mounting**



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NortonRixson.com

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