Installation Instructions

CloserPlus Ramp™ Door Closers (CLP-R)

Model Numbers Included:

<table>
<thead>
<tr>
<th>Series</th>
<th>Function</th>
<th>Sizing</th>
</tr>
</thead>
<tbody>
<tr>
<td>CLP8101R</td>
<td>HO</td>
<td>1-6</td>
</tr>
<tr>
<td>CLP8301R</td>
<td>HO</td>
<td>1-6</td>
</tr>
<tr>
<td>CLP8501R</td>
<td>HO</td>
<td>1-6</td>
</tr>
<tr>
<td>CLP810XR</td>
<td>HO</td>
<td>2 THRU 6</td>
</tr>
<tr>
<td>CLP830XR</td>
<td>HO</td>
<td>2 THRU 6</td>
</tr>
<tr>
<td>CLP850XR</td>
<td>HO</td>
<td>2 THRU 6</td>
</tr>
</tbody>
</table>

*“X” Designates closer size 2, 3, 4, 5, or 6

Additional Closer Options:
- “DA” indicates Delayed Action closing
- “R” indicates Ramp Hold-Open function, not handed

Optional Accessories:
- 8148 Drop Plate
- 2019L, 6890, 6891 Soffit Plate Accessories

NOTE: For special applications a separate door and frame preparation template is packed with these instructions. In those cases, use this instruction sheet for installation sequence and closer adjustments only.

**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.

**Standard Frame Installation**
Closer mounts on opposite to hinge (push) side of door.
See Pages 3 and 4

**Narrow Frame Installation**
Closer mounts on opposite to hinge (push) side of door. 6890 and 6891 accessories required for this application (supplied separately)
See Pages 3 and 4

**Flush Partition Installation**
Closer mounts on opposite to hinge (push) side of door. 2019L accessory required for this application (supplied separately).
See Pages 3 and 4
Components
- Backcheck Valve
- Delay Valve (Optional)
- Latch Valve
- Sweep Valve
- Closer Body
- Power Adjustment Shaft
- Screw Pack
- 2019S Block (provided)

Optional Accessories
- For Blade Stop 6891 Spacer
- For Frame or Blade Stop 6890 Bracket
- For Flush Partition 2019L Bracket

Accessories
- For Blade Stop 6891 Spacer
- For Frame or Blade Stop 6890 Bracket
- For Flush Partition 2019L Bracket

Components
- Latch Valve
- Sweep Valve
- Closer Body
- Screw Pack
- Power Adjustment Shaft
- Soffit Plate
- Closer Arm
- Main Arm Screw

Optional Accessories
- For Blade Stop 6891 Spacer
- For Frame or Blade Stop 6890 Bracket
- For Flush Partition 2019L Bracket

Accessories
- For Blade Stop 6891 Spacer
- For Frame or Blade Stop 6890 Bracket
- For Flush Partition 2019L Bracket

Components
- Latch Valve
- Sweep Valve
- Closer Body
- Screw Pack
- Power Adjustment Shaft
- Soffit Plate
- Closer Arm
- Main Arm Screw

Optional Accessories
- For Blade Stop 6891 Spacer
- For Frame or Blade Stop 6890 Bracket
- For Flush Partition 2019L Bracket

Accessories
- For Blade Stop 6891 Spacer
- For Frame or Blade Stop 6890 Bracket
- For Flush Partition 2019L Bracket

Components
- Latch Valve
- Sweep Valve
- Closer Body
- Screw Pack
- Power Adjustment Shaft
- Soffit Plate
- Closer Arm
- Main Arm Screw

Optional Accessories
- For Blade Stop 6891 Spacer
- For Frame or Blade Stop 6890 Bracket
- For Flush Partition 2019L Bracket

Accessories
- For Blade Stop 6891 Spacer
- For Frame or Blade Stop 6890 Bracket
- For Flush Partition 2019L Bracket

Preparing for Fasteners

<table>
<thead>
<tr>
<th>Fasteners</th>
<th>Door or Frame</th>
<th>Drill-Sizes</th>
<th>Note:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Standard</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Self-Drilling Screw</td>
<td>Aluminum or Metal</td>
<td>No drill required</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Wood (see Note)</td>
<td>3/16&quot; (4.30 mm) (pilot hole required)</td>
<td></td>
</tr>
<tr>
<td>1/4&quot; - 20 machine screw</td>
<td>Metal</td>
<td>Drill: #7 (0.201&quot; dia.) Tap: 1/4&quot; - 20</td>
<td></td>
</tr>
<tr>
<td>Optional</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sleeve nuts and bolts</td>
<td>Hollow Metal</td>
<td>9/32&quot; (7 mm) through; 3/8&quot; (9.5 mm) door face opposite to closer</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Aluminum or Wood</td>
<td>3/8&quot; (9.5 mm) through</td>
<td></td>
</tr>
<tr>
<td>Through-bolts and grommet-nuts</td>
<td>All</td>
<td>9/32&quot; (7 mm); 3/8&quot; (9.5 mm) dia. x 3/8&quot; (9.5 mm) deep on door opposite to closer</td>
<td></td>
</tr>
</tbody>
</table>
Installation Instructions

- 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”, 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, COUNTER-CLOCKWISE to Decrease power. See Page 6 for the illustration of this step.

- Mount 8148 Droplate ... only 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.

- With door closed, closer valves ‘S’ and ‘L’. Then with a wrench, turn 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).

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### Installation Dimensions Chart

<table>
<thead>
<tr>
<th>Door Size</th>
<th>85°- 90°</th>
<th>90°- 95°</th>
<th>95°- 100°</th>
<th>100°- 105°</th>
<th>105°- 110°</th>
<th>110°- 115°</th>
<th>115°- 120°</th>
<th>120°- 180°</th>
</tr>
</thead>
<tbody>
<tr>
<td>Butt Hinges or Offset Pivots</td>
<td>A (in)</td>
<td>B (mm)</td>
<td>A (in)</td>
<td>B (mm)</td>
<td>A (in)</td>
<td>B (mm)</td>
<td>A (in)</td>
<td>B (mm)</td>
</tr>
<tr>
<td>CLP8100R</td>
<td>5-1/2 (140)</td>
<td>4-3/4 (121)</td>
<td>4 (102)</td>
<td>3-3/8 (86)</td>
<td>2-3/4 (70)</td>
<td>2-1/8 (54)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CLP8300R</td>
<td>11 (279)</td>
<td>10-1/4 (260)</td>
<td>9-1/2 (241)</td>
<td>8-7/8 (225)</td>
<td>8-1/4 (210)</td>
<td>7-3/8 (194)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CLP8500R</td>
<td>5-3/8 (137)</td>
<td>4-5/8 (117)</td>
<td>3-7/8 (98)</td>
<td>3-1/4 (83)</td>
<td>2-3/4 (67)</td>
<td>7-7/8 (51)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Center Pivots</td>
<td>A (in)</td>
<td>B (mm)</td>
<td>A (in)</td>
<td>B (mm)</td>
<td>A (in)</td>
<td>B (mm)</td>
<td>A (in)</td>
<td>B (mm)</td>
</tr>
<tr>
<td>CLP8100R</td>
<td>10-7/8 (276)</td>
<td>9-3/8 (238)</td>
<td>8-3/4 (222)</td>
<td>8-1/8 (206)</td>
<td>7-1/2 (191)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Power Adjustment Chart

<table>
<thead>
<tr>
<th>Door Size</th>
<th>95°- 100°</th>
<th>100°- 105°</th>
<th>105°- 110°</th>
<th>110°- 115°</th>
<th>115°- 120°</th>
<th>120°- 180°</th>
</tr>
</thead>
<tbody>
<tr>
<td>CLP8301R/CLP8501R</td>
<td>Interior</td>
<td>9</td>
<td>11</td>
<td>13</td>
<td>15</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Exterior</td>
<td>10</td>
<td>12</td>
<td>14</td>
<td>16</td>
<td></td>
</tr>
</tbody>
</table>

NOTE: Maximum of 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.

*Use 9/16 (14) in openings with blade stops.

Standard Mount

Soffit Plate

Blade Stop Mount

5/8 Ref.

(16)

Soffit Plate

6891 Block

Narrow Frame

Flush Partition

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80-9380-2216-020 (05-14)
The hold-open mechanism is controlled by the hex nut feature located on the secondary arm underneath cap. Remove the cap by pulling straight down. Use a 7/16” wrench to adjust. Turning hex nut feature clockwise will increase the hold-open force. Turning hex nut feature counterclockwise will reduce the hold-open force. Hold-open mechanism can not be disengaged.

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

DO NOT use a power drill or driver to turn adjustment nut. This will damage closer and void warranty.
Unit Adjustment
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).

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. (see Figure 4 and Figure 5).

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

Closing Power Adjustment
NOTE: Maximum of 20 360° turns of Power Adjustment Shaft

CAUTION: DO NOT BACK VALVES OUT OF CLOSER OR A LEAK WILL RESULT.

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NEVER CLOSE VALVES COMPLETELY - NOT INTENDED TO PROVIDE A POSITIVE STOP.