ASSA ABLOY

Installation Instructions

Parallel Arm Door Controls

Non Hold Open & Hold Open Models:

Series UNI-8300/UNI-8500
Available in sizes 2-3-4-5 or 6. Each power size can be increased by 50%.

Series UNI-8301/UNI-8501
Can be adjusted through a range of 1 through 6.

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.

Components:

- UniTrol Parallel Arm Assembly
- Optional Architectural Metal Cover (8400MA)
- Optional Metal Cover (8400M)
- Pinion Cap (1639)
- Optional Architectural Plastic Full Cover (8400A)
- Standard Full Cover (8400P)
- Optional Narrow Plastic Cover (8200P)
- Backcheck Valve
- Delay Valve (Optional)
- Sweep Valve
- Latch Valve
- Standard Frame Installation
- Deep Frame Installation
- Flush Transom Installation

*H* suffix indicates Hold Open Arm
*DA* suffix (Delayed Action) is an optional feature.

**NOTE:** For special applications a separate door and frame preparation template is packed with these instructions

Use this instruction sheet for installation sequence and closer adjustments only

- It is recommended that the door on which the door closer will be installed be hung on ball bearing hinges. Door must swing freely
- Door and Frame must be properly reinforced, or use of special fasteners employed, to prevent the mounting screw from pulling out.
- All dimensions are given in inches with corresponding metric dimensions (mm) in parenthesis.

Arm Identification

<table>
<thead>
<tr>
<th>Door Width</th>
<th>Non Hold Open</th>
<th>Hold Open</th>
</tr>
</thead>
<tbody>
<tr>
<td>28&quot; - 32&quot;</td>
<td>6100-11</td>
<td>6100-1</td>
</tr>
<tr>
<td>(0.70 - 0.80m)</td>
<td>11-6100-0235</td>
<td>11-6100-0232</td>
</tr>
<tr>
<td>33&quot; - 41&quot;</td>
<td>6100-13</td>
<td>6100-3</td>
</tr>
<tr>
<td>(0.85 - 1.00m)</td>
<td>11-6100-0236</td>
<td>11-6100-0233</td>
</tr>
<tr>
<td>42&quot; - 48&quot;</td>
<td>6100-14</td>
<td>6100-4</td>
</tr>
<tr>
<td>(1.05 - 1.20m)</td>
<td>11-6100-0237</td>
<td>11-6100-0234</td>
</tr>
</tbody>
</table>
Door Template Typical for All Installations
Frame Template for 1-7/8 to 4-5/8 Reveals

- Do not scale drawing.
- Left Hand door shown.
- Dimensions are in inches (mm).

- Door template is typical for all installations.
- Frame template must be selected according to frame reveal:

### Dimensions for Doors 28” to 32” Wide

<table>
<thead>
<tr>
<th>Opening</th>
<th>Dimension A</th>
<th>Dimension B</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hold Open</td>
<td>Stop</td>
<td>Inches</td>
</tr>
<tr>
<td>85°</td>
<td>90°</td>
<td>10-3/8</td>
</tr>
<tr>
<td>90°</td>
<td>95°</td>
<td>9-3/4</td>
</tr>
<tr>
<td>95°</td>
<td>100°</td>
<td>9-1/4</td>
</tr>
<tr>
<td>100°</td>
<td>105°</td>
<td>8-7/8</td>
</tr>
<tr>
<td>105°</td>
<td>110°</td>
<td>8-1/2</td>
</tr>
<tr>
<td>110°</td>
<td>115°</td>
<td>8-1/8</td>
</tr>
</tbody>
</table>

### Dimensions for Doors 33” to 41” Wide

<table>
<thead>
<tr>
<th>Opening</th>
<th>Dimension A</th>
<th>Dimension B</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hold Open</td>
<td>Stop</td>
<td>Inches</td>
</tr>
<tr>
<td>85°</td>
<td>90°</td>
<td>12-3/4</td>
</tr>
<tr>
<td>90°</td>
<td>95°</td>
<td>12</td>
</tr>
<tr>
<td>95°</td>
<td>100°</td>
<td>11-1/2</td>
</tr>
<tr>
<td>100°</td>
<td>105°</td>
<td>11</td>
</tr>
<tr>
<td>105°</td>
<td>110°</td>
<td>10-1/2</td>
</tr>
<tr>
<td>110°</td>
<td>115°</td>
<td>10-1/8</td>
</tr>
</tbody>
</table>

### Dimensions for Doors 42” to 48” Wide

<table>
<thead>
<tr>
<th>Opening</th>
<th>Dimension A</th>
<th>Dimension B</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hold Open</td>
<td>Stop</td>
<td>Inches</td>
</tr>
<tr>
<td>85°</td>
<td>90°</td>
<td>15-1/2</td>
</tr>
<tr>
<td>90°</td>
<td>95°</td>
<td>14-1/4</td>
</tr>
<tr>
<td>95°</td>
<td>100°</td>
<td>13-5/8</td>
</tr>
<tr>
<td>100°</td>
<td>105°</td>
<td>13</td>
</tr>
<tr>
<td>105°</td>
<td>110°</td>
<td>12-1/2</td>
</tr>
<tr>
<td>110°</td>
<td>115°</td>
<td>12-1/8</td>
</tr>
</tbody>
</table>

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Installation Sequence

- **Read Front Page.**
  Installations and component identification are on this page. Arm assembly must be correct for width of door, see chart.

- **Select Correct Door and Frame Template Combination.**
  Follow “Template Information” on Page 2 or Pages 2 and 3.

- **Mark Location of Mounting Holes.**
  Use dimensions for hold-open or door stop angle desired. Mark position of 4 holes on door for closer (or drop plate) and 6 holes on frame for soffit plate (or 4 for 2022 angle bracket).

- **Prepare Holes for Fasteners.**
  See chart on Page 2.

- **Set closer average power.**
  For multi-size closers only, use “Power Setting-Multisize Closers” chart on page 4.

- **Mount Closer to Door.**
  Dropplate first, if used. Place end with “S” and “L” valves toward the lock edge of the door. (Slip clips for optional full metal cover, 8400M, under closer feet, if this cover is used.)

- **Mount Arm to Frame.**
  Fasten soffit plate (or 2022 angle bracket if flush partition) to frame. Mount 6190 bracket or 6191 clamps to reinforce soffit plate. Or fasten 2022 bracket to frame and then soffit plate to 2022 bracket.

- **Install Arm on Pinion Shaft.**
  Close valves “S” and “L”. Rotate pinion over 45° to align main arm letter “R” (right hand) or “L” (left hand) with pinion flat. Fasten with arm screw. See “Typical Installation” figure above right. Re-open valves “S” and “L”.

- **Adjust Closer.**
  See “Unit Adjustment” on Page 4.

- **Install Cover and Pinion Cap, if required.**
  **8400 Full Cover:** Slide cover insert into the un-used cutout in cover. Install cover using screws provided.

  **8200P 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.

  **8400M Full Metal Cover:** Fasten cover to mounting clips with screws provided.

  **8400MA Metal Architectural Cover:** Remove cover insert where pinion is located. Install standoffs in ends of closer. Install cover using screws provided.

  **8400A Plastic Architectural Cover:** Slide cover insert into the un-used cutout in cover. Install standoffs in ends of closer. Snap cover over standoffs.

**NOTE:** Architectural Covers CAN NOT be used for doors swinging over 120° using parallel mount.
Unit Adjustment

Closing Speed Controls

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

Standard Closing Cycle

3A

10°
LATCH
CLOSED

Delayed Action

Closing Cycle

3B

10°
LATCH
CLOSED

NOTE: By law the Americans with Disabilities Act (ADA) may require that door closer installation comply with accessibility guidelines.

Opening Cycle

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

Opening Door Control

Closing Power Control

Use 5/16" socket or adjustable wrench for adjustment.

To increase power turn Spring Adjustment Shaft clockwise. A total of 20 360° turns of the nut will provide maximum power.

Power Adjustment Chart (Multi Size Closers)

<table>
<thead>
<tr>
<th>DOOR</th>
<th>PARALLEL ARM INSTALLATION</th>
<th>MAXIMUM DOOR SIZE</th>
</tr>
</thead>
<tbody>
<tr>
<td>INT</td>
<td>UNI-8301/UNI-8501</td>
<td>28-32&quot; (0.70-0.80 m)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>33-41&quot; (0.85-1.00 m)</td>
</tr>
<tr>
<td>EXT</td>
<td></td>
<td>42-48&quot; (1.05-1.20 m)</td>
</tr>
</tbody>
</table>

|        | MAX # of turns |
| INT    | 7             |
| EXT    | 9             |

*20 - 360° TURNS MAXIMUM AVAILABLE

Backcheck Control

Increase

1/8" Hex Key

Decrease

1/8" Hex Key

* NEVER close this valve completely.

Bracket Illustrations

Standard 6190 Bracket

Deep Reveal Option

Spacer Block

Clamps

2 Clamp Screws

No. 6191 Reinforcing Kit

Flush Partition Option

No. 2022 Bracket

No. 6191 Reinforcing Kit

Hold-Open option is found at the arm elbow. To select hold-open “on” or hold-open “off” and to adjust the hold-open force ... use screwdriver as illustrated.

Door Holder Option

Hold-Open Force

Press & Turn

Turn 90° To "Off"

To Decrease Force

To Increase Force

Hold-Open

ASSA ABLOY

3000 Highway 74 East • Monroe, NC 28112
Tel: (877)-974-2255 • Fax: (800)-338-0965
www.nortondoorcontrols.com

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