Installation Instructions

UniTrol®

UNI-J1600BC Series Sized Closers
UNI-J1601 Series Multi-Sized Closers

Non Hold Open (UL Listed)
Hold Open (H) (Not UL Listed):

<table>
<thead>
<tr>
<th>Models</th>
<th>Series UNI-J1600</th>
<th>Series UNI-J1600H</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sized (Sizes 3, 4)</td>
<td>Door Stop ... Door Closer</td>
<td>Door Stop ... Door Holder ... Door Closer</td>
</tr>
<tr>
<td></td>
<td>UL Listed for Fire Doors</td>
<td>(On-Off Hold-Open Control) Not UL Listed</td>
</tr>
<tr>
<td>Multi-Sized (Sizes 1 thru 6)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>UNI-J1603BC(H)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>UNI-J1604BC(H)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>UNI-J1601(H)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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

CAUTION

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 screws from pulling out.
- All dimensions are given in inches with corresponding metric dimensions (mm) in parenthesis.

Components:

- Power Adjustment Screw (1/8 Hex Drive)
  - 1601 Only
- “BC” Valve
- Pinion Cap
- Size Stamp
- “L’Valve”
- “S’Valve”
- 2 Sleeve-nuts
- Rod Unit (Arm Number Stamp)
- Main Arm Screw
- Rod Screws
- Slide unit
- Holder Control

Optional

Thru-Bolt & Grommet Nuts

These installation instructions cover either of the models illustrated.

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80-9316-2534-020 Rev 1
**Installation Sequence**

- **This page for installation on hollow-metal or wood. For aluminum doors and frame use Page 3.**

- Select door opening angle using template above. Mark 4 holes on frame face for closer and 2 holes on door for arm foot.

- Prepare door and frame for fasteners. See “Preparation for Fasteners” below.

- **1601 Models Only.** Set approximate closing power using “Power Adjustment Chart” at bottom of Page 3.

- Install closer to frame face with 2 regulating valves toward hinge edge of door.

- Remove rod unit from arm assembly.

- Install main arm onto closer pinion shaft, indexing main arm mark “S” with pinion flat as shown at right. Fasten with arm screw.

- Mount arm foot to door. Position foot with rod on top and spring toward hinge.

- Reassemble arm. Adjust forearm perpendicular (at a 90° angle) to the door. Install and tighten rod screws.

- Screw pinion cap onto pinion shaft by hand or with a Phillips screw driver - **DO NOT OVER TIGHTEN.**

- Adjust closer.

**Preparation for Fasteners**

<table>
<thead>
<tr>
<th>Fasteners</th>
<th>Door or Frame</th>
<th>Drill-Sizes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Self-Drilling Screw</td>
<td>Aluminum or Metal</td>
<td>No drill required</td>
</tr>
<tr>
<td></td>
<td>Wood</td>
<td>3/16” (4.30 mm) Pilot hole required</td>
</tr>
<tr>
<td></td>
<td>1/4” - 20 machine screw</td>
<td>Metal Drill: #7 (0.201” dia.) Tap: 1/4” - 20</td>
</tr>
<tr>
<td>Sleeve nuts and bolts</td>
<td>Hollow Metal</td>
<td>9/32” (7 mm) through; 3/8” (9.5 mm) door face opposite to closer</td>
</tr>
<tr>
<td></td>
<td>Aluminum or Wood</td>
<td>3/8” (9.5 mm) through</td>
</tr>
</tbody>
</table>
Installation Sequence

- This page for installation on aluminum doors and frames only.

- Select door opening angle using template above. Mark 4 holes on frame face for closer and 2 holes on door for arm foot.

- Prepare door and frame for fasteners. See "Preparation for Fasteners" at bottom of Page 2.

- 1601 Models Only. Set approximate closing power using "Power Adjustment Chart" below.

- Install closer to frame face with 2 regulating valves toward hinge edge of door.

- Remove rod unit from arm assembly.

- Install main arm onto closer pinion shaft, indexing main arm mark “S” with pinion flat as shown at right. Fasten with arm screw.

- Mount arm foot to door. Position foot with rod on bottom and spring toward hinge.

- Reassemble arm. Adjust forearm perpendicular (at a 90° angle) to the door. Install and tighten rod screws.

- Screw pinion cap onto pinion shaft by hand or with a Phillips screw driver - DO NOT OVER TIGHTEN.

- Adjust closer.

**Power Adjustment Chart**

<table>
<thead>
<tr>
<th>Door</th>
<th>MAXIMUM DOOR SIZE</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>36° (0.9 m)</td>
</tr>
<tr>
<td>INT</td>
<td>1601</td>
</tr>
<tr>
<td>EXT</td>
<td></td>
</tr>
</tbody>
</table>

*30 -360° TURNS MAXIMUM AVAILABLE*
Unit Adjustment

Closing Speed Control

- Valve “S” controls Sweep Range.
- Valve “L” controls Latch Range.

Attention: Adjust Closing Speed
Time to between 4 to 7 seconds
from 90°. Use of the door by
handicapped, elderly or small
children may require greater
closing time. ADA code requires
that door take at least 3
seconds to close from 70° of
door opening to within 3”
(75mm) of the closed position.

Opening Door Control

- Backcheck (“BC”) valve controls the hydraulic resistance to door opening in backcheck range.
- NEVER close this valve completely – it is not to provide a positive stop.

Closing Power Control

- 1/8” Hex Key

Power Adjustment Chart

<table>
<thead>
<tr>
<th>DOOR</th>
<th>TOP JAMB INSTALLATION</th>
<th>MAXIMUM DOOR SIZE</th>
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<tbody>
<tr>
<td></td>
<td>*30 -360° TURNS MAXIMUM AVAILABLE</td>
<td></td>
</tr>
</tbody>
</table>

Adjust as required. Product is shipped at approximately 8 turns of spring adjust.

Door Holder Option

- Hold-Open “On”
- Hold-Open “Off”

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.

To identify your model:

1 - 6=1601
3=1603BC
4=1604BC

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

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

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