



Installation Instructions

80-9303-2214-010 (07-08)

UNI Stop/Holder

| | Non Hold Open | Hold Open | Sizing |
|--------------------|---------------|------------|---------------------|
| Series No.* | UNI TJ3300 | UNI TJ3310 | 2, 3, 4, 5 or 6 |
| | UNI TJ3301 | UNI TJ3311 | Multi-Size 1 thru 6 |
| | UNI TJ3500 | UNI TJ3510 | 2, 3, 4, 5 or 6 |
| | UNI TJ3501 | UNI TJ3511 | Multi-Size 1 thru 6 |

* These series have a DELAYED ACTION CLOSING option available that is identified with a "DL" suffix to the series number.



The closing force for these series door closers is adjustable from a size 1 to a size 6, as outlined in ANSI Standard A156.4. When these series of door closers are installed and adjusted to conform to ADA reduced opening force requirements (5 lbs max.) for interior doors, they may not have adequate closing

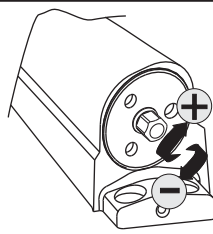
force to reliably close and latch the door. Power adjustments charted on Page 4 are recommended where possible, to ensure proper door control.

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.



- Always use template covering door-opening-angle desired, correct door-thickness and frame-reveal, and door-hanging-hardware being used. Template dimensions in these instructions (page 2) cover frame reveals to 7-3/8" (187mm) in opening with 1-3/4" (44mm) thick doors hung on 4-1/2" (114mm) wide template-hinges (figure 2), 3/4" (19mm) offset-pivots (figure 2) or center-pivots (figure 3).
- Check hand of door: right or left (see figure 5, page 3). Make sure that door opens the full angle desired and latches without any binding action or interference. Note that hold-open units will require that door swing five (5) degrees past hold-open point, to dead-stop position.
- It is suggested that sex-nuts and bolts be used to mount arm-foot and to mount closer to flush partitions.
- Top Jamb Unitrols are supplied with arm rod units according to frame-reveal. An arm number is stamped on the arm rods, as shown on Figures 2 and 3 (page 2).



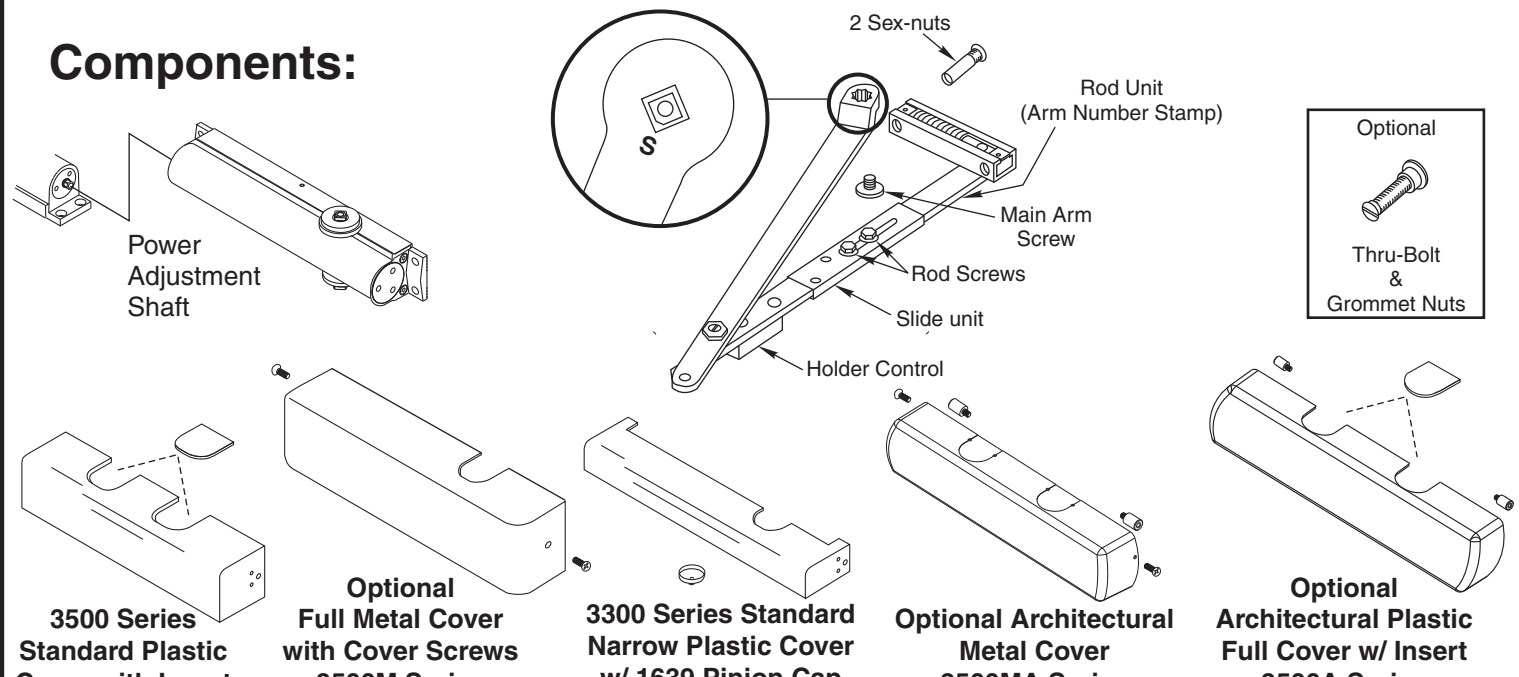
Power Adjust


Use 5/16" Socket or Adjustable Wrench for this Adjustment

| DOOR | Number of Turns Required | | | |
|---------------|--------------------------|----------------|----------------|----------------|
| | MAXIMUM DOOR SIZE | | | |
| | 32" (0.85M) | 36" (0.90M) | 42" (1.00M) | 48" (1.20M) |
| Interior Door | 4 | 7 | 8 | 9 |
| Exterior Door | 7 | 8 | 10 | 12 |

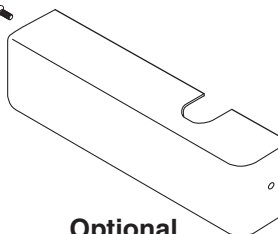
NOTE: Maximum of 20 turns (360°) of Power Adjustment Shaft. Closer is shipped set at 10 turns.

Components:

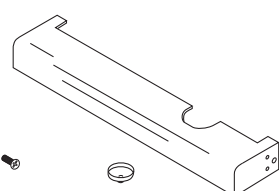




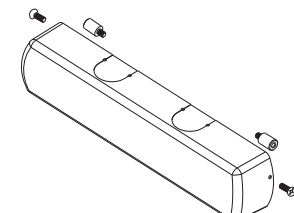
3500 Series Standard Plastic Cover with Insert



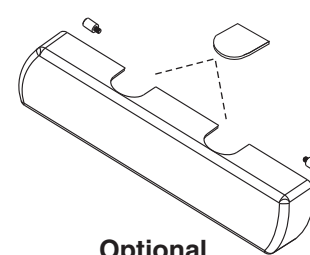
Optional Full Metal Cover with Cover Screws 3500M Series



3300 Series Standard Narrow Plastic Cover w/ 1639 Pinion Cap




Optional Architectural Metal Cover 3500MA Series



Optional Architectural Plastic Full Cover w/ Insert 3500A Series

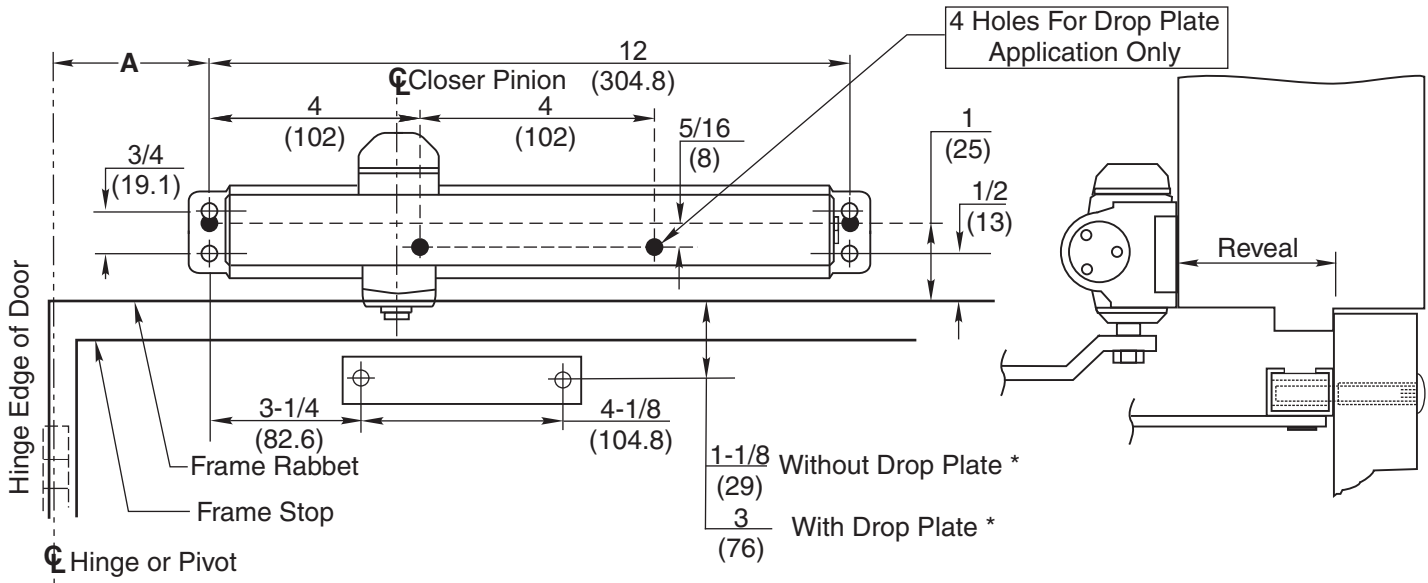
Optional



Thru-Bolt & Grommet Nuts

Top-Jamb Installation Template

Figure 1



* Always use frame or transom rabet as reference plane, not bottom of stop.

** For 1-3/4" door with 4-1/2" wide butts or 3/4" offset-pivots, see Figure 2.
For 1-3/4" door with center-pivots, see Figure 3.
All other conditions require special template.

Do Not Scale Drawing

Left Hand Door Shown

Dimensions are in $\frac{\text{inches}}{\text{(mm)}}$

Door-Control location for 1-3/4" (44mm) thick doors hung on 4-1/2" (114mm) wide template-hinges or 3/4" (19mm) offset-pivots. **Figure 2**

| Arm Number Stamp | Non-Holder | J6600-4 | J6200-4 | J6100-4 | J6400-4 | J6500-41 | J6400-42 | J6500-43 | | | | | | | |
|--------------------|------------|-------------|---------|---------------|---------------|---------------|---------------|---------------|-----|--------|-----|--------|-----|--------|-----|
| | Hold-Open | J6600-7 | J6200-7 | J6100-7 | J6400-7 | J6500-71 | J6400-72 | J6500-73 | | | | | | | |
| Reveal | inches | 0 - 3/8 | 1/2 - 2 | 2-1/2 - 3-1/4 | 3-3/8 - 4-1/4 | 4-3/8 - 5-3/8 | 5-1/2 - 6-3/8 | 6-1/2 - 7-3/8 | | | | | | | |
| | mm | 0 - 10 | 13 - 50 | 55 - 83 | 85 - 108 | 111 - 137 | 140 - 162 | 165 - 187 | | | | | | | |
| Door Opening Angle | | Dimension A | | Dimension A | | Dimension A | | Dimension A | | | | | | | |
| Hold Open | Door Stop | inches | mm | inches | mm | inches | mm | inches | mm | inches | mm | inches | mm | inches | mm |
| 85° | 90° | 9-7/8 | 251 | 9-7/8 | 251 | 10 | 254 | 10 | 254 | 10-1/8 | 257 | 10-1/4 | 260 | 10-1/4 | 260 |
| 90° | 95° | 9-1/4 | 235 | 9-1/4 | 235 | 9-3/8 | 238 | 9-3/8 | 238 | 9-1/2 | 241 | 9-5/8 | 244 | 9-5/8 | 244 |
| 95° | 100° | 8-5/8 | 219 | 8-5/8 | 219 | 8-3/4 | 222 | 8-3/4 | 222 | 8-7/8 | 225 | 9 | 229 | 9 | 229 |
| 100° | 105° | 8-1/8 | 206 | 8-1/8 | 206 | 8-1/4 | 210 | 8-1/4 | 210 | 8-3/8 | 213 | 8-1/2 | 216 | 8-1/2 | 216 |
| 105° | 110° | 7-5/8 | 194 | 7-5/8 | 194 | 7-7/8 | 200 | 7-7/8 | 200 | 8 | 203 | 8-1/8 | 206 | 8-1/8 | 206 |
| 110° | 115° | 7-1/4 | 184 | 7-1/4 | 184 | 7-1/2 | 191 | 7-1/2 | 191 | 7-3/4 | 197 | 7-7/8 | 200 | 7-7/8 | 200 |

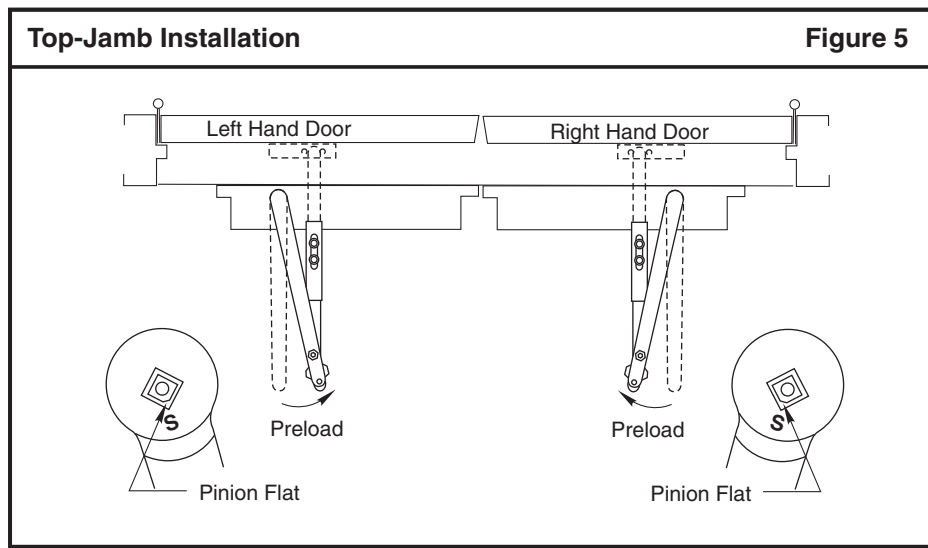
Door-Control location for 1-3/4" (44mm) thick doors hung on center pivots. **Figure 3**

| Arm Number Stamp | Non-Holder | J6600-4 | J6200-4 | J6100-4 | J6400-4 | J6500-41 | J6400-42 | J6500-43 | | | | | | | |
|--------------------|------------|-------------|---------|---------------|---------------|---------------|---------------|---------------|-----|--------|-----|--------|-----|--------|-----|
| | Hold-Open | J6600-7 | J6200-7 | J6100-7 | J6400-7 | J6500-71 | J6400-72 | J6500-73 | | | | | | | |
| Reveal | inches | 0 - 3/8 | 1/2 - 2 | 2-1/2 - 3-1/4 | 3-3/8 - 4-1/4 | 4-3/8 - 5-3/8 | 5-1/2 - 6-3/8 | 6-1/2 - 7-3/8 | | | | | | | |
| | mm | 0 - 10 | 13 - 50 | 55 - 83 | 85 - 108 | 111 - 137 | 140 - 162 | 165 - 187 | | | | | | | |
| Door Opening Angle | | Dimension A | | Dimension A | | Dimension A | | Dimension A | | | | | | | |
| Hold Open | Door Stop | inches | mm | inches | mm | inches | mm | inches | mm | inches | mm | inches | mm | inches | mm |
| 85° | 90° | 10-1/4 | 260 | 10-3/8 | 264 | 10-3/8 | 264 | 10-1/2 | 264 | 10-5/8 | 270 | 10-3/4 | 273 | 10-3/4 | 273 |
| 90° | 95° | 9-1/2 | 241 | 9-3/4 | 246 | 9-3/4 | 246 | 9-7/8 | 251 | 10 | 254 | 10-1/8 | 257 | 10-1/8 | 257 |
| 95° | 100° | 9 | 229 | 9-1/8 | 232 | 9-1/4 | 235 | 9-1/4 | 235 | 9-3/8 | 238 | 9-1/2 | 241 | 9-1/2 | 241 |
| 100° | 105° | 8-3/8 | 213 | 8-1/2 | 216 | 8-3/4 | 222 | 8-3/4 | 222 | 9 | 229 | 9-1/8 | 232 | 9-1/8 | 232 |
| 105° | 110° | 8 | 203 | 8-1/8 | 206 | 8-1/4 | 210 | 8-3/8 | 213 | 8-5/8 | 219 | 8-3/4 | 222 | 8-3/4 | 222 |
| 110° | 115° | 7-1/2 | 191 | 7-3/4 | 197 | 7-7/8 | 200 | 8 | 203 | 8-1/4 | 210 | 8-3/8 | 213 | 8-3/8 | 213 |

Installation Sequence

- Set average-power of multi-size closer. (Series UNI TJ3301, UNI TJ3501 ONLY) See Power Adjust chart on Page 1.
- See Figure 2 or 3 and select template dimensions. Note: Separate template required for other applications. Figure 2: 1-3/4" (44mm) thick door on 4-1/2" (114mm) wide hinges or 3/4" (19mm) offset-pivots. Figure 3: 1-3/4" (44mm) thick door on center-pivots. Frame reveals and door opening angles as charted; shock absorber will permit five (5) degrees of door travel beyond hold-open position.
- Locate holes on frame face, stop-side. Four (4) for closer (or drop plate).
- Locate holes on door. Two (2) for arm-foot.
- Prepare door and frame for fasteners. See chart "Preparation for Fasteners" (Figure 4). Note: Use of sex-nuts is recommended for fastening arm foot to door and the closer body to a flush transom.
- Mount drop plate, (if used) and closer. Closer power adjustment shaft toward lock edge.
- Disassemble rod-unit from arm-assembly and install on door. Rod under shock-absorber and closest possible to lock edge (See Figures 1 and 5).• Mount main arm onto closer pinion shaft, aligning proper arm mark with pinion flat. Secure with main arm screw. Arm Mark "S" (See Figure 5).
- Insert connecting rod into slide unit and preload arm. Secure with rod screws. Adjust rod to perpendicular with door. See Figure 5.
- Adjust closer and install cover. See "Unit Adjustment" on back page.

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



Adjustment Instructions

Closing Power See Figure 6

- Adjust as required.
- **Hold-Open** controls are at arm elbow (models suffixed "H"). To select hold-open on or hold-open off and to adjust the hold open force ... Use screwdriver as illustrated (See Figure 10).

Closing Cycle (hydraulic control) See Figure 7A.

- Valve "L" controls door speed in **Latch range**.
- Valve "S" controls door speed in **Sweep range**.
- Valve "D"—Optional—controls door speed in the **Delay range**.
- Use 1/8" hex-key furnished and adjust as shown in Figure 8.

Door closing time should be between 3 and 7 seconds from 90°. Longer closing time may be required for the elderly or handicapped.

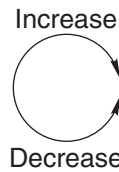
Opening Cycle (hydraulic control) See Figure 7B.

- Valve "B" cushions (slows) door opening in the **backcheck range**.
- Note: Never close this valve completely or damage to closer may occur.
- Use 1/8" hex-key furnished and adjust as shown in Figure 9.

Installation of Cover:

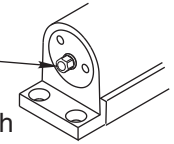
- **Full cover:** Slide cover insert into the un-used cutout in cover. Install cover using screws provided.
- **Narrow cover:** Install cover using screws provided. Screw pinion cap onto shaft by hand or with a phillips screwdriver - DO NOT OVERTIGHTEN.
- **Full metal cover:** Fasten cover to mounting clips with screws provided.
- **Architectural plastic cover:** Slide cover insert into the un-used cutout in cover. Install standoffs in ends of closer. Snap cover onto standoffs.
- **Architectural metal cover:** Remove cover insert where pinion is located. Install standoffs in ends of closer. Install cover using screws provided.

Closing Power Control Figure 6



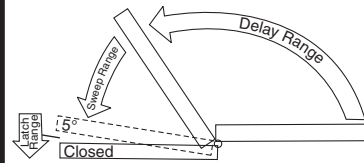
For UNI TJ3301 and UNI TJ3501 series only, see Power Adjust chart on Page 1.

Power Adjustment Shaft
Use 5/16" Socket or Adjustable Wrench



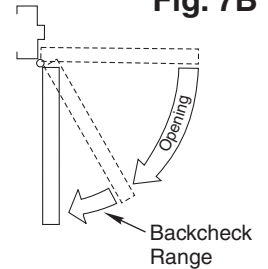
Hydraulic Control

Fig. 7A



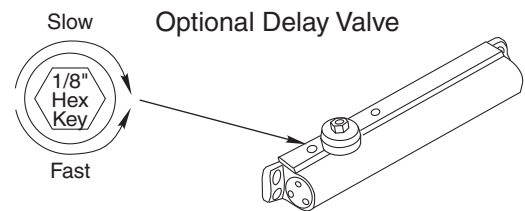
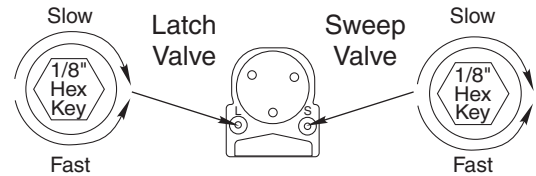
Closing Cycle

Fig. 7B

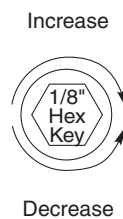


Opening Cycle

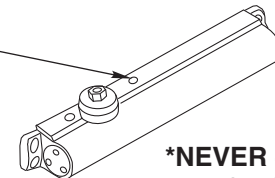
Closing Speed Figure 8



Backcheck Figure 9



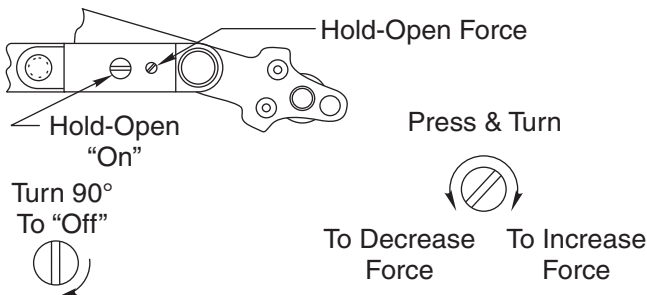
Backcheck Valve*



*NEVER close this valve completely.

Door Holder Option Figure 10

Door Holder Option



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.

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