

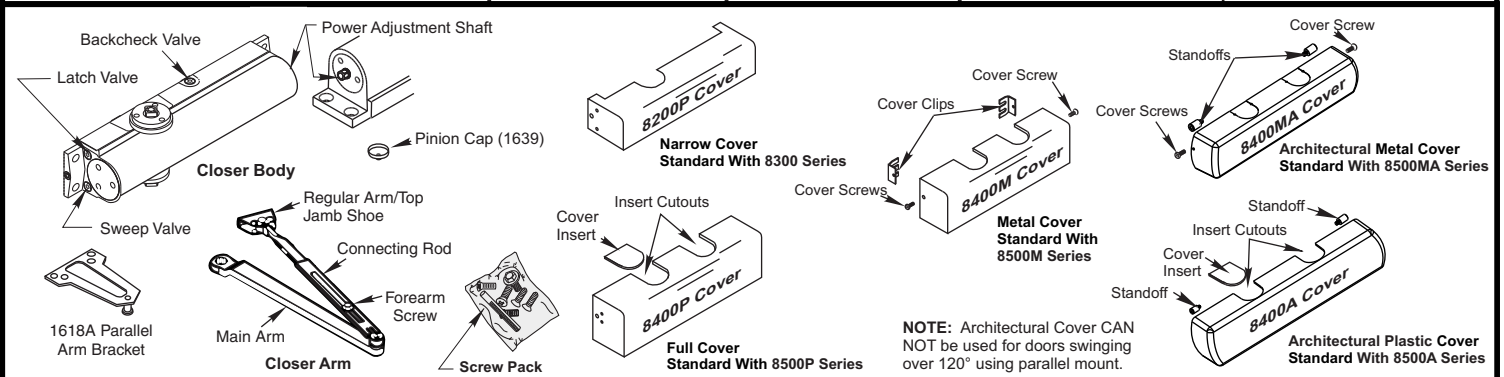
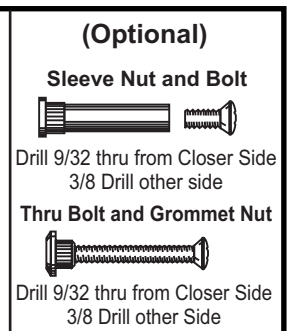
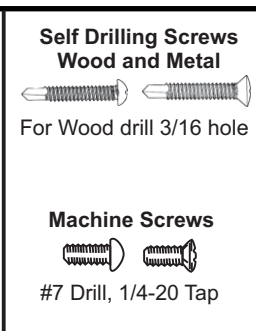
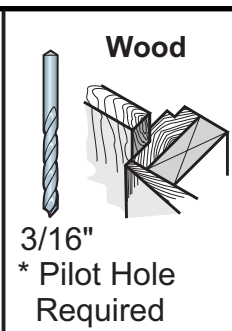
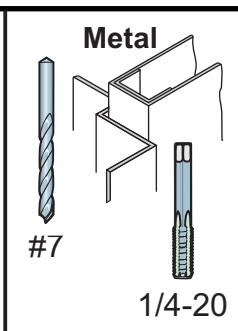
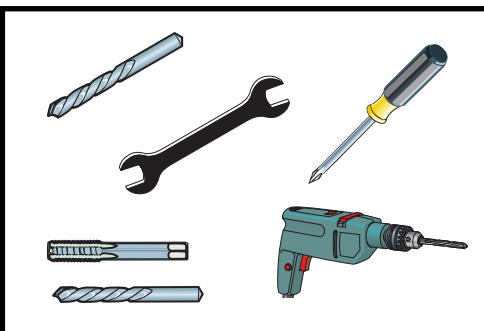
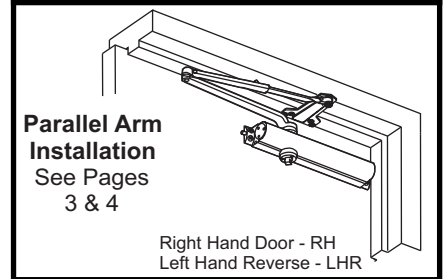
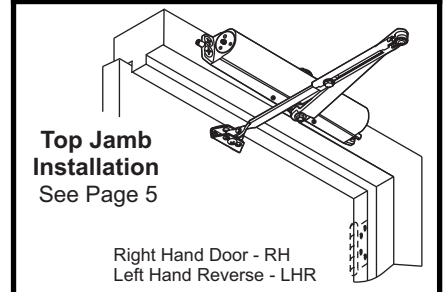
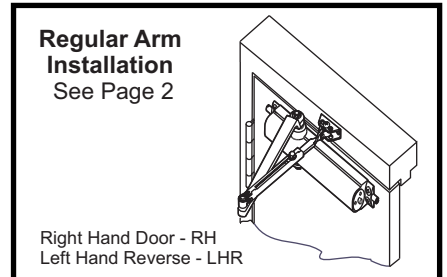
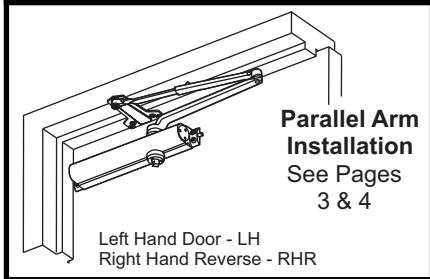
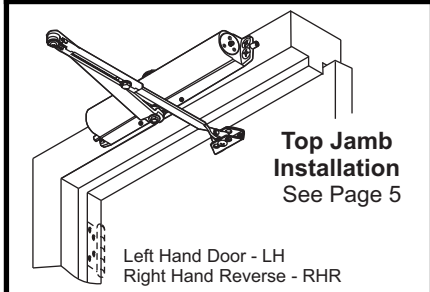
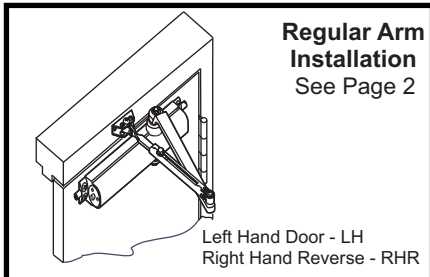


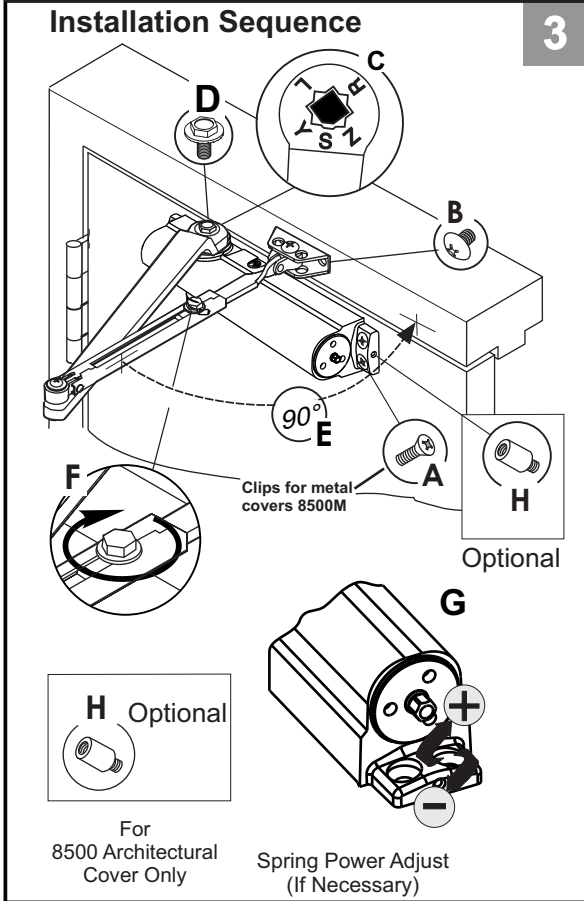
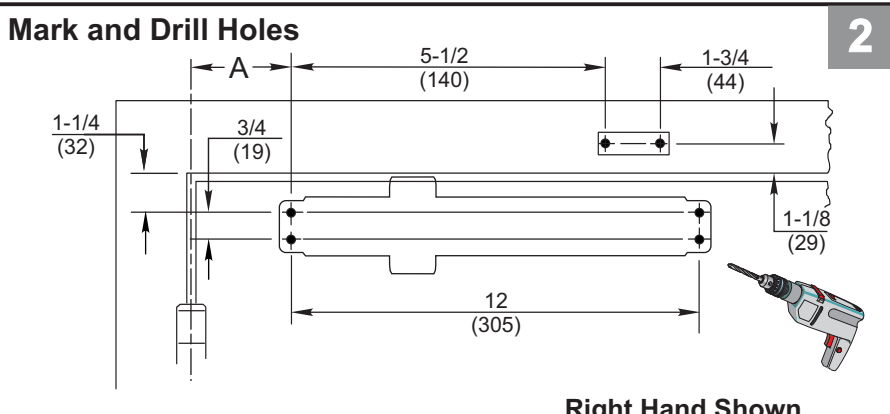
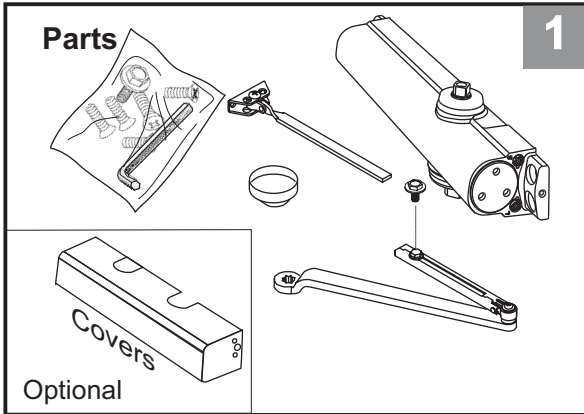
**CAUTION** An Incorrectly installed or improperly adjusted door closer can cause property damage or personal injury. These installation instructions should be followed to avoid the possibility of misapplication or misadjustment.

"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.

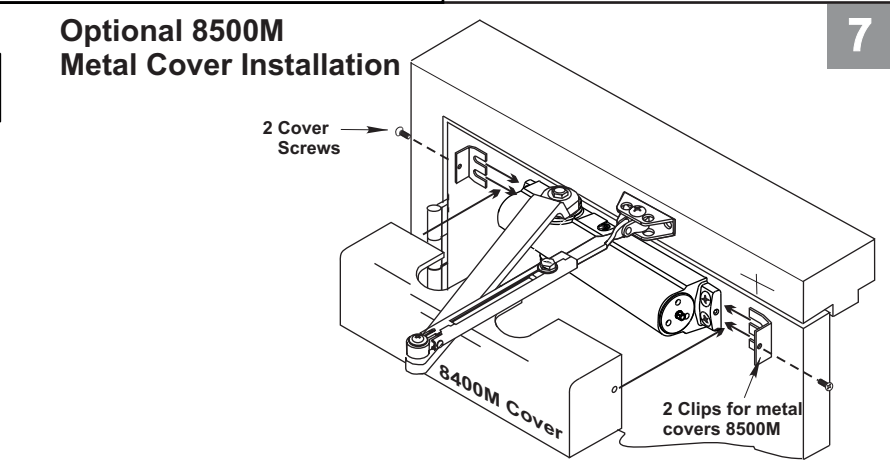
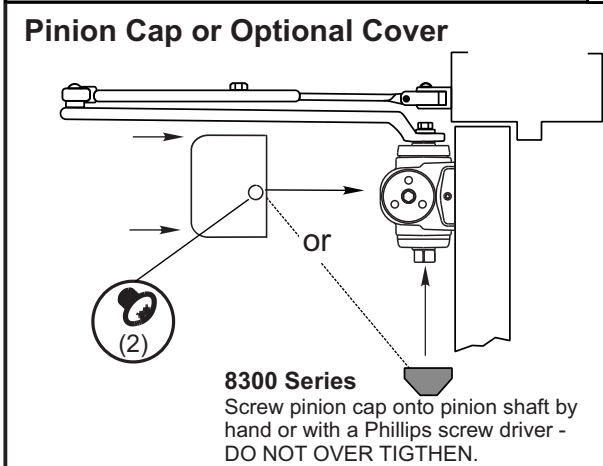
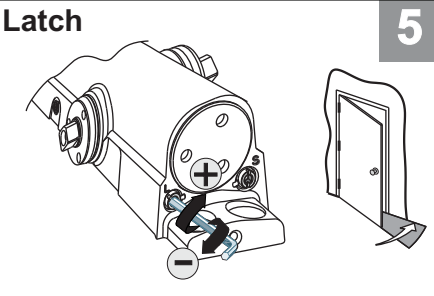
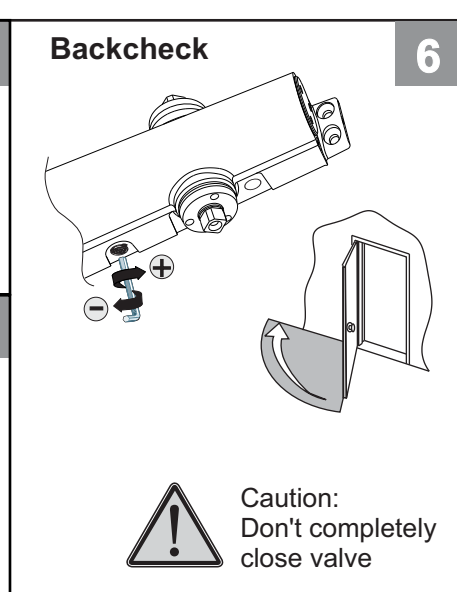
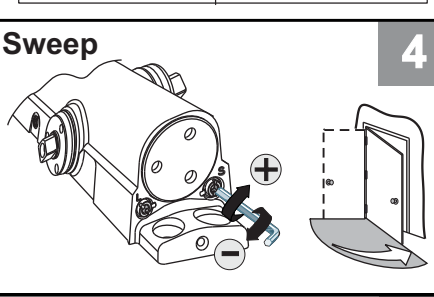
- Doors should be hung on ball bearing or anti-friction hinges.
- A separate door stop is recommended.
- Door and frame must be properly reinforced.
- Always adjust spring power before adjusting control.
- Adjust closing time speed between 3 and 7 seconds from 90° to 0°. Greater closing times may be required for elderly or handicapped.
- These door closers should NOT be installed on the exposed side (weather side) of exterior doors.

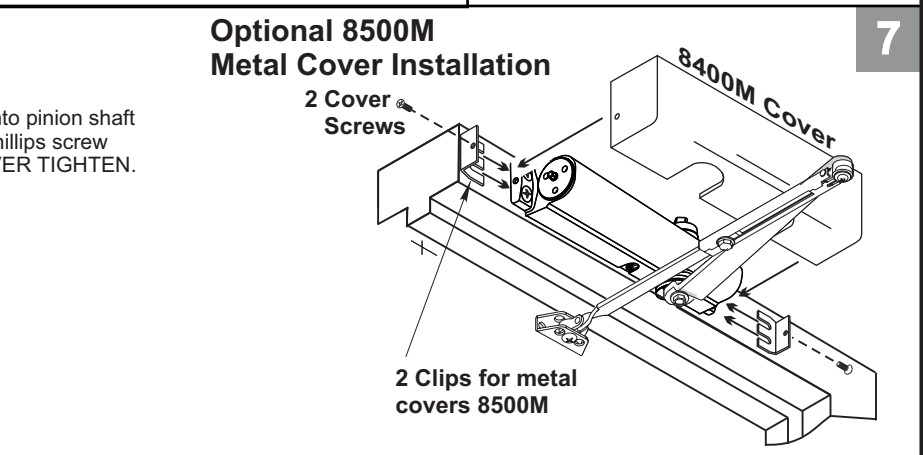
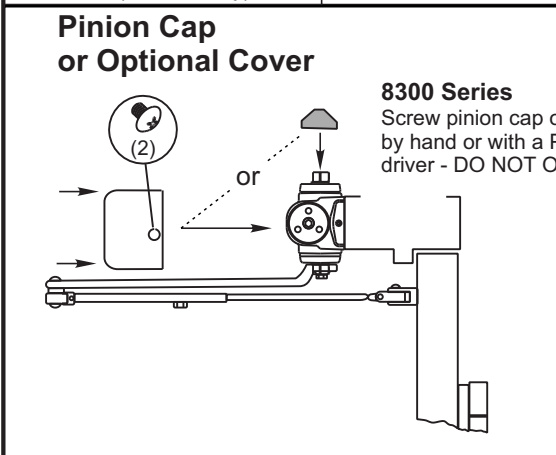
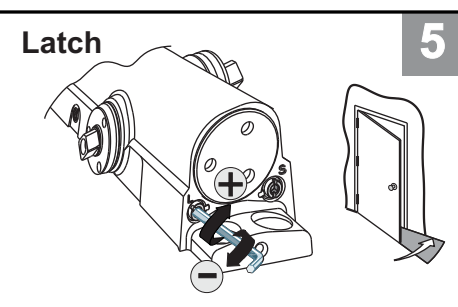
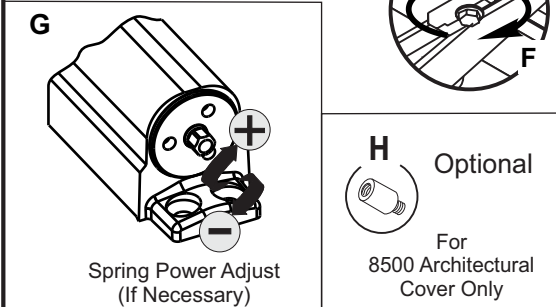
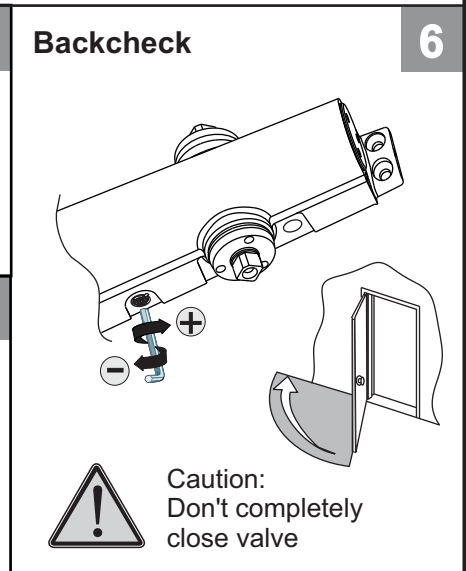
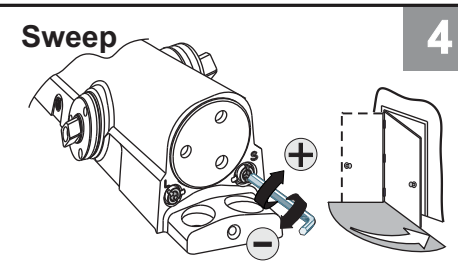
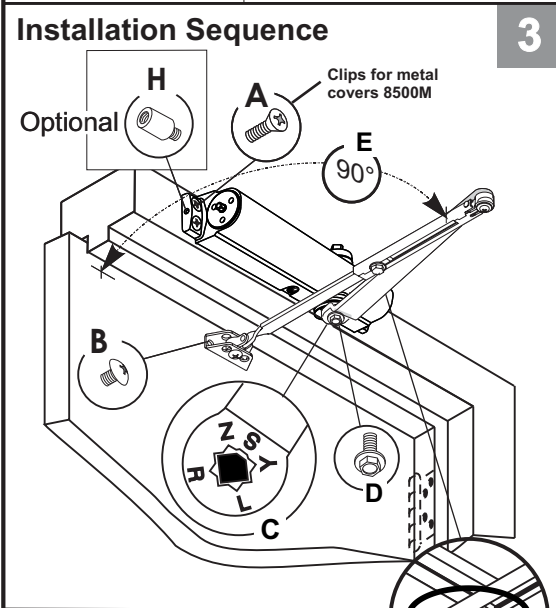
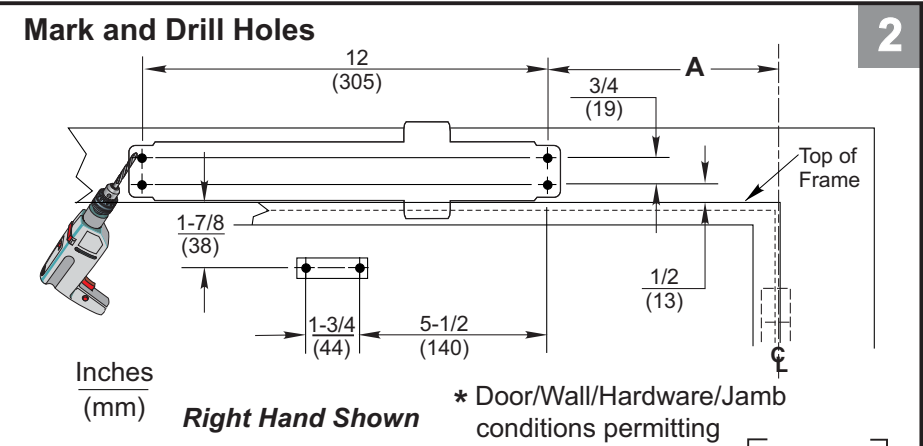
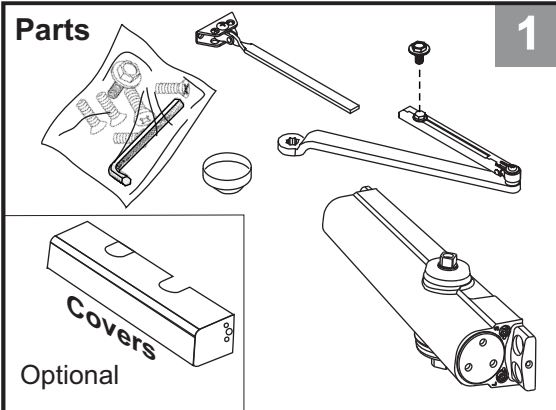


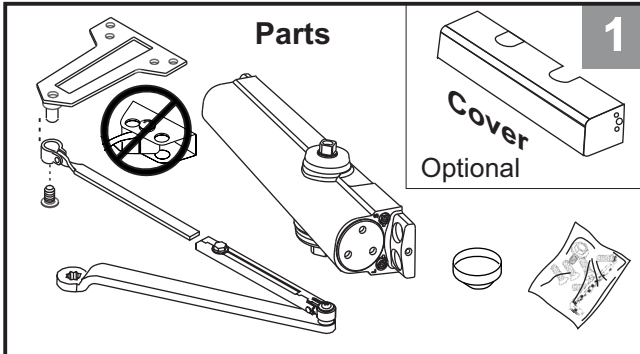


Opening	Dimension "A"	Inches (mm)
To 100°	7-1/2 (191)	
101° to 130°	6 (152)	
131° to *180°	4-1/2 (114)	

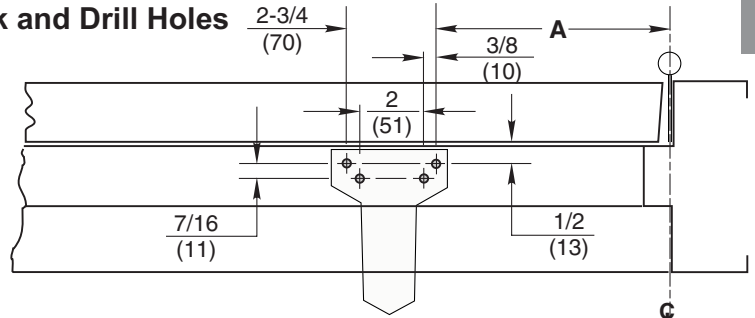
\* Door/Wall/Hardware/Jamb conditions permitting



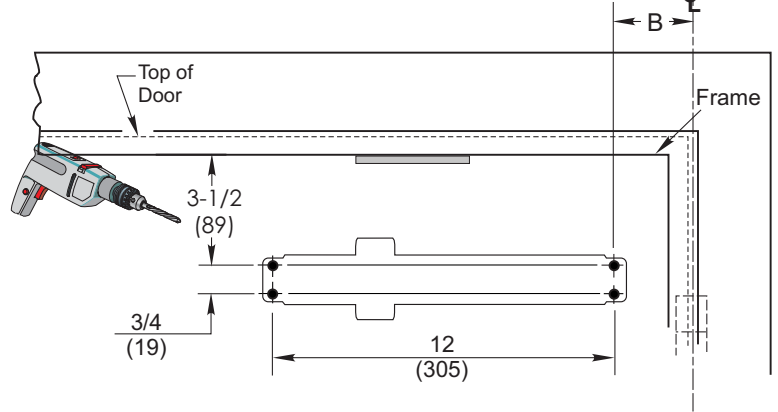
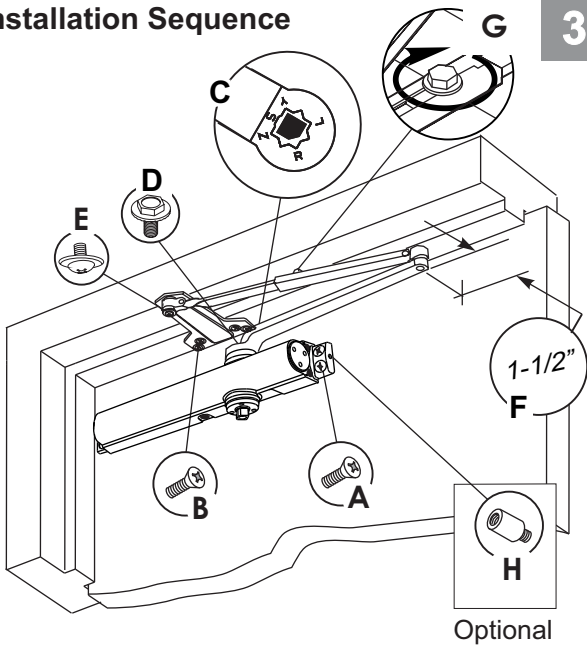




**Mark and Drill Holes**



**Installation Sequence**



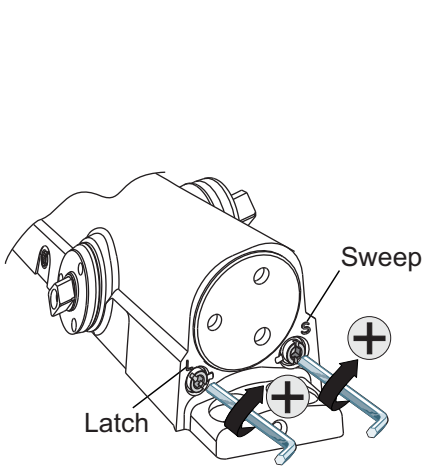
*Right Hand Shown*

Inches  
(mm)

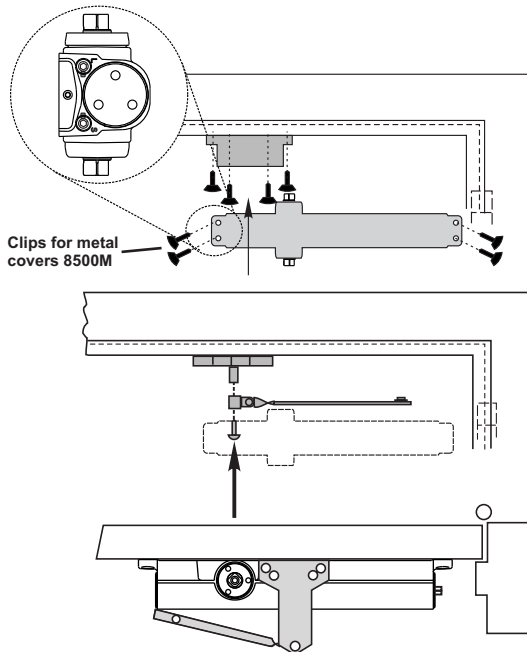
\* Door/Wall/Hardware/Jamb conditions permitting. 8500A and 8500MA Series cannot be installed for this door opening range.

Door Opening	A	B
To 120°	9-1/2 (241)	3-3/4 (95)
*121° to 180°	7 (178)	1-1/4 (32)

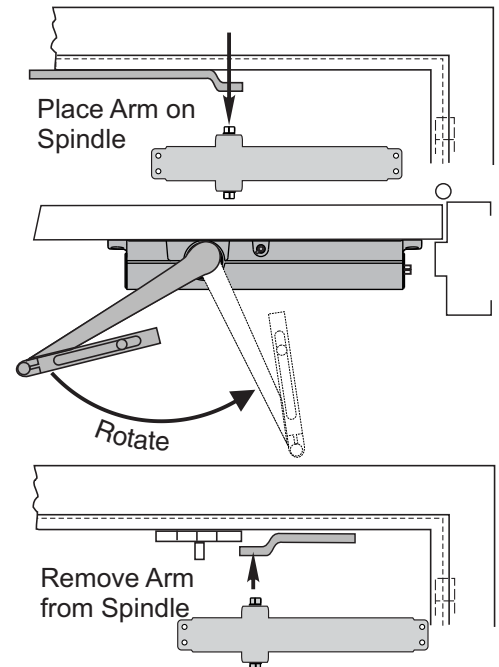
**Close Valves**



**Install Closer and Bracket**



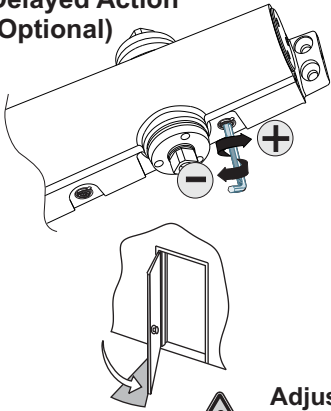
**Preload Closer**



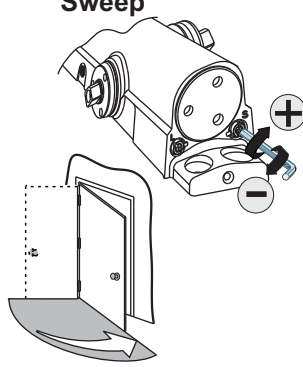
<p><b>7</b></p> <p>Right Hand Door or Left Hand Door Flat A B</p>	<p><b>8</b></p> <p><b>Open Valves</b></p> <p>Sweep Latch Caution: Don't remove valves</p>	<p><b>9</b></p> <p><b>Assemble Arm</b></p>
<p><b>10</b></p> <p><b>Arm Screw</b></p> <p>1-1/2 (38)</p>	<p><b>11</b></p> <p><b>Spring Power Adjust (If necessary)</b></p> <p>(Use 5/16" socket or adjustable wrench for this Adjustment)</p>	<p><b>12</b></p> <p><b>Sweep</b></p>
<p><b>14</b></p> <p><b>Backcheck</b></p> <p>Caution: Don't completely close valve</p>	<p><b>15</b></p> <p><b>Pinion Cap or Optional Cover</b></p> <p>8300 Series Screw pinion cap onto pinion shaft by hand or with a Phillips screw driver - DO NOT OVER TIGHTEN.</p>	<p><b>Optional 8500M Metal Cover Installation</b></p> <p>8400M Cover 2 Cover Screws 2 Clips for metal covers 8500M</p>

(Use 1/8" Hex Wrench for these Adjustments)

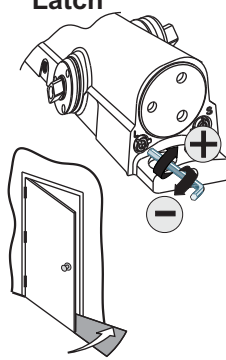
### Delayed Action (Optional)



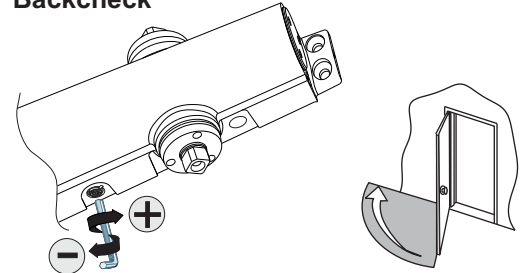
### Sweep



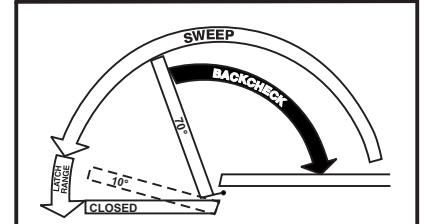
### Latch



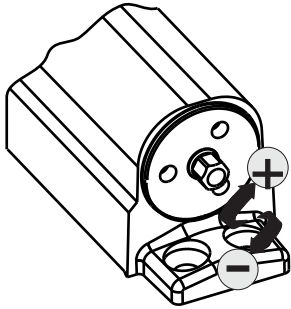
### Backcheck



Adjust Closing Speed Time to between 3 to 7 seconds from 90°. Use of the door by handicapped, elderly or small children may require greater closing time.



## Spring Power Adjust



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

### Adjustment Chart (8301 & 8501 Only)

				Number of Turns Required			
				MAXIMUM DOOR SIZE			
	DOOR	TYPE OF INST.	*	32" (0.85M)	36" (0.90M)	42" (1.00M)	48" (1.20M)
8100/8300/8500	INTERIOR	Regular Arm Top Jamb	FULL 360° TURNS OF 5/16 POWER ADJUSTMENT WRENCH	5	8	11	13
		Parallel Arm		7	10	13	16
	EXTERIOR	Regular Arm Top Jamb		7	10	13	16
		Parallel Arm		9	12	15	18

\*20 FULL (360°) TURNS MAXIMUM AVAILABLE  
Closer is shipped set at mid range setting = 10 turns

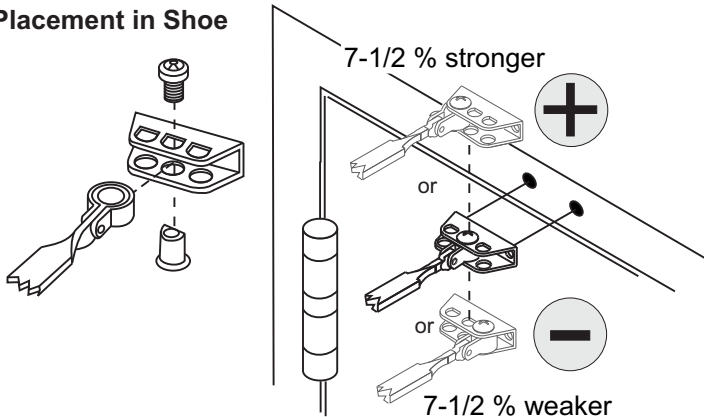


The closing force for series 8301 & 8501 door closers is adjustable from a size 1 to a size 6, as outlined in ANSI Standard A156.4. When these series of door closers are installed and adjusted to conform to ADA reduced opening force requirements (5 lbs max.) for interior doors, they may not have adequate closing force to reliably close and latch the door. Power adjustments charted on this page are recommended where possible, to ensure proper door control.



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

### Arm Placement in Shoe



### To identify your model:

- Blank = 8301/8501
- 2 = 8302/8502
- 3 = 8303/8503
- 4 = 8304/8504
- 5 = 8305/8505
- 6 = 8306/8506

### Closer Size

Mfg. Date

# Norton®

## ASSA ABLOY

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