

8080 Series Door Closer

Non Hold Open Low Profile Arm

Installation Instructions

8381/8581 Series, adjustable size 1 through 6.



⚠ WARNING

This product can expose you to lead which is known to the state of California to cause cancer and birth defects or other reproductive harm. For more information go to: www.P65warnings.ca.gov.

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.

NOTES:
 - 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.
 - "DA" Suffix - Delayed Action closing is an optional feature.

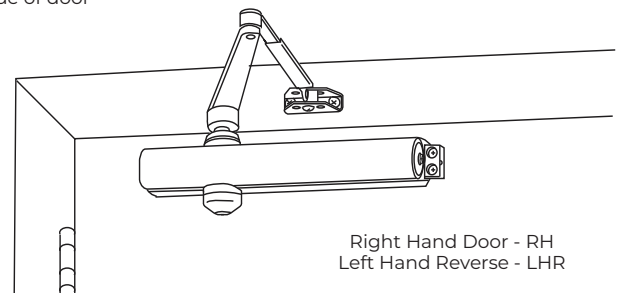
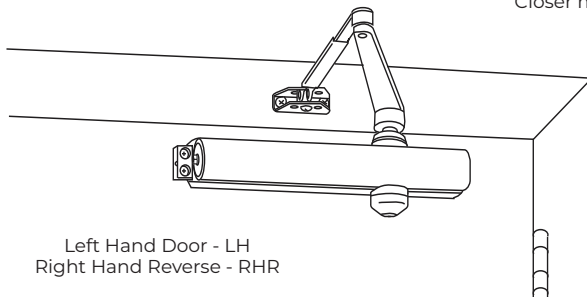
READ AND FOLLOW ALL INSTRUCTIONS. SAVE THESE INSTRUCTIONS.



The closing force for series 8381 & 8581 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.

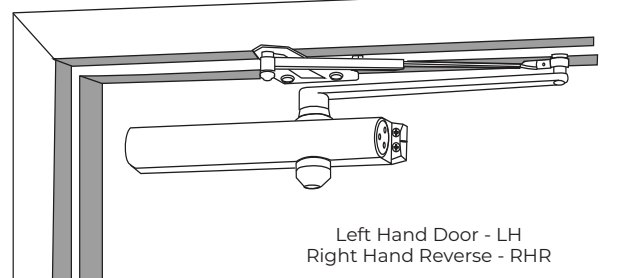
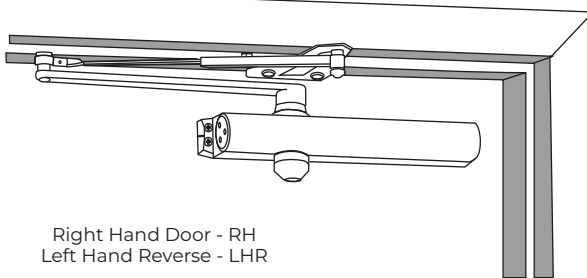
Regular Arm Installation

Closer mounts on hinge (pull) side of door
 Refer to page 2

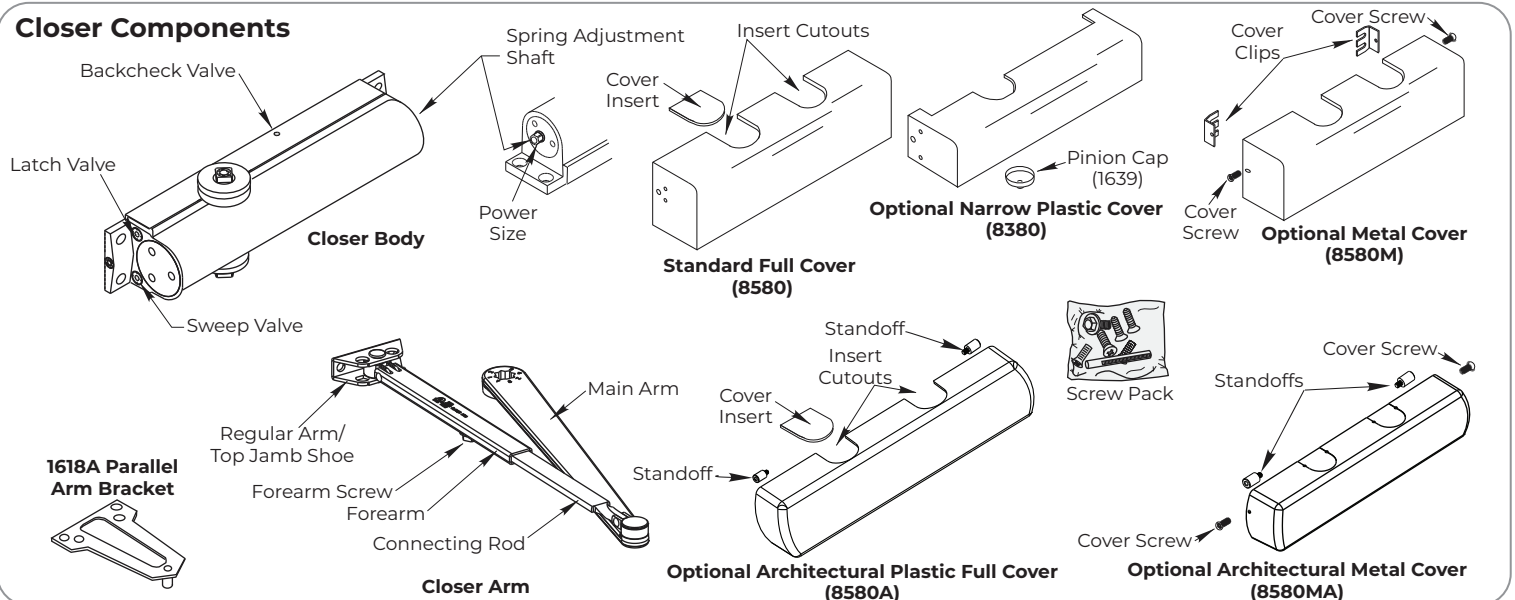


Parallel Arm Installation

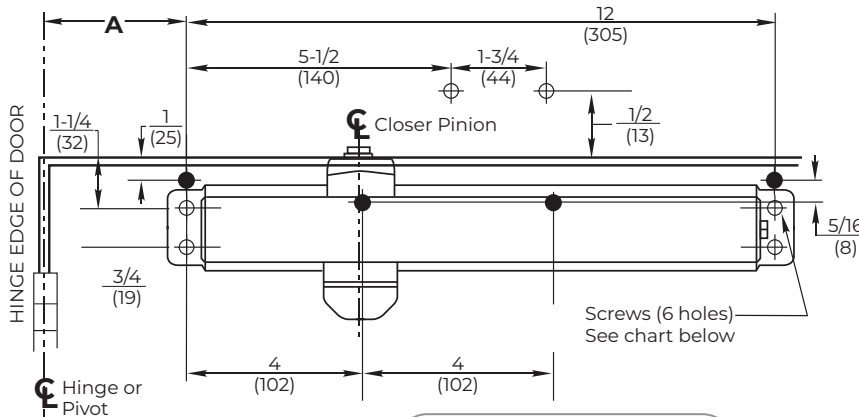
Closer mounts on opposite to hinge (push) side of door
 Refer to page 3



Closer Components



Regular Arm Installation (Right Hand Shown)



Opening	A	
	Inches	mm
to 100°	7-1/2	191
100° to 130°	6	152
over 130°	4-1/2	114

● Prepare these holes when 8146 Drop Plate is used.

Installation Sequence

- Select door opening angle. Using template dimensions:
 - mark 4 holes on door for closer or 4 holes (●) for 8146 Drop Plate
 - mark 2 holes on frame for arm shoe.
- Prepare for fasteners – See “Preparation for Fasteners” on this page.
- Remove forearm screw from arm assembly and fasten the arm shoe assembly to the frame face. (Slot facing down.)
- Mount closer body to door. Place end with **2 regulating valves toward hinge edge** of the door.

NOTE: If using full metal cover, the cover mounting clips must be slipped under the ends of the closer while the closer is being mounted.
- Install main arm on top of pinion shaft. Align the **pinion flat** with the letter “S”. (See Figure 1) Fasten with arm screw.
- Reassemble Arm. Adjust forearm perpendicular to door (90° angle). Install and tighten set screw. See illustration below template.
- Adjust closer. Refer to page 4.
- Install Pinion Cap and/or Cover. Refer to page 4.

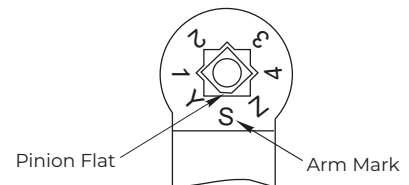
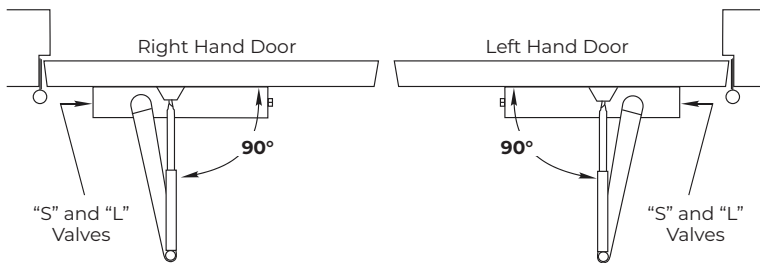
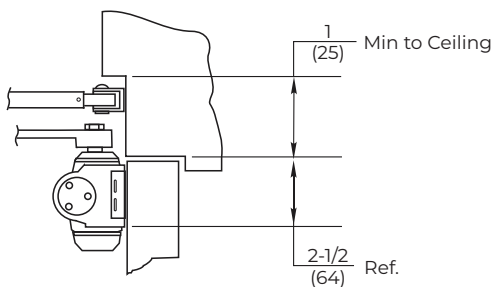


Figure 1



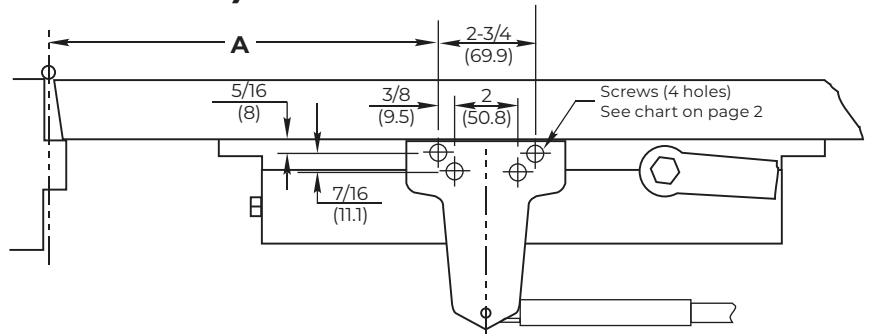
Preparation for Fasteners			
	Fasteners	Door or Frame	Drill-Sizes
Standard	Self-Drilling Screw 1/4"-20 Machine Screw	Aluminum or Metal	No drill required
		Wood	3/16" (4.30mm)
Optional	Sleeve nuts and bolts	Hollow Metal	9/32" (7mm) through; 3/8" (9.5mm) door face opposite of closer
		Aluminum or Wood	3/8" (9.5mm) through
	Through-bolts and grommet-nuts	All	9/32" (7mm); 3/8" (9.5mm) dia. x 3.8" (9.5mm) deep on door face opposite of closer

Parallel Arm Installation (Left Hand Shown)

Installation Sequence

- Select door opening angle. Using template dimensions:
 - mark four (4) holes on door for closer body or four (4) holes (⊙) For 8148/8158 Drop Plate
 - mark 4 holes on frame soffit for soffit plate.
- Prepare for fasteners –See “Preparation for Fasteners” chart on page 2.
- Mount soffit plate to frame.
- Mount closer body to door (or mount drop plate to door and then the closer body to the plate). Place end with 2 regulating valves toward lock edge of door.
- NOTE:** If using full metal cover, cover mounting clips must be slipped under ends of closer when closer is being mounted.
- Install main arm on top of pinion shaft. Rotate pinion 45° toward hinge edge of door and align the pinion flat with arm mark:
 - “2” for left hand door
 - “3” for right hand door
 (See figure 2 below) Fasten with arm screw.
- Fasten arm tube to soffit plate with soffit plate screw.
- Assemble arm. Open door slightly and insert rod into arm tube. Close door and adjust forearm length so that the arm elbow is 1-1/2” (38mm) from door surface. Install and tighten forearm screw.
- Adjust Closer – Refer to page 4.
- Install Pinion Cap and/or Cover. Refer to page 4.

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



Opening	A		B	
	Inches	mm	Inches	mm
to 120°	9-1/2	241	3-3/4	95
100° to 130°	7	178	1-1/4	32

*3400A and 3400MA covers cannot be used when door swings beyond 120°.

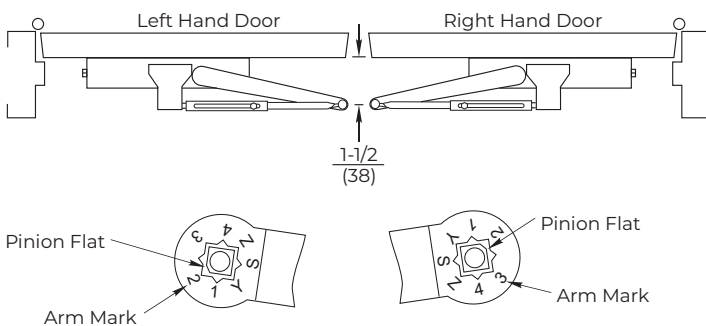
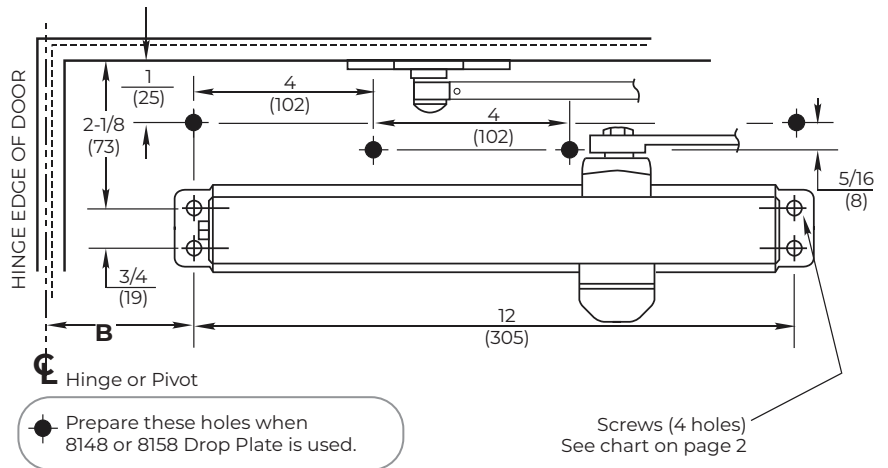
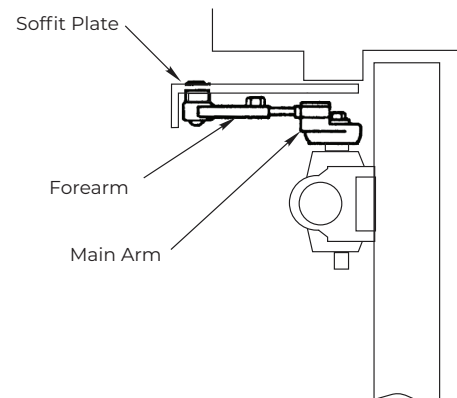


Figure 2



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Adjustments

Control Valve Adjustments (Figure 3)

Closing Speed Controls (Figure 4)

- Valve "S" Controls Sweep Range
- Valve "L" Controls Latch Range
- Valve "D" (Optional for all models) Controls Delay Range

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. (Figure 5 and Figure 6)

Figure 3 - Closing Speed Controls

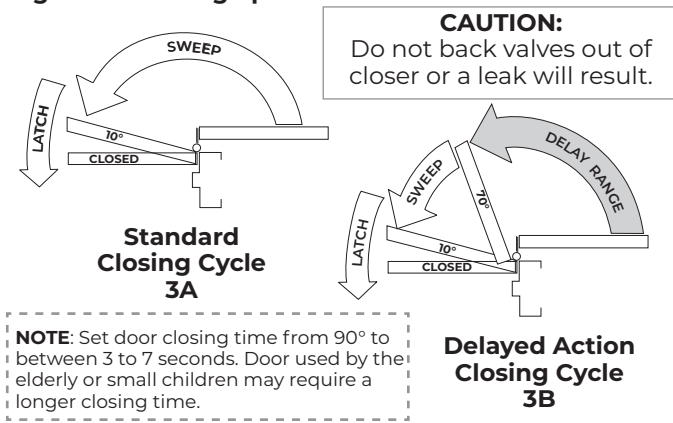
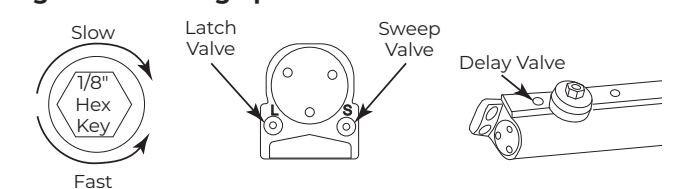
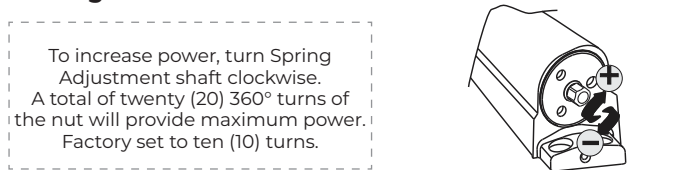


Figure 4 - Closing Speed Controls

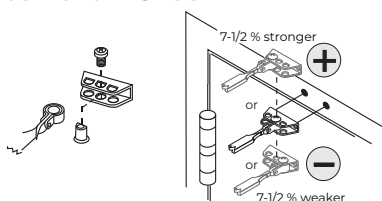


Closing Power Controls

5/16" socket or adjustable wrench



Arm Placement in Shoe



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.**

Full metal cover: Fasten cover to mounting clips with screws provided.

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

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

Figure 5 - Opening Door Control

CAUTION:
Do not back valves out of closer or a leak will result.

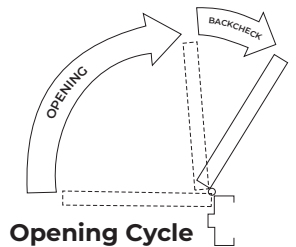
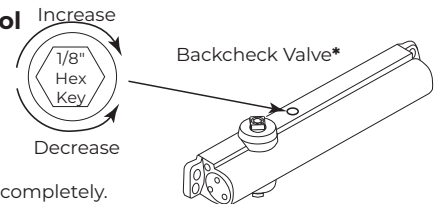


Figure 6 - Backcheck Control

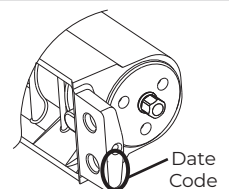


Adjustment Chart (8381 & 8581 Only)

DOOR	TYPE OF INSTALLATION	*	Number of Turns Required MAXIMUM DOOR SIZE			
			32" (81cm)	36" (91cm)	42" (107cm)	48" (122cm)
INTERIOR	Regular Arm Top Jamb	Full 360° turns of 5/16" Power Adjustment Shaft	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

*Twenty (20) 360° Turns Maximum Available
Closer is shipped set at mid range setting = ten (10) turns

To Determine Date Code:



Technical Product Support:
Monroe, NC 28112 USA
Phone: 877.974.2255 ext: 2
Techsupport.NortonRixson@assaabloy.com
NortonRixson.com

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