

# Norton®

## 8381/8581 Series

## 8381BF/8581BF Series

Official Supplier



**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.

### Non Hold Open Door Closers

#### Models 8381 8581

Series can be adjusted  
from power size 2 thru 6.

## Installation Instructions

80-9380-0214-020 (10-02)

#### Models 8381BF 8581BF

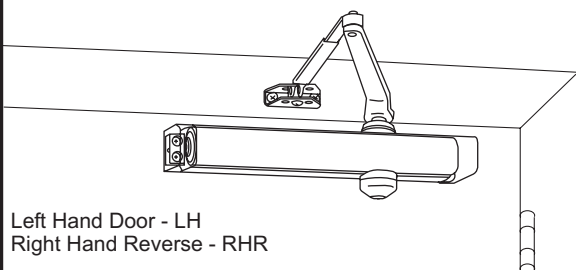
Series can be adjusted  
from power size 1 thru 4;  
intended for use where  
doors are operated by  
the elderly or  
handicapped.

- With or without suffix "DA" (Delayed Action) closing.
- With Full Metal Cover, 8581M/8581BF-M only.

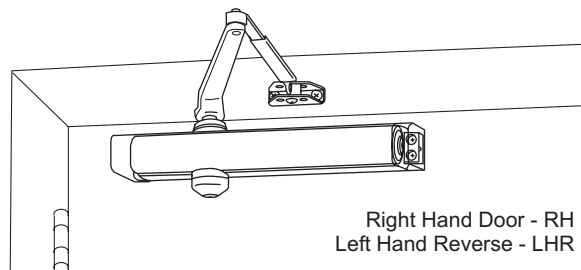
Note: For Special Applications a separate door and frame preparation template is packed with these instructions.  
Use this instruction sheet for installation sequence and closer adjustments only.

### Regular Arm Installation

Closer mounts on hinge (pull) side of door. 8301/8301BF Models with narrow Cover illustrated.  
See Page 2.



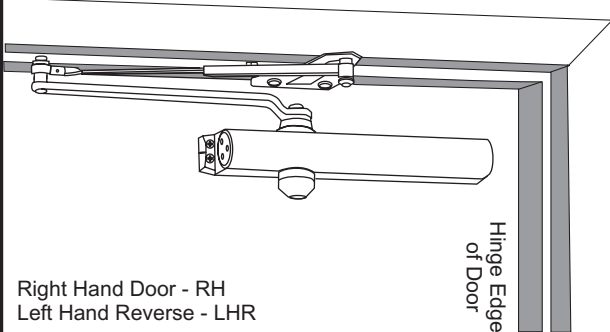
Left Hand Door - LH  
Right Hand Reverse - RHR



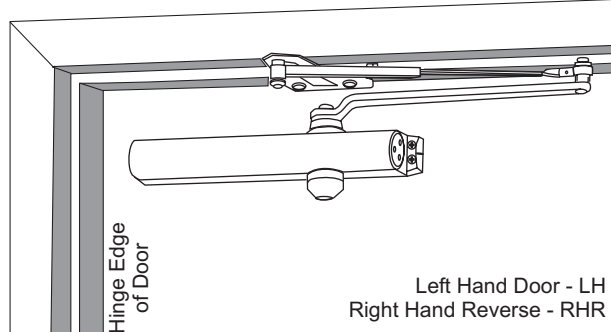
Right Hand Door - RH  
Left Hand Reverse - LHR

### Parallel Arm Installation

Closer mounts on opposite to hinge (push) side of door. Closers illustrated without covers.  
See Page 3.

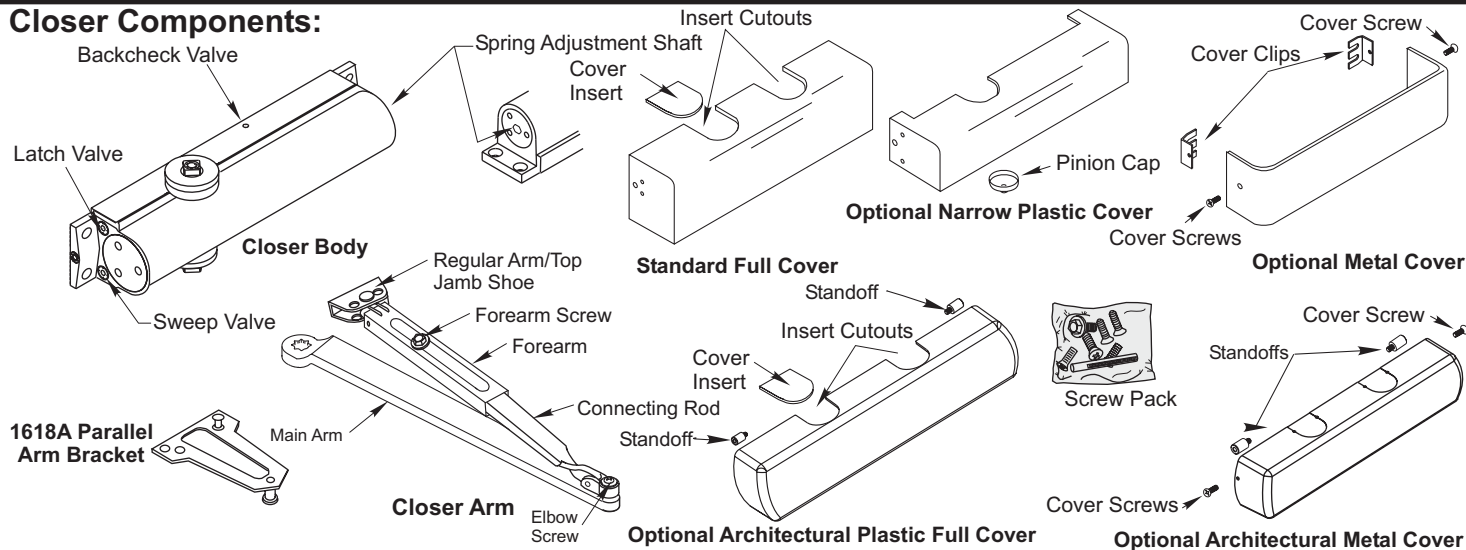


Right Hand Door - RH  
Left Hand Reverse - LHR

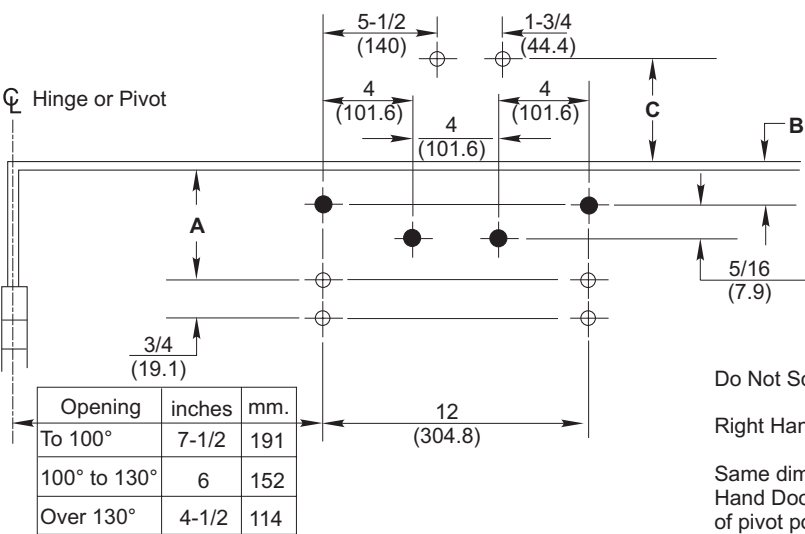


Left Hand Door - LH  
Right Hand Reverse - RHR

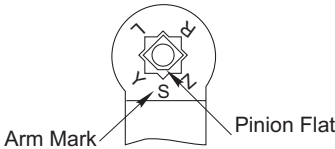
### Closer Components:



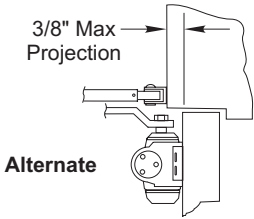
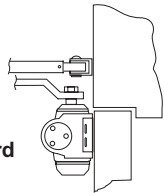
Template



NOTE: Door openings to 180° conditions permitting.



Standard



Alternate

No. 8146 Backplate mounting holes only.

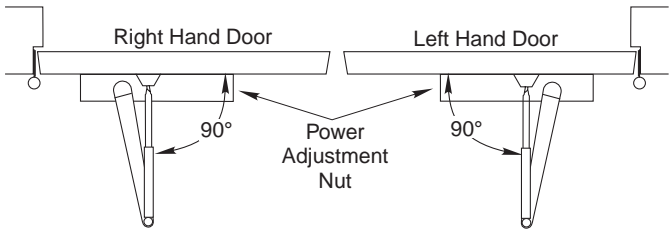
Do Not Scale Drawing

Right Hand Door Shown

Same dimensions apply for Left Hand Door measured from centerline of pivot point.

	A	B	C
Standard	1-1/8 (29)	5/8 (16)	1-1/4 (32)
Alternate	1-3/8 (35)	7/8 (22)	1 (25)

Dimensions are in inches (mm).



Power Adjustment Chart				
Door Size  inches (mm.)	Full Clockwise Turns of Closer Power Adjustment Shaft			
	8301/8501 Series Only		8301BF/8501BF Series Only	
	Interior Door	Exterior Door	Interior Door	Exterior Door
28-32 (0.70 - 0.80)	0	2	1	4
33-36 (0.85 - 0.90)	2	5	3	6
37-42 (0.95 - 1.05)	5	8	5	Not Recommended • Use 8301/8501
42-48 (1.10 - 1.20)	8	11	8	
Closer is shipped set at mid power setting.				

Fasteners	Door or Frame	Drill-Sizes
Self-Drilling Screw	Aluminum or Metal	3/16" (4.30 mm.)
	Wood	3/16" (4.30 mm.)
1/4" - 20 machine screw	Metal	#7 (0.201" dia.) or 5 10mm drill tap: 1/4" - 20
SNB (optional)	Hollow-Metal	9/32" (7.00 mm.) through; 3/8" (9.50 mm.) door face opposite to closer
	Aluminum or Wood	3/8" (9.50 mm.) through
TBGN (optional)	All	9/32" (7.00 mm.) through; 3/8" (9.50 mm.) dia. x 3/8" (9.50 mm.) deep door face opposite to closer

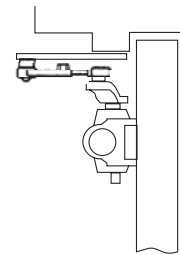
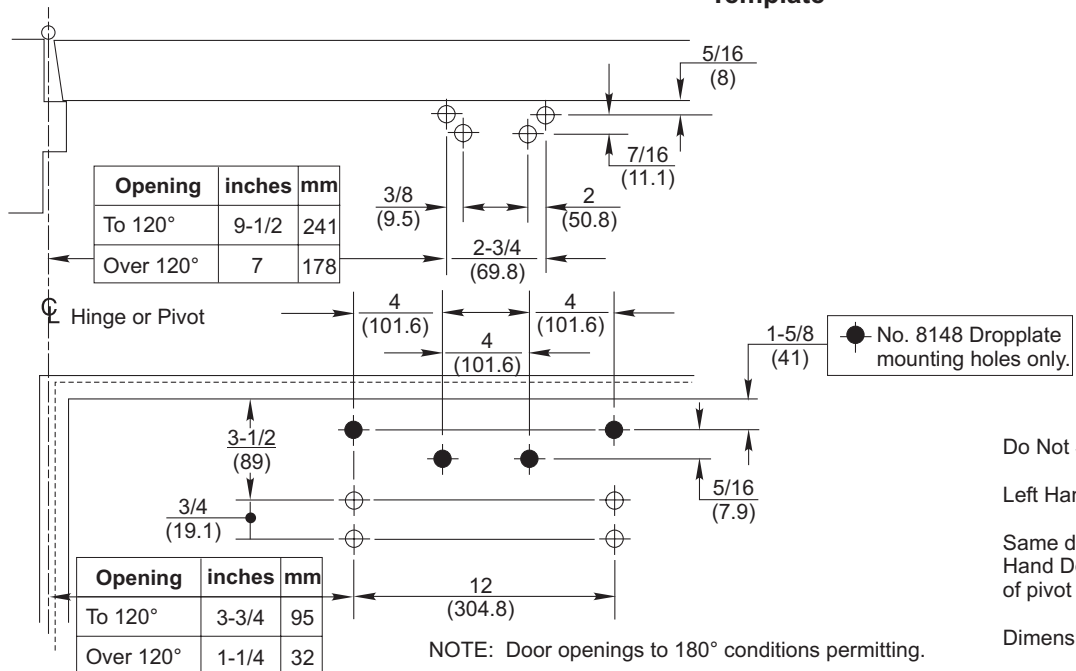
Installation Sequence

- Select angle of opening and use dimensions shown to locate 4 holes on door for closer body or if used, 8146 backplate and 2 holes on frame face for arm shoe. For applications that are different from above, a separate template will be required.
- Prepare door and frame for fasteners. See "Preparation for Fasteners", see chart at left.
- Mount 8146 Backplate ... only if required.
- Set closing power for door size using chart on back page, figure 2.
- Mount closer body on door. If using backplate, mount it first then closer body to backplate. Be sure that power adjustment nut is away from hinge.  
Note: If using full metal cover, cover mounting clips must be slipped under ends of closer when closer is being mounted.
- Disconnect forearm assembly from main arm by removing elbow screw. Fasten forearm assembly and shoe to frame.
- Mount main arm onto closer pinion shaft, indexing main arm mark "S" with pinion flat as shown at right. Secure with main arm screw.
- With door closed, rotate main arm away from hinge. Thread forearm onto connecting rod so that it will be perpendicular to door when connected to main arm. Secure with elbow screw.
- Adjust closer and install cover.

See back page for closer adjustment.

# Installation Instructions

## Parallel Arm Template



Do Not Scale Drawing

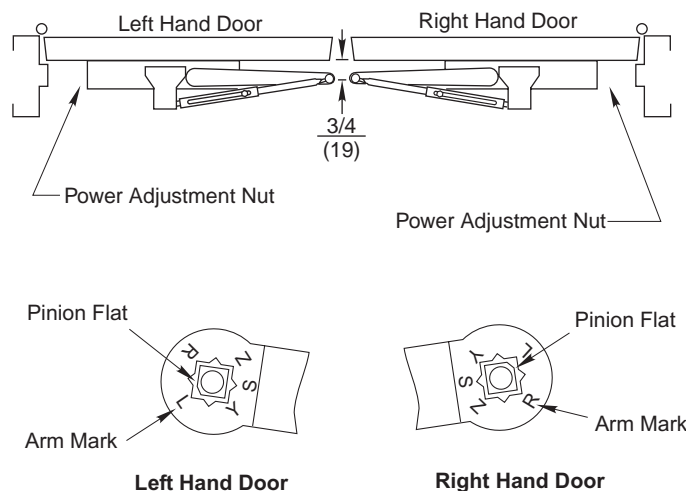
Left Hand Door Shown

Same dimensions apply for Right Hand Door measured from centerline of pivot point.

Dimensions are in inches (mm).

## Installation Sequence

- Select angle of opening and use dimensions shown to locate 4 holes on door for closer body or if used, 8148 dropplate and 4 holes on soffit for 289A bracket. For applications that are different from above, a separate template will be required.
  - Prepare door and frame for fasteners. See "Preparation for Fasteners", page 2.
  - Mount 8148 Dropplate ... only if required.
  - Set closing power for door size using "Power Adjustment Chart", below right.
  - Mount closer body on door. If using dropplate, mount it first then closer body to dropplate. Be sure that spring adjustment nut is toward hinge.  
Note: If using full metal cover, cover mounting clips must be slipped under ends of closer when closer is being mounted.
  - Disconnect forearm assembly from main arm by removing elbow screw. Remove shoe from connecting rod and discard. Assemble 289A bracket to connecting rod. Fasten assembled bracket and forearm assembly to soffit.
  - Place main arm on closer pinion shaft, indexing main arm mark "L" or "R" with pinion flat as shown in diagram at right.
  - With door closed, adjust length of threaded forearm so that the tip of the main arm is 3/4" (19mm) from parallel with door when connected to the forearm. Secure with elbow screw.
  - Adjust closer and install cover.
- NOTE:** Architectural Covers CAN NOT be used for doors swinging over 120° using parallel mount.



NOTE: To install main arm, pinion shaft must be rotated 45° to permit alignment with proper arm mark.

Power Adjustment Chart				
Door Size  inches (mm.)	Full Clockwise Turns of Closer Power Adjustment Shaft			
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	Interior Door	Exterior Door	Interior Door	Exterior Door
28-32 (0.70 - 0.80)	0	2	0	5
33-36 (0.85 - 0.90)	0	5	1	6
37-42 (0.95 - 1.05)	2	8	2	Not Recommended • Use 8301/8501
42-48 (1.10 - 1.20)	5	11	3	
NOTE: Maximum of 15 turns (360°) of Power Adjustment Shaft. Closer is shipped set at mid power setting.				

See back page for closer adjustments.

# Unit Adjustment

## Closing Power Adjustment –

Using "Power Adjustment Chart" from page 3, 4, or 5, select the correct number of turns for power adjustment shaft that corresponds with the installation. With 1/8" hex key, rotate adjustment full 360° clockwise turns to desired setting. After closer has been installed and proper adjustments made to the sweep and latch, it may be necessary to readjust spring power for good closing action.

## Control Valve Adjustments

(see Figure 2)

## Closing Speed Controls (Figure 1A or 1B And 2.)

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

## 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. (see Figure 4 and Figure 5).

## 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.

