Norton[®]

Installation Instructions

80-9377-2205-020 (09-03)

Parallel Rigid Arm Door Closers (PR) CloserPlus Door Closers (CLP)

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

Additional Closer Options:

- "DA" indicates Delayed Action closing
- "H" indicates Hold-Open function. These components are handed
- "T" indicates Thumbturn actuated Hold-Open control, not handed Optional Accessories:
- 7788 Drop Plate
- 2019L, 6890, 6891 Soffit Plate Accessories

Model Numbers Included:

Series **Function** Sizing Parallel Rigid Arm Units

PR770XH

NHO PR7500 1-6 PR7500H HO NHO 2 THRU 6 PR770X

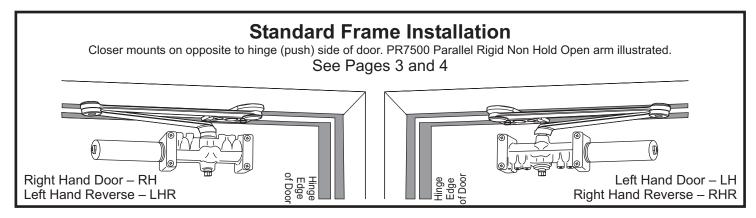
> HO CloserPlus Arm Units

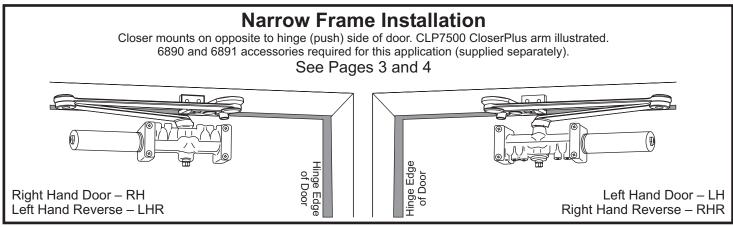
CLP-7500 NHO 1-6 CLP-7500T HO CLP-770X NHO 2 THRU 6 CLP-770XT HO

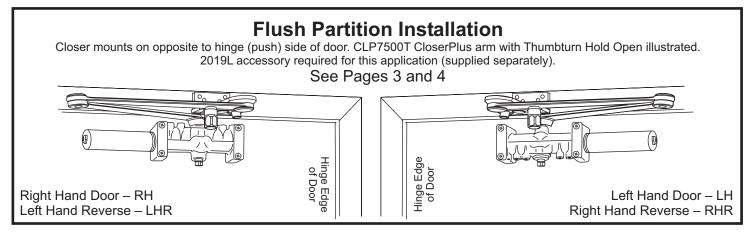
"X" Designates closer size 2, 3, 4, 5, or 6

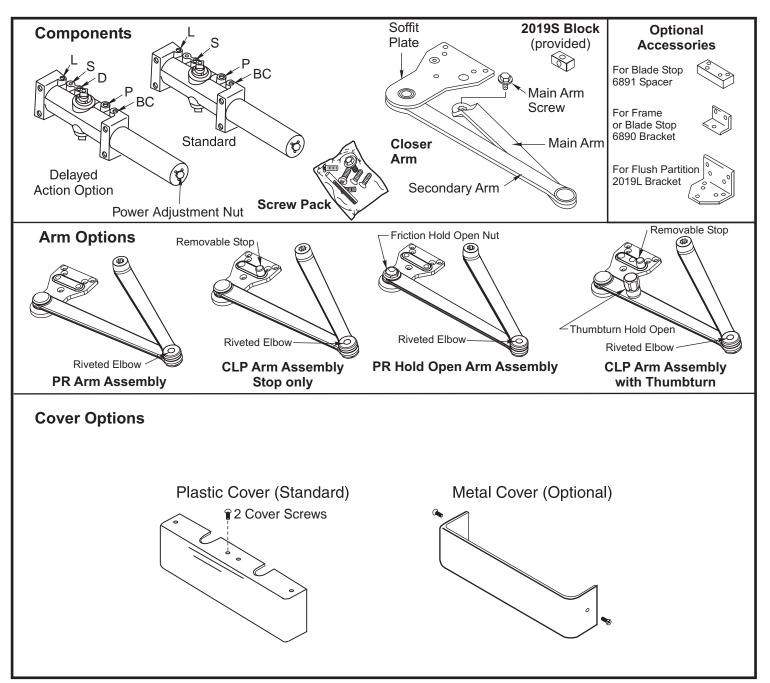


NOTE: For special applications a separate door and frame preparation template is packed with these instructions. In those cases, use this instruction sheet for installation sequence and closer adjustments only.









Preparation for Fasteners									
	Fasteners	Door or Frame	Drill-Sizes						
Standard	Solf Drilling Sarow	Aluminum or Metal	No drill required						
	Self-Drilling Screw	Wood (see Note)	3/16" (4.30 mm) Pilot hole required						
	1/4" - 20 machine screw	Metal	Drill: #7 (0.201" dia.) Tap: 1/4" - 20						
	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						
Optional	Through-bolts and grommet-nuts								

Note: Wood doors/frames

MUST have pilot hole
when using SelfDrilling Screws.

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- Select angle of opening and use dimensions shown on Page 4 and Dimension Chart below to locate 4 holes on door for closer body (or 4 holes for 7788 Drop Plate, Page 5, only if required) and 5 holes on stop/rabbet for Soffit Plate (or 4 holes on frame transom for 2019L bracket, only if required). For applications not covered in these instructions, a separate template will be required.
- Prepare door and frame for fasteners using "Preparation for Fasteners" chart on Page 2.
- 7500 Series Closers only:
 Closer is shipped from factory set at mid-range. Using
 "Power Adjustment" chart below, rotate power adjustment
 shaft with 1/8" allen wrench supplied:
 Turn CLOCKWISE to increase power
 Turn COUNTER-CLOCKWISE to decrease power
 See Page 6 for the illustration of this step.
- Mount 7788 Drop Plate to door ... only if used (see Page 5).
- Install closer body to door, or 7788 Drop Plate, with power adjustment shaft away from hinge edge of door and adjustment valves:

Down for Left Hand Up for Right Hand

•	Install Main Arm: Close valves ('S/D' or 'S') and 'L', then
	using a wrench, rotate the pinion shaft at least 50° to permit
	alignment of the Pinion Flat with the proper arm mark:
	'7' for Loft Hand

'Z' for Left Hand 'Y' for Right Hand

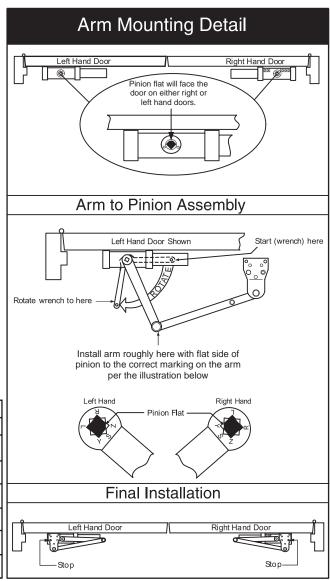
See below for illustrations of this procedure.

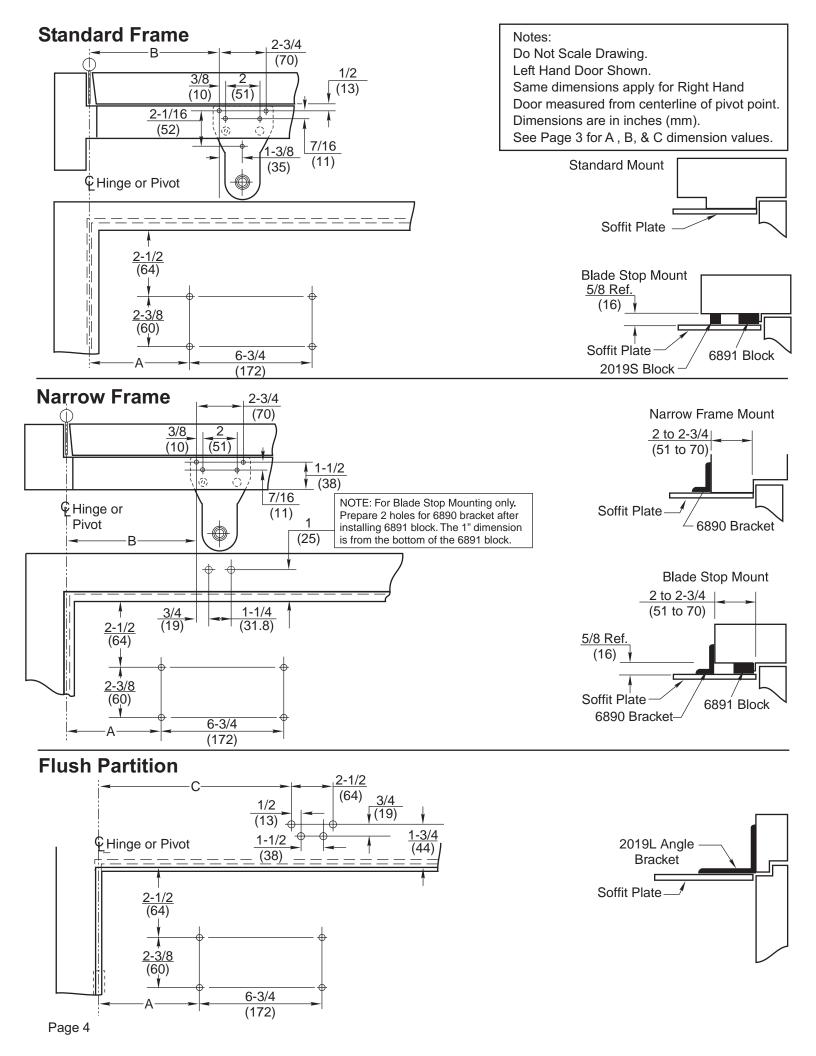
- Reopen valves ('S/D' or 'S') and 'L', that were closed in previous step.
- With door closed, align soffit plate with holes in frame and fasten to frame with screws. Use 2019S and/or 6891 spacer blocks or 6890 reinforcing bracket as required.
- Make adjustments to closer before installing cover. See Page 6 for closer adjustment instructions.
 - CAUTION: Do Not back valves out of closer body or a fluid leak will result.
- Install cover.

Power Adjustment Chart								
DOOR	PARALLEL ARM	*	MAXIMUM DOOR SIZE					
	INSTALLATION		32" (0.81 m)	36" (0.9 m)	42" (1.1 m)	48" (1.2 m)		
INT	PR7500/	MENT	0	3	5	8		
EXT	CLP7500	360°TURNS R ADJUSTMENT SHAFT	4	6	8	12		
INT	PR7500/	FULL 360° POWER AL SHAF	0	2	5	8		
EXT	PR7700/ CLP7700	OF PC	2	5	8	11		
						•		

*17 -360° TURNS MAXIMUM AVAILABLE

Installation Dimensions Chart											
	Dim		Up to 90°	90°- 95°	95°- 100°	100°- 105°	105°- 110°	110°- 115°	115°- 130°	130°- 150°	150°- 180°
	_	in.	8-3/4				7-	6-1/4	5-1/4		
	A	(mm)		(222)		(184)			(159)	(133)	
PR7500/	Ъ	in.		9-1/4		7-3/4				6-3/4	5-3/4
PR770X	В	(mm)		(235)		(197)			(171)	(146)	
		in.		9-3/8			7-7/8			6-7/8	5-7/8
	С	(mm)	(238)				(2	(175)	(149)		
	$\overline{}$	in.	10-1/8	9-1/4	8-5/8	7-7/8	7-3/8	6-3/4			
CLP7500/ CLP770X	Α	(mm)	(257)	(235)	(219)	(200)	(187)	(171)			
	В	in.	10-5/8	9-3/4	9-1/8	8-3/8	7-7/8	7-1/4			
		(mm)	(270)	(248)	(232)	(213)	(200)	(184)			
	C	in.	10-3/4	9-7/8	9-1/4	8-1/2	8	7-3/8		•	
		(mm)	(273)	(251)	(235)	(216)	(203)	(187)			





7788 Drop Plate Mounting Holes

Standard Frame

© Hinge or Pivot

1
(25)

4 4-3/4 4
(102) (121) (102)

A

5/16
(8)

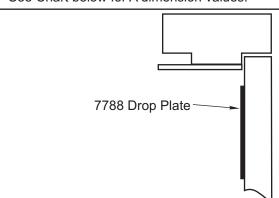
Notes:

Left Hand Door Shown.

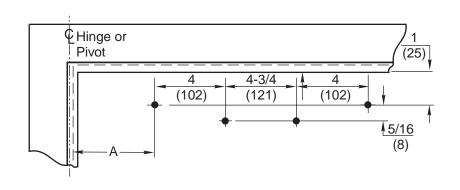
Same dimensions apply for Right Hand

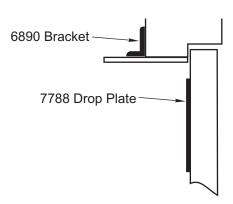
Door measured from centerline of pivot point. Dimensions are in inches (mm).

See Chart below for A dimension values.

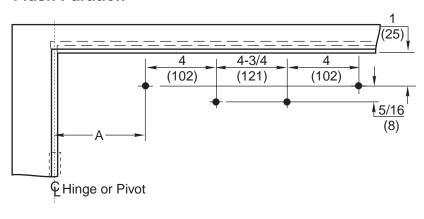


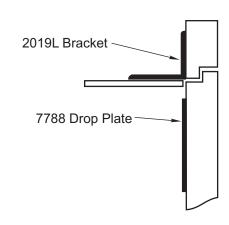
Narrow Frame





Flush Partition





	Installation Dimensions Chart										
	Dim	Up to 90°	90°-95°	95°-100°	100° to 105°	105°-110°	110°-115°	115°-130°	130°-150°	150°-180°	
PR7500/ PR7500H/ PR770X/ PR770XH	A in. (mm)	8-1/2 (216)			7 (178)				6 (152)	5 (127)	
CLP-7500/ CLP-7500T/ CLP-770X/ CLP-770XT	A in. (mm)	9-7/8 (251)	9 (229)	8-3/8 (213)	7-5/8 (194)	7-1/8 (181)	6-1/2 (165)				

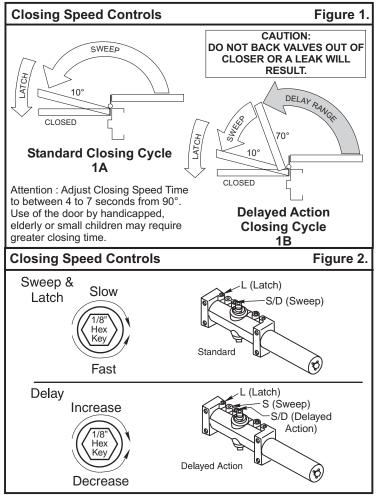
Unit Adjustment

Control Valve Adjustments

(See Figure 2.)

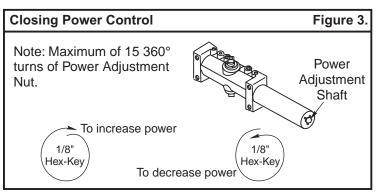
Closing Speed Controls (Figure 1A or 1B and 2.)

- Valve "S" Controls Sweep Range.
- Valve "L" Controls Latch Range.



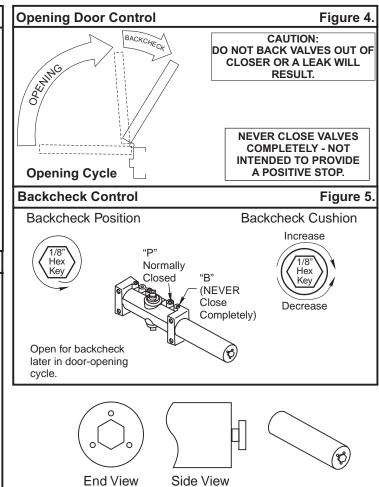
Closing Power Adjustment-

Using "Power Adjustment Chart" from Page 3, select the correct number of turns for power adjustment shaft that corresponds with the installation. With 1/8" hex-key provided, rotate adjustment shaft 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.



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).



Friction Hold-Open Feature

Hold door open to opening angle desired and tighten holderadjustment-nut (wrench supplied) or use 1" Box or Open End wrench.



Thumbturn Hold-Open Feature

The Thumbturn Hold-Open feature is controlled by the knob located on the arm of the unit. Turning this knob clockwise will engage the Hold-Open mechanism and increase the Hold-Open force. Turning this knob counterclockwise will reduce the Hold-Open force and disengage the Hold-Open mechanism.

DECREASE - INCREASE

