



Simple control for light
duty commercial applications

160 S E R I E S

DOOR CLOSER

CATALOG

Norton®

ASSA ABLOY

ASSA ABLOY, the global leader
in door opening solutions

INTRODUCTION

The 160 Series door closer, is ideal for stocking distributors serving high volume after-market and storefront segments. The 160 Series features an adjustable spring, non-hold open arms and independent and separate latch, sweep and backcheck intensity valves. With easy installation and maintenance and dependable control, the 160 Series is perfect for office doors, utility doors and strip mall applications.

FEATURES

- » Two models:
 - » 161BF: adjustable spring size 1 through 4
 - » 164: size 4 spring
- » Non-handed
- » Cast aluminum body
- » Rack-and-pinion design
- » Independent latch sweep and backcheck intensity valves
- » Non-hold open arms: 161BF, 164
- » Hold open arms: 161BF only
- » Closer footprint: 3/4" x 9-1/16"
- » Closer projection: 2-5/8"
- » Available in 689 (aluminum) or 690 (dark bronze) finishes
- » 5-year limited warranty



CERTIFICATIONS




- » ANSI/BHMA A156.4, Grade 1 
- » UL / cUL listed for use on fire rated doors 
- » UL10C listed for positive pressure fire test
- » Meets requirements for for Americans with Disabilities Act (ADA) and ANSI/BHMA A117.1 

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APPLICATIONS



TPN arm shown (regular mounting)

- » Pull-side application
- » Closer mounted on the door



TPN arm shown (top jamb mounting)

- » Push-side application
- » Closer mounted on the frame
- » Minimum top rail = 2-1/4" (57mm)
- » Maximum frame reveal = 2-3/4" (70mm)



TPN arm shown (parallel mounting)

- » Push-side application
- » Closer mounted on the door

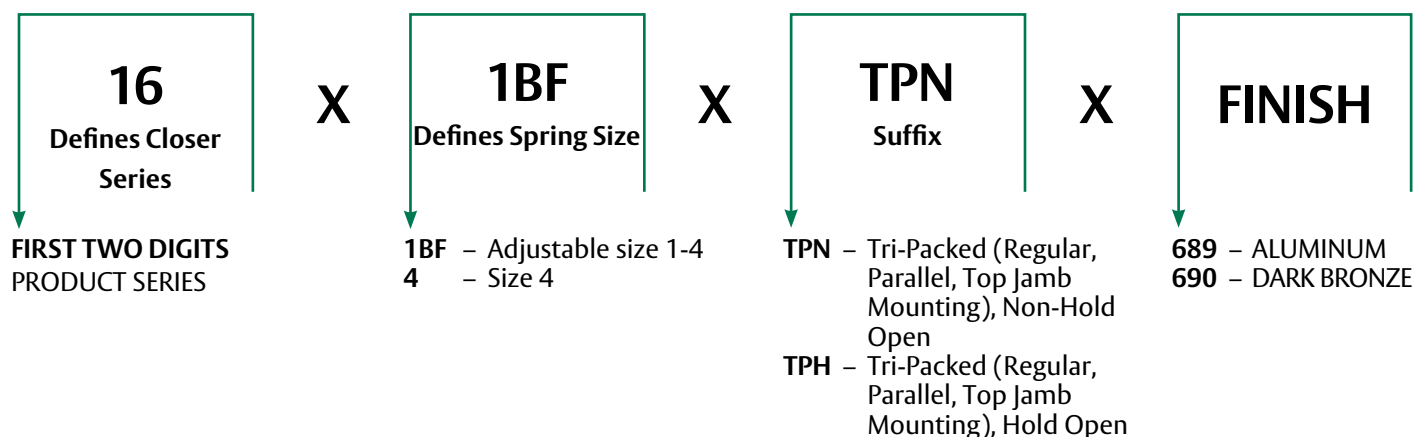
NOTE: Arms are not interchangeable with Norton's premium line of closers.

COVER



To order cover only, specify 160P x finish. (Only available with model 161BF closer.)

HOW TO ORDER



Model #	Suffix	Non-Hold Open	Hold Open	Adjustable Spring 1-4	Size 4 Spring	Adjustable Slide Arm	Tri-Packed (RA, TJ, PA)	Sex Nuts Included
161BF	TPN	•		•		•	•	•
	TPH		•	•		•	•	•
164	TPN	•			•	•	•	•

Note: Specify 161BFxOP2 to order the 161BF closer packed with a cover.

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ASSA ABLOY is the global leader in door opening solutions, dedicated to satisfying end-user needs for security, safety and convenience

Since 1880, Norton door controls have been an integral part of schools, hospitals and businesses around the globe. When you need products and people that perform at the highest level, rely on Norton – From Open to Close.

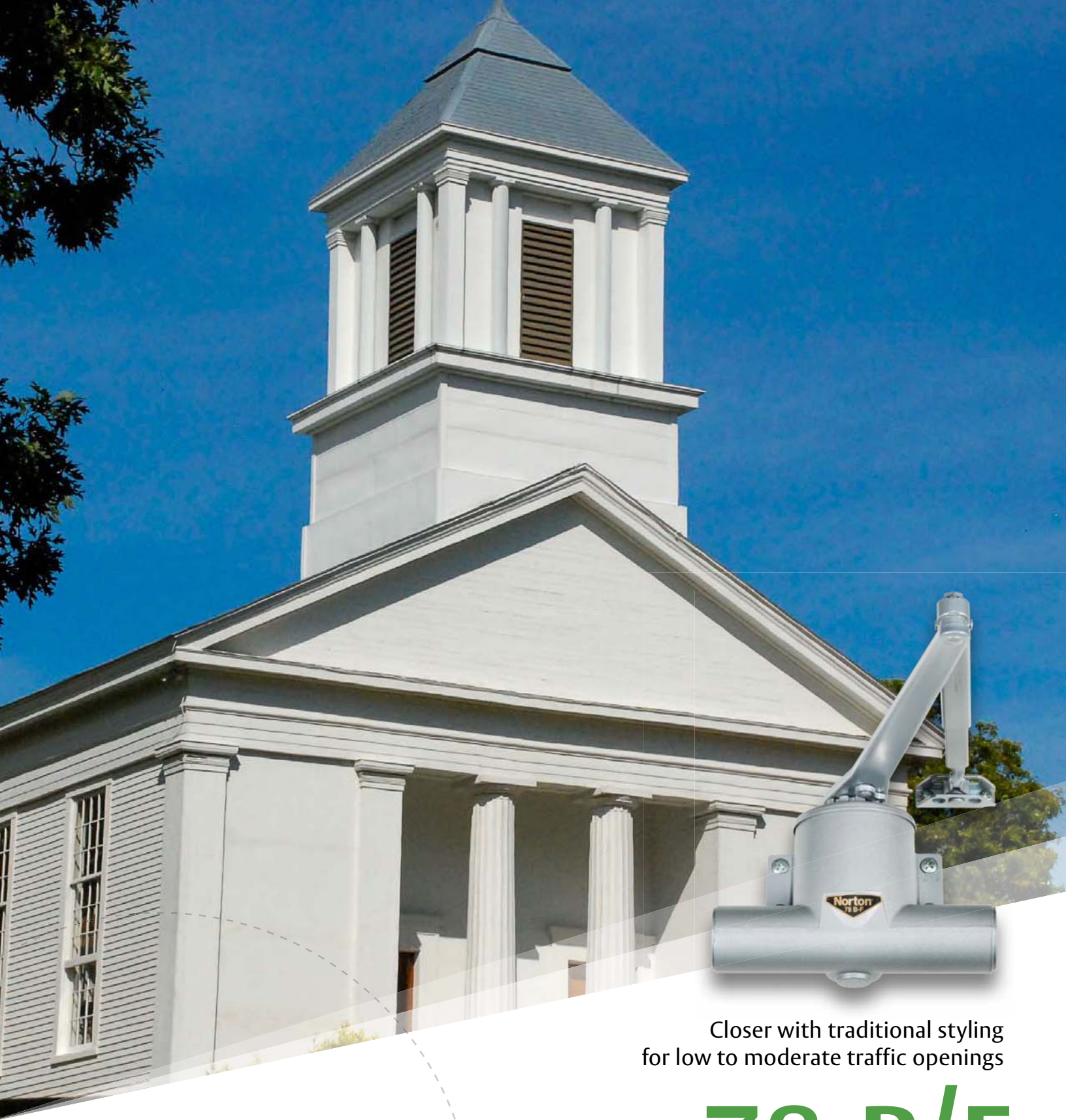
Norton Door Controls | www.nortondoорcontrols.com

3000 Highway 74 East | Monroe, NC 28112 | Tel: 1-877-974-2255 | Fax: 1-800-338-0965

ASSA ABLOY Door Security Solutions Canada | www.assaabloy.ca

160 Four Valley Drive | Vaughan, Ontario, L4K 4T9 Canada | Tel: 800-461-3007 | Fax: 1-905-738-2478

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Norton®

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in door opening solutions

Closer with traditional styling
for low to moderate traffic openings

78-B/F
S E R I E S

DOOR CLOSER

CATALOG

INTRODUCTION

The 78-B/F Series is a surface closer with traditional styling that offers multiple sizes within a single size aluminum alloy shell. Templates for installing this closer are the same for all closer sizes. Only two springs are needed for 78-B/F closers to accommodate the complete range of door sizes. These can also be adjusted to meet the exact power requirements of the application.

FEATURES

- » Choice of adjustable spring power
 - » B/D - Spring size 2, 3, or 4
 - » E/F - Spring size 5 and 6
- » Handed (closer spring can be reversed in the field)
- » Heavy-duty arms available: Parallel Rigid and Unitrol®
- » 10-year limited warranty



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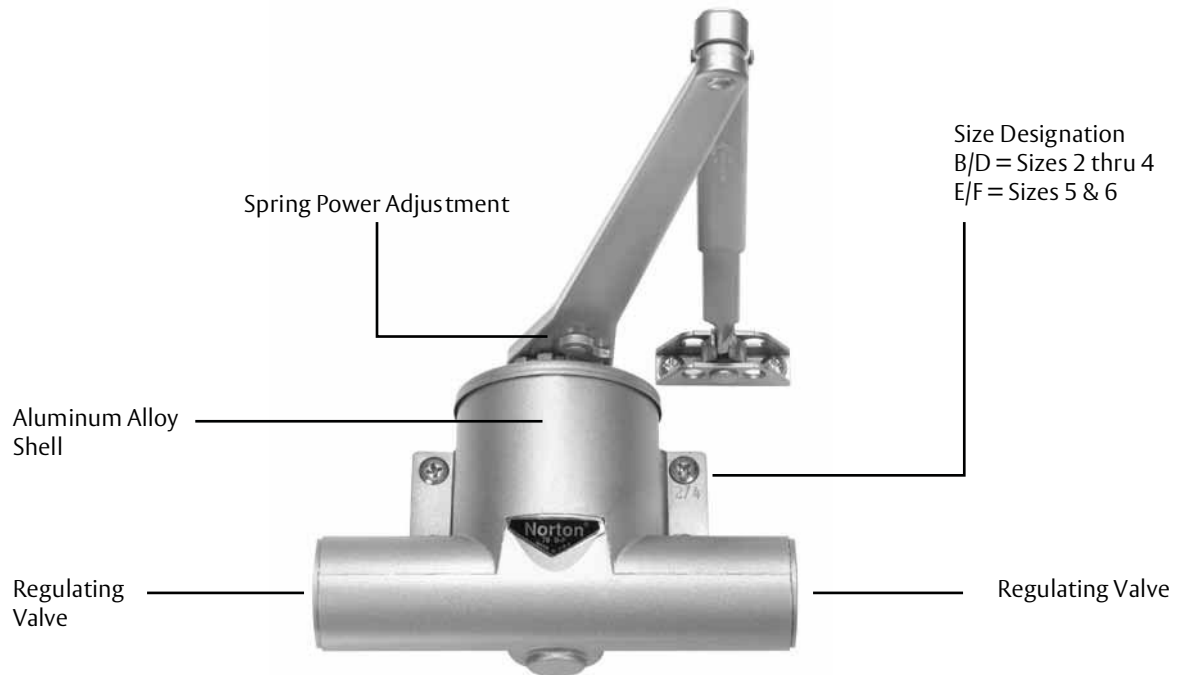
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78-B/F SERIES TRADITIONAL DOOR CLOSERS

OVERVIEW



CERTIFICATIONS

- » ANSI/BHMA A156.4, Grade 3 **BHMA** CERTIFIED
- » UL / cUL listed for use on fire rated doors **UL**
- » UL10C listed for positive pressure fire test
- » This product is manufactured in an ISO 9001 facility
- » Listed by the New York City Materials and Equipment Acceptance Division

EXPLANATION OF FEATURES

Aluminum Alloy Shell

Norton® closer shells are constructed of a special aluminum alloy, carefully selected to accommodate individual closer characteristics and operating conditions.

Adjustable Spring Power

Clock-type coil spring affords a wide range of closer power. Permits a fine adjustment of the closer to the environment.

Rack & Pinion Operation

Provides a smooth transmission of power for control of the door through its full opening and closing cycle.

Adjustable Sweep/Latch Speed

A dual purpose regulating valve, hex-key operated, permits independent adjustment of both sweep and latch speed.

Adjustable Backcheck Cushioning

An independent regulating valve, hex-key operated, provides an adjustable hydraulic cushion to the door opening speed toward the end of the opening cycle. This feature is standard with all but delayed action closers. Backcheck is not available with delayed action closers.

Non-Hold Open Arm

Standard closer will be supplied with a non-hold open arm. This arm is non-handed.

Hold Open Arm

Closer arm has adjustable hold open feature (90° to 180°). This arm is non-handed for regular arm application only. It is handed for all friction hold open parallel arm installations. Order by suffixing "HA" to the Model number.

Warranty

Limited ten-year warranty for defects and life of the building on the aluminum housing.

Field Reversible

Closer spring can be field-reversed to accommodate the hand of the door. It is recommended that wherever possible the closer be ordered handed. Parallel hold open arms and delayed action closers are not reversible.

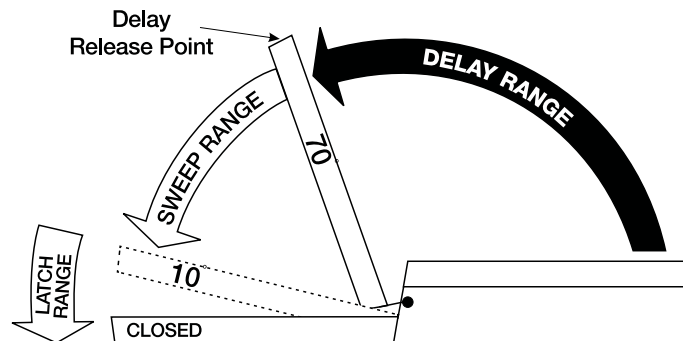
***Note: Regular arm (NHO units only) are handed – not reversible**

OPTIONAL FEATURES

Adjustable Delayed Action Closing* (Supplied in lieu of backcheck feature)

An optional hydraulic feature that adds a third speed range to the closing cycle. This feature becomes effective when the door is opened and released at any point beyond 70°. The amount of time delay depends upon the combination of the angle of door release and valve adjustment. The valve can be adjusted with a 1/8" (3mm) hex-key from no delay time up to maximum delay times of:

Door Opened and Released at	Approximate Time of Delay Cycle
180°	4-5 minutes
120°	2-3 minutes
90°	25-30 seconds



Suggested Applications

Delayed action closing allows slow moving traffic to clear the opening before the door closer's normal closing cycle begins. This feature can be helpful in health care facilities such as hospitals and nursing homes. It provides sufficient time for persons on crutches or in wheelchairs to pass through a door without concern of it closing. At the same time, it can accommodate the facility's staff with movement

of food service carts, beds, and other wheeled traffic. Use of delayed action closers on many doors throughout industrial and commercial buildings can also assist the flow of traffic. Locations where additional time to clear the opening is advantageous are doors between office and factory/warehouse facilities, doors to workshops or laboratories, to kitchen and food processing areas, etc.

SPECIFICATIONS

Closer for interior (and) exterior doors shall be rack-and-pinion type enclosed in a cast aluminum alloy shell. Closer spring shall be clocktype coil spring and shall be adjustable through a wide range of closing power. Closer shall be equipped with a single hex-key operated regulating valve for control of both closing and latch speeds. Closer shall have a hex-key operated regulating valve to control the adjustable backcheck feature. Closer shall be Norton® Series 78-B/F Traditional Surface Closer or equivalent.

APPLICATIONS



Regular Arm

This is the only pull-side application where a double lever arm is used. It is the most power-efficient application for a door closer. Sufficient frame, door and/or ceiling clearance must be considered. Since the arm assembly projects directly out from the frame, this application may present an aesthetics issue or be prone to vandalism.



Parallel Arm

This application provides the most appealing design appearance for a surface mounted door closer having a double lever arm. This also makes it beneficial in vandalism-prone areas. It is on the push side of the door and the arm assembly extends almost parallel to the door. In the closed position, there is very little or no hardware projecting beyond the frame face in most situations.

Due to the geometry of the arm it is approximately 25% less power efficient than a regular arm application. The entire closer and arm assembly are mounted below the frame stop, requiring a top rail of 5-3/8" (137mm) to mount the body. Clearance to the bottom of the closer body from the top of the door is 7-3/8" (187mm). (Based on 5/8" (16mm) high frame stop.)

APPLICATIONS



Parallel Rigid Arm

An enhanced variation of the standard parallel arm assembly that is intended for use in heavy traffic areas where auxiliary door stops are installed. Hold open available – specify hand when ordering.

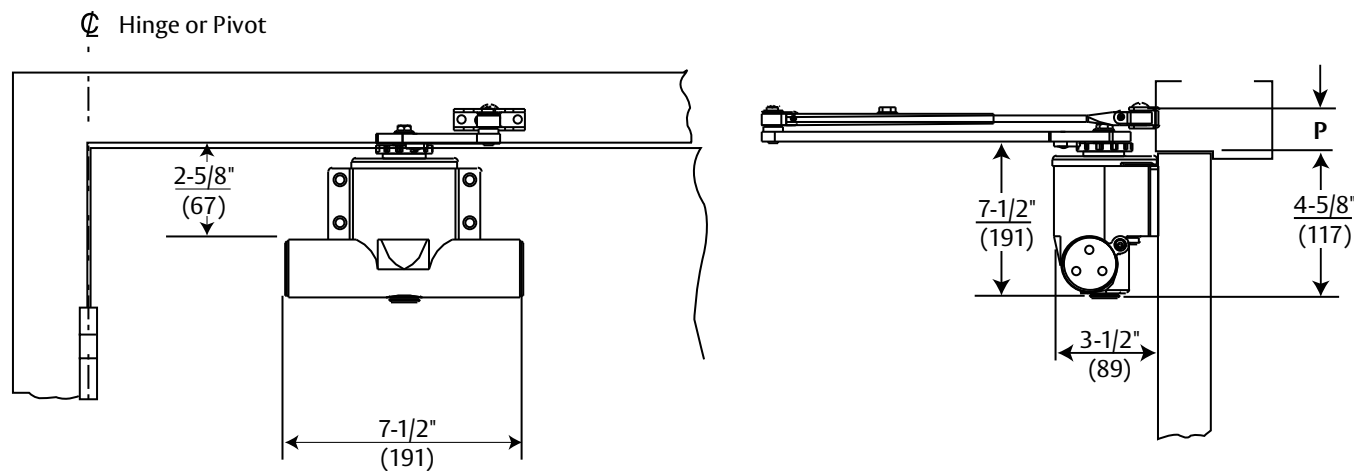


Unitrol® Arm (Parallel Arm applications only)

Unitrol arms combine the features of a double lever arm overhead door stop/holder with the backcheck feature of the door closer to reduce door stopping shock loads to a minimum. The Unitrol uses a compression spring buffer at the soffit plate/arm shoe that will absorb 30 lbs. of force, 5° prior to the door's dead stop. Coupled with the door closer's backcheck feature, this arm provides the most controlled stop available with a surface door closer.

For parallel arm applications there are three different length arm assemblies. Each length is designed for a specific range of door widths, to provide precise door control. This further lessens the dead stop impact on the door's hinges/pivots.

REGULAR ARM



Body mounting holes are spaced 4-1/8" (105mm) horizontally and 1-3/8" (76mm) vertically.

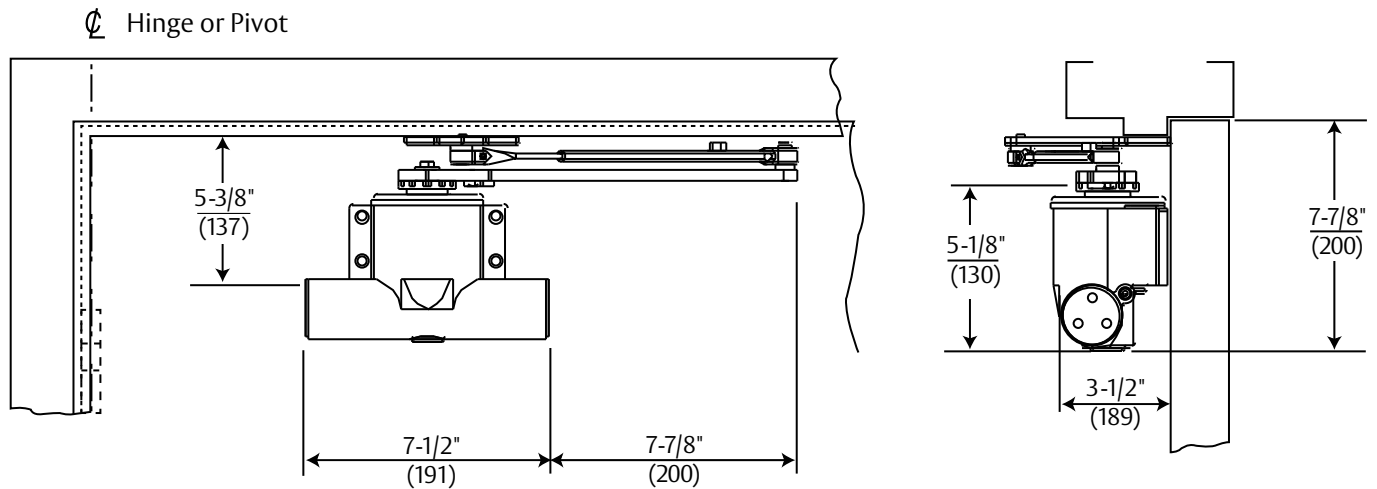
Maximum Door Size Wood or Metal Inches (cm)		Model Number	
Interior	Exterior	Non-Hold Open	Hold Open
48" (122)	36" (91)	78B/D-RA	78B/D-HA
—	44" (112)	78E/F-RA	78E/F-HA

P Minimum Ceiling Clearance	
Non-Hold Open	Hold Open
1-1/2" (38)	2-1/8" (54)

All dimensions are for reference only. Door sizing information is based on installation on standard weight doors, 7'0" (213 cm) high 1-3/4" (44 mm) thick, hung on anti-friction hinges and operating under normal conditions.

Note: Contact factory if door weight exceeds 250 lbs.

PARALLEL ARM



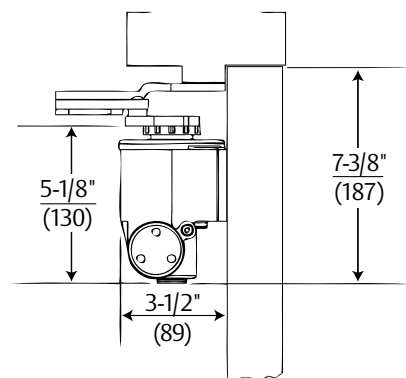
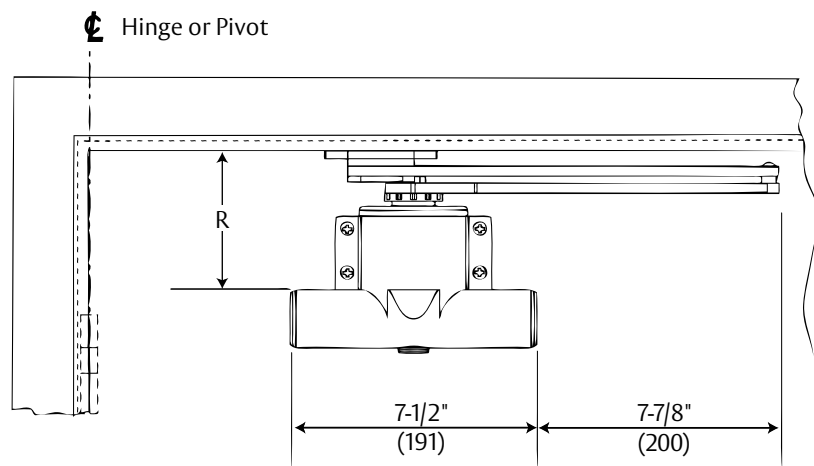
Body mounting holes are spaced 4-1/8" (105mm) horizontally and 1-3/8" (76mm) vertically.

Maximum Door Size Wood or Metal Inches (cm)		Model Number	
Interior	Exterior	Non-Hold Open	Hold Open
42" (107)	36" (91)	78B/D-PA	78B/D-PHA
—	44" (112)	78E/F-PA	78E/F-PHA

All dimensions are for reference only. Door sizing information is based on installation on standard weight doors, 7'0" (213 cm) high 1-3/4" (44 mm) thick, hung on anti-friction hinges and operating under normal conditions.

Note: Contact factory if door weight exceeds 250 lbs.

PARALLEL RIGID ARM



Body mounting holes are spaced 4-1/8" (105mm) horizontally and 1-3/8" (76mm) vertically.

Maximum Door Size Wood or Metal Inches (cm)		Model Number	
Interior	Exterior	Non-Hold Open	Hold Open
48" (122)	36" (91)	78B/D-PA	78B/D-PHA
—	44" (112)	78E/F-PA	78E/F-PHA

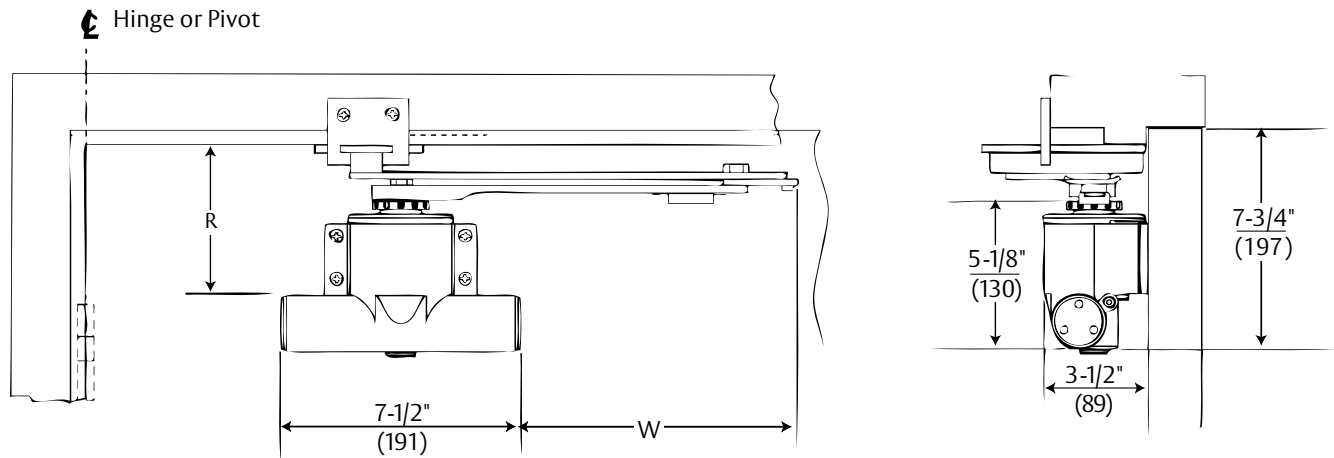
R Minimum Top Rail 5/8" (16mm) frame stop	
Without Drop Plate	With 88 Drop Plate
5-3/8" (137)	2-1/2" (64)

Door sizing information is based on installation on standard weight doors, 7'0" (213cm) high, 1-3/4" (44mm) thick, hung on anti-friction hinges and operating under normal conditions.

Note: Contact factory if door weight exceeds 250 lbs.

78-B/F SERIES TRADITIONAL DOOR CLOSERS

UNITROL® ARM



Body mounting holes are spaced 4-1/8" (105mm) horizontally and 1-3/8" (76mm) vertically.

Door Width Inches (cm)	R - Minimum Top Rail 5/8" (16mm) Frame Stop		W - Arm Extension Beyond Closer
	Without Drop Plate	With 88 Drop Plate	
28-32" (71-81)	5-5/8" (143)	2-3/4" (70)	8-7/8" (225)
33-41" (84-104)			10-3/8" (264)
42-48" (107-122)			11-7/8" (302)

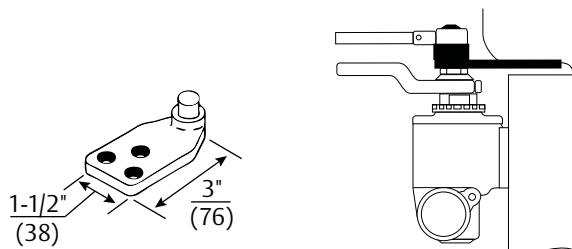
Maximum Door Size Inches (cm)		Model Number		
Interior	Exterior	Non-Hold Open	Hold Open	x Specify Door Width
28-41" (71-104)	28-36" (71-91)	UNI78-B/D	UNI78-B/D-H	
42-48" (107-122)	37-48" (94-122)	UNI78-E/F	UNI78-E/F-H	

Door sizing information is based on installation on standard weight doors, 7'0" (213cm) high, 1-3/4" (44mm) thick, hung on anti-friction hinges and operating under normal conditions.

Note: Contact factory if door weight exceeds 250 lbs.

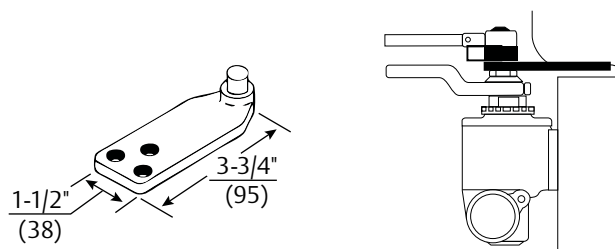
REGULAR ARM

Brackets for Non-Hold Open Arms



Molded/Bull Nose Trim - #2403B Bracket:

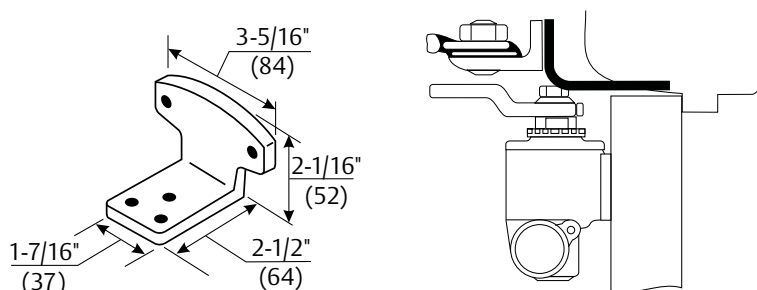
For use where the door frame has molded or bull nose trim which will not accept a standard non-hold open shoe. The bracket is mortised into the frame rabbet and projects beyond the face of the frame. It will accommodate a frame rabbet up to 2" (51mm) deep.



Molded/Bull Nose Trim - #2403 3/4 Bracket:

This bracket is similar to - but longer than - the 2403B bracket. It is designed to accommodate frame rabbets from 2" to 2-7/8" (51 to 73mm) deep.

Brackets for Non-Hold Open Arms

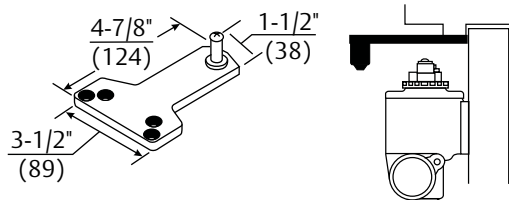


Molded/Bull Nose Trim - #80 Bracket:

For use where the door frame has molded or bull nose trim which will not accept a standard hold open shoe. It is mortised into the frame rabbet, and projects beyond the face of the frame. It will accommodate a rabbet up to 2" (51mm) deep. This bracket is used in combination with the standard hold-open mounting shoe.

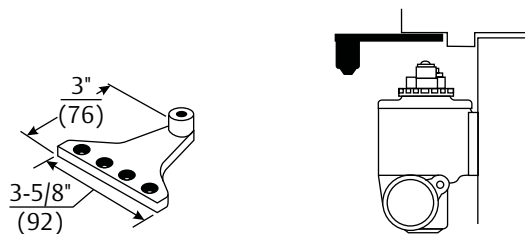
PARALLEL ARM

Brackets for Hold Open Arms



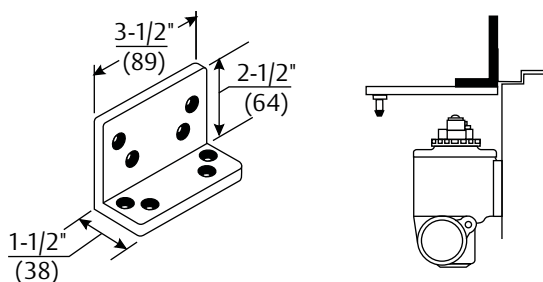
Standard Installation - #1618 Soffit Plate:

This soffit plate is supplied standard with parallel arm closers. It can be mounted where the frame soffit is as narrow as 1" (25mm).



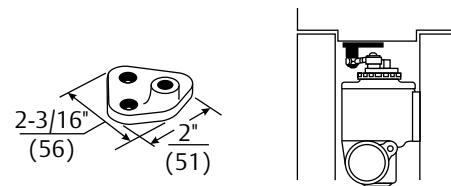
Narrow Frame/Removable Stop - #2018B Soffit Plate:

For use where a narrow frame or frame with removable stop does not permit use of the standard soffit plate. This plate may be mounted on the frame soffit or the frame rabbet where the stop does not exceed 5/8" (16mm) in height. All of the screw holes are in a straight line, requiring as little as 1-1/4" (32mm) of frame reveal to mount bracket and maintain good closer arm geometry. Where the frame soffit is as wide as 2" (51mm), this soffit plate may be used to clear weatherstripping that is up to 1-3/8" (35mm) wide and 5/8" (16mm) in height.



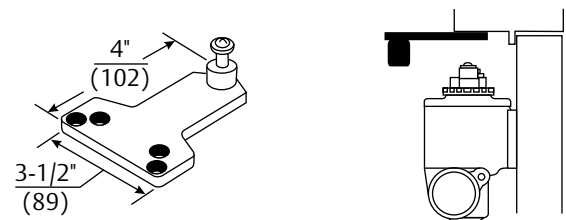
Flush Transom - 2022 Angle Bracket:

For use where rabbeted or flush transom conditions prevent installation of a soffit plate. Used in combination with the 1618 soffit plate, or it may be used in combination with the 2018S soffit plate when it is necessary for the closer arm to clear a separate overhead door holder.



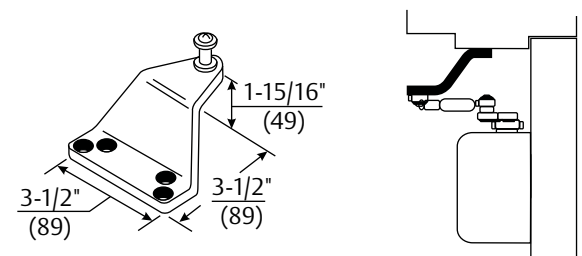
Mounting Between Doors - #2018 Soffit Bracket:

For use where insufficient space between companion doors does not permit use of other soffit plates. This bracket permits mounting of the closer between doors with as little as 4-1/8" (105mm) of header space. Permits closer arm to clear up to a 5/8" (16mm) high stop.



Blade/Applied Stop - #2018D Soffit Plate:

For use where a blade or applied stop does not permit installation of the standard soffit plate. Mounts to either the frame soffit or rabbet. Since this soffit plate projects 7/8" (22mm) less than a standard soffit plate, it requires a minimum frame reveal of 1-1/2" (38mm). Permits closer arm to clear up to a 5/8" (16mm) high stop.

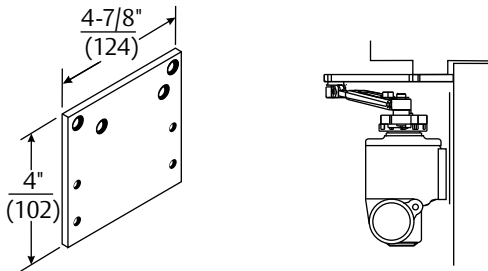


Extra-Clearance - #2018S Offset Soffit Plate:

For use where the need for additional clearance prevents use of the standard soffit plate. This plate mounts to the frame soffit to provide up to 1-1/2" (38mm) of clearance when a separate overhead door holder is used. Standard mounting requires a 2-5/8" (67mm) wide frame soffit. It may also be used where unusually high frame stops or weatherstripping prevent the use of other soffit plates.

PARALLEL ARM

Closer Mounting Plates

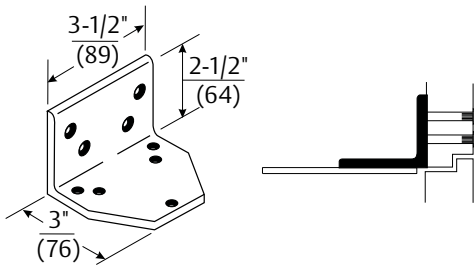


Narrow Top Rail - #88 Drop Plate:

For use where a narrow top rail prevents the closer from being mounted directly to the door surface.

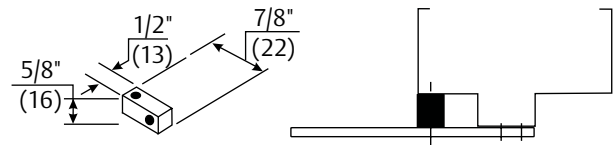
PARALLEL RIGID

Brackets for Non-Hold Open Arms



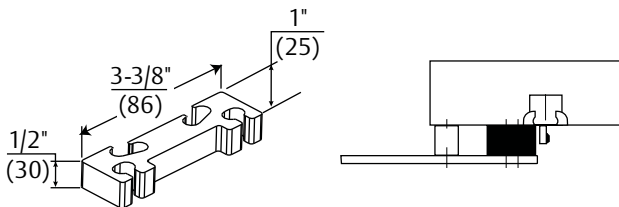
Flush Rabbetted Transom - #2019L Angle Bracket:

For use where flush transom conditions prevent mounting of the standard soffit plate. This bracket is used in combination with the standard soffit plate.



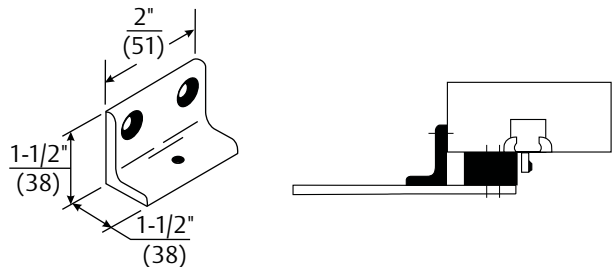
Standard - #2019S Spacer Block:

For use where a narrow frame soffit does not provide adequate support for the soffit plate. Supplied as standard with all parallel rigid arm closers.



Clearance/Support Blade Stop - #6891 Spacer Block:

For use where the frame has a blade stop and the soffit plate must be mounted on the frame rabbet. This accessory is used in combination with the standard Spacer Block to provide clearance of the blade stop.



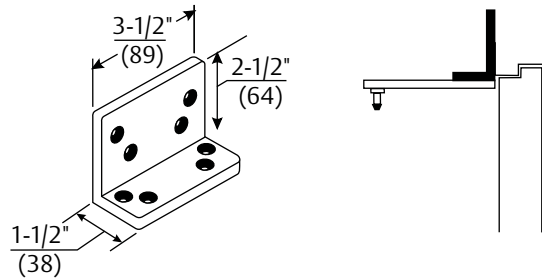
Narrow Frame - #6890 Support Bracket:

For use where the frame is narrow, and the soffit plate cannot be mounted directly to the frame soffit or rabbet. Used in combination with the #6891 Spacer Block on blade stop frames to provide extra support and needed clearance of the blade stop.

78-B/F SERIES TRADITIONAL DOOR CLOSERS

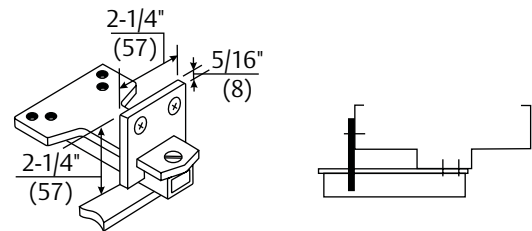
UNITROL® ARM

Brackets for Non-Hold Open Arms



Flush Transom - #2022 Angle Bracket:

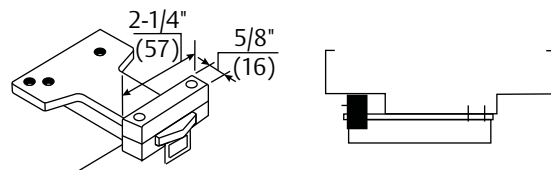
For use where rabbeted or flush transom conditions prevent installation of a soffit plate. Used in combination with the 1618 soffit plate, or it may be used in combination with the 20185 soffit plate when it is necessary for the closer arm to clear a separate overhead door holder.



Additional Support - #6190 Reinforcing Bracket:

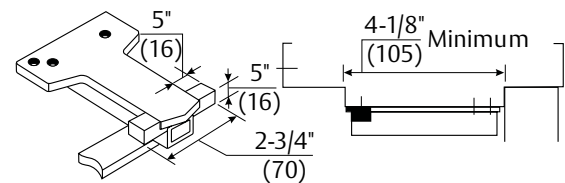
Standard for use with all parallel arm Unitrol door controls. Provides additional support to the soffit plate on installations with door frame reveals from 1-7/8" to 4-5/8" (48 to 117mm).

Reinforcing Kit

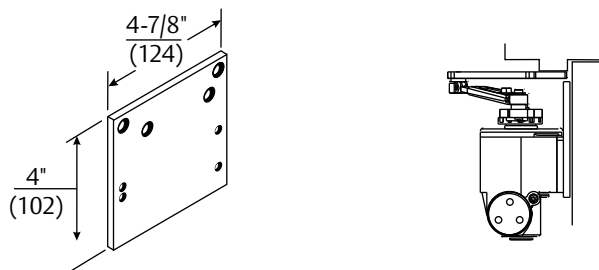


Wide Frame - #6191 Reinforcing Kit:

Optional for use with all parallel arm Unitrol door controls. Used to support the soffit plate on installations with wide frames. Clamps may be used with or without the spacer block, depending on frame conditions.



Closer Mounting Plates

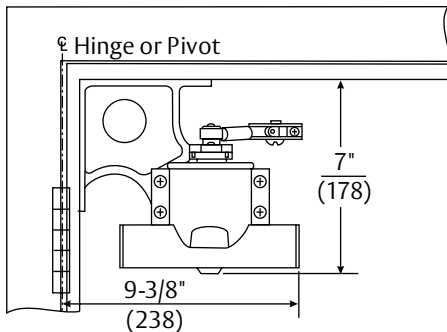


Narrow Top Rail - #88 Drop Plate:

For use where a narrow top rail prevents the closer from being mounted directly to the door surface.

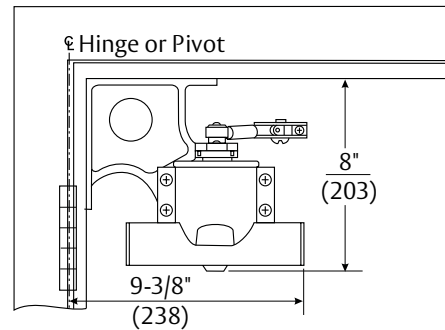
CORNER BRACKETS

All of the following frame-mounted brackets require the use of a regular arm door closer of the opposite hand from the hand of the door. Use the Parallel Arm Sizing Chart to select the correct size of closer to use when the closer is to be mounted on a corner bracket.



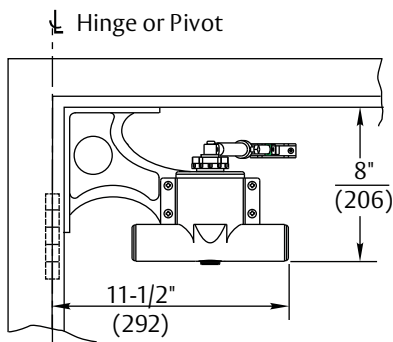
Corner Mounting, Standard Drop - #2-B/F Corner Bracket:

For use where door is required to open to 180°. Minimum soffit width 1-3/8" (35mm).



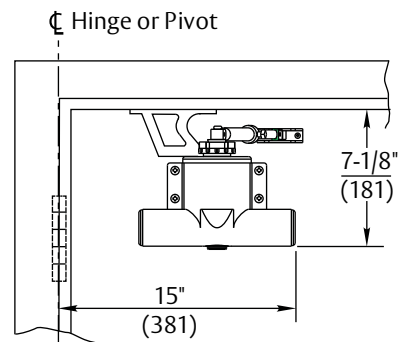
Corner Mounting, Extra Drop - #5-B/F Corner Bracket:

For use with a separate overhead door holder. Drops closer 1" (25mm) lower than #2-B/F Standard Drop Corner Bracket to permit mounting of an overhead holder. Permits door openings to 180° Minimum soffit width 1-3/8" (35mm).



Corner Mounting, Extra Drop and Extension - #8-B/F Combination Bracket:

Recommended for use instead of #2-B/F or #5-B/F Corner Brackets, whenever possible. Provides 1/2" (13mm) more clearance than #5-B/F Corner Bracket for an overhead door holder, and positions closer farther from hinge edge of door for best power advantage. Permits door openings to 140°.

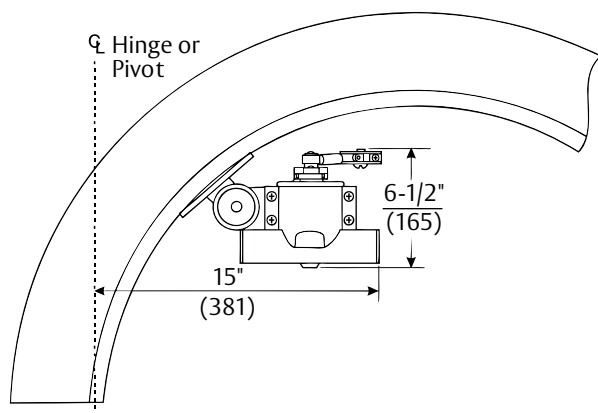


Soffit Mounting - #1-B/F Soffit Bracket:

For use where frame conditions prevent mounting of a corner bracket. This bracket mounts to the overhead frame soffit. Permits door openings to 180°.

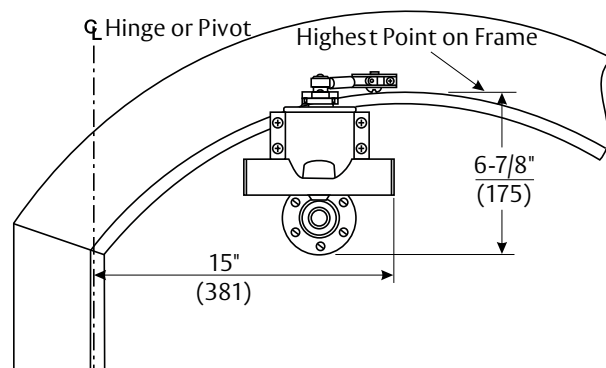
78-B/F SERIES TRADITIONAL DOOR CLOSERS

CORNER BRACKETS



Arched or Circular Top Door - #6-B/F Adjustable Bracket:

For opposite hinge side application on arched or circular top doors. This frame-mounted bracket can be adjusted to accommodate virtually any radius of frame. Minimum soffit width 2-1/2" (64mm). This bracket requires the use of a regular arm door closer of the opposite hand from that of the door. Intended for 90° door swing.

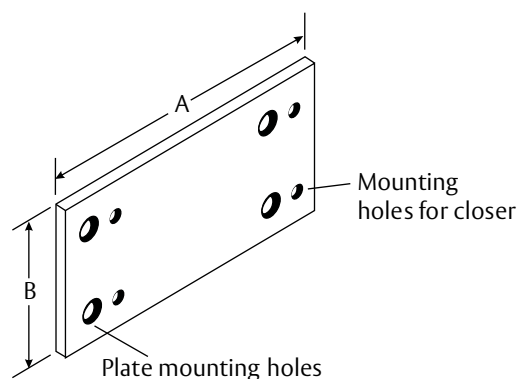


Arched or Circular Top Door - #7-B/F Offset Adjustable Bracket:

For hinge side application on arched or circular top doors. This door-mounted bracket is adjustable to accommodate virtually any radius of frame. Base diameter 3-5/8" (92mm). Use in conjunction with a regular arm door closer. Intended for 90° door swing.

ADAPTER PLATES

Size Closer Being Replaced	Adapter Plate Catalog Number	Dimensions	
		A	B
B	9-B	4-7/8" (124)	2-1/4" (57)
B/C	9-B/C	5-1/2" (140)	2-5/8" (67)
D	None Required	—	—
E/F	9-E/F	5-1/2" (140)	2-5/8" (67)

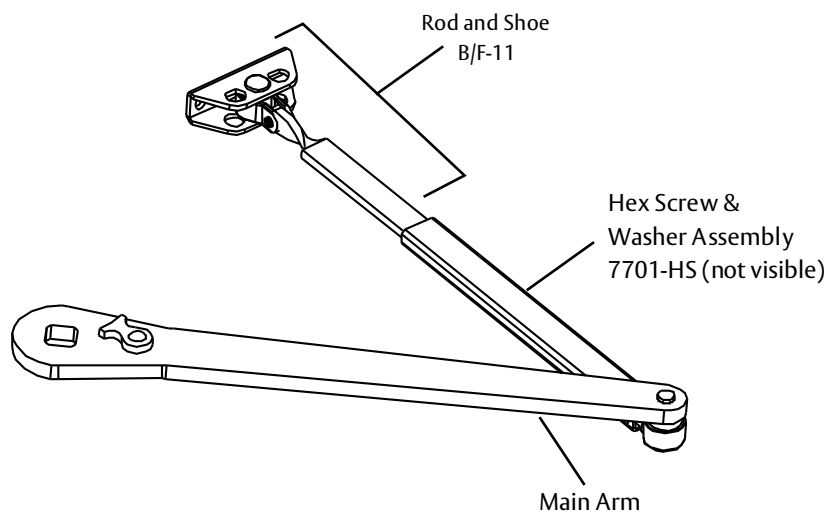


#9 Adapter Plate

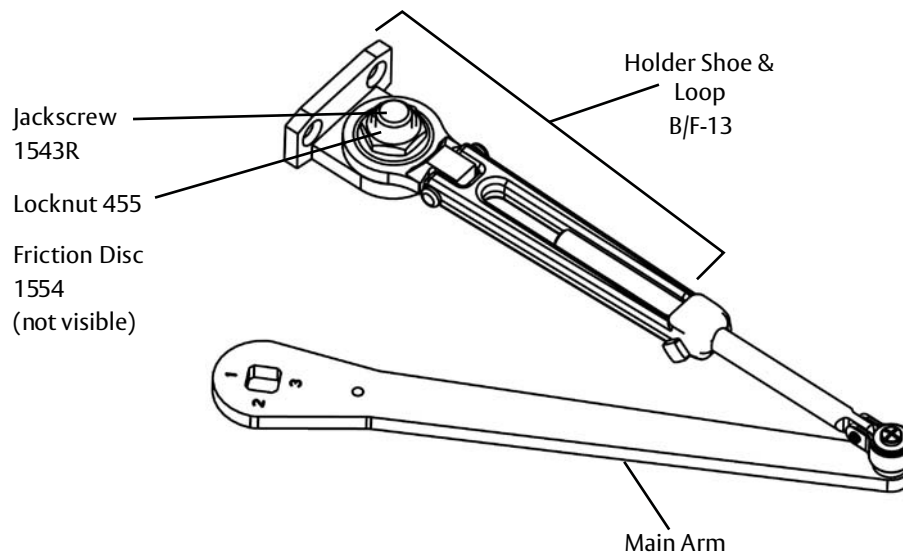
For use when replacing a discontinued old style traditional surface closer with a series 78-B/F Traditional Surface Closer. The plate selected will employ the existing holes in either door, corner bracket or soffit bracket. The Series 78-B/F will mount to the plate. These plates can be used to convert regular arm, parallel arm or bracket mount installations. Order by model number.

REGULAR ARM

Non-Hold Open



Hold Open

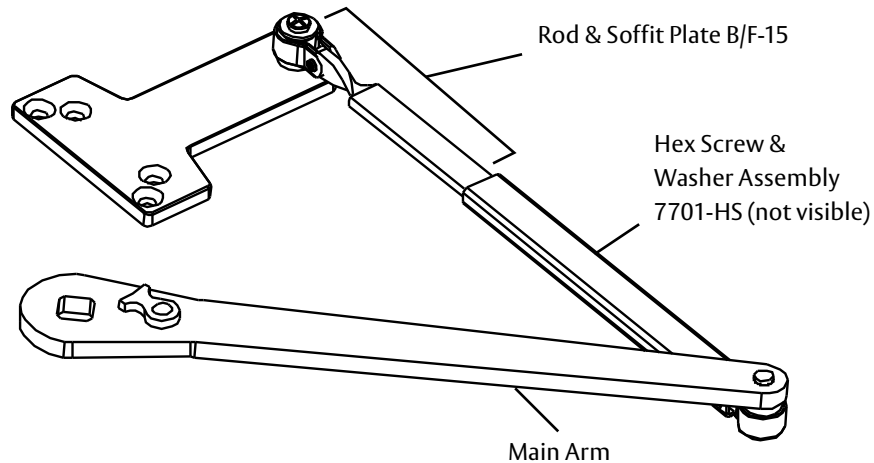


Note: Mounting hardware included with all parts ordered

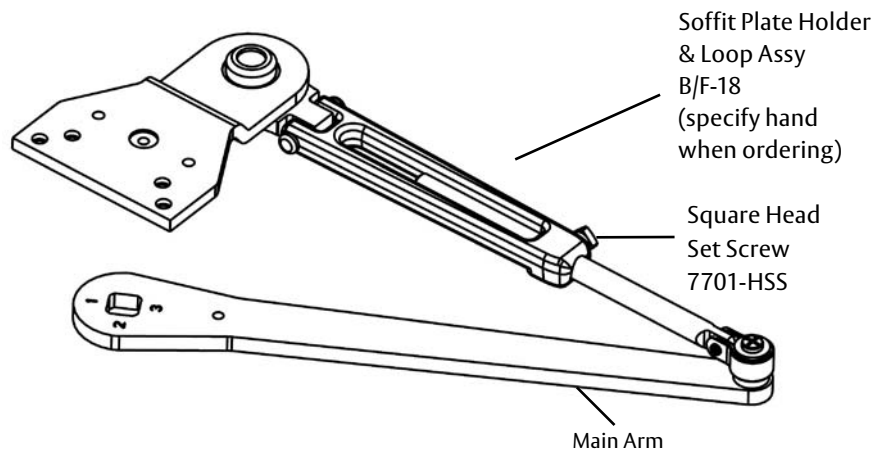
Arm Function	Complete Arm Assembly	Main Arm	Main Arm Less Rod & Shoe	Main Arm Less Holder Shoe & Loop Assembly
Non-Hold Open	B/F-1	B/F-1M	B/F-1W	N/A
Hold Open	B/F-3		N/A	B/F-3W

PARALLEL ARM

Non-Hold Open



Hold Open

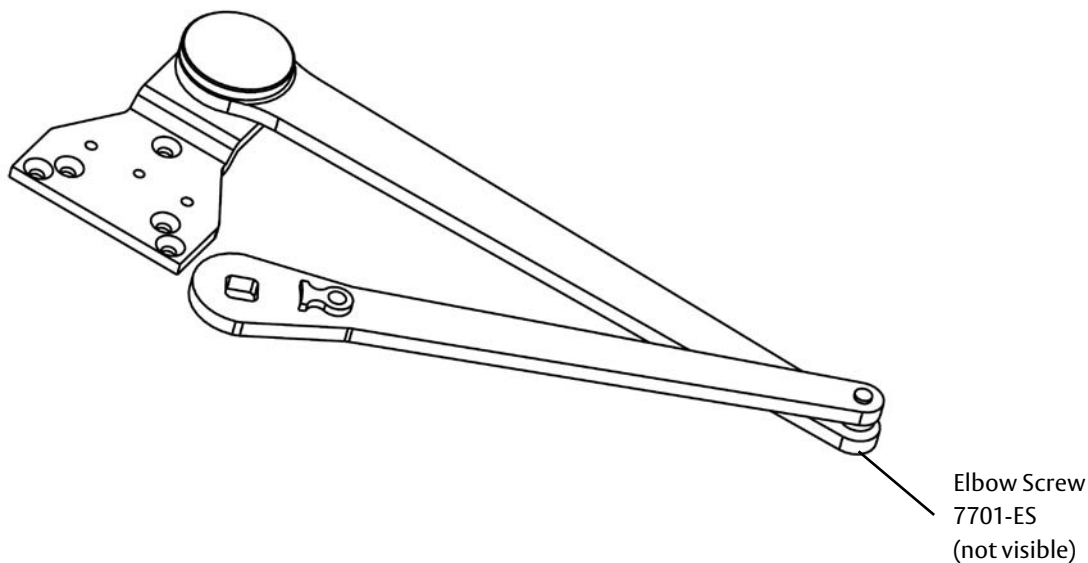


Note: Mounting hardware included with all parts ordered

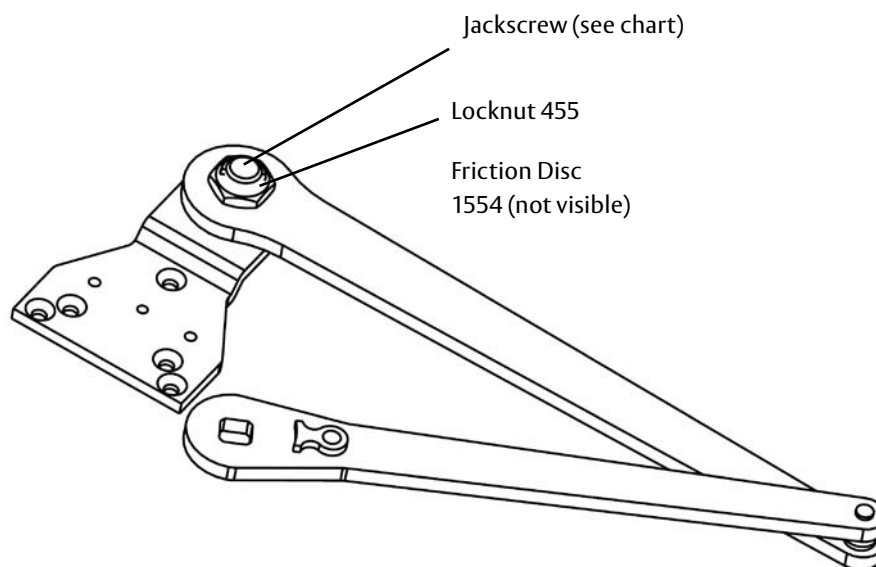
Arm Function	Complete Arm Assembly	Main Arm	Main Arm Less Rod & Shoe	Main Arm Less Holder Shoe & Loop Assembly
Non-Hold Open	B/F-5	B/F-1M	B/F-5W	N/A
Hold Open	B/F-8		N/A	B/F-8W

PARALLEL ARM

Non-Hold Open



Hold Open



Note: Mounting hardware included with all parts ordered

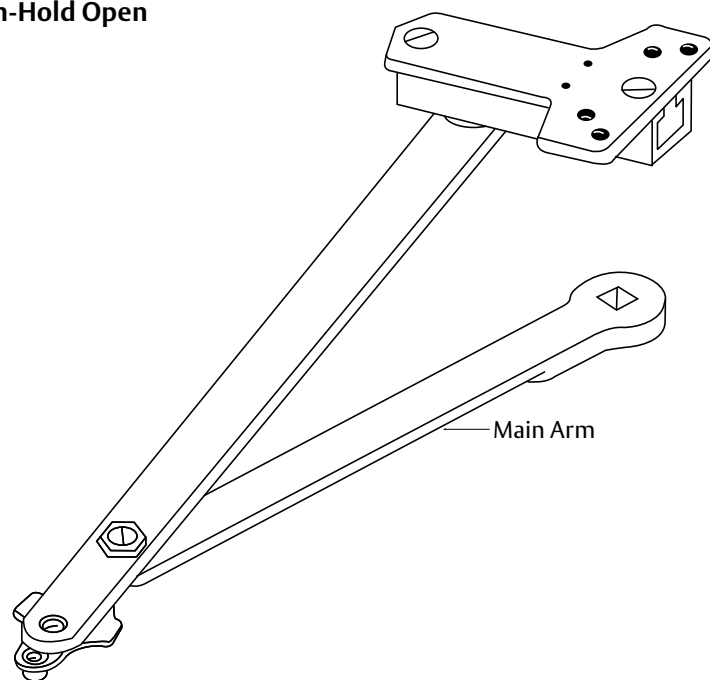
Arm Function	Complete Arm Assembly	Jackscrew
Non-Hold Open	78PRA-5	N/A
Hold Open	78PRA-8R (Right Hand)	1543R
	78PRA-8L (Left Hand)	1543L

78-B/F SERIES

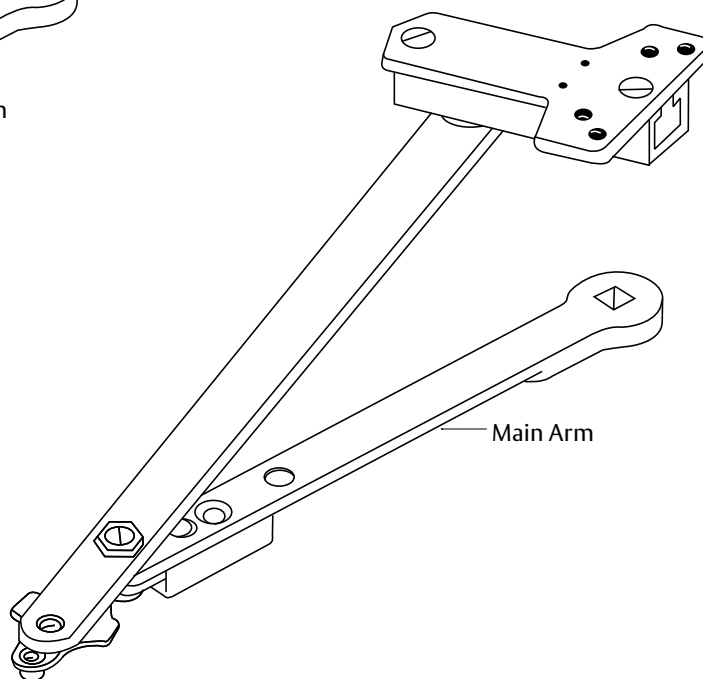
TRADITIONAL DOOR CLOSERS

UNITROL® ARM ASSEMBLIES

Non-Hold Open



Hold Open



Note: Mounting hardware included with all parts ordered

Door Width (cm)	Main Arm Length (mm)	Complete Arm Assembly	
		Non-Hold Open	Hold Open
28"- 32" (71 - 81)	9-1/2" (241)	6130-17	6130-7
33"- 41" (84 - 104)	11" (279)	6130-18	6130-8
42"- 48" (107 - 122)	12-1/2" (318)	6130-19	6130-9

FASTENERS

Type	Description	Arm			
		RA	PA	PR	UNI
DOOR					
SDST	Self-Drilling Self-Tapping	S	S	S	S
MS	Machine Screw	S	S	S	S
SN	Sleeve Nut	O	O	S	S
TBGN	Thru Bolts & Grommet Nuts	O	O	O	O
FRAME					
SDST	Self-Drilling Self-Tapping	S	S	S	S
MS	Machine Screw	S	S	S	S

S = standard; O = optional

SN are for use on unreinforced hollow metal doors or to prevent any hollow metal door from collapse/dimpling. They can also be used for thru bolting on wood doors. **When selected as an add-on option**, SN are supplied for 1-3/4" (44mm) thick doors unless specified for 2-1/4" (57mm) thick doors.

TBGN are an alternative to SN for wood doors. **When selected as an add-on option**, TBGN are supplied standard for 1-3/4" (44mm) thick doors. They can be specified for 1-3/8" (35mm) thick doors.

FINISHES

Sprayed Finishes

Description	Specify (BHMA) Designation	Complements the following finishes	Old Designation
Aluminum	689	628, 625, 629, 630, 651, 652	AL
Statuary Bronze	690	640, 613	STAT
Dull Bronze	691	612, 637, 639	DB
Black	693	315	315
Medium Amber	694	313	312
Gold	696	605, 606, 632, 633	GB
Prime Coat	600*	—	SRI

Available Finishes

All door closers are painted in water borne acrylics. All steel parts, arms, bracket and mounting plates are powder coated. The closers will withstand 100 hours of salt spray. ANSI requires 25 hours.

*600 is a special rust-inhibiting prime coat. Closers can be ordered prime coat only (specify closer x 600). An additional charge applies if finish coat is required over prime coat (ex: 78-B/D x 600 x 689).

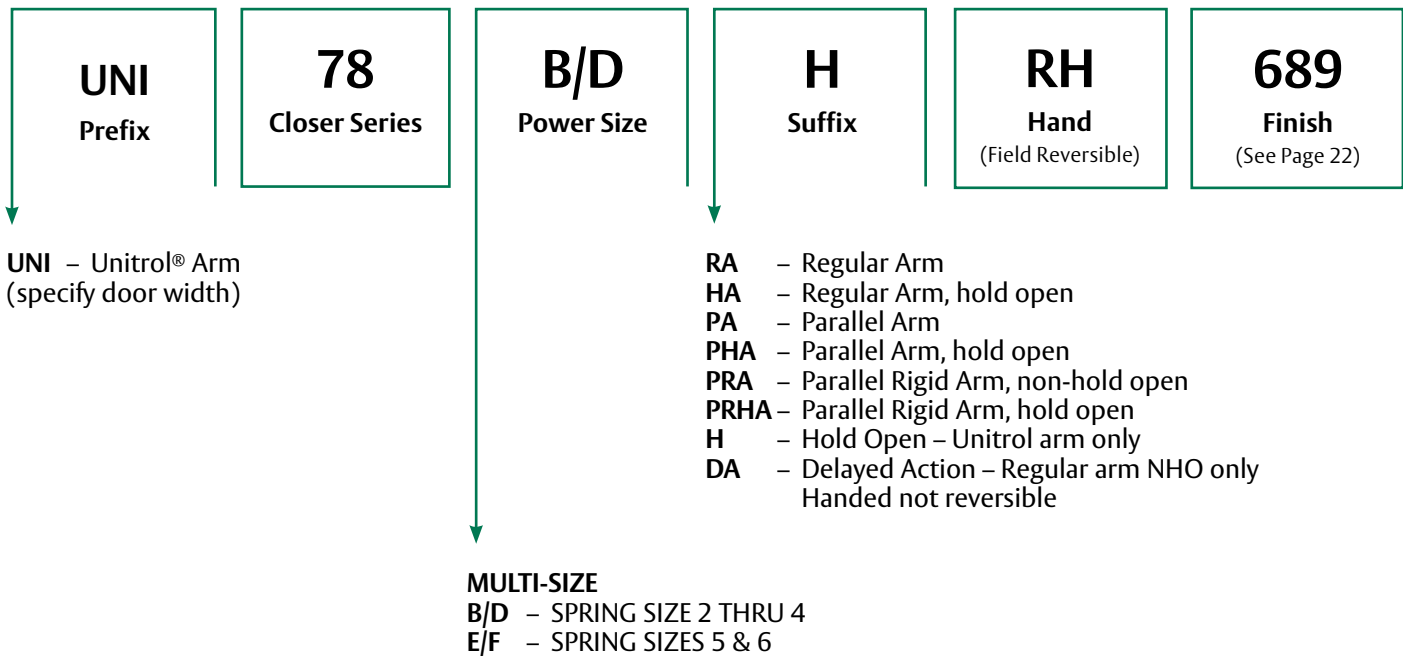
MISCELLANEOUS PARTS

Springs	
Part Number	Description
24BD	B/D Spring
56EF	E/F Spring
230BC	Spring (prior to 1978 model)
230D	Spring (prior to 1978 model)
230EF	Spring (prior to 1978 model)

Wrenches	
Part Number	Description
78-SW	Spanner Wrench

78-B/F SERIES
TRADITIONAL DOOR CLOSERS

HOW TO ORDER



Note: Contact factory if door weight exceeds 250 lbs.

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Since 1880, Norton door controls have been an integral part of schools, hospitals and businesses around the globe. When you need products and people that perform at the highest level, rely on Norton – From Open to Close.

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ASSA ABLOY Door Security Solutions Canada | www.assaabloydss.ca

160 Four Valley Drive | Vaughan, Ontario, L4K 4T9 Canada | Tel: 800-461-3007 | Fax: 1-800-461-8989

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Adjustable closer for light
duty commercial applications

Norton®

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in door opening solutions

210
S E R I E S

DOOR CLOSER

CATALOG

INTRODUCTION

The 210 Series is an adjustable door closer for light traffic commercial openings, including office and utility closet doors. It features an adjustable spring; tri-packed, non-hold open arms; and both independent and separate latch, sweep and backcheck intensity valves. The 210 is ideal for stocking distributors serving high-volume after-market segments.



FEATURES

- » Adjustable spring size 1 through 6
- » Non-handed
- » Cast aluminum body
- » Rack-and-pinion design
- » Independent latch sweep and backcheck intensity valves
- » Full plastic cover
- » Non-hold open, hold open and heavy-duty arms
- » Closer footprint: 3/4" x 12"
- » Cover dimensions: 2-15/16" high x 2-1/8" deep x 13-1/16" long
- » Available in 689 (aluminum) or 690 (dark bronze) finishes
- » Sex nuts (SN-134) included
- » 10 year limited warranty

CERTIFICATIONS




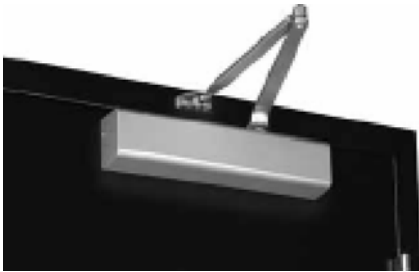
- » ANSI/BHMA A156.4, Grade 1 
- » UL / cUL listed for use on fire rated doors 
- » UL10C listed for positive pressure fire test
- » Meets requirements for Americans with Disabilities Act (ADA)  and ANSI/BHMA A117.1

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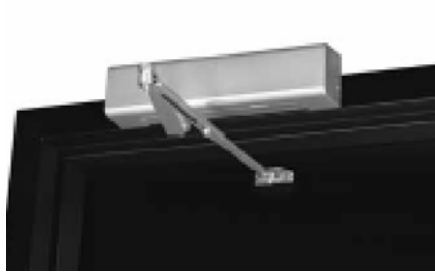
APPLICATIONS

Standard Arms



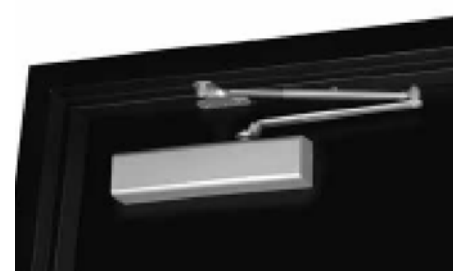
TPN arm shown (regular mounting)

- » Pull-side application
- » Closer mounted on the door



TPN arm shown (top jamb mounting)

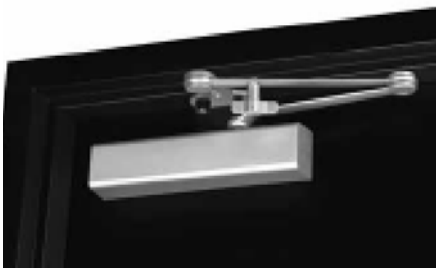
- » Push-side application
- » Closer mounted on the frame
- » Minimum top rail = 2-1/4" (57mm)
- » Maximum frame reveal = 2-3/4" (70mm)



TPN arm shown (parallel mounting)

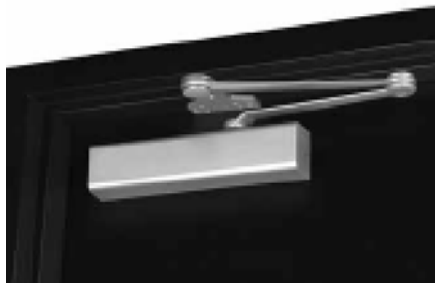
- » Push-side application
- » Closer mounted on the door

Heavy Duty Arms



HDH arm (with stop) shown

- » Push-side application
- » Stop is removable



HDN arm (without stop) shown

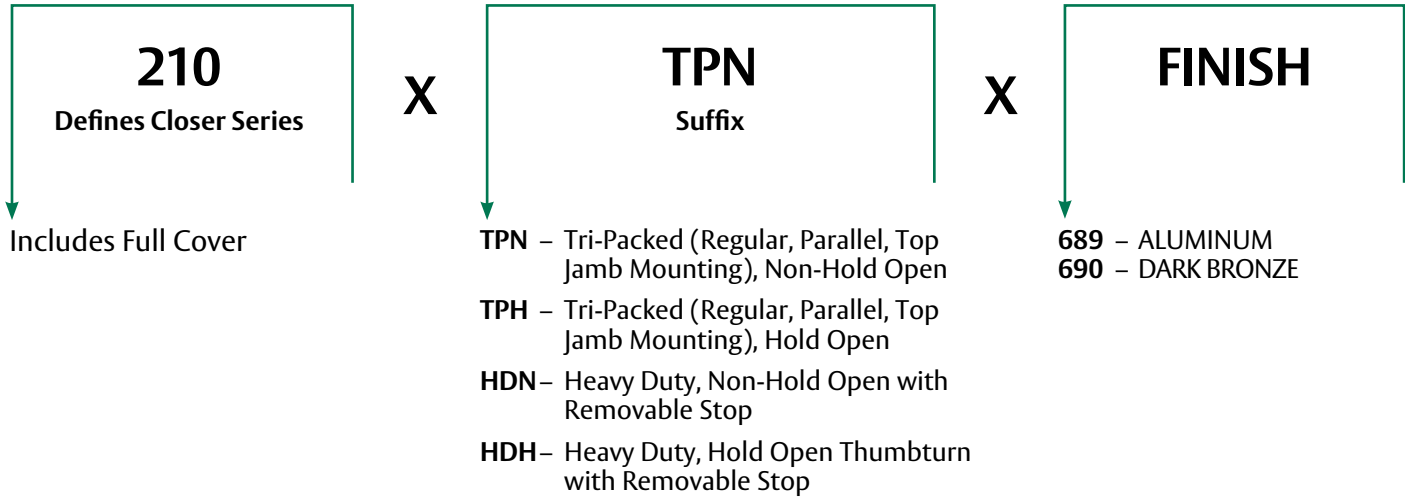
- » Push-side application
- » Stop is removable

NOTE: Arms are not interchangeable with Norton's premium line of closers.

ACCESSORIES

Part Number	Description
210P	Full Plastic Cover
SP210	Screw pack for TPN arm

HOW TO ORDER



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Attractive retrofit solution for
moderate-to-high traffic applications

Norton®

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ASSA ABLOY, the global leader
in door opening solutions

410
S E R I E S

DOOR CLOSER

CATALOG

INTRODUCTION

The Norton 410 Series Cast Iron Door Closers provide an attractive retrofit solution for retail, office, government and other commercial facilities. Heavy-duty and hold open arms, along with adjustable spring size, backcheck, closing and latch speed, provide a flexible and economical closer that you can trust. The 410 Series is certified to ANSI/BHMA Grade 1 requirements for long life and reliability, and offers a 10 year warranty.



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How to Order8




FEATURES

- » Adjustable spring sizes 1–6
- » Cast iron closer body
- » Standard and heavy-duty arms available as hold open or non-hold open
- » Adjustments for backcheck, closing and latch speed
- » Tri-packed for regular, parallel or top jamb installation
- » Sleeve nuts and bolts provided with each closer
- » Retrofit for LCN 4040XP
- » Non-handed
- » Plastic cover
- » 10 year warranty

FUNCTIONS

- » Backcheck
- » Closing speed
- » Latching speed
- » Delayed Action (optional)

CERTIFICATIONS

- » Certified for ANSI/BHMA A156.4 Grade 1 
- » UL/cUL listed for use on fire rated doors 
- » UL10C listed for positive pressure fire test
- » Meets requirements for Americans with Disabilities Act (ADA) and ANSI/BHMA A117.1 

APPLICATIONS

Standard Arms



TPN arm shown (regular mounting)

- » Pull-side application
- » Closer mounted on the door



TPN arm shown (top jamb mounting)

- » Push-side application
- » Closer mounted on the frame
- » Minimum top rail = 2-1/4" (57mm)
- » Maximum frame reveal = 2-3/4" (70mm)



TPN arm shown (parallel mounting)

- » Push-side application
- » Closer mounted on the door

Heavy Duty Arms



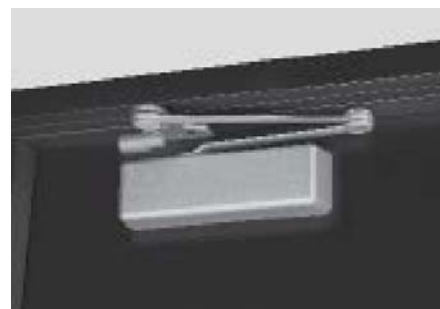
HDH arm (with stop) shown

- » Push-side application
- » Heavy-duty arm
- » Stop is removable



HDN arm (without stop) shown

- » Push-side application
- » Heavy-duty arm
- » Stop is removable



CPS arm shown

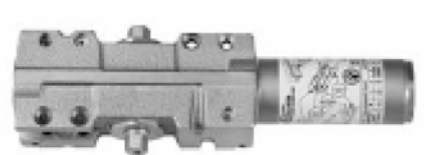
- » Push-side application
- » Heavy-duty arm
- » Buffer spring provides greater protection at the end of door opening cycle
- » Spring is removable

NOTE: Arms are not interchangeable with Norton's premium line of closers.

410 SERIES DOOR CLOSER

MODEL/PART NUMBERS

Model #	Description
410xTPN	Non-Hold Open, Tri-Packed
410DAxTPN	Non-Hold Open, Delayed Action, Tri-Packed
410xTPH	Hold Open, Tri-Packed
410xHDN	Heavy-Duty, Non-Hold Open with Removable Stop
410xHDH	Heavy-Duty, Hold Open with Removable Stop
410xCPS	Heavy-Duty, Non-Hold Open with Removable Stop and Spring Buffer
410xCPST	Heavy-Duty, Hold Open with Removable Stop and Spring Buffer



MISCELLANEOUS PARTS*

Part Number	Description
410COV	Cover
SP410	Screw Pack
CPSK6770	CPS Kit

*Specify finish when ordering



CPS Kit

COVER DIMENSIONS

Cover Dimensions		
Width	Length	Projection
3-1/2" (89mm)	12-1/4" (311mm)	2-1/4" (57mm)



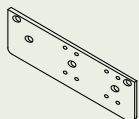
OPTIONAL FASTENERS

Part Number	Description
SN-134	Sex Nuts
TBGN134-47	Through-Bolts & Grommet Nuts

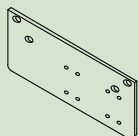
Note: Sex nuts furnished standard with all models.

ACCESSORIES

Closer Mounting Plates



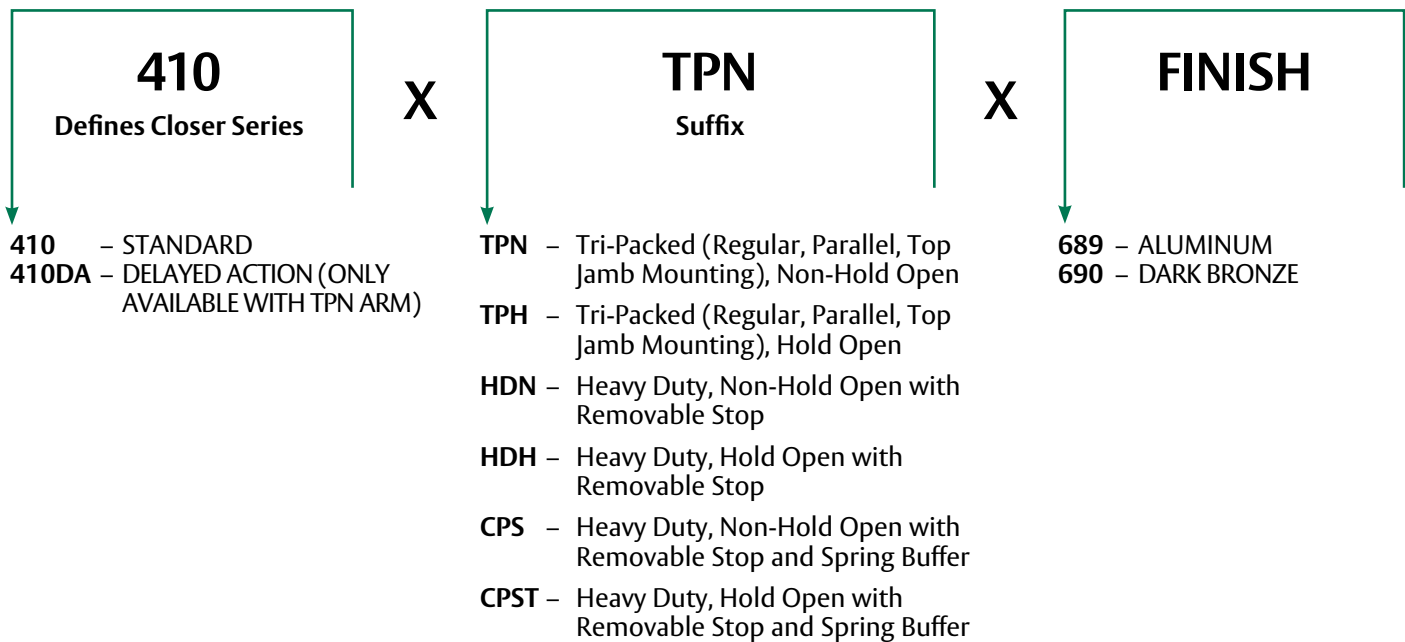
410RDP Narrow Frame Drop Plate (regular arm): Required for hinge side mount where top rail is less than 3-3/4" (95mm). Plate requires 2" (51mm) minimum top rail.



410PDP Narrow Top Rail Drop Plate (parallel arm): Required for parallel arm mounting where top rail is less than 5-1/2" (140mm), measured from the stop. Plate requires 2" (51mm) minimum top rail.

410 SERIES
DOOR CLOSER

HOW TO ORDER



Notes:

- » Warranty becomes void if door closer is installed on the exterior side of a door in the exterior wall of a building.
- » It is strongly recommended, and required on fire door assemblies, that doors having a door closer be hung on ball bearing or anti-friction hinges or pivots; unless an alternate method is identified in the door manufacturer's listing.
- » Failure to use the correct type and size fasteners may void factory warranty.
- » Fasteners for fire/smoke door assemblies must conform to NFPA 80. In some applications additional fasteners may be mandated by NFPA 80 that are not shipped with standard Norton® product, such as sleeve-nuts/sex-nuts or through-bolts and grommet nuts.
- » Contact factory if door weight exceeds 250 lbs.

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Fully adjustable door closer for aluminum storefronts and other medium traffic applications

Norton®

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in door opening solutions

1600
S E R I E S

DOOR CLOSERS

CATALOG

INTRODUCTION

The 1600 Series door closers offer proven quality, performance and reliability unmatched by the competition. A staple in the industry, these ANSI/BHMA Grade 1 closers are designed for exterior or interior doors. A full complement of regular and heavy-duty arms, brackets and options make the 1600 Series closers ideal for virtually any medium traffic, commercial application.

FEATURES

- » Exceeds 25 million cycles based on internal cycle testing
- » Non-handed for installation on either right- or left-hand swing doors
- » Rack-and-pinion design
- » Cast aluminum body
- » 2-7/8" (73mm) projection
- » 1-3/8" (35mm) diameter piston
- » 5/8" (16mm) diameter pinion journals
- » Tri-Style® packaging (regular arm, top jamb and parallel arm mounting)
- » All standard arm applications allow doors to swing 180°, conditions permitting
- » Staked valves
- » Corrosion-resistant model (non-hold open only) – specify 1601SS (Not tri-packed)
- » Molded plastic cover – specify suffix P
- » Heavy-duty arms: Parallel Rigid, CloserPlus®, CloserPlus Spring™, and Unitrol®
- » Standard, separate and independent, latch, sweep and backcheck intensity valves
- » 25-year limited warranty

Features	1600BC	1601
Sized springs 3 or 4 with no power adjustment	X	
Adjustable spring sizes 1 through 6		X

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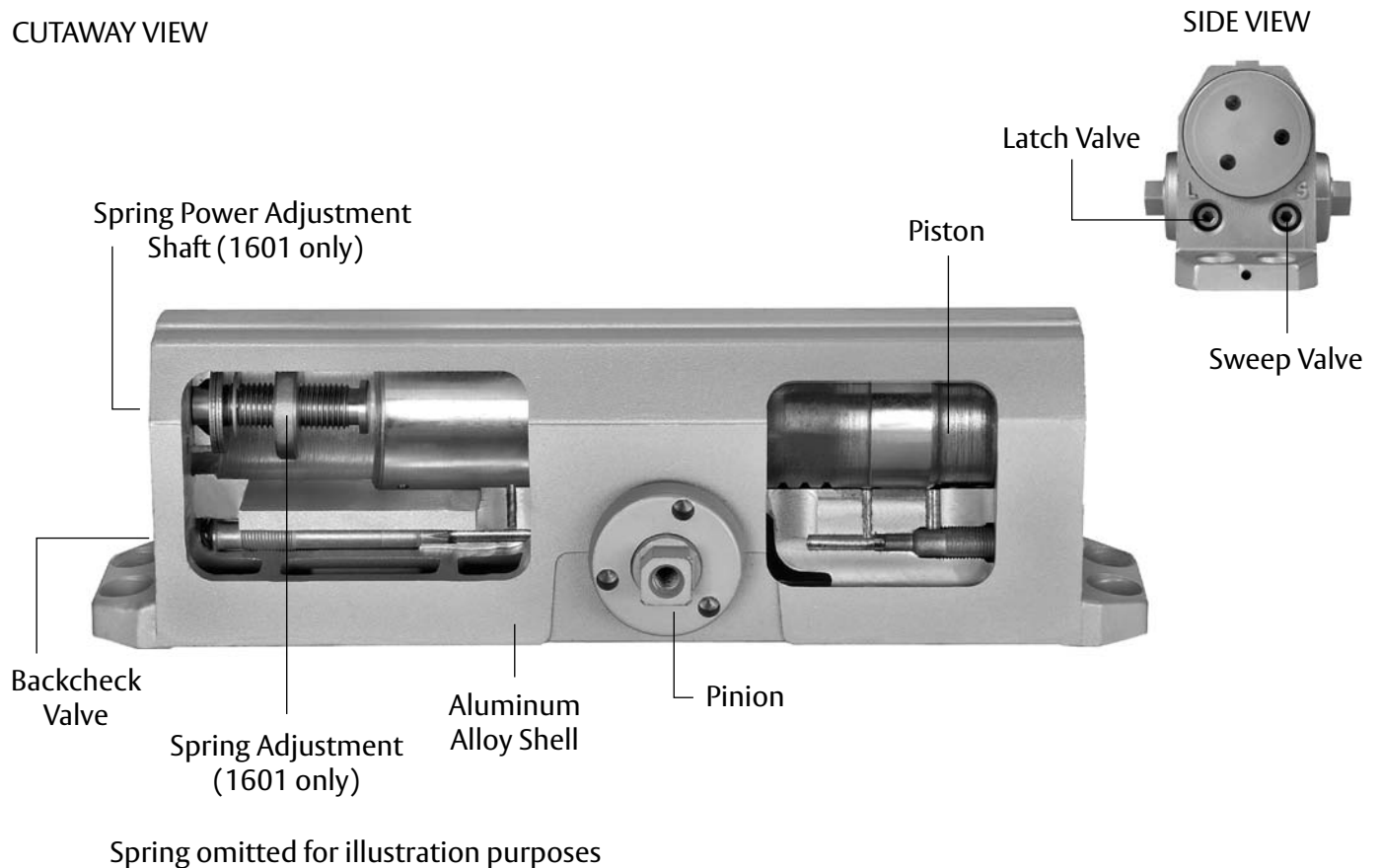
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1600 SERIES

ALUMINUM STOREFRONT DOOR CLOSERS

OVERVIEW

CUTAWAY VIEW



CERTIFICATIONS

- » ANSI/BHMA A156.4, Grade 1 certified 
- » UL / cUL listed for use on fire rated doors 
- » UL10C listed for positive pressure fire test
- » Manufactured in an ISO 9001 and ISO 14001 certified facility
- » 1601 door closers are designed to comply with requirements for the Americans with Disabilities Act (A.D.A) and ANSI standard A117.1 

CAUTION: Door Closers for Low Opening Force Applications:

Door closers installed in openings required to meet the requirements of the Americans with Disabilities Act or ANSI Standard A117.1, when adjusted to meet those requirements, may not provide adequate closing power to dependably close and latch the door.

EXPLANATION OF FEATURES

Aluminum Alloy Housing

Closer bodies are constructed of a special aluminum alloy, carefully selected to accommodate interaction with steel components and operating conditions.

Rack & Pinion Operation

Provides a smooth constant control of the door through its full opening and closing cycle. 180° door swing can be achieved when door, frame, hardware and arm function do not limit door swing.

Non-Handed

With few exceptions, all series 1600BC and series 1601 door closers are non-handed and can be installed on either right- or left- hand swing doors. Pinion shaft extends vertically through the closer body in both directions. Some options (such as Parallel Rigid hold open arms) will require that the hand of the closer be specified.

Tri-Style®

1600BC/1601 closers come with screws, brackets & soffit plate to allow for regular, top jamb, & parallel arm installations.

Sweep Speed Control Valve

Allows adjustment of door speed from the door's full open position down to approximately 10° from the closed position.

Latch Speed Control Value

Allows adjustment of door speed from approximately 10° down to the door's fully closed position.

Adjustable Backcheck Cushion Valve

Provides control of the door in the opening cycle, beginning at approximately 75° of door opening. It slows/cushions the door opening, when the door is forcibly opened beyond its pre-adjusted opening speed limits.

Warranty

These closers carry a limited 15-year warranty against defects and a limited lifetime warranty on the aluminum housing.

Closer Fluid

NorGlide® door closer fluid is a specially formulated hydraulic fluid that contains lubricity and anti oxidation agents that provide optimum performance and efficiency. This fluid complements the interaction of the door closer's aluminum housing with its steel and zinc components, while maintaining stable viscosity to allow the door closer to perform in temperatures ranging from extremely high to as low as -40° F.

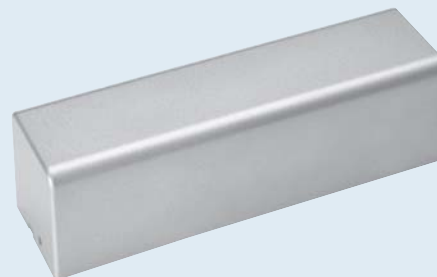
Door Closer Power Options

Sized Door Closer: 1600BC

Available in power sizes 3 or 4. Outlined in ANSI specification A156.4. Spring power is not adjustable.

Multi-Sized Door Closer: 1601

Adjustable through the power range of sizes 1 through 6 to comply with the opening force requirements as outlined in the Americans with Disabilities Act (A.D.A.) and ANSI A117.1 for interior doors. Outlined in ANSI specification A156.4.



Optional Molded Cover - 1600P

Molded of high-impact U.L. listed material that covers the entire closer body assembly. This cover is non-handed for regular and parallel arm applications. Suffix "P" to catalog number. Not designed for top jamb applications.

Corrosion Resistant Door Closer

The series 1601SS door closers are available for use where corrosive conditions exist. This series is provided with zinc diecast adjustment valves, a 440 grade stainless steel pinion shaft, an all-aluminum body and bronze closer arm bushings; all other components and fasteners are of 302/303 grade stainless steel. This product is available for standard regular arm, top jamb and parallel arm, non-hold open, applications only. Not Tri-Style packed. "P" or "J" prefix required for parallel arm and top jamb applications.

Non-Hold Open

Self-closes door every time door is opened. Auxiliary stop (by others) required except when using the CloserPlus®, CloserPlus Spring™ or Unitrol® Arms.

Hold Open

Achieved by means of friction or ball and detent/roller. Friction hold open has a range of 90° to 180° using template location and mechanical adjustment. Ball and detent or roller hold open is effective in a range of 85° to 110°.

Hold open arm door closers are not permitted to be used on fire door assemblies.

1600 SERIES

ALUMINUM STOREFRONT DOOR CLOSERS

Door Opening Degrees

Arm Function	Regular Arm, Top Jamb Parallel Arm	Parallel Rigid Arm	CloserPlus Parallel Arm	CloserPlus Spring Parallel Arm	Unitrol Parallel Arm	Unitrol Top Jamb	Low Profile Regular, Parallel	Cushion Stop Arm
Non-Hold Open	✓	✓	85° to 110°	85° to 110°	85° to 110°	85° to 110°	✓	85° to 110°
Hold Open	90° to 180°	85° to 180°	85° to 110°	85° to 110°	85° to 110°	85° to 110°	N/A	N/A

✓ = 180° trim and template permitting

SPECIFICATIONS

1601 Series

Closers for interior and exterior doors shall be full rack-and-pinion type with cast aluminum alloy shell. Closers shall be surface mounted and shall project no more than 2-7/8" from the surface of the door. Closers shall be non-handed to permit installation on doors of either hand. Closer fluid shall contain lubricity and anti-oxidation agents. Closer fluid shall maintain stable viscosity to allow door closer to perform in temperatures ranging from extremely high to as low as -40°F. Closers shall have multi-size spring power adjustment to permit setting of spring from (1 through 6). Closers shall have two non-critical valves, hex key adjusted, to independently regulate sweep and latch speed. Closers shall have adjustable backcheck cushioning controlled by a hex key adjusted valve.

[Closer body shall be enclosed in/concealed with a full molded cover.]

[Closers shall be highly corrosion resistant and shall have all external body components of aluminum, zinc alloy or stainless steel material and all stainless steel fasteners.]

Regular arm and top jamb closers shall have a non-hold open shoe permitting 15% (+/- 7-1/2%) power adjustment. ** [1601] [1601SS].

**For special arms insert the appropriate specification from column two or three on this page.

1600BC Series

Closers for interior and exterior doors shall be full rack-and-pinion type with cast aluminum alloy shell. Closers shall be surface mounted and shall project no more than 2-7/8" from the surface of the door. Closers shall be non-handed to permit installation of doors of either hand. Closer fluid shall contain lubricity and anti-oxidation agents. Closer fluid shall maintain stable viscosity to allow the door closer to perform in temperatures ranging from extremely high to as low as -40°F. Closers shall be sized for each door. Closers shall have two non-critical valves, hex key adjusted, to independently regulate sweep and latch speed. [Closers shall have adjustable backcheck cushioning controlled by a hex key adjusted valve.]

Regular arm and top jamb closers shall have a non-hold open shoe permitting 15% (+/- 7-1/2%) power adjustment. ** [1600BC].

**For special arms insert that specification here (see column three on this page).

**Unitrol® Arm

Door closers shall have built in-door stop [and holder] effective at one point selected at installation, from 85° - 115° in five-degree increments. Door stop shall be cushioned by a shock-absorbing heavy-duty spring action effective at the [soffit plate] [arm shoe] pivot. [Closers shall be provided for parallel arm installation using rigid steel main arm and secondary arm lengths proportional to the door width to reduce racking at the hinge/pivot.] [Closers shall be provided for top jamb installation using steel, rigid main arm and telescoping secondary arm adequate for the frame reveal of the openings.] (Closer arm shall have ball and detent hold open feature that can be engaged or disengaged by 1/4 turn of mechanism; and hold open strength shall be adjustable.)

**CloserPlus® Arm

Door closers shall have built-in door stop [and holder] effective at one point selected at installation, from 85° - 110° in five-degree increments. Door stop mechanism shall be reversible and attached to soffit plate. [Hold open mechanism shall have engage/disengage and strength selection actuated by thumbturn.] Closers shall be provided for parallel arm installation using rigid steel main and secondary arm.

**CloserPlus Spring™ Arm

Door closers shall have built in door stop[and holder] effective at one point selected at installation, from 85° - 110° in five-degree increments. Door stop mechanism shall have a buffer spring that engages prior to the dead stop feature, reducing shock loads to the door and frame assembly. Door stop mechanism shall be reversible and attached to soffit plate. [Hold open mechanism shall have engage/disengage and strength selection actuated by thumbturn.] Closers shall be provided for parallel installation using rigid steel main and secondary arm.

APPLICATIONS



REGULAR ARM

This is the only pull-side application where a double lever arm is used. It is the most power-efficient application for a door closer. Sufficient frame, door and/or ceiling clearance must be considered.

Since the arm assembly projects directly out from the frame, this application may present an aesthetics issue or be prone to vandalism.

Non-hold open arm shown



TOP JAMB

For efficiency reasons this application provides the best alternative to the regular arm application. There must be sufficient frame face and/or ceiling clearance for this application. It requires a top rail on the door of just 2-1/8" (54mm). This application provides the best door control for doors in exterior walls that swing out of a building.

The entire door closer and arm assembly project from the frame, similar to the regular arm application, where the matters of appearance and malicious abuse can be of concern. Consideration must be given to depth of the frame reveal.

Non-hold open arm shown



PARALLEL ARM

This application provides the most appealing design appearance for a surface-mounted door closer having a double lever arm. This may also be beneficial in vandalism-prone areas. It is on the push side of the door and the arm assembly extends almost parallel to the door. In the closed position, there is very little or no hardware projecting beyond the frame face in most situations.

Due to the geometry of the arm it is approximately 25% less power-efficient than a regular arm application.

The entire closer and arm assembly are mounted below the frame stop, requiring a top rail clearance on the door of between 5-3/8" (137mm), when using a low-profile arm (1680 series), to 6-3/8" (162mm), when using the hold open arm.

Non-hold open arm shown

1600 SERIES ALUMINUM STOREFRONT DOOR CLOSERS

APPLICATIONS



CORNER BRACKET

This application can be used where top jamb and parallel arm application will not accommodate the door and frame conditions. Requires minimal top rail on the door; however, vertical clearance to the floor within the door opening should be checked to ensure code compliance.

The close proximity, for this application, of the door closer to the door's pivot point reduces the door closer's power efficiency by approximately 25% when compared to a regular arm. The projection of the arm from the door face might pose questions regarding design parameters or environment.



PARALLEL RIGID ARM

An enhanced variation of the standard parallel arm assembly that is intended for use in heavy traffic areas where auxiliary door stops are installed.

Hold open arm available - specify hand when ordering.

Non-hold open arm shown



CLOSERPLUS® ARM

Similar to the Parallel Rigid arm, this arm incorporates a stop at the arm's soffit plate to dead stop the door at a predetermined degree of door swing between 85° and 110°, in 5° increments. Prior to dead stop the door closer's backcheck feature slows the door speed to reduce the impact of the stop action.

The CloserPlus Arm is intended for use where an auxiliary door stop cannot be utilized and no more than moderate abuse is anticipated. Where more extreme conditions are expected, use of a Unitrol® arm is recommended.

Available with or without hold open. (Hold open tension is adjustable.)

Non-hold open arm shown

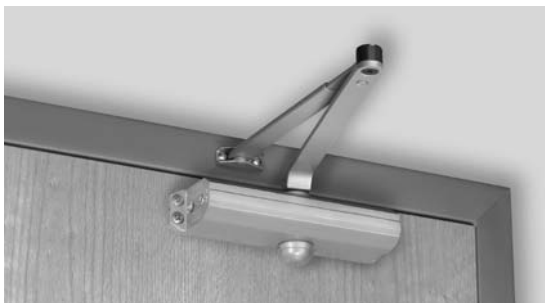


CLOSERPLUS SPRING™ ARM

This heavy-duty stop arm includes all the features of the *CloserPlus* arm, plus an added buffer spring that is compressed prior to the arm hitting the dead stop point. This greatly reduces the shock of the stopping action that occurs with the *CloserPlus* arm.

Thumbturn hold open is available.

APPLICATIONS



CUSHION STOP ARM

The Cushion Stop arm is designed to help protect the closer from damage in applications where an auxiliary stop cannot be used and moderate abuse is anticipated. Available for regular arm, non-hold open installations, this arm has a stop mounted on the arm elbow and allows the door to swing 85° to 110° based on template installation.



Parallel

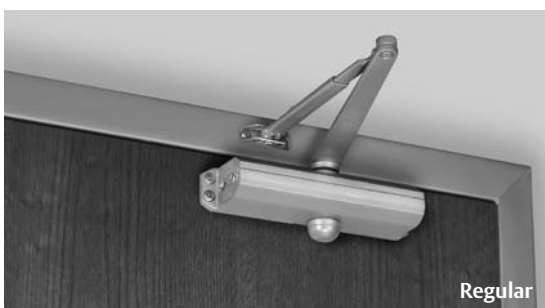
UNITROL® ARM

Can be used for either parallel arm or top jamb applications. *Unitrol* arms combine the features of a double lever arm overhead door stop/holder with the backcheck feature of the door closer to reduce door stopping shock loads to a minimum. The *Unitrol* uses a compression spring buffer at the soffit plate/arm shoe that will absorb 30 lbs. of force, 5° prior to the door's dead stop. Coupled with the door closer's backcheck feature, this arm provides the most controlled stop available with a surface door closer.

For parallel arm applications there are three different length arm assemblies. Each length is designed for a specific range of door widths, to provide precise door control. This further lessens the dead stop impact on the door's hinges/pivots. Specify depth of reveal when using top jamb mounting.



Top Jamb



Regular

LOW-PROFILE ARMS

Supplied with series door closers for non-hold open installations only. Low-profile arms have a reduced height elbow joint and a straight main arm. This enables the door closer to be installed in less vertical space. Non-hold open function only.

Regular Arm: allows closer to be installed where there is as little as 1" (25mm) of frame face or ceiling clearance.



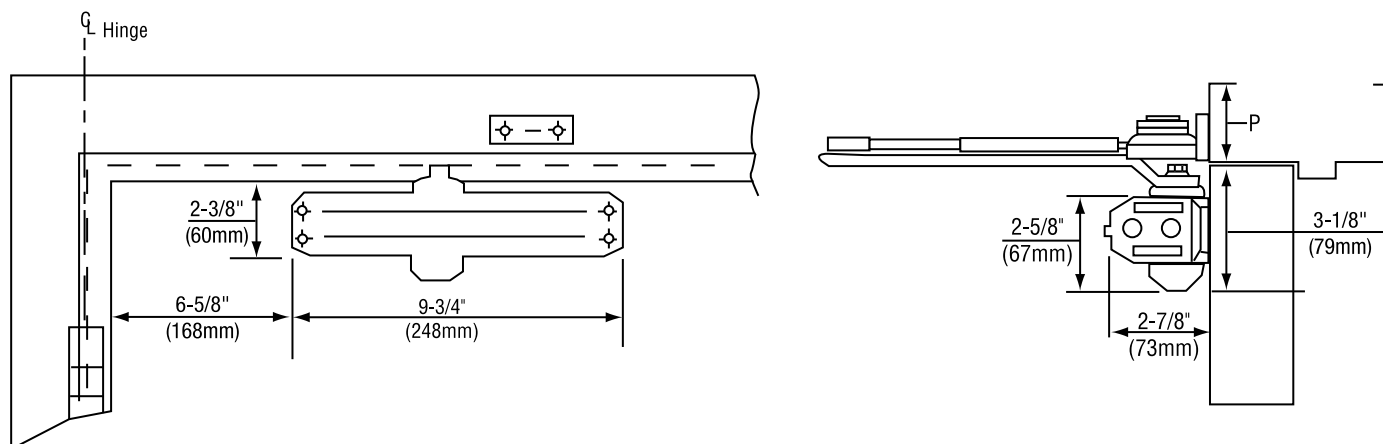
Parallel

Parallel Arm: allows closer to be installed 1/2" (13mm) higher up on door than standard parallel arm application. Suffix "P" to the catalog number; i.e., P1680BC, P1681.

1600 SERIES

ALUMINUM STOREFRONT DOOR CLOSERS

REGULAR ARM



Mounting holes for closer body are spaced 3/4" (19mm) vertically x 9-1/16" (230mm) horizontally.

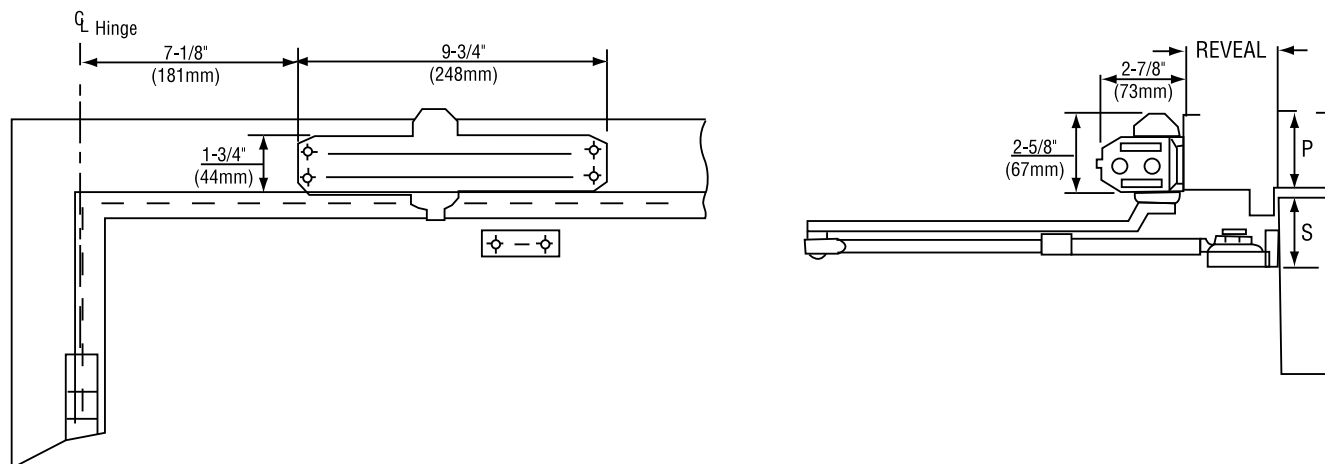
Maximum Door Size Inches (cm)		Model Number			
		Sized Closers		Multi-Sized Closers	
Interior	Exterior	Non-Hold Open	Hold Open	Non-Hold Open	Hold Open
32" (81)	—	—	—	1601	1601H
38" (97)	30" (76)	1603BC	1603BCH		
42" (107)	36" (91)	1604BC	1604BCH		
48" (122)	42" (107)	—	—		
—	48" (122)	—	—		

P Minimum Ceiling Clearance Inches/mm		
Non-Hold Open		Hold Open
1600BC/1601	1680BC/1681	1-5/8" (41)
1-1/2" (38)	1" (25)	

Notes:

1601 door closers are adjustable for sizes 1 through 6 and can be adjusted to conform to ADA opening force requirements. Contact factory if door weight exceeds 250 lbs.

TOP JAMB



Mounting holes for closer body are spaced 3/4" (19mm) vertically x 9-1/16" (230mm) horizontally.

Maximum Door Size Inches (cm)		Model Number			
		Sized Closers		Multi-Sized Closers	
Interior	Exterior	Non-Hold Open	Hold Open	Non-Hold Open	Hold Open
32" (81)	—	—	—	1601	1601H
38" (97)	30" (76)	1603BC J1603BC J1683BC^	1603BCH J1603BCH		
42" (107)	36" (91)	1604BC J1604BC J1684BC^	1604BCH J1604BCH		
48" (122)	42" (107)	—	—		
—	48" (122)	—	—		

Notes:

1601 door closers are adjustable for sizes 1 through 6 and can be adjusted to conform to ADA opening force requirements.

^Narrow-Profile Arm Closers can only be installed with 1687/1688 drop plate.

Non-Hold Open- Use standard 1600 closer for frame reveals between 0"- to 3" (0-76mm). Use top jamb J1600 closer for frame reveals from 3" to 7" (76 to 178mm). Hold Open Use standard 1600H closer for frame reveals between 0" to 2-3/4" (0-70mm). Use top jamb J1600H closer for frame reveals from 2-3/4" to 6-3/4" (70 to 171mm).

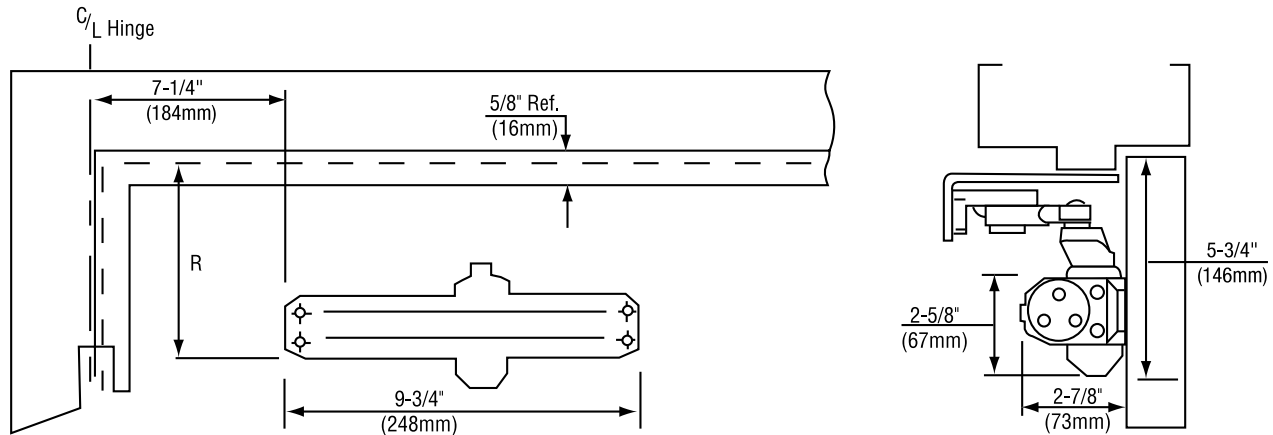
Contact factory if door weight exceeds 250 lbs.

P Minimum Ceiling Clearance		S Minimum Top Rail Clearance		
Without Drop Plate	With Drop Plate	Without Drop Plate	With 1687 Drop Plate	With 1688 Drop Plate
1600BC/1601	1600BC/1601 1680BC/1681	1600BC/1601	1600BC/1601	1600BC/1601 1680BC/1681
2-5/8" (67)	1-3/4" (44)	1-7/8" (48)	2-5/8" (67)	4" (102)

1600 SERIES

ALUMINUM STOREFRONT DOOR CLOSERS

PARALLEL ARM



Mounting holes for closer body are spaced 3/4" (19mm) vertically x 9-1/16" (230mm) horizontally.

Maximum Door Size Inches (cm)		Model Number			
		Sized Closers		Multi-Sized Closers	
Interior	Exterior	Non-Hold Open	Hold Open	Non-Hold Open	Hold Open
30" (76)	—	—	—	1601	1601H
36" (91)	30" (76)	P1603BC	P1603BCH		
42" (107)	36" (91)	P1604BC	P1604BCH		
48" (122)	42" (107)	—	—		
—	48" (122)	—	—		

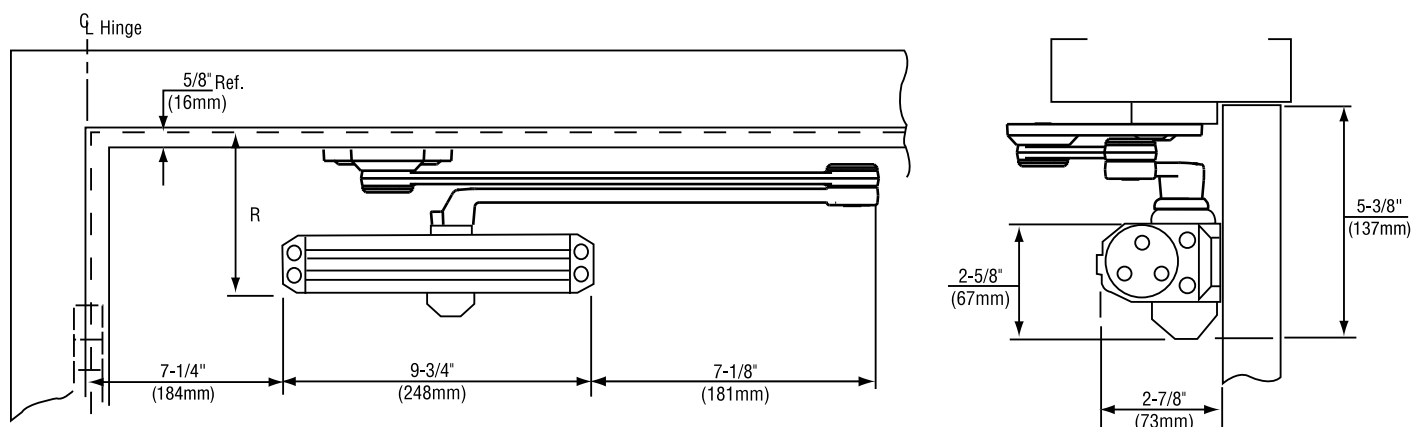
Notes:
This door sizing information also applies to corner bracket mounted closers.

1601 door closers are adjustable for sizes 1 through 6 and can be adjusted to conform to ADA opening force requirements.

Contact factory if door weight exceeds 250 lbs.

R Minimum Top Rail of Door with 5/8" (16mm) frame stop Inches/mm			
Without Drop Plate		With Drop Plate	
1600BC 1601	1680BC 1681	1600BC 1601	1680BC 1681
5" (127)	4" (102)	3-1/8" (79)	2-1/8" (54)

PARALLEL RIGID ARM



Mounting holes for closer body are spaced 3/4" (19mm) vertically x 9-1/16" (230mm) horizontally.

Door Size Wood or Metal Inches (cm)		Model Number			
		Sized Closers		Multi-Sized Closers	
Interior	Exterior	Non-Hold Open	Hold Open	Non-Hold Open	Hold Open
28"-32" (71-81)	—	—	—	PR1601	PR1601H
33"-36" (84-91)	28"-32" (71-81)	PR1603BC	PR1603BCH		
37"-42" (94-107)	33"-36" (84-91)	PR1604BC	PR1604BCH		
43"-48" (109-122)	37"-42" (94-107)	—	—		
—	43"-48" (109-122)	—	—		

Notes:

1601 door closers are adjustable for sizes 1 through 6 and can be adjusted to conform to ADA opening force requirements.

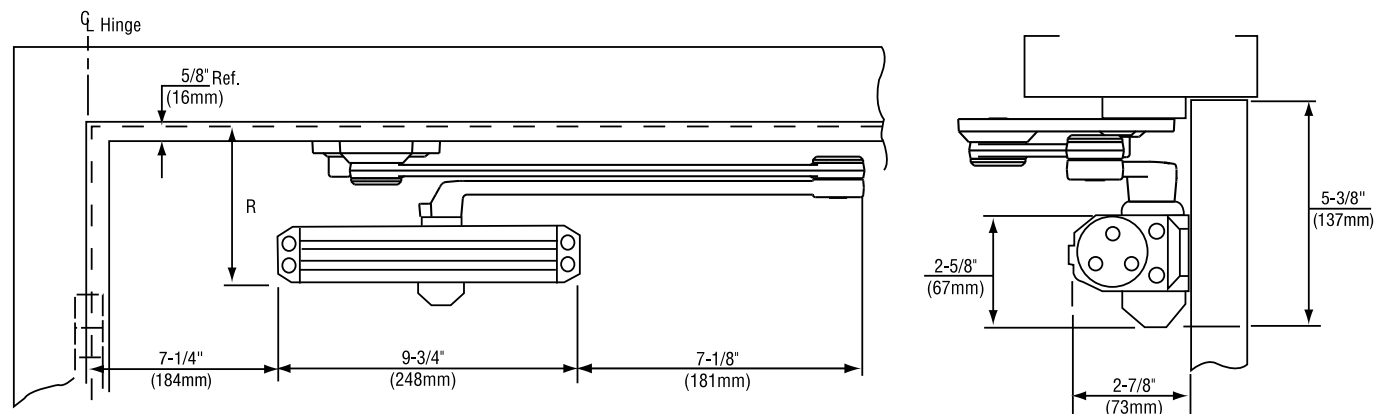
Contact factory if door weight exceeds 250 lbs.

R Minimum Top Rail of Door with 5/8" (16mm) frame stop	
Without Drop Plate	With Drop Plate
4-1/2" (114)	2-5/8" (67)

1600 SERIES

ALUMINUM STOREFRONT DOOR CLOSERS

CLOSERPLUS® ARM



Mounting holes for closer body are spaced 3/4" (19mm) vertically x 9-1/16" (230mm) horizontally.

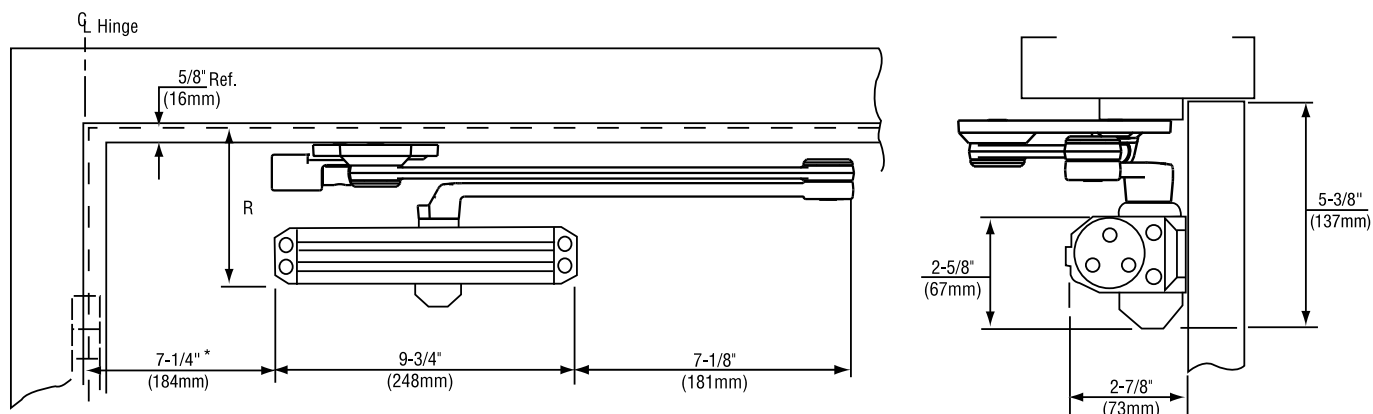
Door Size Wood or Metal Inches (cm)		Model Number			
		Sized Closers		Multi-Sized Closers	
Interior	Exterior	Non-Hold Open	Hold Open	Non-Hold Open	Hold Open
28"-32" (71-81)	—	—	—	CLP1601	CLP1601T
33"-36" (84-91)	28"-32" (71-81)	CLP1603BC	CLP1603BCT		
37"-42" (94-107)	33"-36" (84-91)	CLP1604BC	CLP1604BCT		
43"-48" (109-122)	37"-42" (94-107)	—	—		
—	43"-48" (109-122)	—	—		

Notes:
1601 door closers are adjustable for sizes 1 through 6 and can be adjusted to conform to ADA opening force requirements.

Contact factory if door weight exceeds 250 lbs.

R Minimum Top Rail of Door with 5/8" (16mm) frame stop	
Without Drop Plate	With Drop Plate
4-1/2" (114)	2-5/8" (67)

CLOSERPLUS SPRING™ ARM



Mounting holes for closer body are spaced 3/4" (19mm) vertically x 9-1/16" (230mm) horizontally.

Door Size Wood or Metal Inches (cm)		Model Number			
		Sized Closers		Multi-Sized Closers	
Interior	Exterior	Non-Hold Open	Hold Open	Non-Hold Open	Hold Open
28"-32" (71-81)	—	—	—	CPS1601	CPS1601T
33"-36" (84-91)	28"-32" (71-81)	CPS1603BC	CPS1603BCT		
37"-42" (94-107)	33"-36" (84-91)	CPS1604BC	CPS1604BCT		
43"-48" (109-122)	37"-42" (94-107)	—	—		
—	43"-48" (109-122)	—	—		

Notes:

1601 door closers are adjustable for sizes 1 through 6 and can be adjusted to conform to ADA opening force requirements.

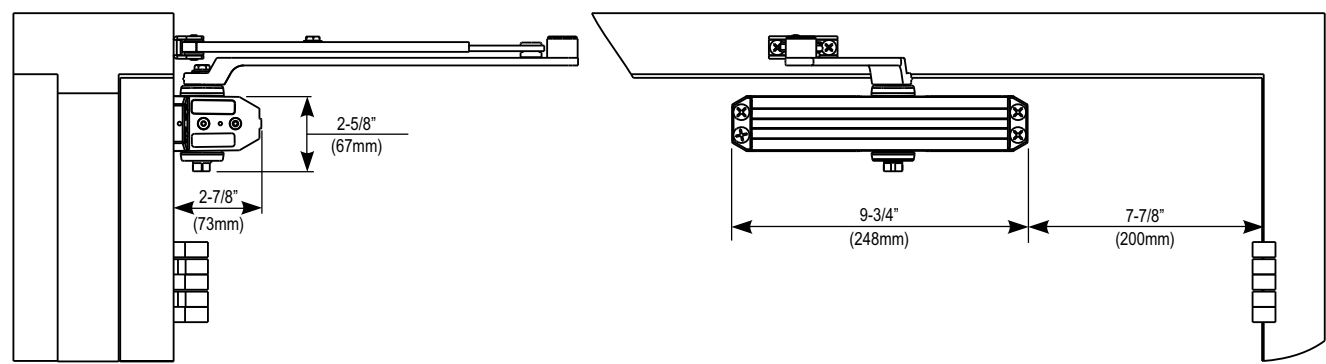
Contact factory if door weight exceeds 250 lbs.

R Minimum Top Rail of Door with 5/8" (16mm) frame stop	
Without Drop Plate	With Drop Plate
4-1/2" (114)	2-5/8" (67)

1600 SERIES

ALUMINUM STOREFRONT DOOR CLOSERS

CUSHION STOP ARM



Mounting holes for closer body are spaced 3/4" (19mm) vertically x 9-1/16" (230mm) horizontally.

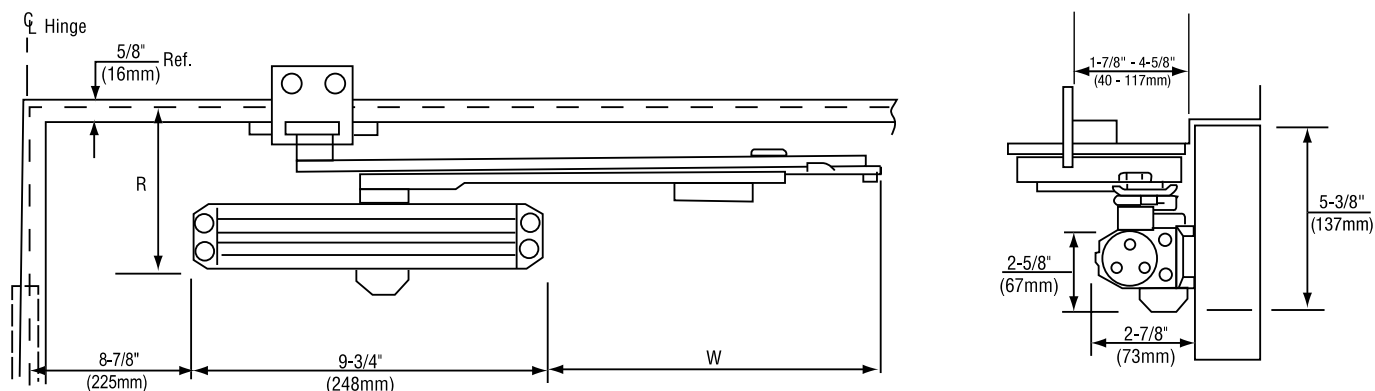
Maximum Door Size Inches (cm)		Model Number	
Interior	Exterior	Sized Closers	Multi-Sized Closers
		Non-Hold Open	Non-Hold Open
32" (81)	—	—	1601
38" (97)	30" (76)	1603BC	
42" (107)	36" (91)	1604BC	
48" (122)	42" (107)	—	
—	48" (122)	—	

Notes:
1601 door closers are adjustable for sizes 1 through 6 and can be adjusted to conform to ADA opening force requirements.

Contact factory if door weight exceeds 250 lbs.

P Minimum Ceiling Clearance Inches/mm
Non-Hold Open
1600BC/1601
1-1/2" (38)

PARALLEL UNITROL® ARM



Mounting holes for closer body are spaced 3/4" (19mm) vertically x 9-1/16" (230mm) horizontally.

Door Size Wood or Metal Inches (cm)		Model Number				x Specify Door Width
		Sized Closers		Multi-Sized Closers		
Interior	Exterior	Non-Hold Open	Hold Open	Non-Hold Open	Hold Open	
28"-32" (71-81)	—	—	—	UNI1601	UNI1601H	
33"-36" (84-91)	28"-32" (71-81)	UNI1603BC	UNI1603BCH			
37"-41" (94-104)	33"-36" (84-91)	UNI1604BC	UNI1604BCH			
42"-48" (107-122)	37"-41" (94-104)	—	—			
—	42"-48" (107-122)	—	—			

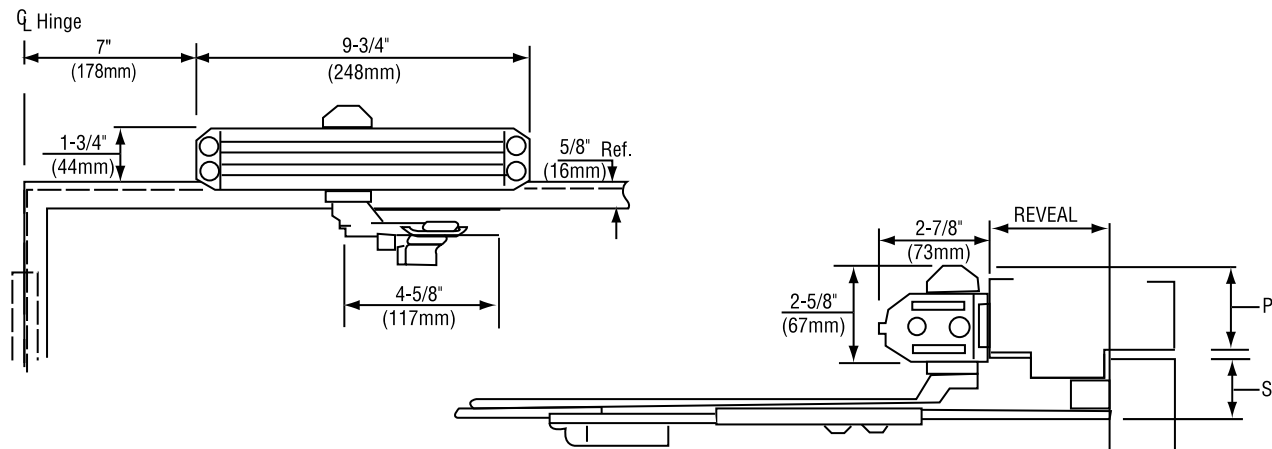
Notes:
1601 door closers are adjustable for sizes 1 through 6 and can be adjusted to conform to ADA opening force requirements.

Contact factory if door weight exceeds 250 lbs.

Door Width	R Minimum Top Rail		W Arm Extension
	Without Drop Plate	With Drop Plate	
28"-32" (71-81)	4-1/2" (114)	2-5/8" (67)	7" (178)
33"-41" (84-104)			8-1/2" (216)
42"-48" (107-122)			10" (254)

1600 SERIES ALUMINUM STOREFRONT DOOR CLOSERS

TOP JAMB UNITROL® ARM



Mounting holes for closer body are spaced 3/4" (19mm) vertically x 9-1/16" (230mm) horizontally.

Door Size Wood or Metal Inches (cm)		Model Number				x Specify Frame Reveal
		Sized Closers		Multi-Sized Closers		
Interior	Exterior	Non-Hold Open	Hold Open	Non-Hold Open	Hold Open	
28"-34" (71-86)	—	—	—	UNIJ1601	UNIJ1601H	
35"-42" (89-107)	28-34 (71-86)	UNI1603BC	UNIJ1603BCH			
43"-48" (109-122)	35-42 (89-107)	UNI1604BC	UNIJ1604BCH			
49"-54" (124-137)	43-48 (109-122)	—	—			
—	49-54 (124-137)	—	—			

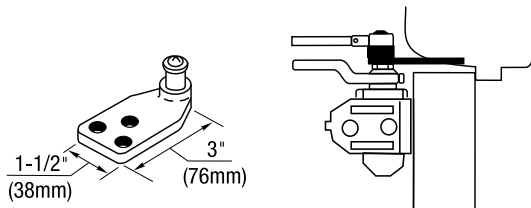
Notes:
1601 door closers are adjustable for sizes 1 through 6 and can be adjusted to conform to ADA opening force requirements.

Contact factory if door weight exceeds 250 lbs.

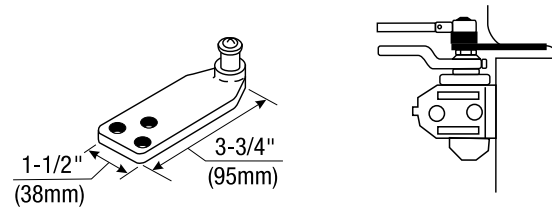
P Minimum Ceiling Clearance		S Minimum Top Rail Clearance	
Without Drop Plate	With Drop Plate	Without Drop Plate	With Drop Plate
2-5/8" (67)	1-3/4" (44)	2-3/8" (60)	3-1/8" (79)

REGULAR ARM

Brackets for Non-Hold Open Arms

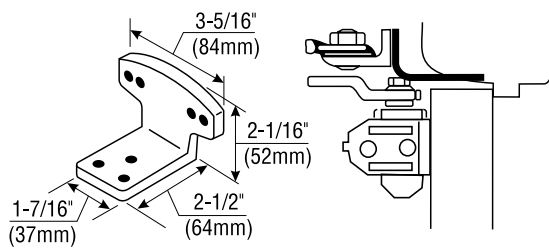


Molded/Bull Nose Trim - #2403B Bracket: For use where the door frame has molded or bull nose trim which will not accept a standard non-hold open shoe. The bracket is mortised into the frame rabbet, and projects beyond the face of the frame. It will accommodate a frame rabbet up to 2" (51mm) deep.



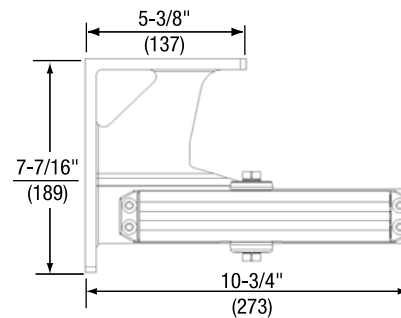
Molded/Bull Nose Trim - #2403-3/4 Bracket: This bracket is similar to-but longer than-the 2403B bracket. It is designed to accommodate frame rabbets from 2" to 2-7/8" (51 to 73mm) deep.

Brackets for Hold Open Arms



Molded/Bull Nose Trim - #80 Bracket: For use where the door frame has molded or bull nose trim which will not accept a standard hold open shoe. It is mortised into the frame rabbet, and projects beyond the face of the frame. It will accommodate a rabbet up to 2" (51mm) deep. This bracket is used in combination with the standard hold open mounting shoe.

Corner Brackets for Closer Mounting

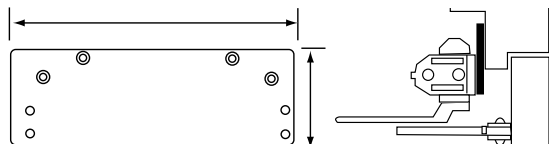


For Closer sizing information, use the Parallel Arm sizing chart on page 13.

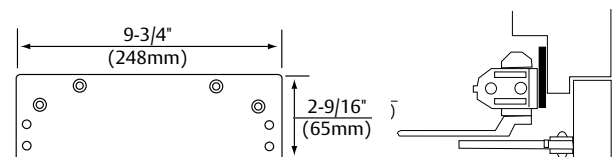
Mounting Opposite Hinge Side - #1647 Corner Bracket: For use where it is desired to mount the closer regular arm on the opposite to hinge side of the door. Can also be used to clear an overhead door holder.

TOP JAMB

Closer Mounting Plates



Overhead Door Holder - #1688 Drop Plate: For use where a overhead door holder prevents normal top jamb mounting. This places the center line of the arm mounting screws at 3-1/2" (89mm) from the top of the door.

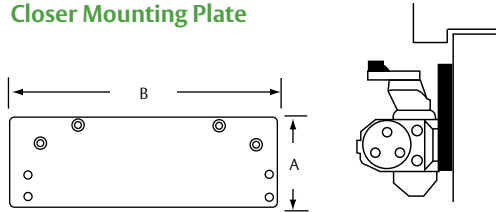


Low Ceiling Clearance - Overhead Door Holder - #1687 Drop Plate: For use where the ceiling clearance is between 1-3/4" and 2-5/8" (44 and 67mm). Or for use where an overhead door holder prevents normal top jamb mounting. This places the centerline of the arm mounting screws at 2-1/8" (54mm) from the top of door.

1600 SERIES ALUMINUM STOREFRONT DOOR CLOSERS

PARALLEL ARM

Closer Mounting Plate

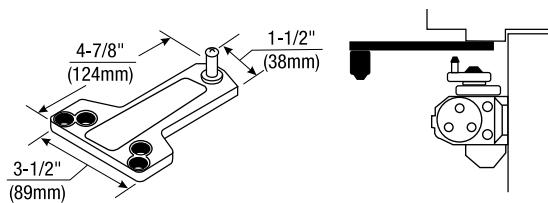


Note: #1688C – To be used when optional cover is specified.

Plate No.	Dimensions	
	A (width)	B (length)
1688	3-1/4" (83)	9-3/4" (248)
1688C	4-1/8" (105)	9-7/8" (251)

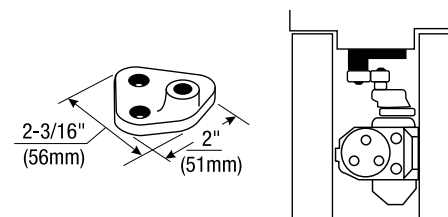
Narrow Top Rail - #1688 Drop Plate: For use where a narrow top rail prevents the closer from being mounted directly to the door surface. This drop plate can be used to mount a closer on a top rail as narrow as 3-1/8" (79mm) in height for 1600BC or 2-1/8" (54mm) for 1680BC.

Brackets for Non-Hold Open Arms

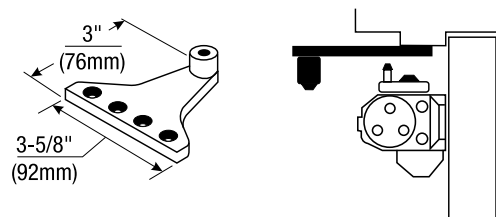


Standard Installation - #1618A Soffit Plate: This soffit plate is supplied standard with parallel arm closers. It can be mounted where the frame soffit is as narrow as 1" (25 mm).

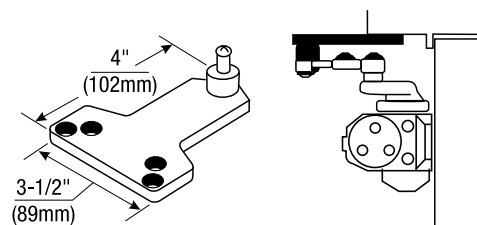
Specify 1618A-SS for stainless steel soffit plate: With Series P1600SS closers, a 1618A-SS soffit plate fabricated of stainless steel is supplied standard.



Mounting Between Doors - #2018 Soffit Bracket: For use where insufficient space between companion doors does not permit use of other soffit plates. This bracket permits mounting of the closer between doors with as little as 3" (76mm) of header space. Permits closer arm to clear up to 5/8" (16mm) high stop.



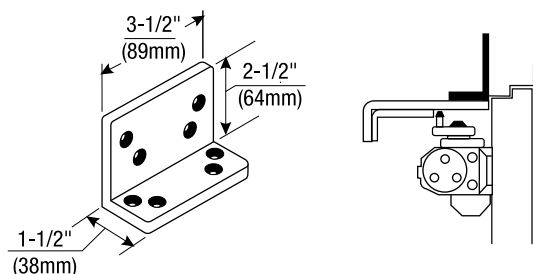
Narrow Frame/Removable Stop - #2018B Soffit Plate: For use where a narrow frame or frame with removable stop does not permit use of the standard soffit plate. This soffit plate may be mounted on the frame soffit or the frame rabbet where the stop does not exceed 5/8" (16mm) in height. All of the screw holes are in a straight line, requiring as little as 1-1/4" (32mm) of frame reveal to mount bracket and maintain good closer arm geometry. Where the frame soffit is as wide as 2" (51mm), this soffit plate may be used to clear weather-stripping that is up to 1-3/8" (35mm) wide and 5/8" (16mm) in height.



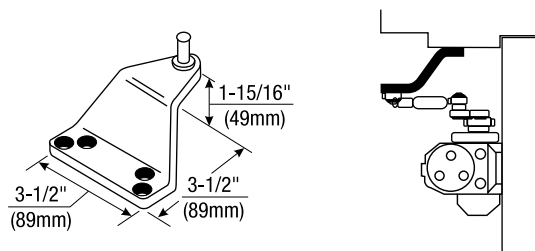
Blade/Applied Stop - #2018D Soffit Plate: For use where a blade or applied stop does not permit installation of the standard soffit plate. Mounts to either the frame soffit or rabbet. Since this soffit plate projects 7/8" (22mm) less than a standard soffit plate, it requires a minimum frame reveal of 1-1/2" (38mm). Permits closer to clear up to a 5/8" (16mm) high frame stop.

PARALLEL ARM

Brackets for Non-Hold Open Arms (continued)

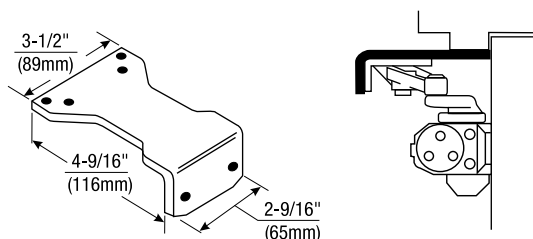


Flush Transom - #2022 Angle Bracket: For use where rabbeted or flush transom conditions prevent installation of a soffit plate. Used in combination with the 1618A soffit plate, or may be used in combination with the 2018S soffit plate when it is necessary for the closer arm to clear a separate overhead door holder.

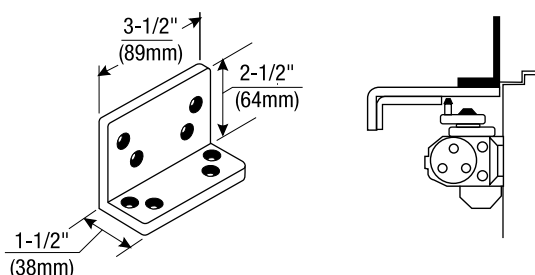


Extra-Clearance - #2018S Offset Soffit Plate: For use where the need for additional clearance prevents use of the standard soffit plate. This plate mounts to the frame soffit to provide up to 2" (51mm) of clearance when a separate overhead door holder is used. Standard mounting requires a 2-5/8" (67mm) wide frame soffit. It may also be used where unusually high frame stops or weatherstripping prevents the use of other soffit plates.

Brackets for Hold Open Arms



Parallel Hold Open - #1628H Adapter Plate: This Adapter Plate is supplied standard with all parallel arm hold open closers. It can also be used to convert regular arm or top jamb hold open arms to parallel arm installation. It can be mounted where the frame soffit is as narrow as 1" (25mm).

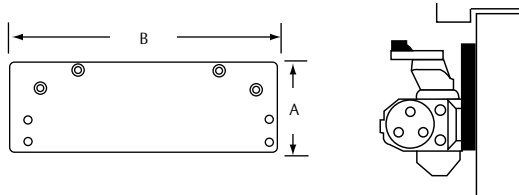


Flush Transom Hold Open - #2022 Angle Bracket: For use where rabbeted or flush transom conditions prevent installation of the standard 1628H hold open adapter plate. It is used in combination with the 1628H adapter plate.

1600 SERIES ALUMINUM STOREFRONT DOOR CLOSERS

PARALLEL RIGID ARM

Closer Mounting Plate

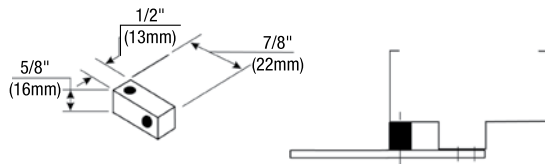


Note: #1688C – To be used when optional cover is specified.

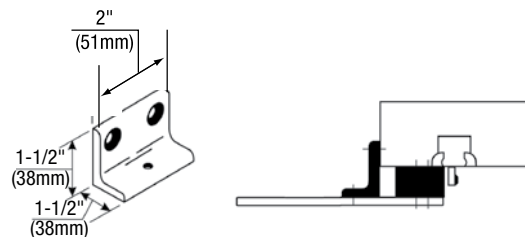
Plate No.	Dimensions	
	A (width)	B (length)
1688	3-1/4" (83)	9-3/4" (248)
1688C	4-1/8" (105)	9-7/8" (251)

Narrow Top Rail - #1688 Drop Plate: For use where a narrow top rail prevents the closer from being mounted directly to the door surface. This drop plate can be used to mount a closer on a top rail as narrow as 2-5/8" (67mm) in height.

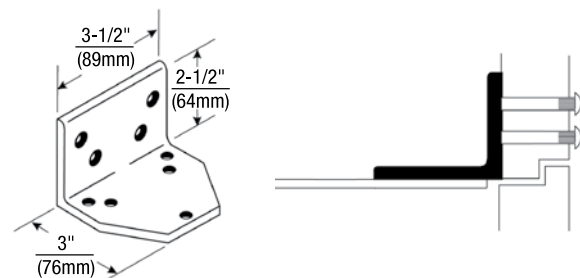
Brackets for Non-Hold Open Arms & Hold Open Arms



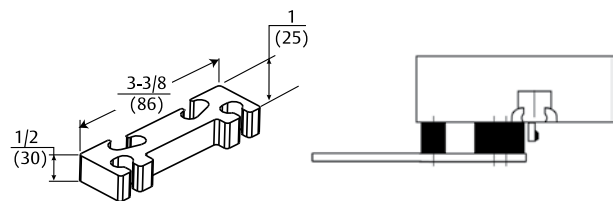
Standard - #2019S Spacer Block: For use where a narrow frame soffit does not provide adequate support for the soffit plate. Supplied as standard with all parallel rigid arm closers. For use on frame with either 1/2" (13mm) or 5/8" (16mm) high frame stop.



Narrow Frame - #6890 Support Bracket: For use where the frame is narrow and the soffit plate cannot be mounted directly to the frame soffit or rabbet. Used in combination with the #6891 Spacer Block on blade stop frames to provide extra support and needed clearance of the blade stop. Used on frame where frame stop does not exceed 5/8" (16mm) in height.



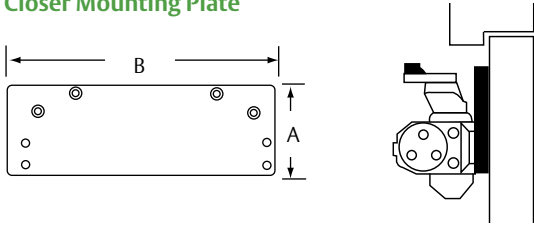
Flush Rabbeted Transom - #2019L Angle Bracket: For use where flush transom conditions prevent mounting of the standard soffit plate. This bracket is used in combination with the arm's soffit plate.



Clearance/Support Blade Stop - #6891 Spacer Block: For use where the door frame has a blade stop and the soffit plate must be mounted on the frame rabbet. This accessory is used in combination with the standard 2019S Spacer Block to provide clearance of the blade stop. For clearance of 5/8" (16mm) high-frame stop.

CLOSERPLUS® AND CLOSERPLUS SPRING™ ARMS

Closer Mounting Plate

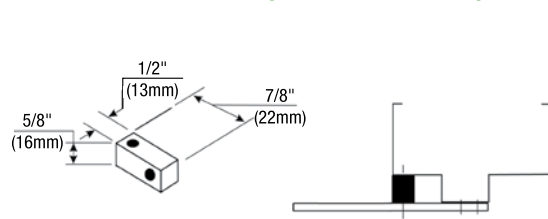


Note: #1688C - To be used when optional cover is specified.

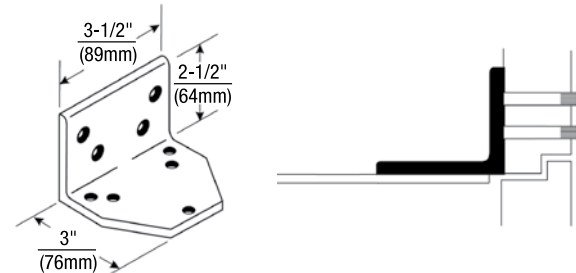
Plate No.	Dimensions	
	A (width)	B (length)
1688	3-1/4" (83)	9-3/4" (248)
1688C	4-1/8" (105)	9-7/8" (251)

Narrow Top Rail - #1688 Drop Plate: For use where a narrow top rail prevents the closer from being mounted directly to the door surface. This drop plate can be used to mount a closer on a top rail as narrow as 2-5/8" (67mm) in height.

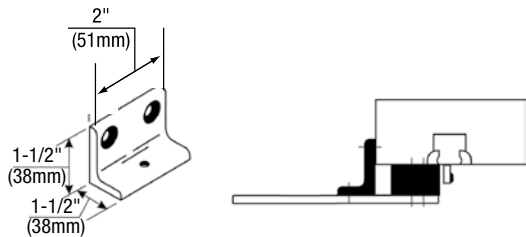
Brackets for Non-Hold Open Arms & Hold Open Arms



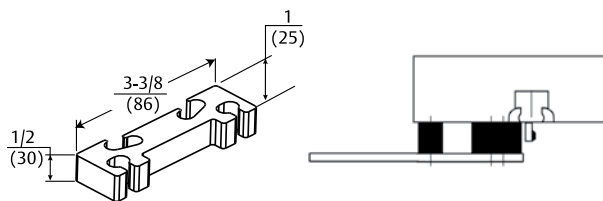
Standard - #2019S Spacer Block: For use where a narrow frame soffit does not provide adequate support for the soffit plate. Supplied as standard with all parallel rigid arm closers. For use on frame with either 1/2" (13mm) or 5/8" (16mm) high frame stop.



Flush Rabbeted Transom - #2019L Angle Bracket: For use where flush transom conditions prevent mounting of the standard soffit plate. This bracket is used in combination with the arm's soffit plate.



Narrow Frame - #6890 Support Bracket: For use where the frame is narrow and the soffit plate cannot be mounted directly to the frame soffit or rabbet. Used in combination with the #6891 Spacer Block on blade stop frames to provide extra support and needed clearance of the blade stop. Used on frame where frame stop does not exceed 5/8" (16mm) in height.

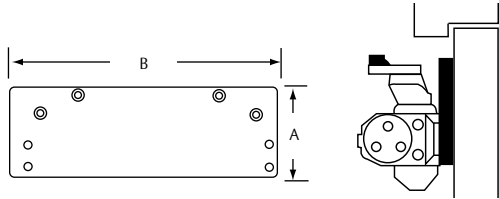


Clearance/Support Blade Stop - #6891 Spacer Block: For use where the door frame has a blade stop and the soffit plate must be mounted on the frame rabbet. This accessory is used in combination with the standard 2019S Spacer Block to provide clearance of the blade stop. For clearance of 5/8" (16mm) high-frame stop.

1600 SERIES ALUMINUM STOREFRONT DOOR CLOSERS

UNITROL® ARM

Closer Mounting Plate (for Parallel Arm)

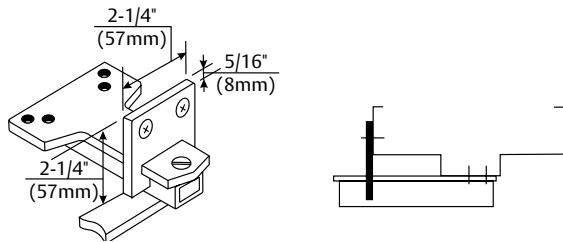


Note: #1688C – To be used when optional cover is specified.

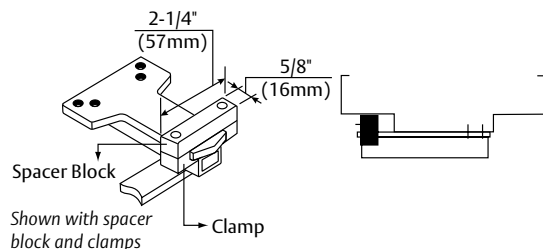
Plate No.	Dimensions	
	A (width)	B (length)
1688	3-1/4" (83)	9-3/4" (248)
1688C	4-1/8" (105)	9-7/8" (251)

Narrow Top Rail - #1688 Drop Plate: For use where a narrow top rail prevents the closer from being mounted directly to the door surface. This drop plate can be used to mount a closer on a top rail as narrow as 2-5/8" (67mm) in height.

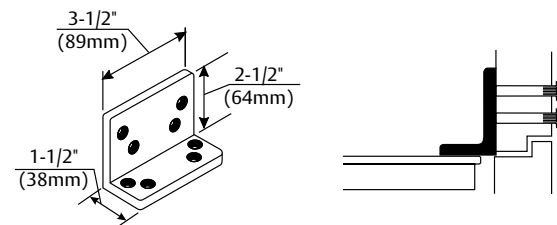
Soffit Plate Reinforcing Brackets (for Parallel Arm)



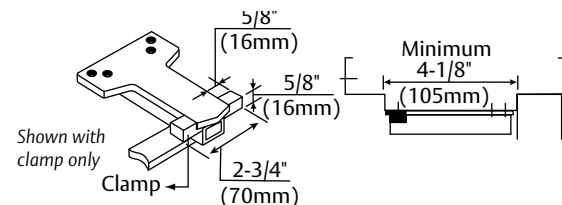
Additional Support - #6190 Reinforcing Bracket: Standard for use with all parallel arm Unitrol Door Controls. Provides additional support to the soffit plate on installations with door frame reveals from 1-7/8" to 4-5/8" (48 to 117mm).



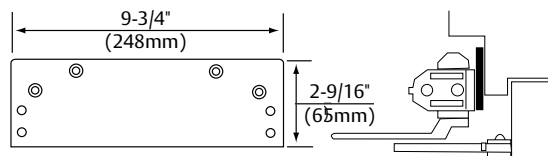
Wide Frame - #6191 Reinforcing Kit: Optional for use with all parallel arm Unitrol Door Controls. Used to support the soffit plate on installations with deep frames. Clamps may be used with or without the spacer block, depending on frame conditions.



Flush Rabbeted Transom - #2022 Angle Bracket: Optional for use with all parallel arm Unitrol Door Controls. For use where rabbeted or flush transom conditions prevent installation of the soffit plate assembly. This bracket fastens to the overhead transom to provide a mounting surface for the soffit plate assembly.

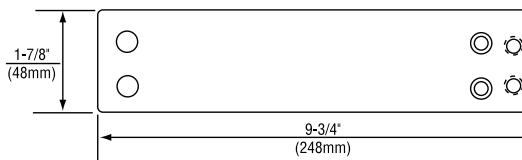
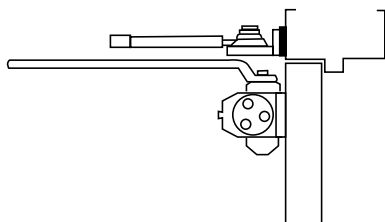
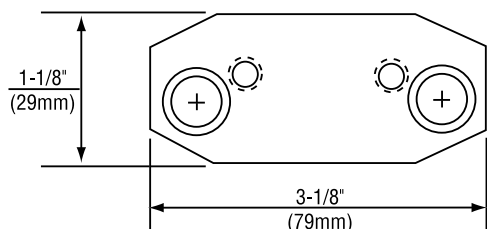


Closer Mounting Plate (for Top Jamb)



Low Ceiling Clearance - #1687 Drop Plate: For use where the ceiling clearance is between 1-3/4" and 2-5/8" (44 and 67mm). This places the centerline of the arm mounting screws at 2-5/8" (67mm) from the top of door.

SPECIAL ACCESSORIES



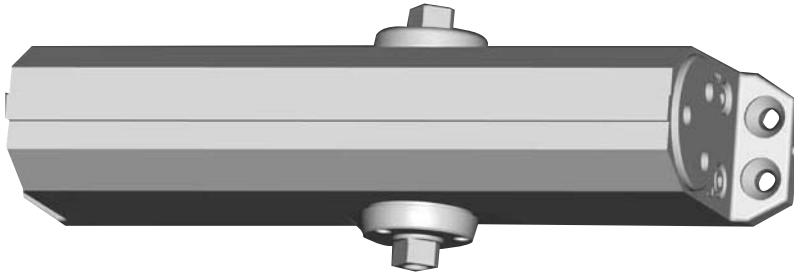
1699 Adapter Plate: Converts old 1602/1603 closer installations with 3/4" (19mm) x 8-3/16" (208mm) - spacing to new 1603 using existing mounting holes in door or frame.

Converting Old Hold Open Installations - #2017 Adapter Plate:

For use on old hold open installations with 2-1/2" (64mm) hole spacing on the holder bracket. Plate uses existing holes in either door or frame and accepts the new hold open bracket with 1-3/4" (44mm) hole spacing. For regular arm or top jamb installations.

1600 SERIES ALUMINUM STOREFRONT DOOR CLOSERS

PARTS



Body Only (Standard)	
160*BCLAP	Sized Closer
1601LAP	Multi-sized
1601SSLAP	Stainless Steel

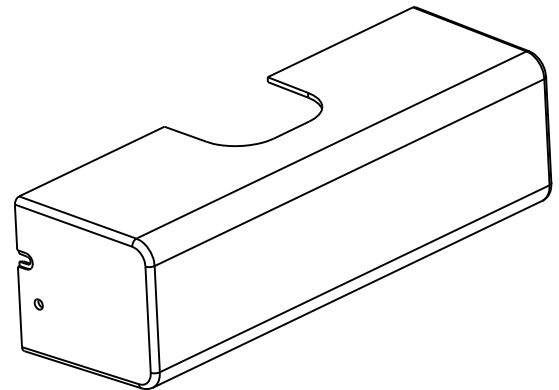
Note: Mounting hardware included with all parts orders.

LAP = Less All Parts

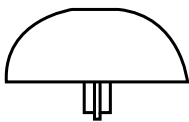
* Specify closer size 3 or 4. Pinion cap and mounting screws supplied.

Optional Cover - 1600P

For regular arm and parallel arm applications. 2-7/8" (73mm) height x 3-1/6" (78mm) deep x 9-7/8" (251mm) long. To order with closer use "P" suffix; i.e. 1604BCP.



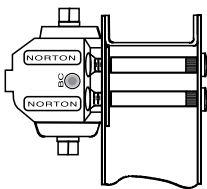
1639 Pinion Cap



Steel Door Application

Sex-nut / Sleeve-nut : "SN" (4 per pack) or

Sex-nut / Sleeve-nut & Screw: "SNB" (4 per pack)

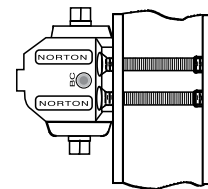


Door	SN's	SNB's
1-3/4"	SN-134	SNB134-38
2"	N/A	SNB200-38
2-1/4"	SN-214	SNB214-38
S.S. SNB's 1-3/4"	SN-134SS	SNB134SS-38

Aluminum and Wood Door Application

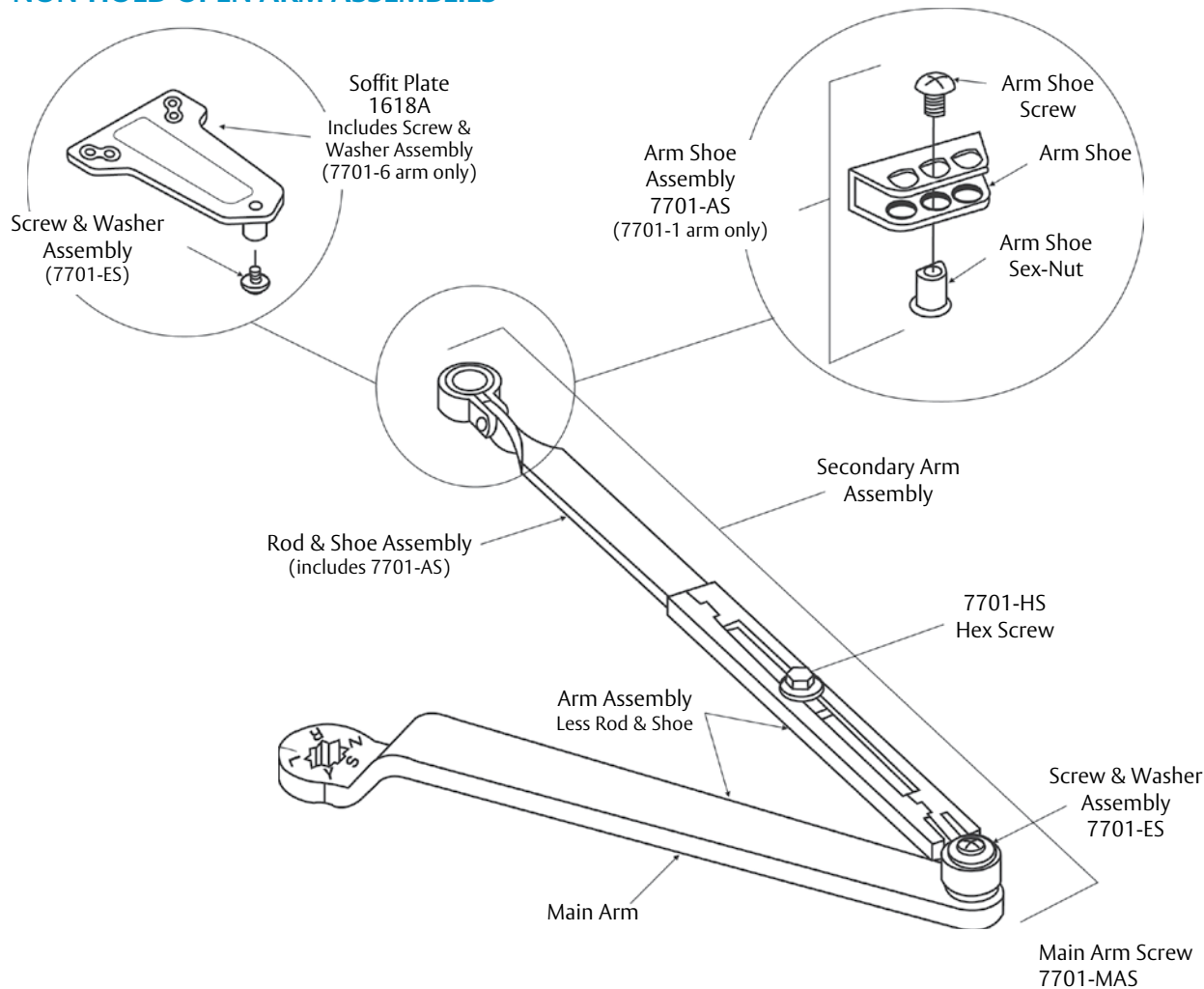
(Aluminum Door Shown)

Thru Bolt & Grommet Nut : "TBGN" (4 per pack)



Door	TBGN's
1-3/8"	TBGN138-38
1-3/4"	TBGN134-38
2-1/4"	TBGN214-38

NON-HOLD OPEN ARM ASSEMBLIES



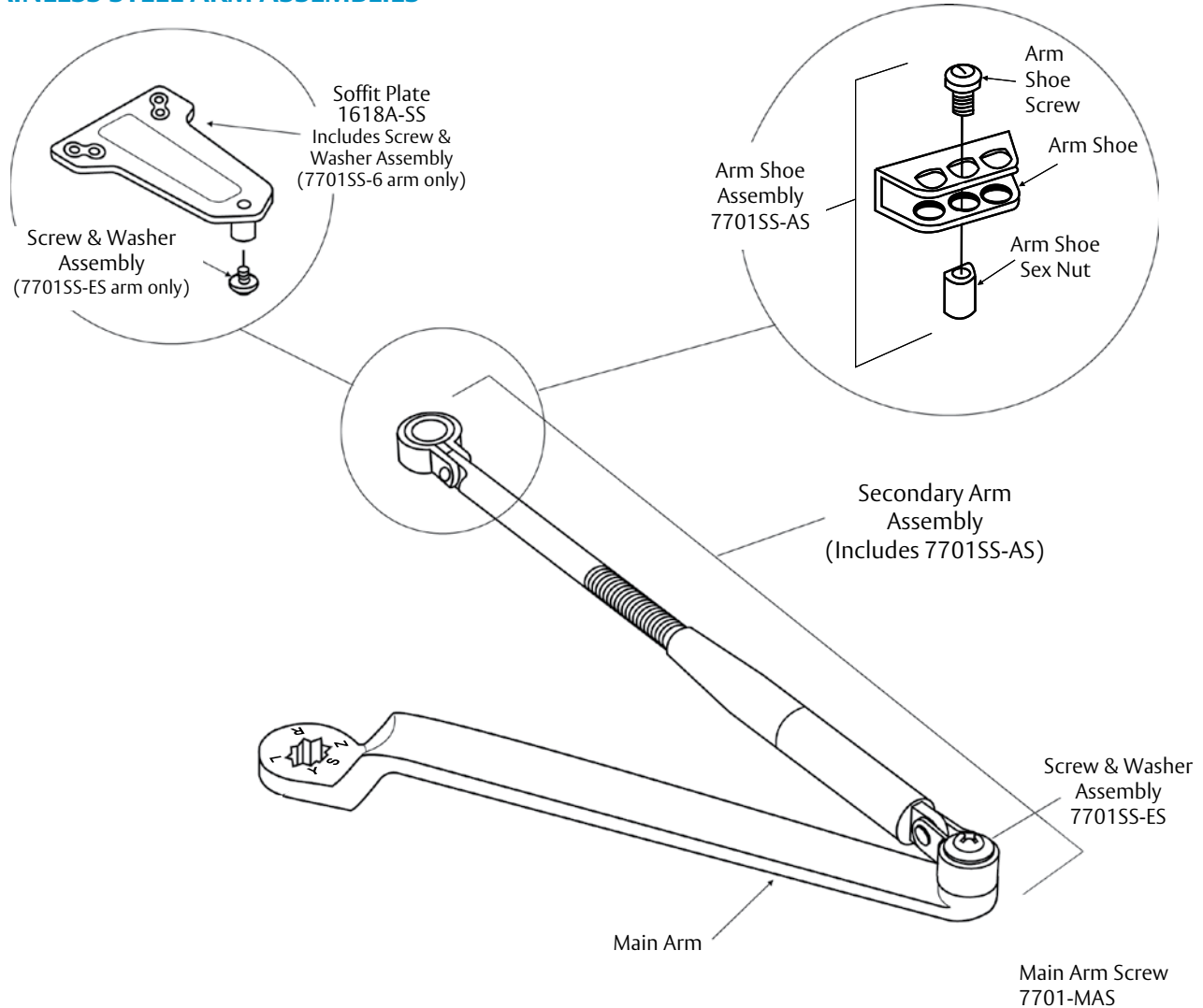
Note: Mounting hardware included with all parts orders.

Closer Series	Complete Arm Assembly	Main Arm Assembly ¹ (length)(mm) (includes 7701-ES)	Secondary Arm Assembly (includes 7701-ES)	Arm Assembly Less Rod and Shoe	Rod & Shoe ² Assembly (length)(mm)
1600BC/1601	7701-1	7701-1M (11)(279)	7701-111	7701-1W	7701-11 (8-7/8)(225)
J1600BC/J1601	7701-1A		7701-121		7701-11A (12-1/2)(318)
P1600BC/P1601	7701-6		7701-116		7701-16 (8-7/8)(225)
P1600BC/P1601 ³	7701-6A		7701-116A		7701-16A (12-1/2)(318)
1600BC/1601	7701-26 (Tri-Style® includes 7701-1 plus 1618A plate)				

1. C to C length shown in parentheses.
2. C of connecting link to end of rod shown in parentheses.
3. For 180° door swing when using a special template for doors hung on 6" to 8" (162 to 203mm) wide throw hinges.

1600 SERIES ALUMINUM STOREFRONT DOOR CLOSERS

STAINLESS STEEL ARM ASSEMBLIES

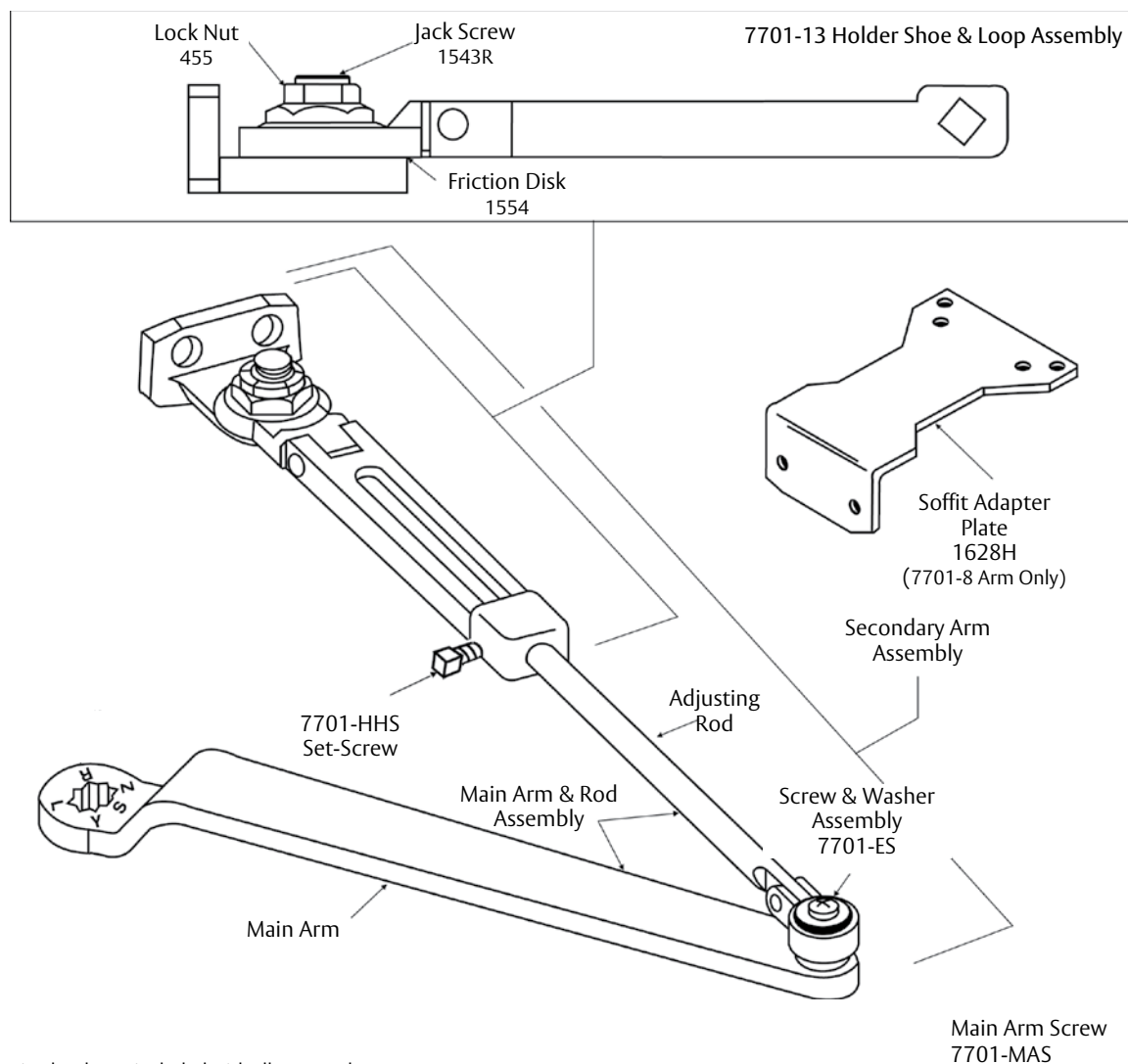


Note: Mounting hardware included with all parts orders.

Closer Series	Complete Arm Assembly	Main Arm Assembly¹ (length)(mm) (includes 7701SS-ES)	Secondary Arm Assembly (includes 7701SS-ES)
1601SS	7701SS-1		7701SS-111 (8-7/8)(225)
J1601SS	7701SS-1A	7701SS-1M (11)(279)	7701SS-121 (12-1/2)(318)
P1601SS	7701SS-6		7701SS-116 (8-7/8)(225)

1. C to C length shown in parentheses.

HOLD OPEN ARM ASSEMBLIES



Note: Mounting hardware included with all parts orders.

Closer Series Assembly	Complete Arm Assembly	Main Arm ¹ (Length)(mm) (includes 7701-ES)	Secondary Arm (includes 7701-ES)	Main Arm & Rod Assembly	Holder Shoe & Loop Assembly	Adjusting Arm ² (Length)(mm)
1600BCH/1601H	7701-3/7701-8 ³ Reg./Par.	7701-1M (11) (279)	7701-113/7700-118 Reg./Par.	7701-3W	7701-13/7701-18 ⁴ Reg./Par.	7701-31 (7-3/8) (187)
J1600BCH/J1601H	7701-3A		7701-123	7701-3WA		7701-31A (10-13/16) (275)

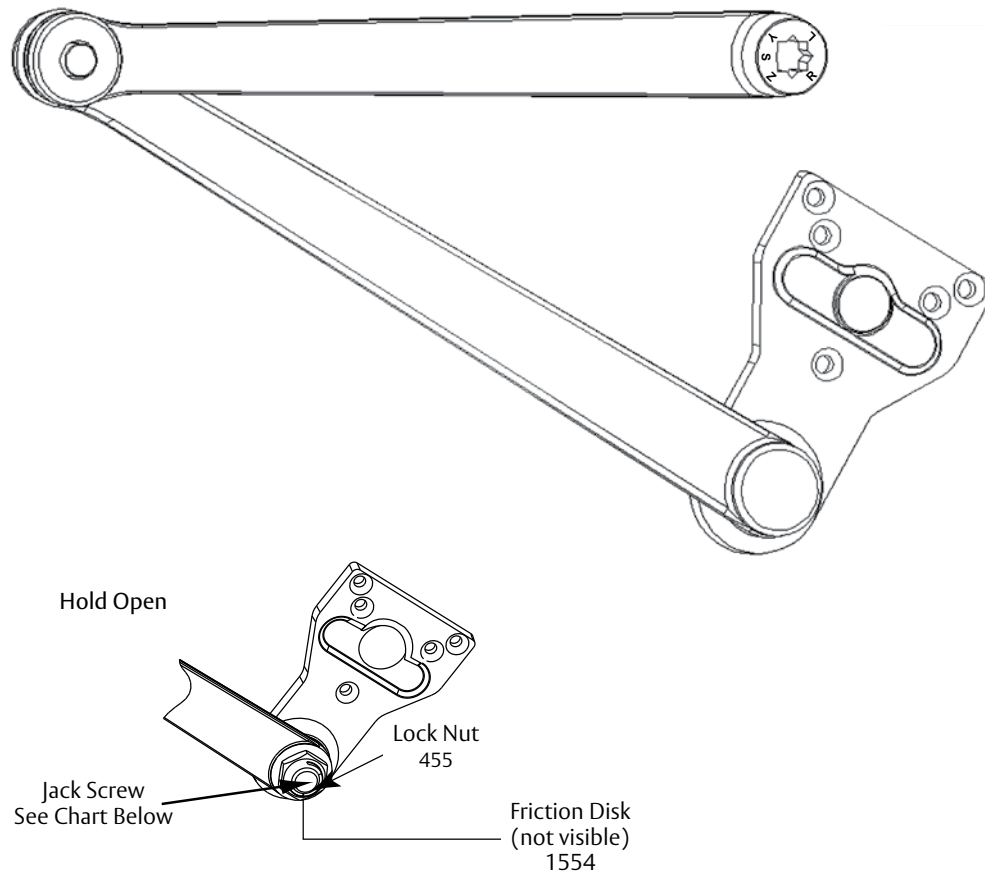
1. C to C length shown in parentheses.
2. C of connecting link to end of rod shown in parentheses.
3. Same as 7701-3 but includes #1628H soffit adapter plate.
4. Same as 7701-13 but includes #1628H soffit adapter plate.

1600 SERIES

ALUMINUM STOREFRONT DOOR CLOSERS

PARALLEL RIGID ARM ASSEMBLIES

Non-Hold Open Arm

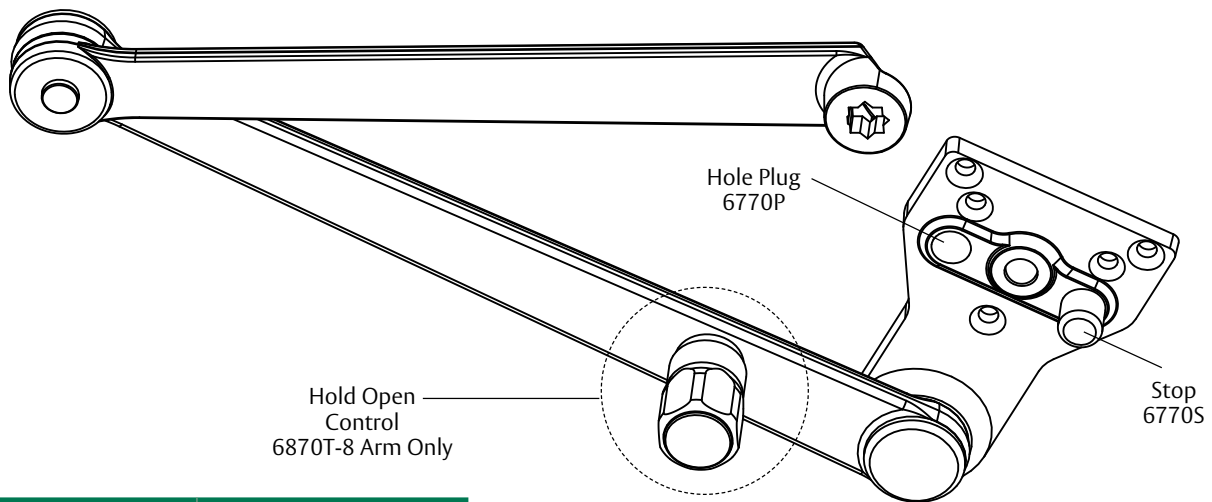


Note: Mounting hardware included with all parts orders.

Complete Arm Assembly	Arm Function	Jack Screw
PR7701-5	Non-Hold Open	N/A
PR7701-8R (right hand)	Hold Open	1543R
PR7701-8L (left hand)		1543L

CLOSERPLUS® ARM ASSEMBLIES

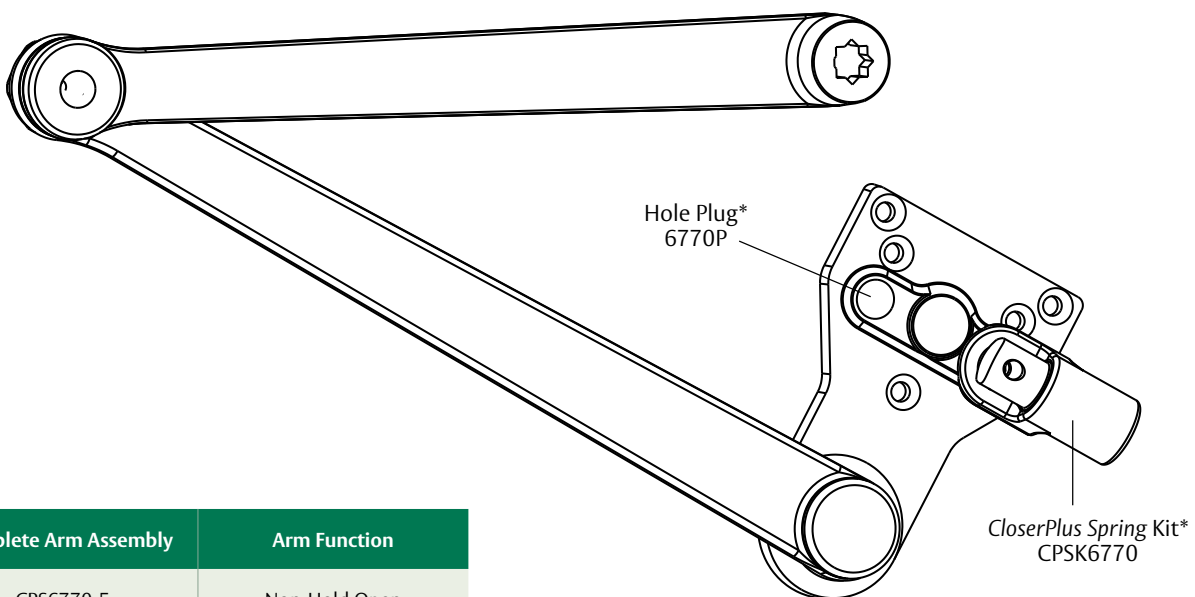
Hold Open Arm shown (CLP-T)



Complete Arm Assembly	Arm Function
6770-5	Non-Hold Open
6870T-8	Thumbturn Hold Open

Note: Mounting hardware included with all parts orders.

CLOSERPLUS SPRING™ ARM ASSEMBLIES



Complete Arm Assembly	Arm Function
CPS6770-5	Non-Hold Open
CPS6870T-8	Thumbturn Hold Open

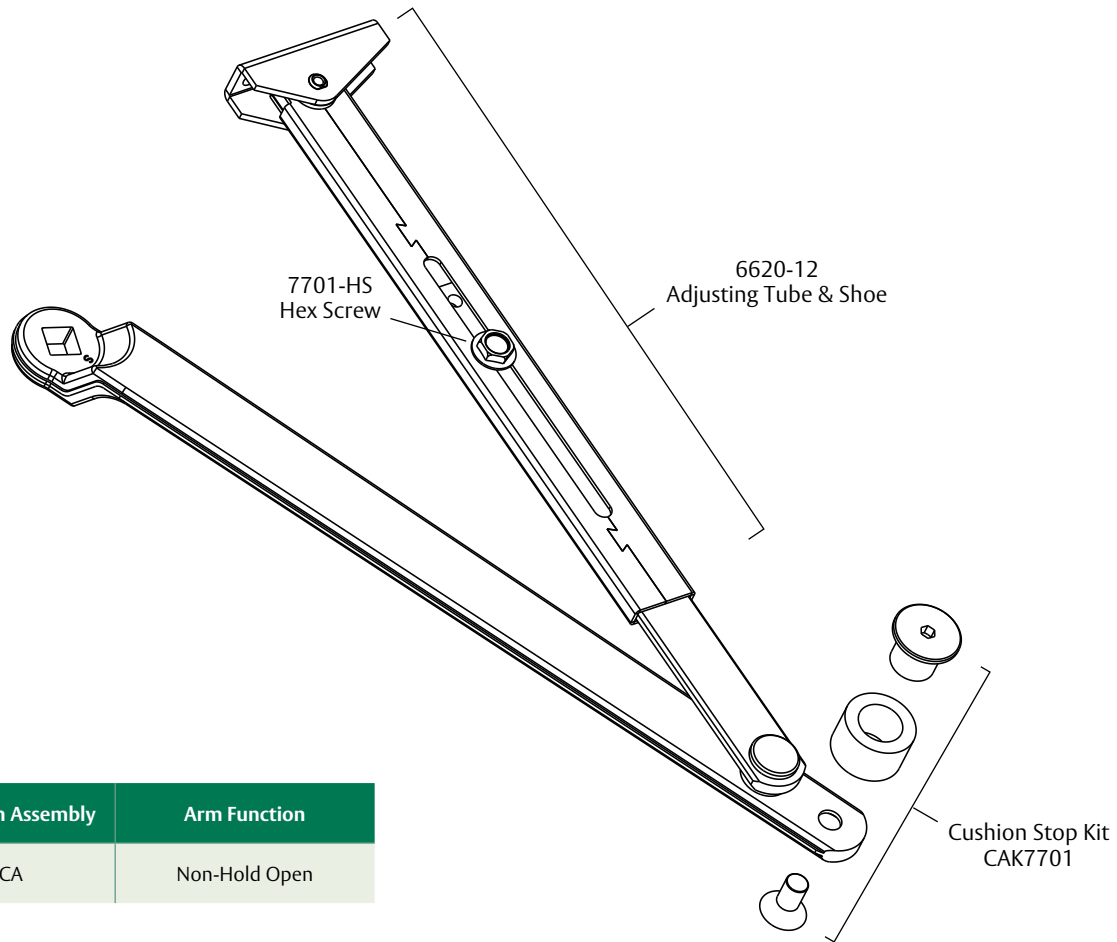
Note: Mounting hardware included with all parts orders.

* These parts and screw pack are included with complete arm assemblies.

1600 SERIES

ALUMINUM STOREFRONT DOOR CLOSERS

CUSHION STOP ARM ASSEMBLIES

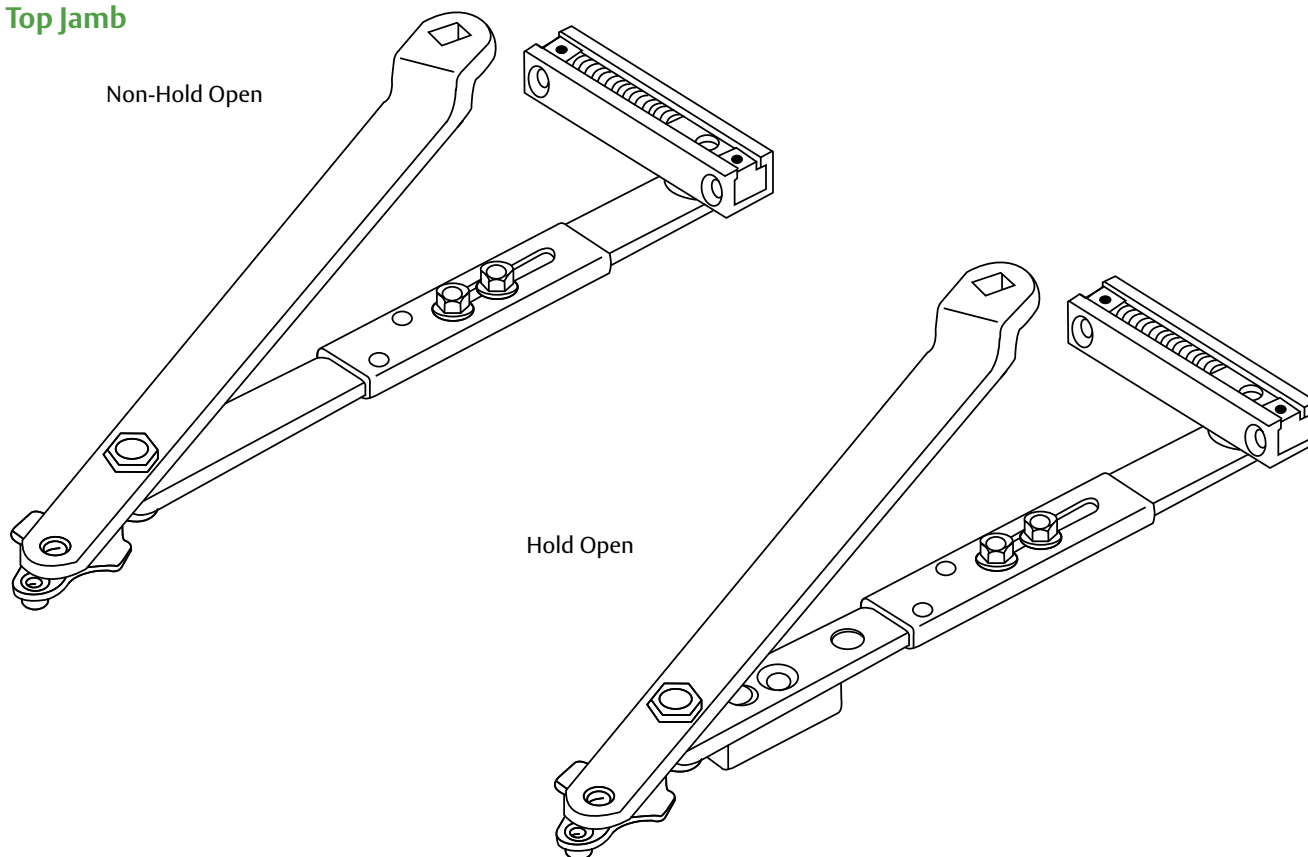


Complete Arm Assembly	Arm Function
7701-CA	Non-Hold Open

Note: Mounting hardware included with all parts orders.

UNITROL® ARM ASSEMBLIES

Top Jamb



Note: Mounting hardware included with all parts orders.

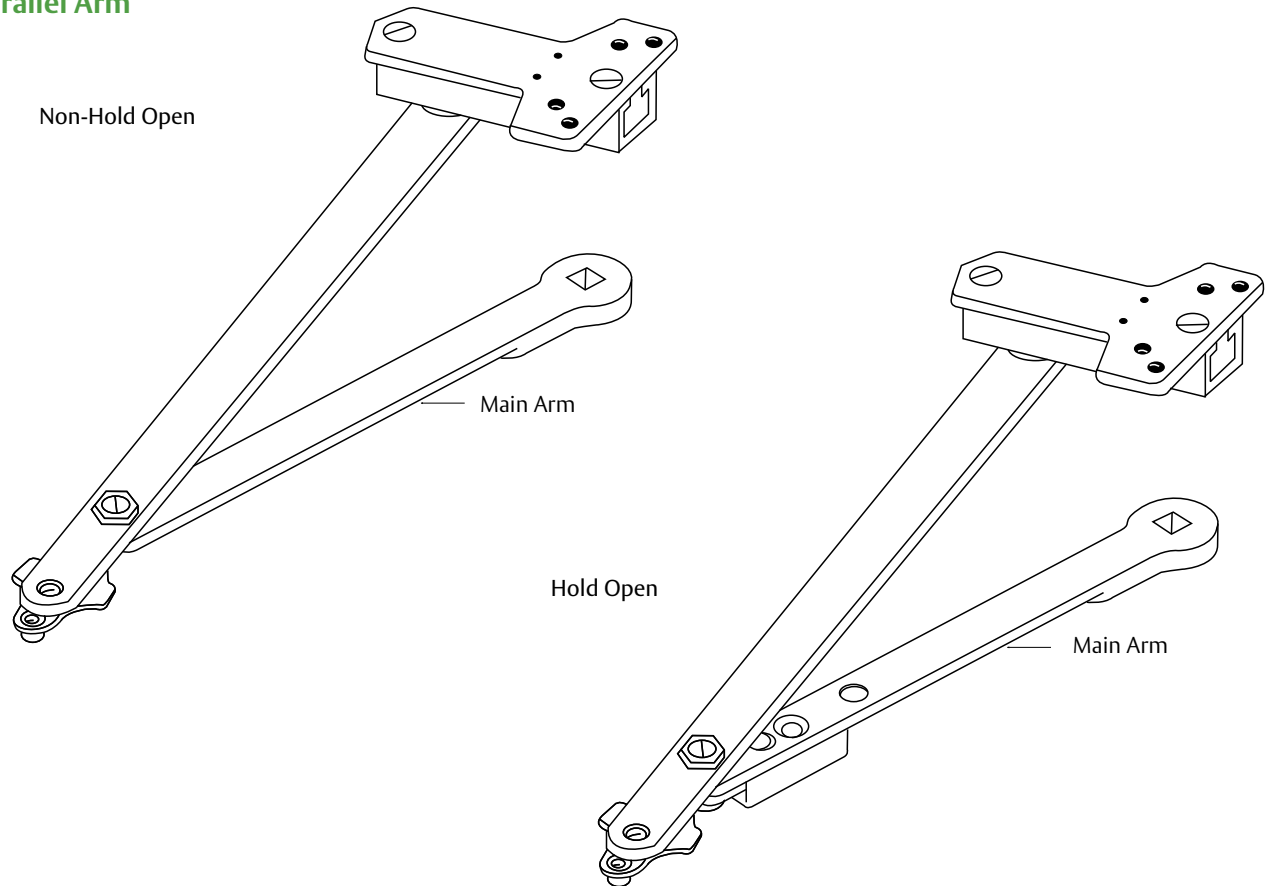
Complete Arm Assembly		
Non-Hold Open	Hold Open	For Frame Reveals (mm)
J6100-4	J6100-7	2-1/8" - 3-1/4" (54 - 83)
J6200-4	J6200-7	1/2" - 2" (13 - 51)
J6400-4	J6400-7	3-3/8" - 4-1/4" (86 - 108)
J6500-41	J6500-71	4-3/8" - 5-3/8" (111 - 137)
J6500-42	J6500-72	5-1/2" - 6-3/8" (140 - 162)
J6500-43	J6500-73	6-1/2" - 7-3/8" (165 - 187)
J6600-4	J6600-7	0 - 3/8" (0 - 10)

1600 SERIES

ALUMINUM STOREFRONT DOOR CLOSERS

UNITROL® ARM ASSEMBLIES

Parallel Arm



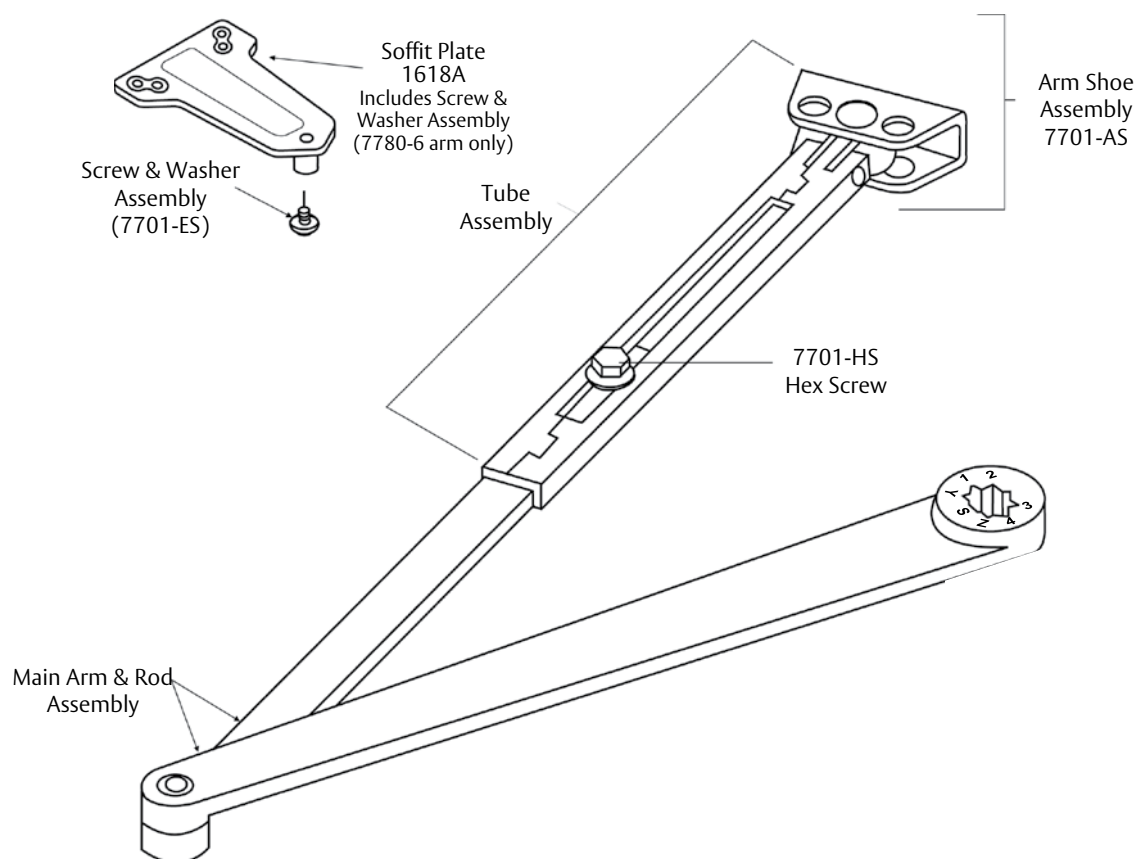
Note: Mounting hardware included with all parts orders.

Complete Arm Assembly			
Non-Hold Open	Hold Open	Door Width (cm)	Main Arm Length* (mm)
6100-11	6100-1	28" - 32" (71 - 81)	9-1/2" (241)
6100-13	6100-3	33" - 41" (84 - 104)	11" (279)
6100-14	6100-4	42" - 48" (107 - 122)	12-1/2" (318)

* Center to center length.

LOW PROFILE ARM ASSEMBLIES

Non-Hold Open Arm shown



Note: Mounting hardware included with all parts orders.

Arm Application	Complete Arm Assembly	Main Arm & Adjusting Rod Assembly	Tube & Shoe/Soffit Rod Assembly
Regular Arm	7780-1	7780-1MR	7780-1TS (with 7701-AS)
Parallel Arm	7780-6		7780-6TS (with 1618A)
Tri-Style®	7780-26		

1600 SERIES

ALUMINUM STOREFRONT DOOR CLOSERS

FASTENERS

Type	Description	Arm								
		RA	PA	TJ	Low Profile	PR	CLP/CPS	UNI	UNI-J	CA
DOOR										
SDST	Self-Drilling Self-Tapping	S	S	S	S	S	S	S	S	S
MS	Machine Screw	S	S	S	S	S	S	S	S	S
SN	Sleeve Nut/Sex Nut	O	O	O	O	S	S	S	S	O
TBGN	Thru Bolts & Grommet Nuts	O	O	O	O	O	O	O	O	O
SMS	Sheet Metal Screws	O	O	O	O	O	O	O	O	O
FRAME										
SDST	Self-Drilling Self-Tapping	S	S	S	S	S	S	S	S	S
MS	Machine Screw	S	S	S	S	S	S	S	S	S
SMS	Sheet Metal Screws	O	O	O	O	O	O	O	O	O

S = standard; O = optional

SN are for use on unreinforced hollow metal doors or to prevent any hollow metal door from collapse/dimpling. They can also be used for thru bolting on wood doors. **When selected as an add-on option**, SN are supplied for 1-3/4" (44mm) thick doors unless specified for 2-1/4" (57mm) thick doors.

TBGN are an alternative to SN for wood doors. **When selected as an add-on option**, TBGN are supplied standard for 1-3/4" (44mm) thick doors. They can be specified for 1-3/8" (35mm) thick doors.

SMS - when specified, closer will be packed with sheet metal screws for the door AND sheet metal screws plus machine screws for the frame. SMS are supplied as a substitute for wood doors and frames.

FINISHES

Norton offers waterborne acrylic, polyester powder coat and plated finishes. Custom finishes are available on special order. A sample and approval is required.

Waterborne acrylic and polyester powder coat will withstand 100 hours of salt spray (ANSI requires 25 hours).

ANSI/BHMA	Description
600*	Prime Coat
605^	Bright Brass
606^	Satin Brass
611^	Bright Bronze
612^	Satin Bronze
613E	Dark Oxidized Satin Bronze - Equivalent
619^	Satin Nickel
625^	Bright Chrome

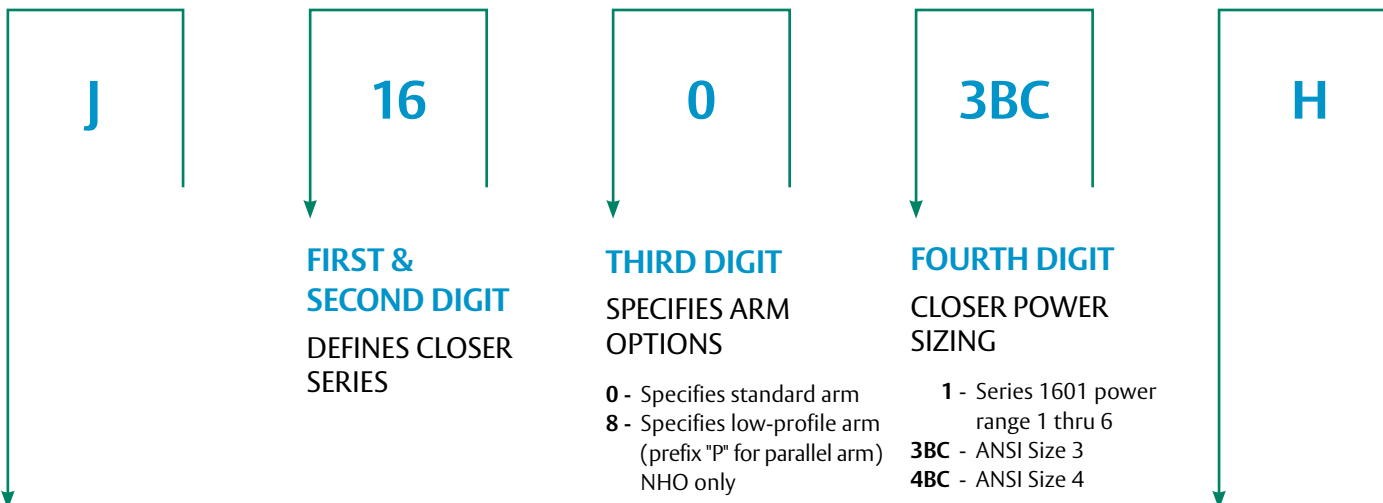
ANSI/BHMA	Description
626^	Satin Chrome
689	Aluminum
690	Statuary Bronze
691	Dull Bronze
693	Black
694	Medium Bronze Painted
696	Satin Brass Painted
N/A	556 White

* 600 is a special rust-inhibiting prime coat. Closers can be ordered prime coat only (specify closer x 600). An additional charge applies if finish coat is required over prime coat.

^ Plated finish (only available on arm).

HOW TO ORDER

For optimum protection of door and frame assemblies, always use auxiliary wall, floor, or overhead door stop.



PREFIXES

- No Prefix** } 1600BC series designates Tri-Style®, sized 1601 series designates Tri-Style®, multi-sized closer
- J** - Top jamb installation – reveals in excess of 2-3/4 to 7"
 - P** - 1600BC parallel arm units requiring specialty brackets
 - 1601 parallel arm units requiring specialty brackets
 - 1680BC low-profile closer
 - 1601SS corrosion-resistant closer – not Tri style
 - PR** - Parallel Rigid arm (parallel arm only) – specify hand for hold open functions
 - CLP** - CloserPlus® arm (parallel arm only)
 - CPS** - CloserPlus Spring™ arm (parallel arm only)
 - UNI** - Unitrol® arm (parallel arm only - specify door width)
 - UNIJ** - Unitrol arm (top jamb only - specify frame reveal)
 - CA** - Cushion stop arm (regular arm only)

FIFTH DIGIT

- NONE** - Non-hold open arm function
- H** - Hold open arm function (specify hand when "PR" prefix is ordered)
- SS** - Series 1601 only
 - Corrosion-resistant closer
 - Not Tri-Style Available with non-hold open adjustable arm only; for regular arm, top jamb "J" prefix or parallel arm "P" prefix
- T** - Thumbturn hold open on CloserPlus® (CLP) and CloserPlus Spring™ (CPS) arms
- P** - Cover

Notes:

- » Door closer warranty becomes void if it is installed on the exterior side of a door in the exterior wall of a building.
- » It is strongly recommended, and it is required on fire door assemblies, that doors having a door closer be hung on ball bearing or anti-friction hinges or pivots.
- » Failure to use the correct type and size fasteners may void factory warranty.
- » Optional Torx® drive screws (with security pin) are only available with machine screw threads.
- » Fasteners for fire/smoke door assemblies must conform to NFPA 80. In some applications additional fasteners may be mandated by NFPA 80 that are not shipped with standard Norton product, such as sleeve-nuts/sex-nuts or thru bolts and grommet nuts.
- » Sizing charts provided on pages 9-17 are based on 1-3/4" (44mm) x 7' (2.13m) standard weight doors swinging to 110 degrees. Other conditions (such as door height or weight; or wind/draft conditions) may require a larger size closer.

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Multi-feature closers with compact design,
ideal for application on interior doors

Norton®

ASSA ABLOY

ASSA ABLOY, the global leader
in door opening solutions

1700BC
S E R I E S

DOOR CLOSER

CATALOG

INTRODUCTION

Norton® 1700BC Series Door Closers are multi-feature closers whose compact design is ideal for application on interior doors. This narrow-stile closer has distinctive lines that harmonize with most decors. It is available with a full cover to provide an installation with compatible appearance to other door closers with covers. The Norton 1700BC Series Door Closer offers an economical alternative for those installations where a more heavy-duty closer is not necessary.

STANDARD FEATURES

- » Tri-Style® packaging: closer tri-packed for regular arm, top jamb or parallel arm installation
- » Non-handed
- » Aluminum alloy shell
- » Rack & pinion operation
- » Adjustable closing speed
- » Adjustable latch speed
- » Adjustable backcheck cushioning: independent regulating valve
- » Non-hold open

OPTIONAL FEATURES

- » Full molded cover
- » Hold open

CERTIFICATIONS



- » ANSI/BHMA A156.4 Grade 3 certified 
- » UL / cUL listed for use on fire rated doors 
- » UL10C listed for positive pressure fire test
- » This product is manufactured in an ISO 9001 facility



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1700BC SERIES

LIGHT COMMERCIAL DOOR CLOSER

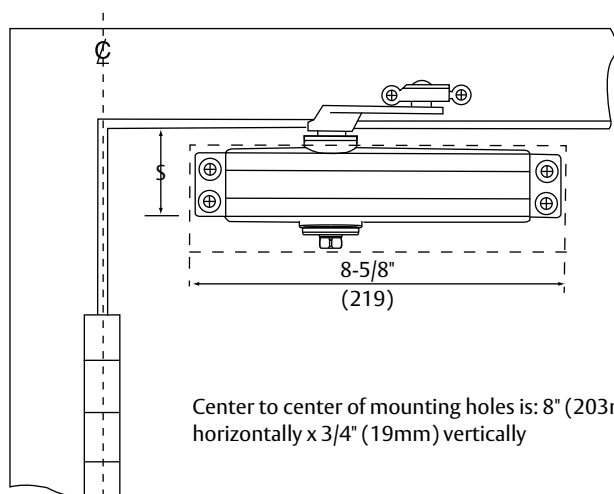
SPECIFICATIONS

Closers for interior doors shall be full rack-and-pinion type with cast aluminum alloy shell. Closer shall be non-handed to permit installation on either hand of door. Closer to be supplied with brackets to allow regular arm, parallel arm or top jamb mounting. Closer to have noncritical valves to independently regulate sweep speed (and) latch speed (and backcheck cushioning.) The forearm bracket shall permit a 15% power adjustment by rotating the forearm and bracket 180° at the door or frame. (Closer shall be enclosed in a molded full cover.) Closer to be Norton 1700BC Series, 1700BCCOV Series.

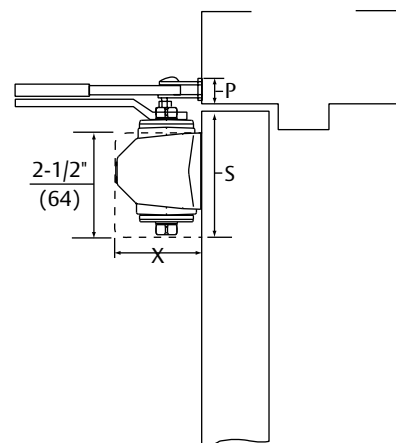
REGULAR ARM INSTALLATION



Closer mounts on door;
Arm bracket on frame face.



Center to center of mounting holes is: 8" (203mm)
horizontally x 3/4" (19mm) vertically



R Minimum Top Rail				S Minimum Top Rail Clearance		P Minimum Ceiling Clearance Without Drop Plate		X Closer Projection	
Without Drop Plate		With 1746/1756 Drop Plate							
Non-Hold Open	Hold Open	Non-Hold Open	Hold Open	Non-Hold Open	Hold Open	Non-Hold Open	Hold Open	Without Cover	With Cover
2" (51)		1-1/4" (32)		3" (76)	2-7/8" (73)	1" (25)	1-3/8" (35)	1-15/16" (49)	2-1/16" (52)

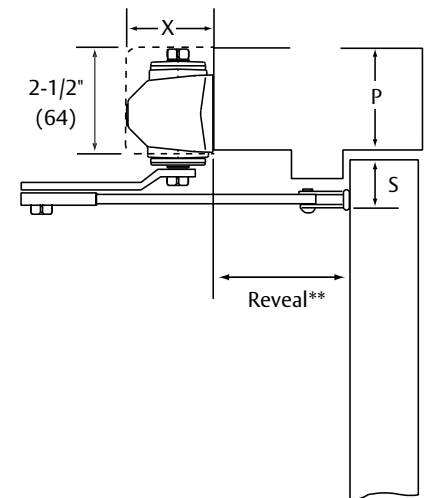
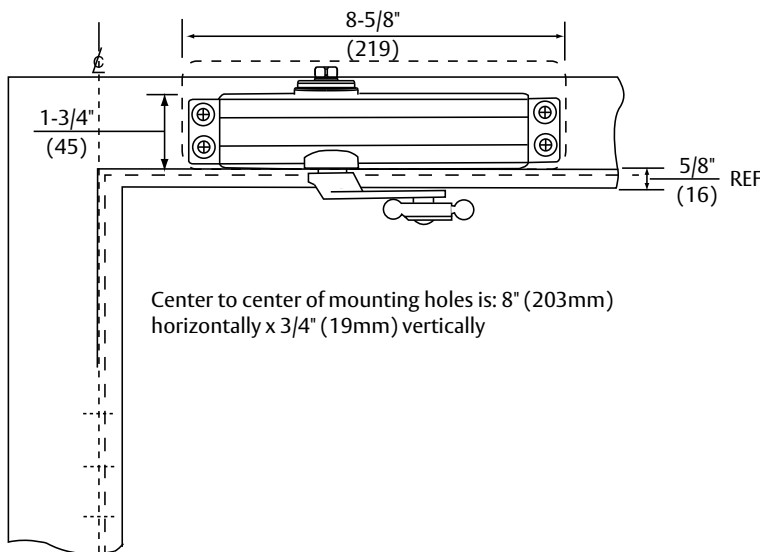
Sizes based upon door 7'0" (2.13m) x 1-3/4" (44mm)

1700BC SERIES LIGHT COMMERCIAL DOOR CLOSER

TOP JAMB INSTALLATION



Closer mounts on push side of frame;
arm shoe mounts to door.



S Minimum Top Rail Clearance			P Minimum Ceiling Clearance Without Drop Plate				X Closer Projection	
Without Drop Plate	With 1746/1757 Drop Plate		Without Drop Plate		With 1746/1757 Drop Plate			
Non-Hold Open	Non-Hold Open	Hold Open	Non-Hold Open	Hold Open	Non-Hold Open	Hold Open	Without Cover	With Cover
1-1/4" (32)	2-1/4" (57)	2-5/8" (67)	2-1/2" (64)	N/A***	1-3/4" (44)		1-15/16" (49)	2-1/16" (52)

Sizes based upon door 7'0" (2.13m) x 1-3/4" (44mm)

**Reveal Information

The standard 1700BC Series non-hold open closers and 1700BCH Series hold open closers (Top Jamb mount) accommodate frame reveals for 0" to 4-7/8" (0 to 124mm).

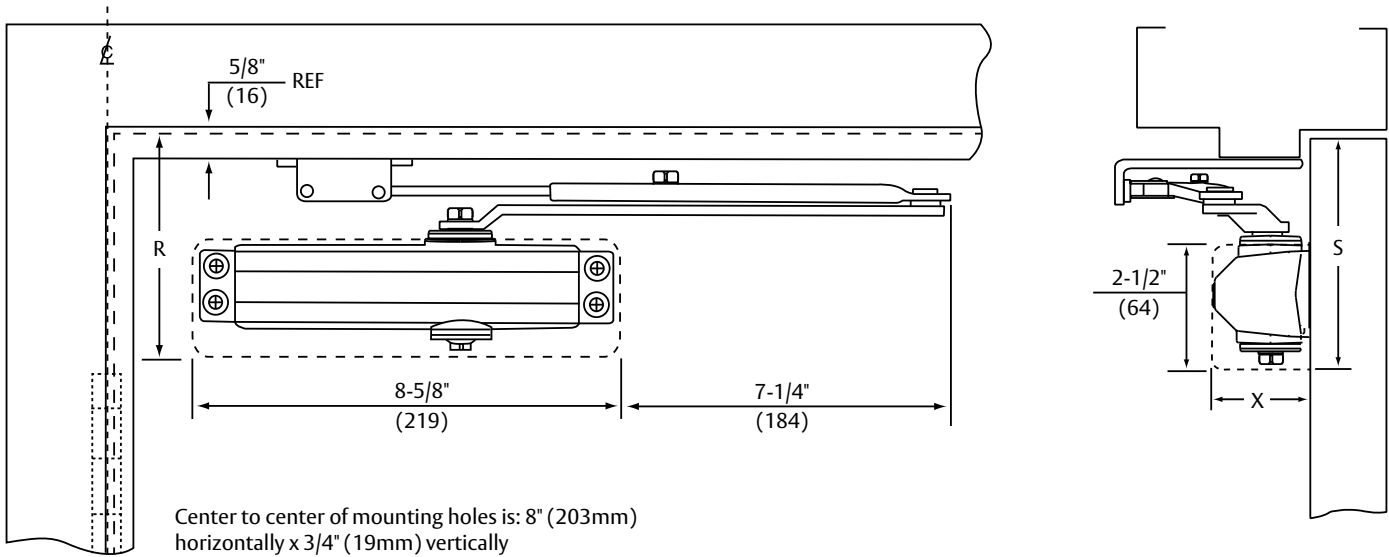
J1700BC Series non-hold open closers and J1700BCH Series hold open closers accommodate frame reveals from 4-7/8" to 6-7/8" (124 to 175mm). These closers are not supplied with "Tri-Style® installation" hardware.

***Use of hold open arm requires use of a drop plate.

PARALLEL ARM INSTALLATION



Closer Mounts on Door;
Bracket on frame soffit.



R Minimum Top Rail				S Minimum Top Rail Clearance		X Closer Projection	
Without Drop Plate		With 1748/1758 Drop Plate					
Non-Hold Open	Hold Open	Non-Hold Open	Hold Open	Non-Hold Open	Hold Open	Without Cover	With Cover
4" (102)	4-1/4" (108)	2-1/4" (57)		4-3/4" (121)	5" (127)	1-15/16" (49)	2-1/16" (52)

1700BC SERIES LIGHT COMMERCIAL DOOR CLOSER

ACCESSORIES

Part Number	Description
Arm Type	Part Number
1700-1	Arm Assembly - Non-Hold Open
1700-3	Arm Assembly - Hold Open
17P	Cover
1739	Pinion Cap
1788	Parallel Arm Adapter Plate (Hold Open)
1789	Parallel Arm Bracket
170XBCLAP	Closer Body*

* X = specify closer size

Door Plates

For narrow top rails, narrow frame faces, and top jamb hold open installations. Plates vary in size when the closer is ordered with or without a full molded cover. Order drop plates from the chart. Specify finish when ordering separately.

Type Of Installation	Drop Plate Model Number	
	Without Cover	With Cover
Regular Arm	1746	1756
Top Jamb	1746	1757
Parallel Arm	1748	1758

For drop plate requirements, see Dimensional Information pages 5-7.

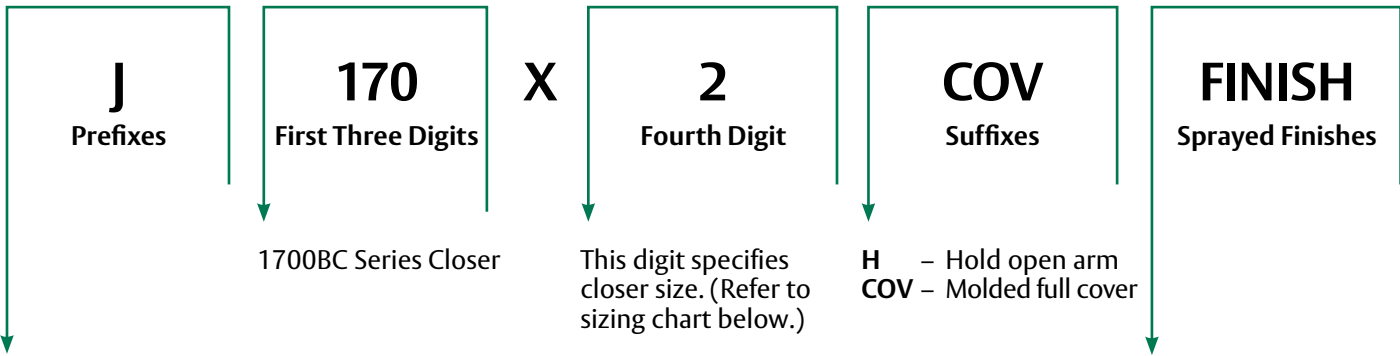
Molded Full Cover

Molded of high-impact U.L. Listed material for completely enclosing the closer body, mounting screws and the unused pinion shaft. This cover is non-handed. It has two notches; one for clearance of the pinion shaft. An insert is included for insertion into the unused notch. Four molded catches engage the closer body for easy yet secure installation. To order this cover separately, specify 17P x finish.

Fasteners

Through-bolts, grommet nuts and sex nuts are available to special order.

HOW TO ORDER



1700BC Series Closer

This digit specifies closer size. (Refer to sizing chart below.)

H – Hold open arm
COV – Molded full cover

None – Closer installs regular arm, parallel arm or top jamb 0" to 4-7/8" (0 to 24mm) reveals.

J – Top jamb closer with frame reveal from 4-7/8" to 6-7/8" (124 to 175mm).

Description	Specify Norton (BHMA) Designation	Complements the following finishes
Aluminum	689	628, 625, 629, 630, 651, 652
Statuary Bronze	690	640, 613
Dull Bronze	691	612, 637, 639
Black	693	315
Medium Amber	694	312
Gold	696	605, 606, 632, 633
556 White	N/A	
Prime Coat*	600	

*600 is a special rust-inhibiting prime coat. Closers can be ordered prime coat only (specify closer x 600). An additional charge applies if finish coat is required over prime coat (ex: 1704BC x 600 x 689).

SIZING CHART

Model Number		Interior Doors: Maximum Size Wood or Metal (cm)		
		Type of Installation		
Non-Hold Open	Hold Open	Regular Arm	Parallel Arm	Top Jamb
1701BC	1701BCH	The 1701BC closer (size 1) is intended for use on doors with a maximum clear opening width of 2'8" (81cm) to provide less than 5.0 lbs. (22.2N) of door opening resistance.		
1702BC	1702BCH	30" (76)	30" (76)	30" (76)
1703BC	1703BCH	36" (91)	32" (81)	36" (91)
1704BC	1704BCH	42" (107)	36" (91)	42" (107)

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Cam action door closer for
slide track applications

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in door opening solutions

2800ST
S E R I E S

DOOR CLOSER

CATALOG

INTRODUCTION

The 2800ST Series is a cam action door closer for slide arm and track applications. The cam action design is ideal, as it provides much greater efficiency than a rack and pinion door closer for slide track applications. The cam action provides much lower opening resistance while delivering optimum closing force and control. The door closer's wide range of adjustable closing power permits use in the most demanding situations. The efficiency and flat power curve comply with the opening force requirements of the Americans with Disabilities Act (ADA).



These door closers come standard with adjustable sweep speed and latch speed, closing control and adjustable backcheck cushioning in the opening cycle. The unobtrusive design is a good choice for architects and designers.

Applications:

- » Hospitals
- » Universities
- » Office Buildings

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FEATURES



- » Smooth operation; efficient, powerful, heavy-duty
- » Easier to open than rack-and-pinion door closers with track arms
- » Slide track application with regular arm operating efficiency
- » Slide track standard
- » Adjustable spring size 1 through 6
- » Non-handed
- » Push or pull side installation
- » Cast aluminum body
- » Hold Open; specify H suffix
- » Sex nuts (optional)
- » Door size*:
 - › Recommended maximum interior door width 54" (137cm)
 - › Suitable for exterior and interior doors
 - › Recommended maximum door weight 250lbs.
 - › Standard opening range: Push Side = 140°, Pull Side = 110°
- » 10-year limited warranty

*Note: Door openings greater than 140° for push side and 110° for pull side can be achieved when an auxiliary door stop (by others) is used. Consult factory for details and templates.

FUNCTIONS

- » Adjustable closing force
- » Adjustable closing and latching speed
- » Backcheck standard

CERTIFICATIONS

- » UL / cUL listed for use on fire rated doors 
- » UL10C listed for positive pressure fire test
- » Comply with requirements for the Americans with Disabilities Act (A.D.A) 

SPECIFICATIONS

Door Controls_____ (interior) (exterior) swinging door(s) shall be cam and roller design contained within a precision cast aluminum housing. Door closing force shall be adjustable to ensure adequate closing control. Door closing speed shall be controlled by independent hydraulic adjustment valves in the sweep and latch range of the closing cycle. Door closer shall have an adjustable hydraulic backcheck valve to cushion the door speed if door is opened violently. Maximum door open shall be templated to (85°), (90°), (100°), (110°), conditions permitting. Door closer shall have hold open capability with an on/off selector and tension adjustment. Non-hold open units shall be U.L. Listed for self-closing door. Unit shall be in compliance with the requirements of the Americans With Disabilities Act (ADA). ANSI standards A117.1. Units shall meet C-UL US.

STANDARD APPLICATIONS

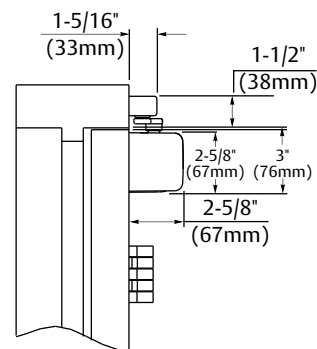
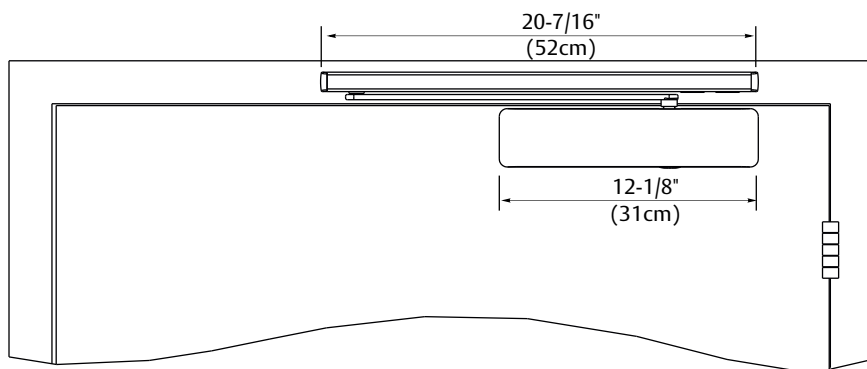


2800ST

HINGE (PULL) SIDE OF DOOR

- » Maximum interior door width 54" (137cm)
- » An auxiliary stop (by others) is suggested where severe conditions exist
- » 140° swing (trim permitting)

NOTE: Door openings to 160° can be achieved if an auxiliary door stop (by others) is installed to dead stop the door. Consult factory for details.



NOTE: Contact factory for use on doors exceeding 250 lbs.

2800ST SERIES CAM ACTION DOOR CLOSER

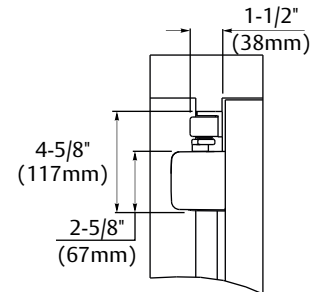
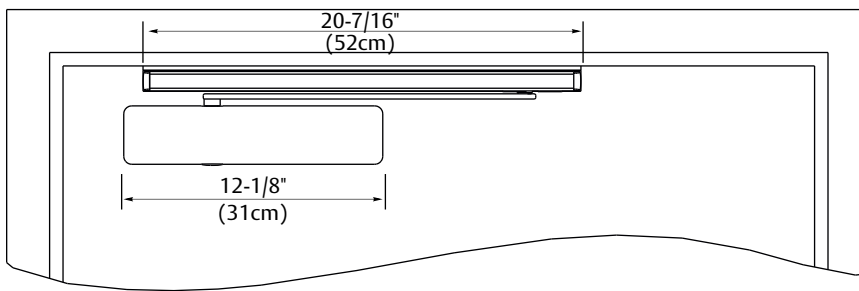


PS2800ST

STOP (PUSH) SIDE OF DOOR

- » Minimum frame reveal is 1-1/2" (13mm)
- » An auxiliary door stop is suggested when severe conditions exist
- » 110° swing (trim permitting)

NOTE: Door openings up to 130° can be achieved if an auxiliary door stop (by others) is installed to dead stop the door. Consult factory for details.

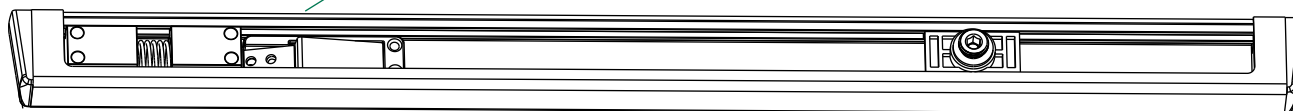


NOTE: Contact factory for use on doors exceeding 250 lbs.

PARTS LIST

Part #	Description
2800LAP	Closer Body Only
28ST-1T	Pull Side Track and Arm Assembly, Non-Hold Open
28ST-3T	Pull Side Track and Arm Assembly, Hold Open
28ST-5T	Push Side Track and Arm Assembly, Non-Hold Open
28ST-8T	Push Side Track and Arm Assembly, Hold Open
2800P	Plastic Cover
28STPB	Stop Mount Track Angle Bracket
2888	Push Side Drop Plate
SP2800B	Closer Screw Pack
SP2800S	Spline Screw Pack
SP28T	Track Screw Pack
SN-134	Sex Nut Package: 1-3/4" Door Thickness
SN-214	Sex Nut Package: 2-1/4" Door Thickness

28STHO
Hold-Open Assembly

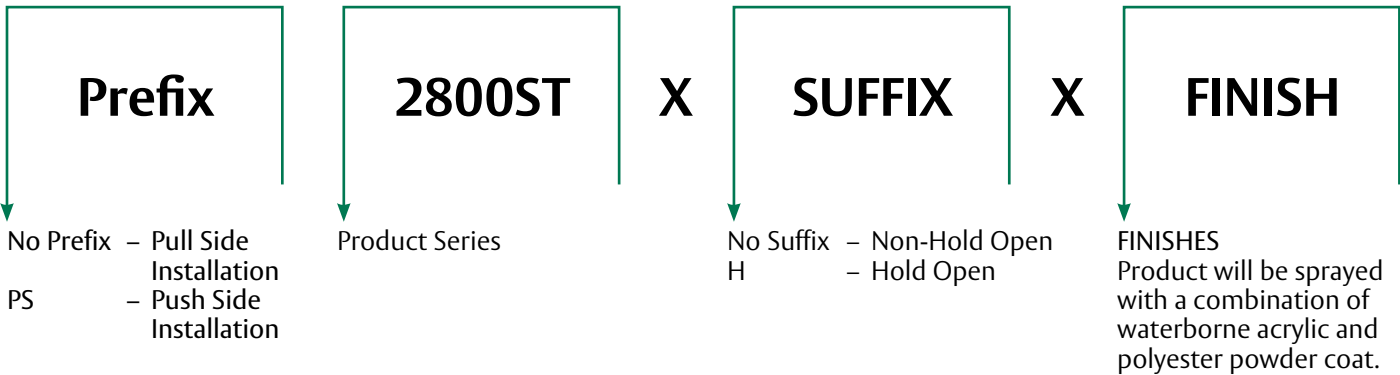


ACCESSORIES

Narrow Top Rail - #2888 Drop Plate: For use where the narrow top rail of the door prevents the closer from being mounted directly to the door surface. This drop plate must be used for closer mounted on a top rail between 1-7/8" and 3-3/8" (48 and 86mm) in height.



HOW TO ORDER



Description	Specify Designation (BHMA)	Complements the following finishes	Old Designation
Aluminum	689	628, 625, 629, 630, 651, 652	AL
Statuary Bronze	690	640, 613	STAT
Dull Bronze	691	612, 637, 639	DB
Black	693	315	315
Medium Amber	694	312	312
Gold	696	605, 606, 632, 633	GB
Prime Coat	600*		SRI

*600 is a special rust inhibiting prime coat. Closers can be ordered prime coat only (specify closer x 600). An additional charge applies if finish coat is required over prime coat (ex: 2800ST x 600 x 689).

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Multi-point closer/holder
with motion sensor

Norton®

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in door opening solutions

7100SZ
S E R I E S

DOOR CLOSER

CATALOG

INTRODUCTION

The 7100 Series SafeZone® door closer safeguards occupants throughout a variety of facilities with the detection of movement through doorways and intelligent door control functions. A multi-point electromechanical closer with a programmable motion sensor allows the door to open manually and remain open when one or more people travel through the opening.



FEATURES

- » Multi-point, electromechanical closer/holder
- » Sensor detects movement in both directions
- » Selectable hold open time and sensitivity
- » Push or pull side mounting
- » Handed units
- » Spring sizes 3, 4 or 5 (models 7110SZ and 7150SZ);
Spring sizes 2, 3, 4 or 5 (models 7120SZ and 7130SZ)
- » Fail safe operation
- » Optional dual sensor

BENEFITS

- » Energy savings realized by power engaging only when motion is detected
- » Extends door life and minimizes wear and tear on hardware by limiting unnecessary cycles

CERTIFICATIONS

- » Certified to meet ANSI/BHMA A 156.15 Release Devices **BHMA** CERTIFIED
- » UL / cUL listed for use on fire rated doors **UL**
- » UL10C listed for positive pressure fire test
- » The following models comply with requirements for the Americans with Disabilities Act (A.D.A) and ANSI standard A 117.1 **ADA**
 - » Push Side: 7122SZ, 7132SZ
 - » Pull Side: 7113SZ, 7153SZ
- » This product is manufactured in an ISO 9001 facility

PATENT

- » Patent Pending

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SPECIFICATIONS

Manufacturer: Door closers for both interior and exterior openings are to be the product of a single source manufacturer.

Certifications: Closers to be certified ANSI/BHMA A156.15.

Electromechanical closer units to be a multi-point, closer/holder type with selective hold open positioning achieved by electronic solenoid locking of closer arm slide into the track assembly. Closer/holder units to have a maximum opening of 180° (hold open to 175°) and are fail safe to close the door in the event of electrical power interruption.

SafeZone Detection: Closer/holders units to have an integral sensor device monitoring a “zone of safety” at the door opening. SafeZone detection prevents the door from closing in the event of movement within the adjustable sensing field. Movement is detectable in both directions with selectable closer hold open time and sensor sensitivity.

Mechanical closer to be hydraulic type with full rack and pinion construction enclosed in a cast aluminum alloy shell. Internal hydraulic fluid is to be non-gumming and non-freezing. Include two non-critical valves to independently regulate sweep and latching speeds and an adjustable backcheck cushioning valve. All valves are adjustable by hex key. Provide spring power adjustment permitting a 50% increase in closing power over the minimum closing force for any closer size.

Mounting: Closer units can be surface mounted to the frame face for application on the pull (hinge side) side of door, or soffit mounted on the push side of the door frame with projection of no more than 2-5/8" (67mm) from the frame face. Frame face must be a minimum 2" and ceiling clearance a minimum of 4". Door must be hung on either butt hinges or 3/4" offset pivot hinges, minimum 1-3/4" to 2-1/4" thickness.

Installation: Provide optional handheld remote device for programming SafeZone sensor settings. Auxiliary door stops are recommended at closer/holder openings and required at doors opening beyond 110°. Interior installation only.

Power: Closer units operate on (120VAC , 60Hz) or (24VDC) with an amperage draw not exceeding (.086 Amps for 24VDC) (.051 Amps for 120VAC). Supplier to coordinate electrical requirements with electrical and alarm system engineers. Field wiring (and conduit) by others.

Electromechanical SafeZone Closer/Holder to be Norton® 7100SZ Series.

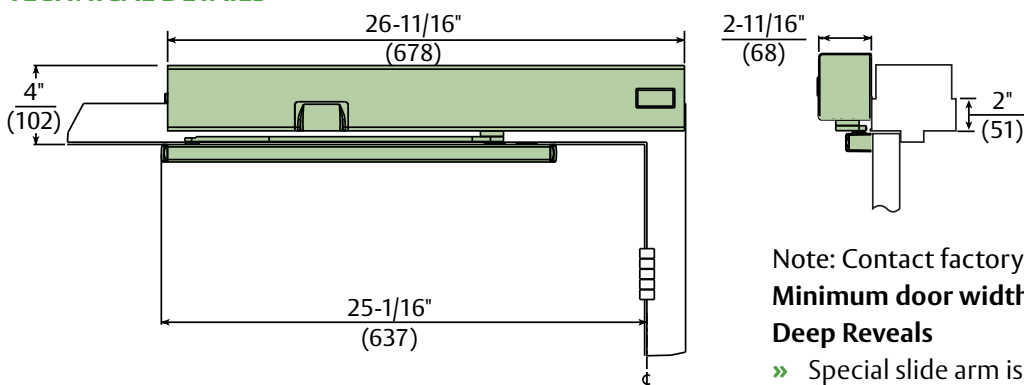
PULL SIDE

- » Surface mounted to the pull (hinge) side frame face
- » Slide track mounts directly to door
- » Minimum 4" ceiling clearance required
- » 1/8" (3mm) – maximum frame reveal
- » Handed
- » Standard units accommodate doors opening 180°; maximum 175° hold open (110° maximum for 7150SZ series).
- » Buffer block assembly in the track will accommodate doors opening to 125°
- » Auxiliary door stop is required for doors opening beyond 125°
- » Fail Safe – solenoid will de-energize in the event of power failure
- » Accommodates either concealed or surface wiring
- » Selective Hold Open
 - › Standard on all units (can be disengaged)
 - › Activates the viewing sensor only when the door opens beyond a specific angle
 - › Once the door is manually opened past the set point, SafeZone holds the door until movement is no longer detected
 - › If the door is not opened to the predetermined opening angle, SafeZone operates like a regular door closer and simply closes the door



7100SZ Shown

TECHNICAL DETAILS



Note: Contact factory if door weight exceeds 250 lbs.

Minimum door width = 28" (71cm)

Deep Reveals

- » Special slide arm is available for reveals in excess of 1/8" (3mm) up to 3" (76mm) 7150SZ Series
- » 110° maximum door swing

DOOR SIZE

Maximum Door Size (cm)	Model Number	Model Number – Deep Reveal
40" (102)	7113SZ	7153SZ
44" (112)	7114SZ	7154SZ
48" (122)	7115SZ	7155SZ

ELECTRICAL DATA

Series Number	Operating Voltage (Input)	No. Power Input Lines* (Pairs)	Amperage Draw
			Solenoid Coil
7110SZ	24VDC	1	.070 @ 24VDC
7150SZ	120VAC		.035 @ 120VAC

* Max/min operating voltage parameters +10% / -15%.

7100SZ SERIES SAFEZONE® DOOR CLOSER

PUSH SIDE

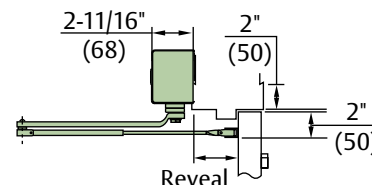
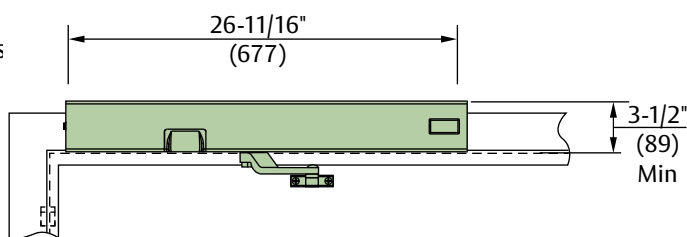
- » Surface mounted to the push (stop) frame face
- » Double lever arm mounts directly to the door
- » Minimum 4" (102mm) ceiling clearance required
- » Handed
- » Standard units accommodate doors opening 180°; maximum 175° hold open
- » Fail Safe – solenoid will de-energize in the event of power failure
- » Accommodates either concealed or surface wiring
- » Selective Hold Open
 - » Standard on all units (can be disengaged)
 - » Activates the viewing sensor only when the door opens beyond a specific angle
 - » Once the door is manually opened past the set point, SafeZone holds the door until movement is no longer detected
 - » If the door is not opened to the predetermined opening angle, SafeZone operates like a regular door closer and simply closes the door



7120SZ Shown

TECHNICAL DETAILS

Note: For applications with narrow top rails or limited ceiling clearance, a special drop angle bracket is required. See page 7.



DOOR SIZE

Maximum Door Size (cm)	Model Number	Maximum Degree of Opening	Reveal Range (Inches/mm)
ADA	7122SZ	180°	2-3/4" - 4" (70-102)
	7132SZ	180°	4"-7" (102-178)
40"	7123SZ	180°	2-3/4" - 4" (70-102)
	7133SZ	180°	4"-7" (102-178)
44"	7124SZ	180°	2-3/4" - 4" (70-102)
	7134SZ	180°	4"-7" (102-178)
48"	7125SZ	180°	2-3/4" - 4" (70-102)
	7135SZ	180°	4"-7" (102-178)

ELECTRICAL DATA

Series Number	Operating Voltage (Input)	No. Power Input Lines* (Pairs)	Amperage Draw
			Solenoid Coil
7120SZ	24VDC	1	.070 @ 24VDC
7130SZ	120VAC		.035 @ 120VAC

Note: Contact factory if door weight exceeds 250 lbs.

* Max/min operating voltage parameters +10% / -15%.

CLOSER BODIES

Description	Mounting	Hand	Part Number
Closer Bodies	Push or Pull	Left	720XLAP24L
		Right	720XLAP24R

ARM & TRACK ASSEMBLIES

Description	For Series	Part Number
Slide Track	7110SZ, 7150SZ	7100-1T
Slide Arm	7110SZ	7110-1A
Double Lever Arm	7120SZ	7701-1A
Double Lever Arm	7130SZ	7701-1B
Double Egress Arm - Left Hand	7150SZ	7150-1L
Double Egress Arm - Right Hand		7150-1R

TRACK & ARM PARTS

Description	Part Number
Slider Assembly	2800SLD
Cushion Block	7100CB

COVERS

Description	Part Number
Left Hand (for LH pull OR RH push units)	7100CL
Right Hand (for RH pull OR LH push units)	7100CR

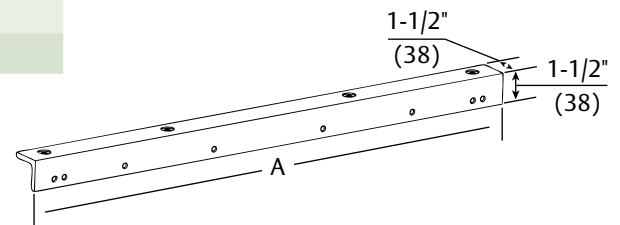
MISCELLANEOUS PARTS

Description	Part Number
Power Supply (120V only)	7100PS
Remote	7100REM
Selective Hold Open Switch Assembly 24V	SHOK
Sensor Kit	7100SK



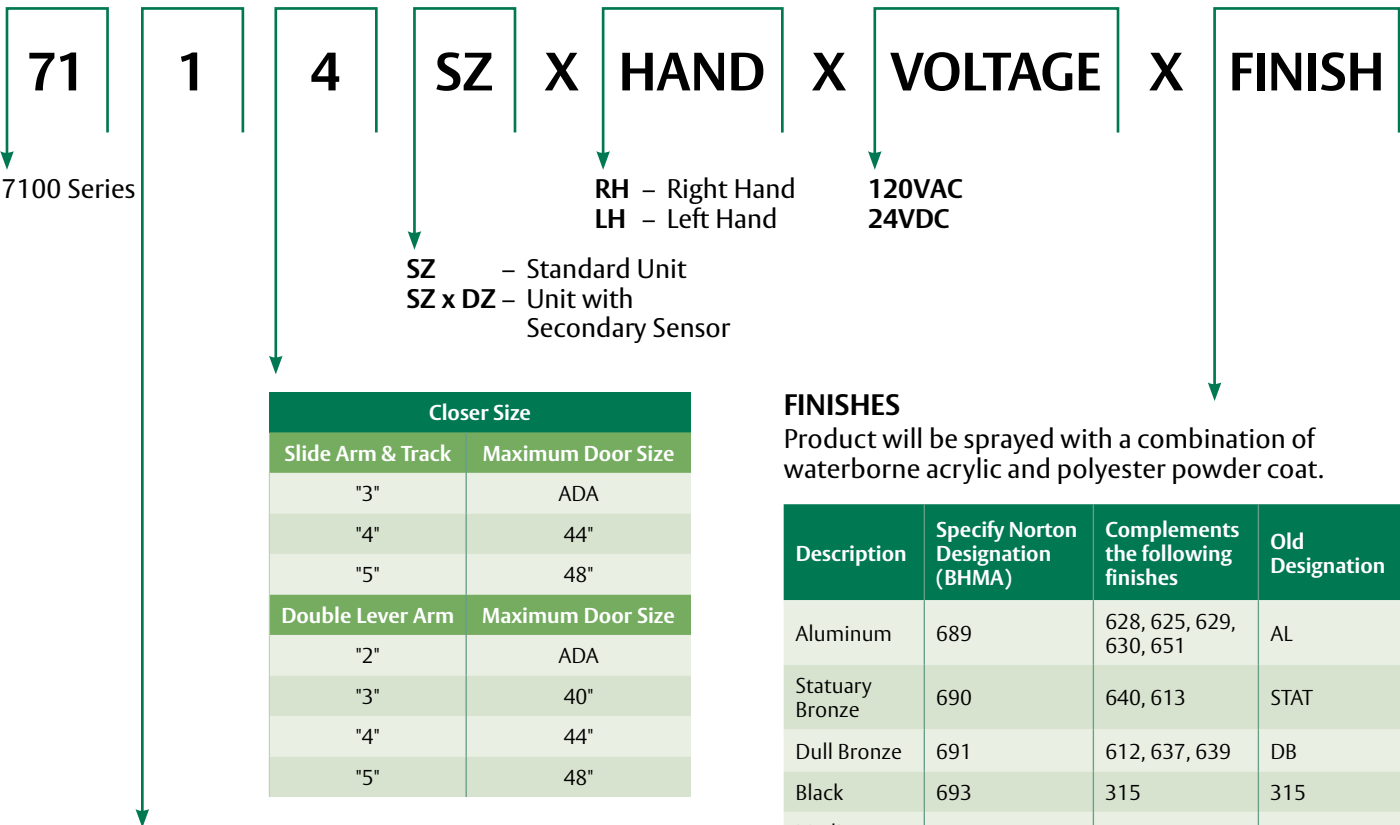
7100SK

Description	Part Number	A (Length)
Drop Angle Bracket	7100DAB	29-9/16" (675)
	7100DAB-180	24-9/16" (621)



HOW TO ORDER

Note: All transmitters (door switches or key fob) must be ordered separately.



Specifies side of door unit is mounted on and the type of arm

Pull Side

- "1" – Rigid Slide Arm & Track
Maximum reveal 1/8" (3mm)
- "5" – Double Egress Slide Arm & Track
Reveals 1/8"-3" (3-76mm) to 110°

Push Side

- "2" – Double Lever Arm
Reveals 2-3/4"-4" (70-120mm) to 180°
Reveals 4"-7" (102-179mm) to 165°
- "3" – Double Lever Arm
Reveals 4"-7" (102-179mm) to 180°

FINISHES

Product will be sprayed with a combination of waterborne acrylic and polyester powder coat.

Description	Specify Norton Designation (BHMA)	Complements the following finishes	Old Designation
Aluminum	689	628, 625, 629, 630, 651	AL
Statuary Bronze	690	640, 613	STAT
Dull Bronze	691	612, 637, 639	DB
Black	693	315	315
Medium Amber	694	312	312
Gold	696	605, 606, 632, 633	GB
Prime Coat*	600		SRI

*600 is a special rust-inhibiting prime coat. Closers can be ordered prime coat only (specify closer x 600). An additional charge applies if finish coat is required over prime coat (ex: 7114SZ x 600 x 689).

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Combines the function of an
electromechanical door holder and door closer

Norton®

ASSA ABLOY

ASSA ABLOY, the global leader
in door opening solutions

7200
S E R I E S

DOOR CLOSER

CATALOG

INTRODUCTION

The 7200 Series Electromechanical Closer/Holders combine the functions of an electromechanical door holder with the 7700 series door closer.



FEATURES

Master Unit: 7200MPDO

Consists of an on-board power supply (for 120VAC input option) or a terminal strip (for 24VDC input option), an integral smoke detector module and a door closer assembly with internal electro-hydraulic holder capability. A Master Unit can control a single door or one leaf of a pair of doors. A 24VDC Slave/Support Unit is required on the opposite door leaf.

Slave/Support Units: 7200MPSO

Identical in size to the Master Unit, the Slave/Support Unit consists of an on-board power supply (for 120VAC input option) or a terminal strip (for 24VDC input option) and a door closer assembly with internal electrohydraulic holder capability. This unit (120VAC or 24VDC) is intended to control a single door or a pair of doors where the building's alarm system monitors the power to the Slave/Support Unit (24VDC input) or to control the inactive leaf of a pair of doors where the active leaf is controlled by a Master Unit.

Executive™ Unit: RFS Suffix

Identical in size and appearance to a Master Unit, the Executive Unit consists of an on-board power supply (for 120VAC input option) or a terminal strip (for 24VDC input option), a 433MHz radio frequency receiver and a door closer assembly with internal electro-hydraulic holder capability. Unit is intended to provide remote wireless release of a door that has been manually placed into the electrified hold open position. Not intended for use in life safety applications.

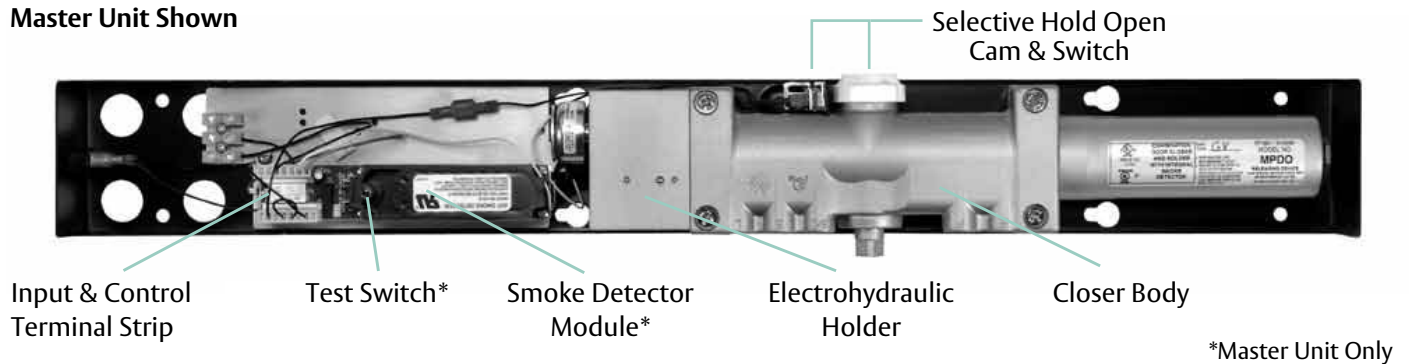
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7200 SERIES ELECTROMECHANICAL CLOSER/HOLDER

OVERVIEW

Master Unit Shown



CERTIFICATIONS

- » ANSI/BHMA A156.15 certified **BHMA** CERTIFIED
- » UL / cUL listed for use on fire rated doors **UL**
- » UL10C listed for positive pressure fire test
- » This product is manufactured in an ISO 9001 facility

SPECIFICATIONS

Closer for _____ doors shall be electromechanical (with integral smoke detector) and completely enclosed in a metal cover. Units shall be surface mounted to the frame face [on the pull (hinge side) or the push (opposite hinge side)] of the door [and shall project no more than 2-11/16" (68mm) from the surface of the frame]. (Closer shall be installed in the header of the frame, and the slide track mortised into the door's top rail). Closer unit shall be hydraulic, full rack and pinion type with a cast aluminum alloy shell. Hydraulic fluid shall be non-gumming and non-freezing. Closer unit shall have two noncritical valves to independently regulate closing and latch speed. It shall also have an adjustable backcheck with a hex-key. Closer unit shall have spring power adjustment to permit a 50% increase in closing power over the minimum closing force for any size. Electromechanical Closer shall have (Infinite) (Selective) Hold Open (Free Swing Operation) and shall be able to attain a maximum opening of 180° (with hold open to 175°). Unit to be fail safe and must close the door during any electrical power interruption to the unit. (Closer/Holder to be Executive Door Holder/Release with release actuated by battery operated hand-held controller). Unit(s) to operate on (120VAC, 60Hz) (24VDC) and will accept (surface) (concealed) wiring. Amperage draw shall not exceed (.105 Amps for 24VDC) (0.46 Amps for 115VAC) units. Supplier to coordinate electrical requirements with electrical and alarm system engineers. Wiring (and conduit) by others.

Electromechanical Units to be Norton® Series 7200 (Closer/Holder), (Free Swing Releasing Device), (Executive Door Holder/Release).

EXPLANATION OF FEATURES

Aluminum Alloy Housing

Closer bodies are constructed of a special aluminum alloy, carefully selected to accommodate interactive steel components and operating conditions.

Rack & Pinion Operation

Provides a smooth constant control of the door through its full opening and closing cycle.

Spring Sizes

Specify closer size 3, 4 or 5. Size 6 available with 7290 overhead concealed units.

Sweep Speed Control Valve

Allows adjustment of door speed from the door's full open position down to approximately 10° from the closed position.

Latch Speed Control Valve

Allows adjustment of door speed from approximately 10° down to the door's fully closed position.

Adjustable Backcheck Cushioning

Provides control of the door in the opening cycle, beginning at approximately 75° of door opening. It slows/cushions the door opening, when the door is forcibly opened beyond its pre-adjusted limits.

Adjustable Backcheck Position Valve

Allows the door opening position, where backcheck cushioning begins, to be adjusted to a greater door angle, up to a maximum of 20° farther (approximately 95°).

Handed

Specify right or left hand when ordering.

Selective Hold Open (Standard)

The door will hold open at any degree of opening beyond a pre-set hold open point, up to 175°, with a maximum allowable door opening of 180° (exception series 7250 at 110°).

Infinite Hold Open

The door will hold open at any degree of opening up to 175°, with a maximum allowable door opening of 180° (exception series 7250 at 110°). Can be set in the field by turning cam.

Fail Safe

In the event of a power failure, the solenoid will de-energize and the closer/holder will then operate as a normal door closer.

Wiring Option

All 7200 Series Electromechanical Closer/Holder will accommodate either concealed or surface wiring.

Selective Hold Open Switch and Cam:

The Selective Hold Open starting point is determined by a switch and adjustment cam assembly. The cam is attached to the upper pinion shaft by means of a machine screw. As the door is opened, the pinion shaft will rotate the cam and operate the switch to the "on" position to initiate hold open. When the door is closed, the pinion cam will operate the switch to the "off" position. The cam is factory set to operate at 80° of door opening. The cam can be easily field adjusted to operate at virtually any degree of door opening.

EXPLANATION OF FEATURES - SMOKE DETECTOR

Fire/Smoke Control Circuit:

Interprets the signal from the detector and provides switching contacts to interrupt hold open solenoid, to sound alarms, etc.

Trouble (Relay) Contacts:

Normally closed in standby condition, these supervisory contacts monitor the continuity of power within the detector circuit. Any power interruption within the detector circuit will open these contacts. They can then be used to simultaneously indicate a Trouble Condition to the Alarm Panel on a separate trouble circuit.

Alarm (Relay) Contacts:

Normally open in standby condition (operating and sensing for smoke condition). These contacts close during an alarm condition (smoke detected) and may be used to switch power from the solenoid to an optional local alarm.

Locked-In Alarm:

The unit which alarms must be manually reset. This can be accomplished by remote control from the alarm system panel or by the reset switch in the smoke detector module. Reset switch is accessible through the center louver in the cover. Reset by rotating LED chambers using small flat blade screwdriver.

Indicator Lights:

Normal Mode: A red LED flashes once every eight (8) seconds.
Clean Mode: A red LED flashes once every second.
Alarm Mode: A red LED illuminates continuously.

Test Switch:

Permits door to be released from hold open without causing a "trouble condition" at the alarm panel. Allows for periodic testing of the automatic door release function.

7200 SERIES ELECTROMECHANICAL CLOSER/HOLDER

MASTER UNITS

7210/7250

- » Surface mounted to the pull (hinge) side frame face
- » Slide track mounts directly to door
- » Minimum 4" ceiling clearance required
- » 1/8" (3mm) – standard frame reveal. For deeper reveals, a special slide arm is required (see chart on pg 6)
- » Handed
- » Standard units accommodate doors opening 180°; maximum 175° hold open
- » Buffer block assembly in the track will accommodate doors opening to 125°
- » Auxiliary door stop is required for doors opening beyond 125°
- » Units shipped Selective Hold Open; Infinite Hold Open can be set in the field
- » Fail Safe – solenoid will de-energize in the event of power failure
- » Accommodates either concealed or surface wiring



7210MPDO Shown

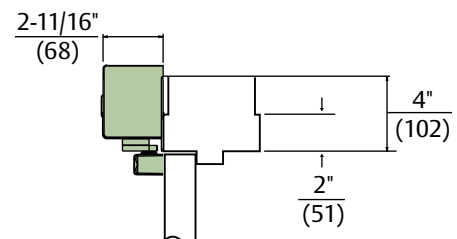
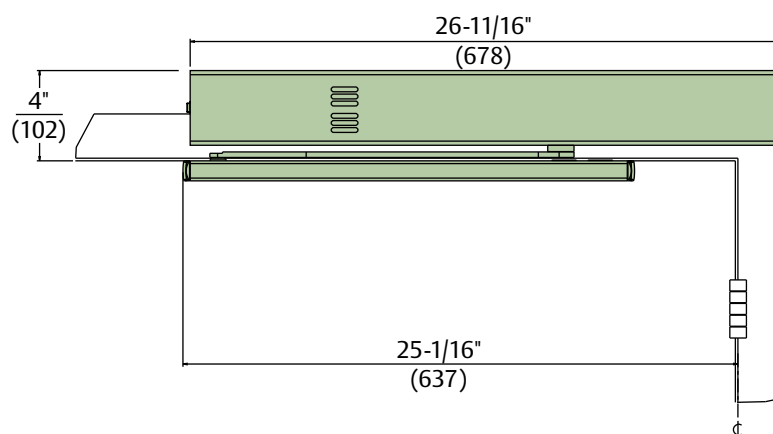
Single Doors:

- » **Master Units with Integral Smoke Detector:**
Both Series 7210MPDO or 7250MPDO are self-contained and can be installed to control a single door
- » **Executive™ Door Holder/Release:**
Both Series 7210RFS or 7250RFS are self-contained and can be installed to control a single door

Pair of Doors:

- » **Master Unit x Slave/Support Unit:**
Smoke Detector in the Master Unit controls the Closer/Holder solenoid in both the Master Unit and the Slave/Support Unit

TECHNICAL DETAILS



DOOR SIZE

Maximum Door Size	Arm Function	
	Standard Reveal (to 1/8" (3mm) reveal)	Deep Reveal (see note below)
40" (102cm)	7213MPDO	7253MPDO
44" (112cm)	7214MPDO	7254MPDO
48" (122cm)	7215MPDO	7255MPDO

MINIMUM DOOR SIZE = 28" (71CM)

Note: Deep Reveals

- » Special slide arm is available for reveals in excess of 1/8" (3mm) up to 3" (76mm) 7250MPDO series
- » 110° maximum door swing

Contact factory if door weight exceeds 250 lbs.

ELECTRICAL DATA

Master Units							
Model Number	Suffix	Operating Voltage (Input)	No. Power Input Lines* (Pairs)	Amperage Draw		Solenoid Coil	(Can be) Used with Slave Unit
				Smoke Detector			
				Standby	Alarm		
7210 7250	MPDO	24VDC	1	.016@ 24VDC	.035@ 24VDC	.070@ 24VDC	7210MPSO-24 7250MPSO-24
		120VAC					

Maximum Door Size			
Model Number	Operating Voltage (Input)	No. Power Input Lines* (Pairs)	Amperage Draw
			Solenoid Coil
7210RFS	120VAC	1	.070@ 24VDC
	24VDC		

*Max/Min Operating Voltage Parameters +10% / -15%

7200 SERIES ELECTROMECHANICAL CLOSER/HOLDER

SLAVE/SUPPORT UNITS

7210/7250

- » Surface mounted to the pull (hinge) side frame face
- » Slide track mounts directly to door
- » Minimum 4" ceiling clearance required
- » 1/8" (3mm) – standard frame. For deeper reveals, a special slide arm is required (see chart below)
- » Handed
- » Standard units accommodate doors opening 180°; maximum 175° hold open
- » Buffer block assembly in the track will accommodate doors opening to 125°
- » Auxiliary door stop is required for doors opening beyond 125°
- » Units shipped Selective Hold Open; Infinite Hold Open can be set in the field
- » Fail Safe – solenoid will de-energize in the event of power failure
- » Accommodates either concealed or surface wiring

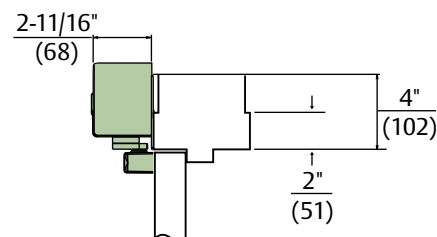
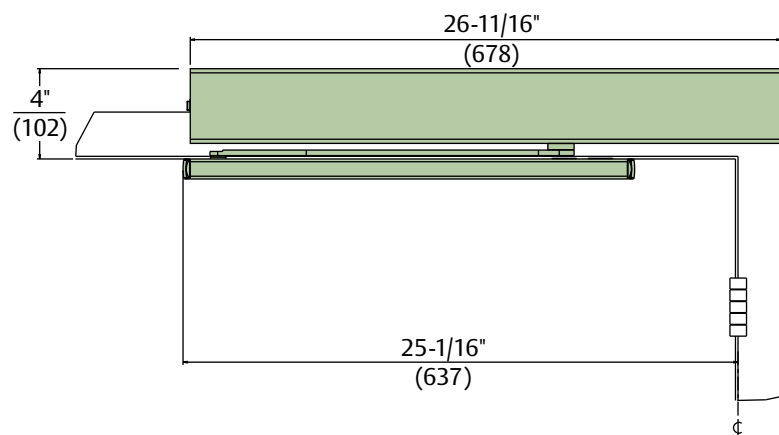


7210MPSO Shown

Pairs of Doors:

- » **Master Unit x Slave/Support Unit:**
Smoke Detector in the Master Unit controls the Closer/Holder solenoid in both the Master Unit and the Slave/Support Unit

TECHNICAL DETAILS



Note: Deep Reveals

- » Special slide arm is available for reveals in excess of 1/8" (3mm) up to 3" (76mm) 7250MPSO series
- » 110° maximum door swing

Contact factory if door weight exceeds 250 lbs.

ELECTRICAL DATA

Series Number	Suffix	Operating Voltage (Input)	No. Power Input Lines* (Pairs)	Amperage Draw	(Can be) Used with Master Unit	
				Solenoid Coil		
7210 7250	MPSO	24VDC (only)	1	.070@ 24VDC		7210MPDO-24 7250MPDO-24
		24VDC supplied from Master Unit				7210MPDO-120 7250MPDO-120

*Max/Min Operating Voltage Parameters +10% / -15%

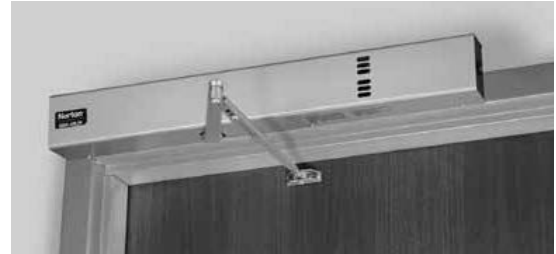
DOOR SIZE

Maximum Door Size (cm)	Model Number	
	Standard Reveal (to 1/8" (3mm) reveal)	Deep Reveal (see note)
40" (102)	7213MPSO	7253MPSO
44" (112)	7214MPSO	7254MPSO
48" (122)	7215MPSO	7255MPSO

MASTER UNITS

7220/7230

- » Surface mounted to the push (stop) frame face
- » Double lever arm mounts directly to the door
- » Minimum 4" (102mm) ceiling clearance required
- » Handed
- » Standard units accommodate doors opening 180°; maximum 175° hold open
- » Units shipped Selective Hold Open; Infinite Hold Open can be set in the field
- » Fail Safe – solenoid will de-energize in the event of power failure
- » Accommodates either concealed or surface wiring



7220MPDO Shown

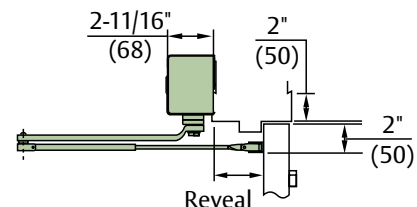
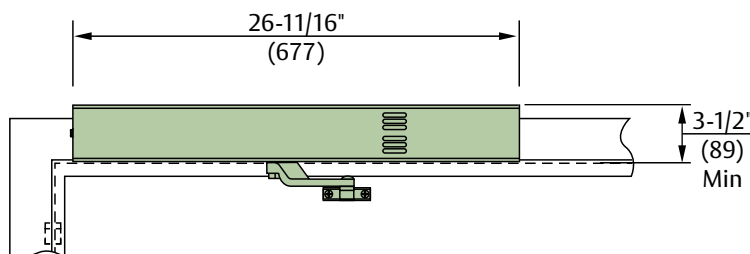
Single Doors:

- » **Master Units with Integral Smoke Detector:**
Both Series 7220MPDO, 7230MPDO are self-contained and can be installed to control a single door
- » **Executive™ Door Holder/Release:**
Both Series 7220RFS, 7230RFS are self-contained and can be installed to control a single door

Pairs of Doors:

- » **Master Unit x Slave/Support Unit:**
Smoke Detector in the Master Unit controls the Closer/Holder in both the Master Unit and the Slave/Support Unit

TECHNICAL DETAILS



Note: For applications with narrow top rails or limited ceiling clearance, a special drop angle bracket is required. See page 14.

7200 SERIES ELECTROMECHANICAL CLOSER/HOLDER

DOOR SIZE

Operating Voltage (Input)	Model Number		Maximum Degree of Opening	Reveal Range (Inches/mm)
	Closer/Holder	Executive™ Door/Release		
42" (107)	7223MPDO	7223RFS	180°	2-3/4" - 4" (70 - 102)
			165°	4" - 7" (102 - 178)
	7233MPDO	7233RFS	180°	
48" (122)	7224MPDO	7224RFS	180°	2-3/4" - 4" (70 - 102)
			165°	4" - 7" (102-178)
	7234MPDO	7234RFS	180°	

Note: Contact factory if door weight exceeds 250 lbs.

ELECTRICAL DATA

Master Units							
Model Number	Suffix	Operating Voltage(Input)	No. Power Input Lines* (Pairs)	Amperage Draw		Solenoid Coil	(Can be) Used with Slave Unit
				Smoke Detector			
				Standby	Alarm		
7220 7230	MPDO	24VDC	1	.016@ 24VDC	.035@ 24VDC	.070@ 24VDC	7220MPDO 7230MPDO
		120VAC					

Executive™ Door Holder Release			
Series Number	Operating Voltage (Input)	No. Power Input Lines* (Pairs)	Amperage Draw
			Solenoid Coil
7220RFS 7230RFS	120VAC	1	.070@ 24VDC
	24VDC		

*Max/Min Operating Voltage Parameters +10%/-15%

SLAVE/SUPPORT UNITS

7220/7230

- » Surface mounted to the push (stop) frame face
- » Double lever arm mounts directly to the door
- » Minimum 4" (102mm) ceiling clearance required
- » Handed
- » Standard units accommodate doors opening 180°; maximum 175° hold open
- » Units shipped Selective Hold Open; Infinite Hold Open can be set in the field
- » Fail Safe – solenoid will de-energize in the event of power failure
- » Accommodates either concealed or surface wiring

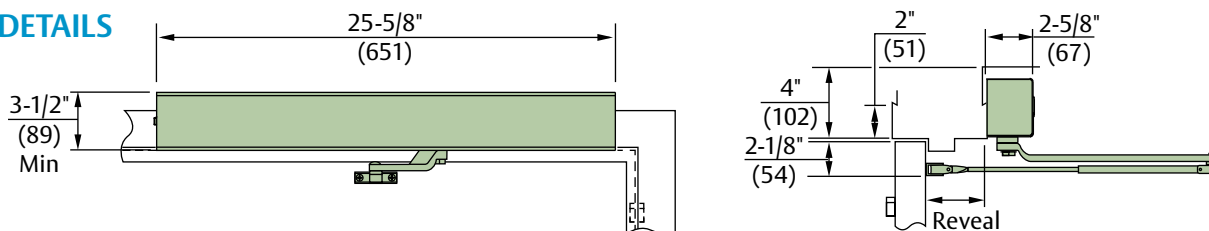
Pairs of Doors:

- » **Master Unit x Slave/Support Unit:**
Smoke Detector in the Master Unit controls the Closer/Holder in both the Master Unit and the Slave/Support Unit



7220MPDO Shown

TECHNICAL DETAILS



Note: For applications with narrow top rails or limited ceiling clearance, a special drop angle bracket is required. See page 14.

DOOR SIZE

Maximum Door Size	Model Number		Maximum Degree of Opening	Reveal Range (Inches/mm)
42" (107)	7223MPDO	7223RFS	180°	2-3/4" - 4" (70 - 102)
		7223RFS	165°	4" - 7" (102 - 178)
	7233MPDO	7233RFS	180°	4" - 7" (102 - 178)
48" (122)	7224MPDO	7224RFS	180°	2-3/4" - 4" (70 - 102)
		7224RFS	165°	4" - 7" (102 - 178)
	7234MPDO	7234RFS	180°	4" - 7" (102 - 178)

Note: Contact factory if door weight exceeds 250 lbs.

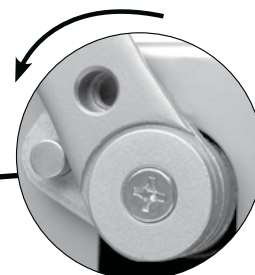
ELECTRICAL DATA

Model Number	Suffix	Operating Voltage (Input)	No. Power Input Lines* (Pairs)	Amperage Draw Solenoid Coil	(Can be) Used with Slave Unit
7220RFS 7230RFS	MPDO	24VDC (only)	1	.070@ 24VDC	7220MPDO-24 7230MPDO-24
		24VDC Supplied from Master Unit			7220MPDO-120 7230MPDO-120

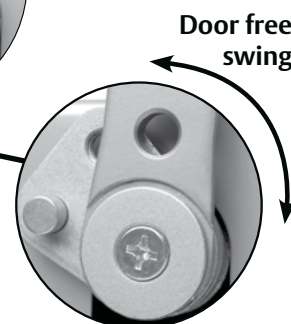
*Max/Min Operating Voltage Parameters +10%/-15%

7200 SERIES ELECTROMECHANICAL CLOSER/HOLDER

7240 CONNECTED FREE SWING ARM

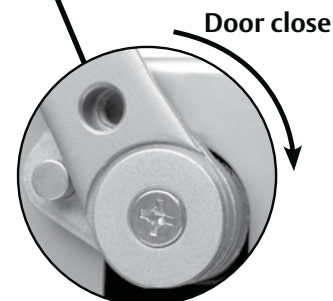


As the door is opened, the rigid slide arm rotates the arm driver and the pinion shaft of the closer mechanism.



Door free swing

When the door has been opened and released, the unit's electrically controlled plunger valve will hold the pinion shaft and arm driver at that degree of door opening. The door is then free to swing unhindered.



Door close

After Fire/Storm detection alarm or any power interruption to the control, the pinion shaft and arm driver are released to close the door.

The connected free swing arm assembly provides the convenient automatic closing fire door protection for health care facilities or other locations where it is desired to neutralize the effort required to open or close a door. With no spring force on the door during the normal operation, patients, the handicapped and/or staff find the door easy to open, close or leave ajar.

Functions:

- » Arm driver connected to the closer pinion drives the pinion when the door is opened and the slide arm rotates
- » When unit is energized the pinion and arm driver remain at the point where door was initially opened
- » Arm is connected to the pinion but is free to pivot
- » The door is free to open, close or be set at any degree of opening
- » When there is a Fire/Smoke alarm or any power interruption, the hold open control valve is released, and door closes
- » Units shipped Selective Hold Open; Infinite Hold Open can be set in the field

UL Listed:

7200 Series with Connected Free Swing arm is UL listed as a releasing device for Fire/Smoke Barrier doors

Maximum Door Size (cm)	Model Numbers		
	Master	Slave/Support	Executive™ Door Release
	Selective Hold Open		
40" (102)	7243MPDO	7243MPSO	7243RFS
44" (112)	7244MPDO	7244MPSO	7244RFS
48" (122)	7245MPDO	7245MPSO	7245RFS

Specify voltage and hand of door when ordering

Note: Contact factory if door weight exceeds 250 lbs.

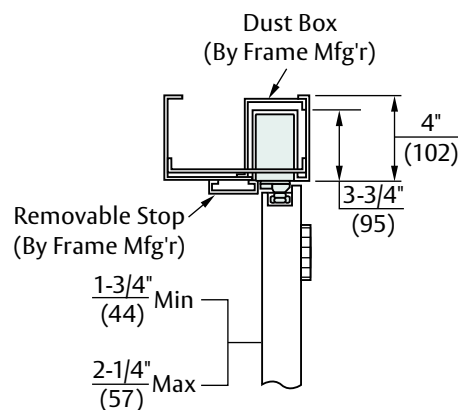
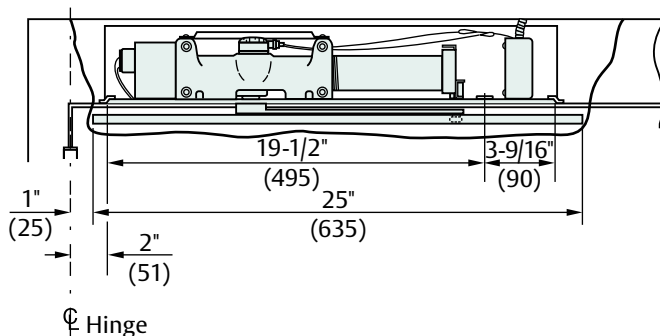
7290 OVERHEAD CONCEALED SUPPORT UNIT

Controlled Remotely by Area/Ceiling Detectors

- » Handed
- » Unit concealed in the header of the frame
- » Installation requires a 4" (102mm) high frame header
- » A 2" x 4" (51 x 102mm) dust/grout box and a removable frame stop (provided by the door and frame supplier) are required
- » Slide track is mortised in the door's top rail
- » Standard units accommodate doors opening 180°; maximum 175° hold open
- » Buffer block assembly in the track will accommodate doors opening to 125°
- » Auxiliary door stop is required for doors opening beyond 125°
- » Units shipped Selective Hold Open; Infinite Hold Open can be set in the field
- » Intended for use with compatible UL listed ceiling alarm detection equipment
- » Fail Safe – solenoid will de-energize in the event of power failure



TECHNICAL DETAILS



DOOR SIZE

Maximum Door Size (cm)	Selective Hold Open
32" (81)	7294MPS
38" (97)	7295MPS
48" (122)	7296MPS

Note: Contact factory if door weight exceeds 250 lbs.

ELECTRICAL DATA

Support Unit				
Model Number	Suffix	Number power Input Lines* (pairs)	Operating Voltage (input)	Amperage Draw Solenoid Coil (ampreses)
7290	MPS	1	24VAC/DC	.070@24VAC/DC
			120VAC	.035@120VAC

* Max/Min Operating Voltage Parameters +10%/-15%

7200 SERIES ELECTROMECHANICAL CLOSER/HOLDER

CLOSER BODIES

Description	Mounting	Voltage	Hand	Part Number
Closer/Holder Assembly	Push or Pull	24VDC	Left	720XLAPS24L
			Right	720XLAPS24R

ARM & TRACK ASSEMBLIES

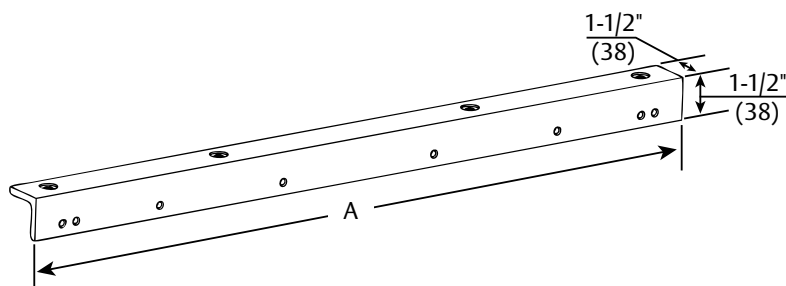
Description	For Series	Part Number
Slide Track	7210, 7240, 7250	7100-IT
Slide Arm	7210	7110-1A
Connected Free Swing Arm	7240	7140-1A
Double Egress Arm – Right Hand	7250	7150-1R
Double Egress Arm – Left Hand		7150-1L
Double Lever Arm	7220	7701-1A
Double Lever Arm	7230	7701-1B
Arm Assembly NHO – Right Hand	7290	7950-1R
Arm Assembly NHO – Left Hand		7950-1L
Track Assembly NHO		7950ST

TRACK & ARM PARTS

Description	Part Number
Cushion Block (part of slide track assembly)	7100CB
Screw Pack for CFS Arm	7240SP
Slider Assembly	2800ST

MISCELLANEOUS PARTS

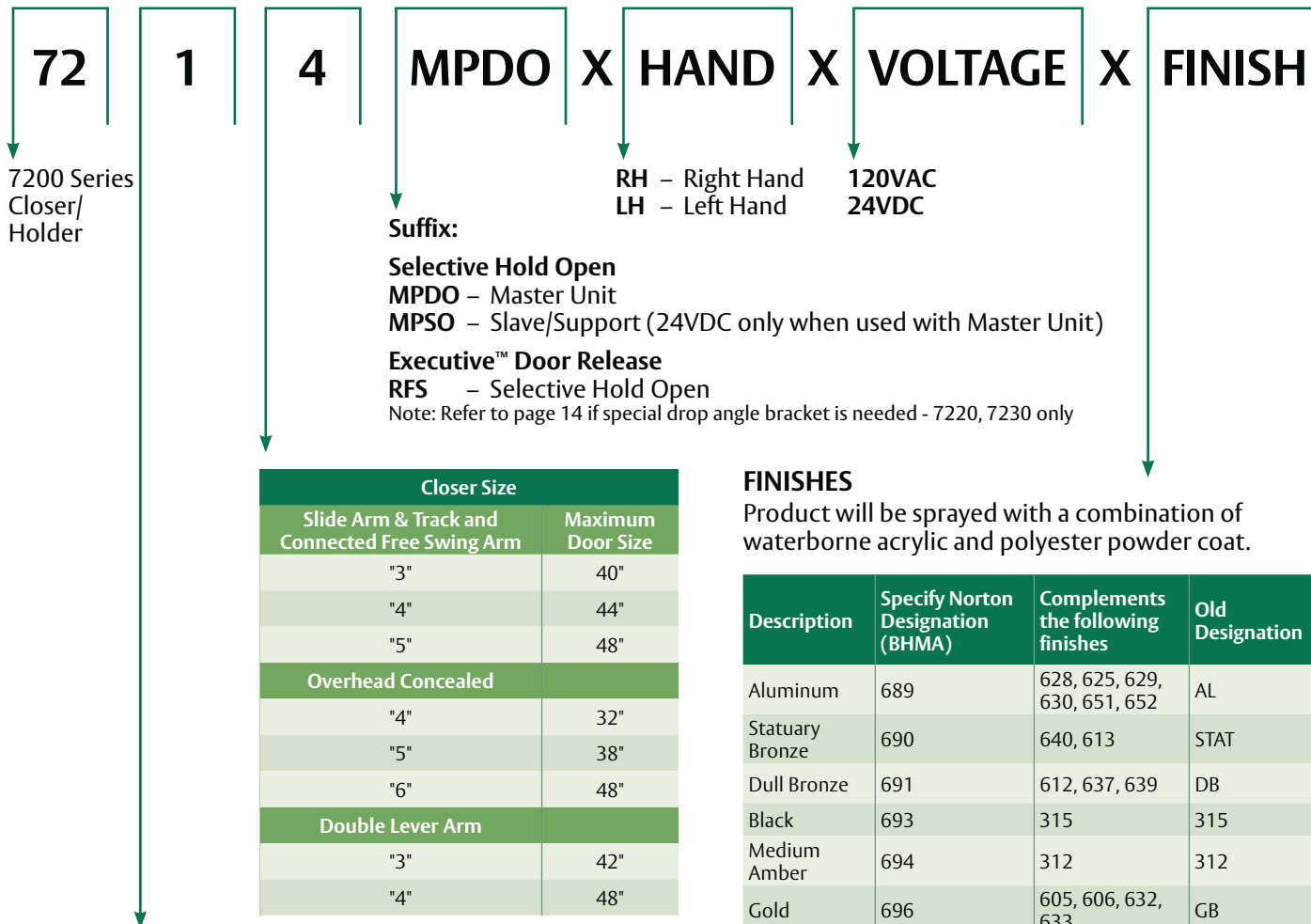
Description	Part Number
Smoke Detector Board	MPDOSD24
Cover (Slave/Support Unit)	MPSOCOV
Cover (Master Units)	MPDOCOV
Selective Hold Open Switch Assembly 24V	SHOK
Switch 24V	SHO



Description	Part Number	A (Length)
Drop Angle Bracket	7100DAB	29-9/16" (675)
	7100DAB-180	24-9/16" (621)

7200 SERIES
ELECTROMECHANICAL CLOSER/HOLDER

HOW TO ORDER



Specifies side of door unit is mounted on and the type of arm

Pull Side

- "1" – Rigid Slide Arm & Track
Maximum reveal 1/8" (3mm)
- "4" – Connected Free Swing Slide Arm & Track
Maximum reveal 1/8" (3mm)
- "5" – Double Egress Slide Arm & Track
Reveals 1/8"-3" (3-76mm) to 110°
- "9" – Overhead Concealed Door Closer with Rigid Slide Arm & Track

Push Side

- "2" – Double Lever Arm
Reveals 2-3/4"-4" (70-120mm) to 180°
Reveals 4"-7" (102-179mm) to 165°
- "3" – Double Lever Arm
Reveals 4"-7" (102-179mm) to 180°

*600 is a special rust-inhibiting prime coat. Closers can be ordered prime coat only (specify closer x 600). An additional charge applies if finish coat is required over prime coat (ex: 7214MPDO x 600 x 689).

Norton®

ASSA ABLOY

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Since 1880, Norton door controls have been an integral part of schools, hospitals and businesses around the globe. When you need products and people that perform at the highest level, rely on Norton – From Open to Close.

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A robust closer delivering
superior performance and reliability

Norton®

ASSA ABLOY

ASSA ABLOY, the global leader
in door opening solutions

7500 S E R I E S

DOOR CLOSER

CATALOG

INTRODUCTION

The 7500 Series is a robust, multi-sized surface closer designed to deliver superior performance and long-term reliability. Ideal for interior or exterior doors in facilities that demand reliability, such as government, healthcare and educational institutions.



FEATURES

- » Tri-Style® packaging; tri-packed for regular, top jamb or parallel arm mounting
- » Non-handed
- » Rack-and-pinion design
- » Cast aluminum body
- » Adjustable spring sizes 1-6
- » 2-1/8" (54mm) projection
- » 1-1/2" (38mm) diameter piston
- » 5/8" (16mm) diameter pinion journals
- » Staked valves
- » Retrofit plates
- » NorGlide® fluid
- » Molded plastic cover
- » All standard arm applications allow doors to swing 180°, conditions permitting
- » Self-drilling screws
- » Full-size template

- » Application specific mounting: Regular (S), Top Jamb (JS) or Parallel (P) mount
- » Heavy-duty arms: Regular Rigid, Parallel Rigid, CloserPlus®, CloserPlus Spring™ and Unitrol®
- » Slide Tracks: push or pull side mounting
- » Exceeds 25 million cycles

OPTIONAL FEATURES

- » Standard, separate and independent, latch, sweep and backcheck intensity valves
- » Backcheck positioning
- » Enhanced backcheck. Specify EBC suffix
- » Delayed action with pressure relief valve
- » Corrosion resistant model (non-hold open only): specify 7500SS
- » Metal cover: specify M suffix
- » Lead lined metal cover: specify MLL suffix

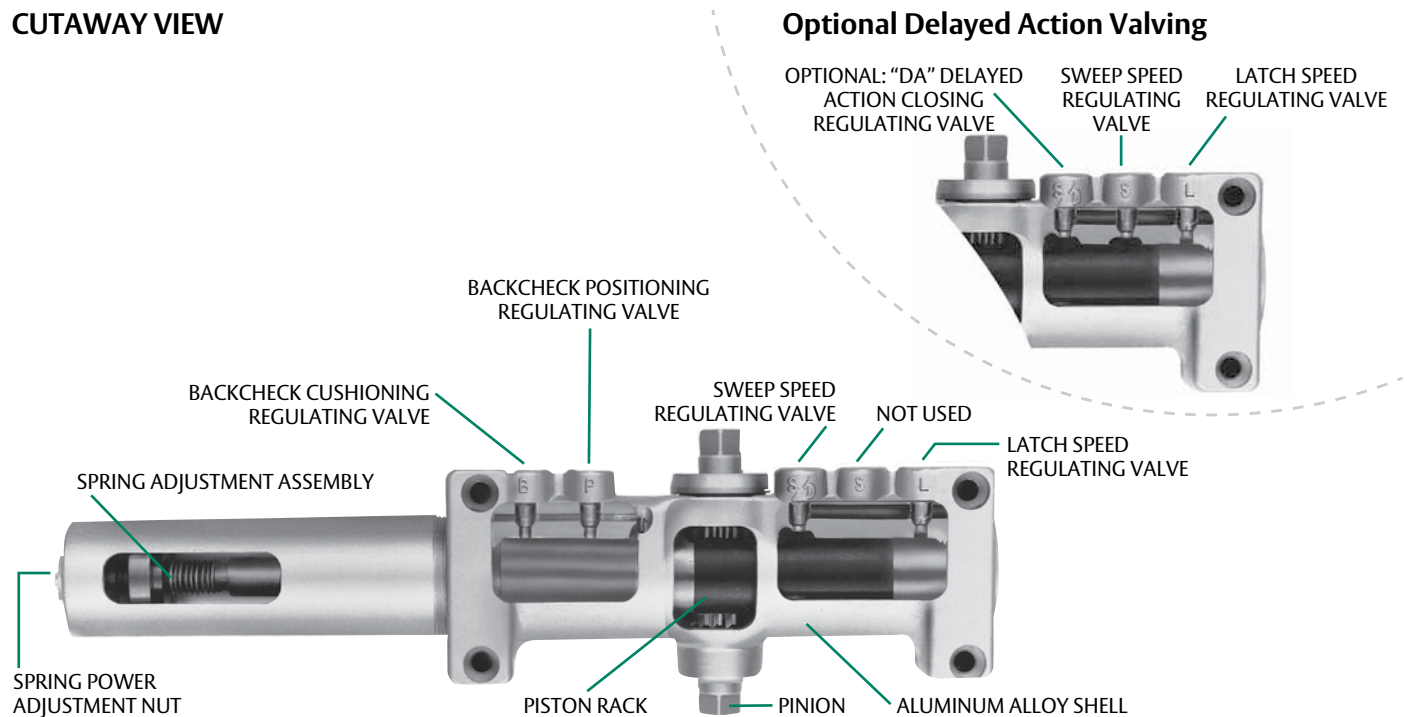
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7500 SERIES INSTITUTIONAL DOOR CLOSER

OVERVIEW

CUTAWAY VIEW



CERTIFICATIONS

- » ANSI/BHMA A156.4, Grade 1 certified **BHMA**
- » UL / cUL listed for use on fire rated doors **UL**
- » UL10C listed for positive pressure fire test
- » 7500 door closers are designed to comply with requirements for the Americans with Disabilities Act (A.D.A) and ANSI standard A117.1 **ADA**
- » This product is manufactured in an ISO 9001 facility



An Environmental Product Declaration (EPD) documents the cradle-to-grave life cycle of a product and how it affects the environment. An important aspect of EPD® is to provide the basis of a fair comparison of products and services by its environmental performance. EPDs can reflect the continuous environmental improvement of products and services over time and are able to communicate and add up relevant environmental information along a product's supply chain.

Windstorm

Norton 7500 door closers are UL certified for inswing and outswing single and pair (up to 8'0" x 8'0") door assemblies to ICC 500 for Storm Shelters. Additionally, the 7500 meets FEMA 361 guidelines. 7500 is part of a complete ASSA ABLOY tornado and hurricane shelter solutions utilizing Ceco StormPro 361, Curries StormPro 361, Fleming F5 doors and frames and McKinney SP hinges.

CAUTION: Door Closers for Low Opening Force Applications:

Door closers installed in **openings** required to meet the requirements of the Americans With Disabilities Act or ANSI/BHMA Standard A117.1, when adjusted to meet those requirements, may not provide adequate closing power to dependably close and latch the door.

EXPLANATION OF FEATURES

Aluminum Alloy Housing

Closer bodies are constructed of a special aluminum alloy, carefully selected to accommodate interactive steel components and operating conditions.

Rack & Pinion Operation

Provides a smooth constant control of the door through its full opening and closing cycle. 180° door swing can be achieved when door, frame, hardware and arm function do not interfere.

Non-handed

With few exceptions all series 7500 door closers are non-handed and can be installed on either right or left hand swing doors. Pinion shaft extends vertically through the closer body in both directions. Some options will require that the hand of the closer be specified.

Sweep Speed Control Valve

Allows adjustment of door speed from the door's full open position down to approximately 10° from the closed position.

Latch Speed Control Value

Allows adjustment of door speed from approximately 10° down to the door's fully closed position.

Tri-Style® Packing

7500 comes with screws, brackets and soffit plates to allow for regular, top jamb, and parallel arm installations.

Adjustable Backcheck Cushion Valve

Provides control of the door in the opening cycle, beginning at approximately 75° of door opening. It slows/cushions the door opening, when the door is forcibly opened beyond its pre-adjusted limits.

Adjustable Backcheck Position Valve

Allows the door opening position, where backcheck cushioning begins, to be adjusted to a greater door angle, up to a maximum of 20° farther (approximately 95°).

Standard Molded Cover

Molded of high-impact U.L. listed material and covers the entire closer body assembly. This cover is non-handed for all applications.

Warranty

These closers carry a limited 25-year warranty against defect, and life of the building on the aluminum housing.

Closer Fluid

NorGlide® closer fluid is a specially formulated multi-viscosity hydraulic fluid that contains lubricity and anti-oxidation agents that provide optimum performance and efficiency. This fluid complements the interaction of the door closer's aluminum housing with its steel and brass components, while maintaining stable viscosity to allow the door closer to perform in temperatures ranging from extremely high to as low as -40° F.

Door Closer Power Options

Series 7500 Multi-Sized Door Closer

Adjustable through the entire power range of door closer sizes 1 through 6, as outlined in ANSI/BHMA standard A156.4.

The series 7500 also conforms to the minimum opening force requirements of the Americans with Disabilities Act (A.D.A.) and ANSI/BHMA standard A117.1 for interior doors.

Corrosion-Resistant Door Closer

The series 7500SS door closers with molded plastic cover are available for use where corrosive conditions exist. This series is provided with brass adjustment valves, a 440 grade stainless steel pinion shaft, an all-aluminum body and bronze closer arm bushings; all other components are of 302/303 grade stainless steel. Fasteners are 8-18 stainless steel. This product is available for standard regular arm, top jamb and parallel arm, non-hold open, applications only.

Optional Metal Cover

This steel cover is non-handed for regular and parallel arm applications, but is handed for top jamb applications. Cover is available in sprayed or architectural plated finishes.



Security Cover

Supplied standard with all series 7570 door closers. This deep drawn steel cover is handed for all applications. The cover is fastened to the closer body at two points on top and to the door closer body stand-offs at two points on the bottom.

Optional ABS Cover

Consult factory for details.

EXPLANATION OF FEATURES

Enhanced Backcheck

This feature provides adjustable backcheck intensity beginning at approximately 15° of the door opening cycle. It is intended for use in situations where the standard backcheck beginning at approximately 75° of door opening allows too much unrestricted door travel to obtain control of the door without the fear of peripheral damage to the door closer, door, frame, hinges or pivots; or adjacent walls or structures. This feature is most frequently used in schools and detention facilities. Specify suffix EBC.

Adjustable Delayed Action Closing

An optional hydraulic feature that adds a third speed range to the closing cycle. This feature becomes effective when the door is opened and released at any point beyond 70°. The amount of time delay depends upon the combination of the angle of door release and valve adjustment. The valve can be adjusted with a 1/8" (3mm) hex key from no delay time up to maximum delay times of:

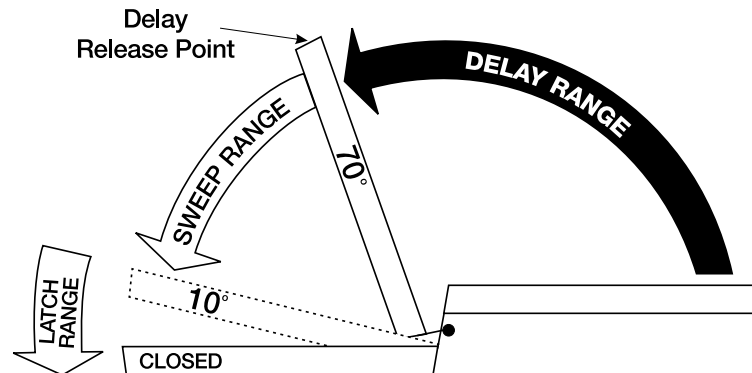
Door Opened and Released at	Approximate Time of Delay Cycle
180°	4-5 minutes
120°	2-3 minutes
90°	25-30 seconds

Pressure Relief Safety Valve

The delayed action hydraulic system contains a pressure relief valve. Any time the door is forced toward the closed direction while it is in the closing cycle, the valve will open and permit the door to close. This prevents damage to door, frame and closer.

Suggested Applications

Delayed Action closing allows slow-moving traffic to clear the opening before the door closer's normal



closing cycle begins. This feature can be helpful in health care facilities such as hospitals and nursing homes. It provides sufficient time for persons on crutches or in wheelchairs to pass through a door without concern of it closing. At the same time, it can accommodate the facility's staff with movement of food service carts, beds, and other wheeled traffic.

Use of delayed action closers on many doors throughout industrial and commercial buildings can also assist the flow of traffic. Locations where additional time to clear the opening is advantageous are doors between office and factory/warehouse facilities, doors to workshops or laboratories, to kitchen and food processing areas, etc.

OPTIONAL FEATURES – ARMS

Non-Hold Open

Self-closes door every time door is opened. Auxiliary stop (by others) required except when using the CloserPlus®, CloserPlus Spring™ or Unitrol® arms.

Hold Open

Achieved by means of ball and detent/roller. Ball and detent or roller hold open is effective in a range of 85° to 110°.

Hold open arm door closers are not permitted to be used on fire door assemblies.

Door Opening Degrees

Arm Function	Regular Top Jamb Parallel Arm	Parallel Rigid Arm	CloserPlus® Parallel Arm	CloserPlus Spring™ Parallel Arm	Unitrol® Parallel Arm	Unitrol® Top Jamb	Low Profile Regular, Parallel	Slide Track
Non-Hold Open	✓	✓	85° to 110°	85° to 110°	85° to 110°	85° to 110°	✓	85° to 110°/180°
Hold Open	90° to 180°	85° to 180°	85° to 110°	85° to 110°	85° to 180°	85° to 180°	✓	85° to 110°

✓=180° trim and template permitting

SUGGESTED SPECIFICATIONS

7500 Series

Closers for interior and exterior doors shall be full rack-and-pinion type with cast aluminum alloy body. Closers shall be surface mounted and shall project no more than 2-3/16" (55mm) from the surface of the door. Closers shall be non-handed to permit installation on doors of either hand. Closer fluid shall contain lubricity and anti-oxidation agents. Closer fluid shall maintain stable viscosity to allow door closer to perform in temperatures ranging from extremely high to as low as -40°F. Closers shall have multi-size spring power adjustment to permit setting of spring from size 1 through size 6. Closers shall have two non-critical valves, hex key adjusted, to independently regulate sweep speed and latch speed.

Closers shall have backcheck cushioning controlled by a hex key adjusted valve. Closers shall have backcheck position controlled by a hex key adjusted valve.

[Closers shall have adjustable delayed-action closing controlled by a hex key adjustable valve.]

[Closers shall be highly corrosion resistant and shall have all external body components of aluminum, brass or stainless steel material and all fasteners of stainless steel.]

Regular arm and top jamb closers shall have a non-hold open shoe permitting 15% (+/ - 7-1/2%) power adjustment. **Closers shall be enclosed in a [molded resin cover] [plated or sprayed metal cover]. Closers to be Norton [7500] [7500M] [7500SS].

**For special arms insert the appropriate specification from column three on this page.

**Unitrol® Arm

Door closers shall have a fixed door stop feature effective at one point selected at installation, from 85° - 110° in five-degree increments. Door stop shall be cushioned by a shock-absorbing heavy-duty spring action effective at the [soffit plate] [arm shoe] pivot. [Closers shall be provided for parallel arm installation using rigid steel main arm and secondary arm lengths proportional to the door width.] [Closers shall be provided for top jamb installation using steel, rigid main arm and telescoping secondary arm adequate for the frame reveal of the openings.]

**CloserPlus® Arm

Door closers shall have a field reversible door stop. Hold open tension shall be adjustable effective at one point selected at installation, from 85° - 110° in five degree increments. Closers shall be provided for parallel arm installation using a forged rigid steel main arm and secondary arm.

**CloserPlus Spring™ Arm

Door closers shall have built-in door stop [and holder] effective at one point selected at installation, from 85° - 110° in five-degree increments. Door stop mechanism shall be reversible and have a buffer spring that engages prior to the dead stop feature, reducing shock loads to the door and frame assembly. Door stop mechanism shall be attached to soffit plate. [Hold open mechanism shall have engage/disengage selection actuated by thumbturn]. Closers shall be provided for parallel installation using a forged rigid steel main arm and secondary arm.

APPLICATIONS



Non-hold open arm shown

Regular Arm

This is the only pull-side application where a double lever arm is used. It is the most power efficient application for a door closer. Sufficient frame, door and/or ceiling clearance must be considered.

Since the arm assembly projects directly out from the frame, this application may present an aesthetics issue or be prone to vandalism.



Non-hold open arm shown

Top Jamb

For efficiency reasons this application provides the best alternative to the regular arm application. There must be sufficient frame face and/or ceiling clearance for this application. It requires a top rail on the door of just 2-1/8" (54mm). This application provides the best door control for doors in exterior walls that swing out of a building.

The entire door closer and arm assembly project from the frame, similar to the regular arm application, where matters of appearance and malicious abuse can be of concern. Consideration must be given to depth of frame reveal.



Parallel Arm

This application provides the most appealing design appearance for a surface-mounted door closer having a double lever arm. This also makes it beneficial in vandalism-prone areas. It is on the push side of the door and the arm assembly extends almost parallel to the door. In the closed position, there is very little or no hardware projecting beyond the frame face in most situations.

Due to the geometry of the arm it is approximately 25% less power-efficient than a regular arm application. The entire closer and arm assembly are mounted below the frame stop, requiring a top rail clearance on the door of between 6-5/8" (168mm), when using a low profile arm, to 7-1/4" (184mm), when using the hold open arm.

APPLICATIONS



Non-hold open arm shown

Parallel Rigid Arm

An enhanced variation of the standard parallel arm assembly that is intended for use in heavy traffic areas where auxiliary door stops are installed.

Hold open available - specify hand when ordering.



Non-hold open arm shown

CloserPlus® Arm

Similar to the Parallel Rigid arm, this arm incorporates a stop at the arm's soffit plate to dead stop the door at a predetermined degree of door swing between 85° and 110°, in 5° increments. Prior to dead stop the door closer's backcheck feature slows the door speed to reduce the impact of the stop action.

The CloserPlus arm is intended for use where an auxiliary door stop cannot be utilized and no more than moderate abuse is anticipated. Where more extreme conditions are expected, use of a Unitrol® arm is recommended.

Hold open strength is adjustable.



Non-hold open arm shown

CloserPlus Spring™

This arm has all of the characteristics of the CloserPlus arm with an additional steel buffer spring that provides greater protection at the end of the door opening cycle.

For extreme conditions, use of a Unitrol arm is recommended. Available with or without hold open.



CloserPlus Ramp™

The CLP-R uses a patent pending ramp and plunger design that easily slides into place reducing wear often seen on traditional hold open arms. Ideal for applications where the door will constantly be pulled out of hold open.

7500 SERIES INSTITUTIONAL DOOR CLOSER

APPLICATIONS



Regular Rigid Heavy-Duty Arm

This double lever arm features a non-adjustable secondary arm. Orbitally riveted joints prevent tampering or disassembly. Prefix "R" to model number. Available non-hold open only.



Non-hold open arm shown

Parallel Rigid Offset Arm

This heavy-duty parallel rigid arm provides additional vertical clearance. It is well suited for applications where weather-stripping or other hardware prevents the use of the standard Parallel Rigid (PR) soffit plate. The non-hold open and hold arms allow 1-1/4" clearance. When used in conjunction with a #6891 spacer block, the PRO arm provides 1-7/8" clearance to accommodate the use of a surface overhead stop/holder.



Unitrol® Parallel Arm

Unitrol® Arm

Can be used for either parallel arm or top jamb applications. Unitrol arms combine the features of a double lever arm overhead door stop/holder with the backcheck feature of the door closer to reduce door stopping shock loads to a minimum. The Unitrol uses a compression spring buffer at the soffit plate/arm shoe that will absorb 30 lbs. of force, 5° prior to the door's dead stop. Coupled with the door closer's backcheck feature, this arm provides the most controlled stop available with a surface door closer.

For parallel arm applications there are three different length arm assemblies. Each length is designed for a specific range of door widths to provide precise door control. This further lessens the dead stop impact on the door's hinges/pivots.



Unitrol® Top Jamb

APPLICATIONS



Pull Side



Low Profile Pull Side



Push Side



Low Profile Push Side

Slide Track

Whether pull or push side mounted, slide track applications provide the designer with the smoothest lines available in a surface mounted door closer. The single lever arm allows components to be located in a stack configuration to minimize projection and eliminate obtrusive arm angles. The arm geometry reduces door closer power efficiency by approximately 25% from that of a regular arm.

A variation of the standard slide track application is available for pocket doors, where it is desirable to have the door closer completely concealed when the door is in the 90° open position. See page 25 for details.

Standard Unit:

- Adjustable 85° to 110° (hold open and non-hold open). Track is supplied with a spring buffered stop. An auxiliary stop, by others, is recommended.
- » Specify if hold open unit is required.
- » 180° swing (non-hold open, pull side only) is also available. This track assembly requires that a door stop, by others, be supplied to stop the door.



Regular Arm - Regular Arm allows closer to be installed where there is as little as 1" (25mm) of frame face or ceiling clearance.



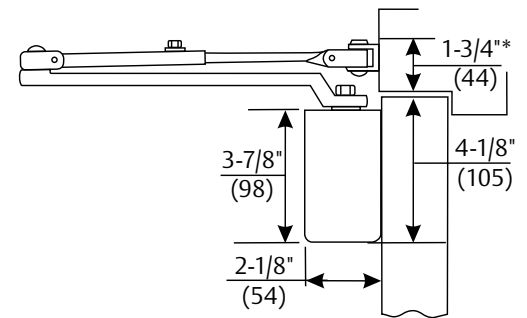
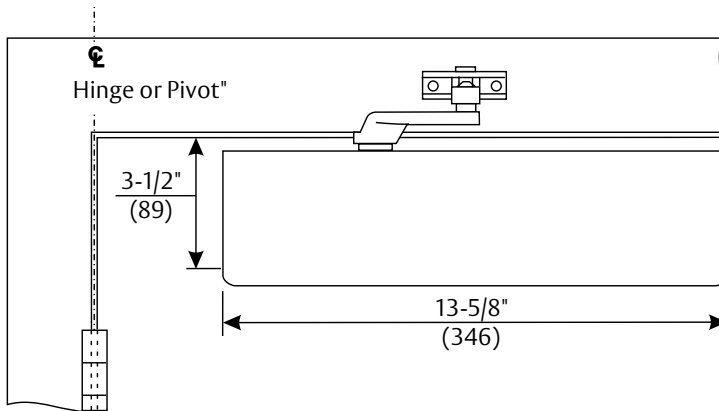
Parallel Arm - Parallel Arm allows closer to be installed 1/2" (13mm) higher up on door than standard parallel arm application.

Low Profile Arm

Supplied with 7580 series door closers for non-hold open installations only. Low profile arms have a reduced height elbow joint and a straight main arm. This enables the door closer to be installed in less vertical space.

7500 SERIES INSTITUTIONAL DOOR CLOSER

REGULAR ARM



Mounting holes for closer body are spaced 2-3/8" (60mm) vertically x 6-3/4" (171mm) horizontally.

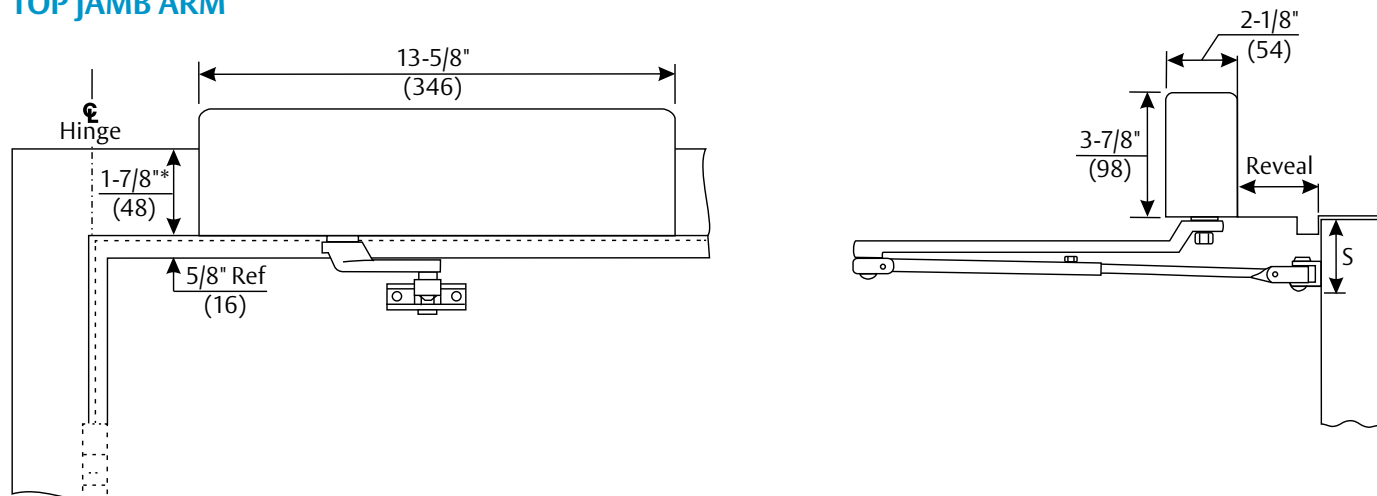
* This dimension will vary. Standard non-hold open arm illustrated.

Model Number	
Non-Hold Open	Hold Open
7500	7500H

Notes:

- » Door closers are set at midpower range from the factory
- » Measurements are inches/mm unless noted
- » Standard door widths: interior 32"-54" (81-137cm)
exterior 30"-48" (76-122cm)
- » Consult factory if door weight exceeds 250 lbs.

TOP JAMB ARM



Mounting holes for closer body are spaced 2-3/8" (86mm) vertically x 6-3/4" (171mm) horizontally.

* Minimum frame face with 7786 drop plate. 3-1/4" (83mm) required when drop plate is not used.

Maximum Door Width Inches (cm)	Reveal Range Inches	Maximum Door Opening
Multi-Sized	Non-Hold Open Arm	
(JS)7500/7500M	0" to 3" (0 to 76mm)	180°
J7500	2-3/4" to 7" (70 to 178mm)	150°
JL7500	2-3/4" to 7" (70 to 178mm)	180°
J7580 x 7787	0" to 2-3/4" (0 to 70mm)	180°
Multi-Sized	Hold Open Arm	
J7500/J7530MH	0" to 3" (0 to 76mm)	180°
J7500H	2-3/4" to 6-3/4" (70 to 171mm)	150°
JL7500H	2-3/4" to 6-3/4" (70 to 171mm)	180°

Model Number	
Non-Hold Open	Hold Open
7500	7500H
J7500	J7500H
JL7500	JL7500H

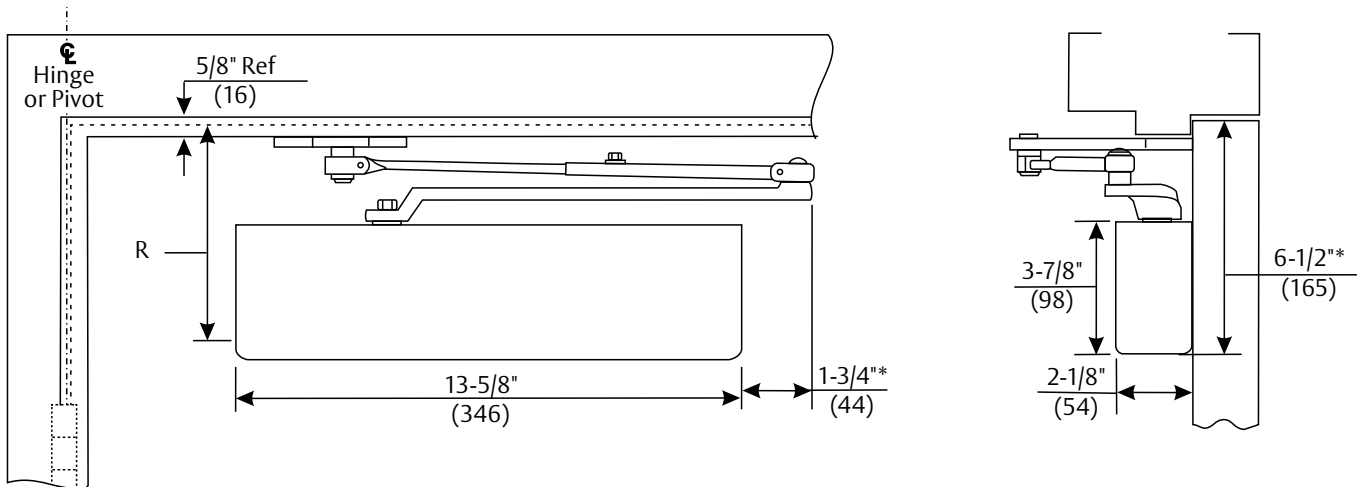
Notes:

- » Door closers are set at midpower range from the factory
- » Measurements are inches/mm unless noted
- » Standard door widths: interior 32"-54" (81-137cm)
exterior 30"-48" (76-122cm)
- » Consult factory if door weight exceeds 250 lbs.

S Minimum Top Rail of Door					
Without Drop Plate or with 7786 Back Plate (mm)			With 7787 Drop Plate (mm)		
J7500/ J7530M J7500	J7500H/ J7530MH J7500H	J7580	J7500/ J7530M J7500	J7500H/ J7530MH J7500H	J7580
2" (51mm)	2-1/2" (64mm)	N/A	4-1/8" (105mm)	4-5/8" (117mm)	3-5/8" (92mm)

7500 SERIES INSTITUTIONAL DOOR CLOSER

PARALLEL ARM



Mounting holes for closer body are spaced 2-3/8" (86mm) vertically x 6-3/4" (171mm) horizontally.

* This dimension will vary. Standard non-hold open arm illustrated.

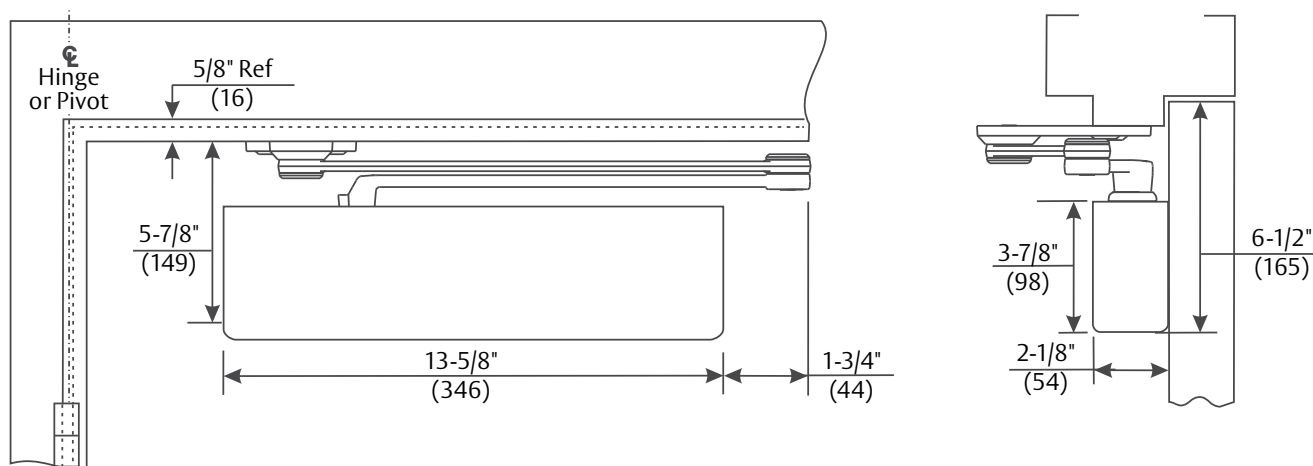
Model Number	
Non-Hold Open	Hold Open
7500	7500H

R (inches/mm) Minimum Top Rail of Door with 5/8" (16mm) Frame Stop				
Without Drop Plate			With 7788 Drop Plate	
P7500	P7500H	P7580	P7500H	P7580
5-7/8" (149)	6-1/4" (159)	5-3/8" (137)	2-3/4" (70)	1-7/8" (48)

Notes:

- » Door closers are set at midpower range from the factory
- » Measurements are inches/mm unless noted
- » Standard door widths: interior 30"-54" (76-137cm)
exterior 30"-48" (76-122cm)
- » Consult factory if door weight exceeds 250 lbs.

PARALLEL RIGID ARM



Mounting holes for closer body are spaced 2-3/8" (60mm) vertically x 6-3/4" (171mm) horizontally.

Model Number	
Non-Hold Open	Hold Open*
PR7500	PR7500H

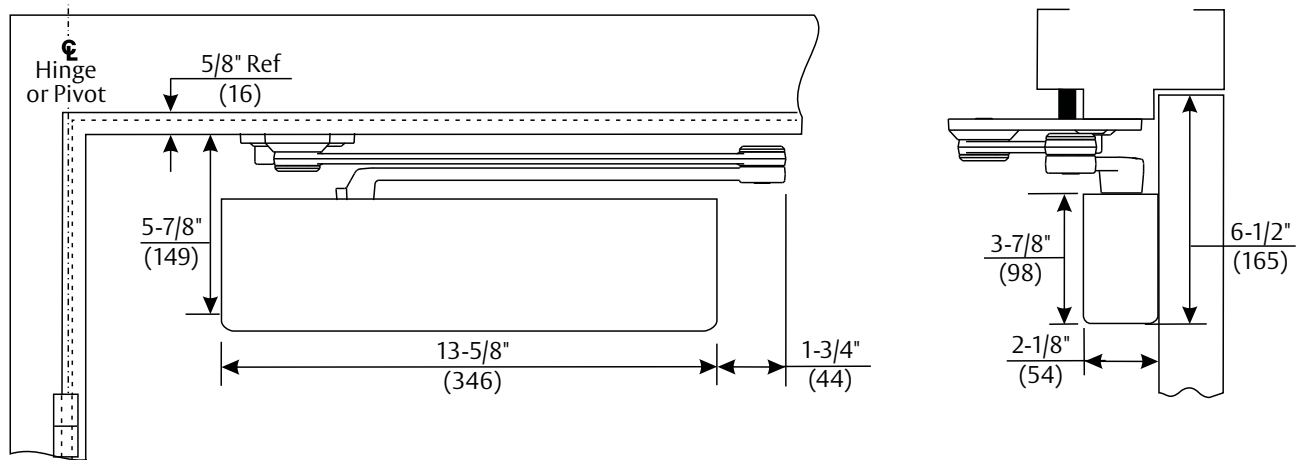
*Specify hand when ordering.

Notes:

- » Door closers are set at midpower range from the factory
- » Measurements are inches/mm unless noted
- » Standard door widths: interior 30"-48" (76-122cm)
exterior 32"-48" (81-122cm)
- » Consult factory if door weight exceeds 250 lbs.

7500 SERIES INSTITUTIONAL DOOR CLOSER

CLOSERPLUS® ARM



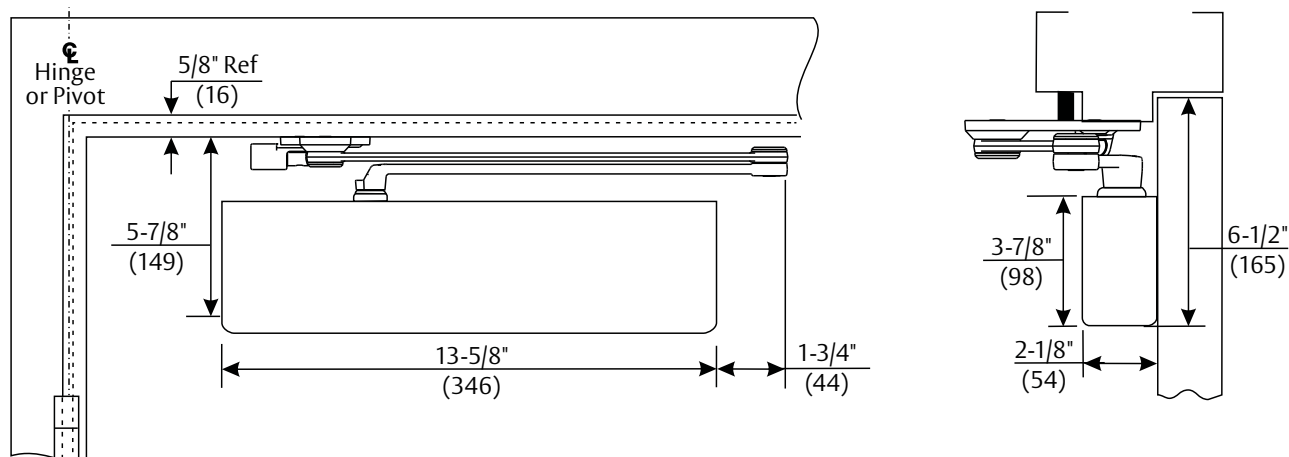
Mounting holes for closer body are spaced 2-3/8" (60mm) vertically x 6-3/4" (171mm) horizontally.

Model Number		
Non-Hold Open	Thumbturn Hold Open	Ramp Hold Open
CLP7500	CLP7500T	CLP7500R

Notes:

- » Door closers are set at midpower range from the factory
- » Measurements are inches/mm unless noted
- » Standard door widths: interior 30"-48" (76-122cm)
exterior 32"-48" (81-122cm)
- » Consult factory if door weight exceeds 250 lbs.

CLOSERPLUS SPRING™ ARM



Mounting holes for closer body are spaced 2-3/8" (60mm) vertically x 6-3/4" (171mm) horizontally.

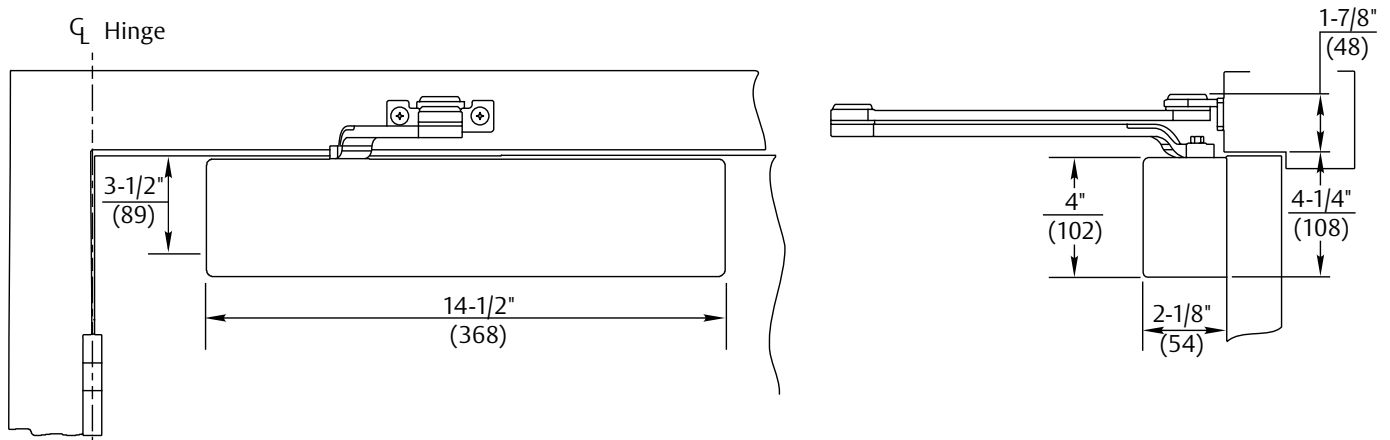
Model Number	
Non-Hold Open	Thumbturn Hold Open
CPS7500	CPS7500T

Notes:

- » Door closers are set at midpower range from the factory
- » Measurements are inches/mm unless noted
- » Standard door widths: interior 30"-48" (76-122cm)
exterior 32"-48" (81-122cm)
- » Consult factory if door weight exceeds 250 lbs.

7500 SERIES INSTITUTIONAL DOOR CLOSER

REGULAR RIGID HEAVY-DUTY ARM



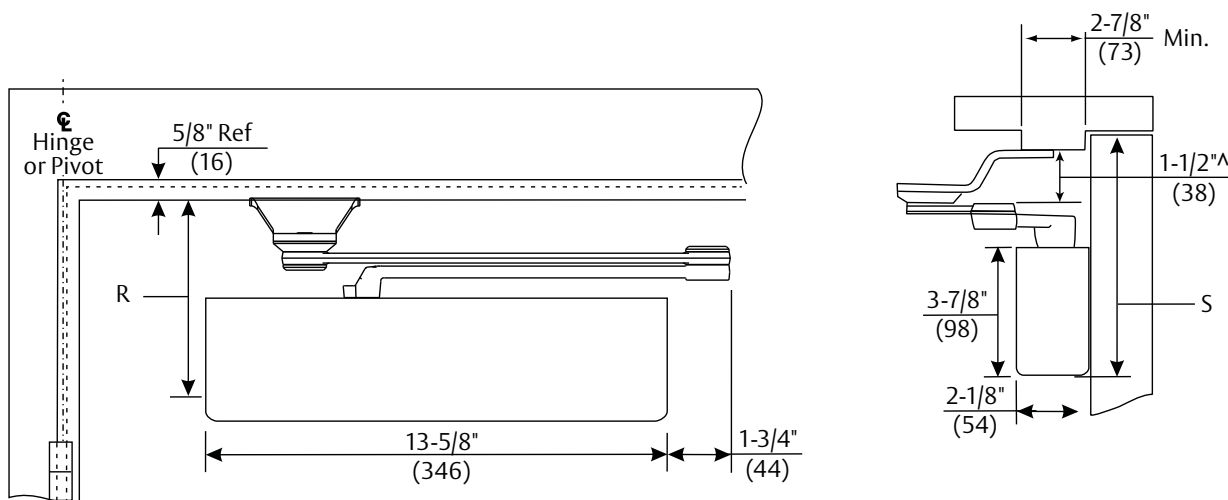
Mounting holes for closer body are spaced 2-3/8" (60mm) vertically x 6-3/4" (171mm) horizontally.

Model Number
Non-Hold Open Only
R7500

Notes:

- » Door closers are set at midpower range from the factory
- » Measurements are inches/mm unless noted
- » Standard door widths: interior 30"-54" (76-137cm)
exterior 30"-52" (76-132cm)
- » Consult factory if door weight exceeds 250 lbs.

PARALLEL RIGID OFFSET ARM



Mounting holes for closer body are spaced 2-3/8" (60mm) vertically x 6-3/4" (171mm) horizontally.

^ If clearance greater than 1-1/2" is needed, 6891 spacer block is required.

R (inches/mm) Minimum Top Rail of Door with 5/8" (16mm) Frame Stop		S Minimum Top Rail of Door	
Without 6891 Spacer	With 6891 Spacer	Without 6891 Spacer	With 6891 Spacer
7-1/8" (181)	7-5/8" (194)	7-5/8" (194)	8-1/8" (206)

Model Number	
Non-Hold Open	Hold Open*
PRO7500	PRO7500H

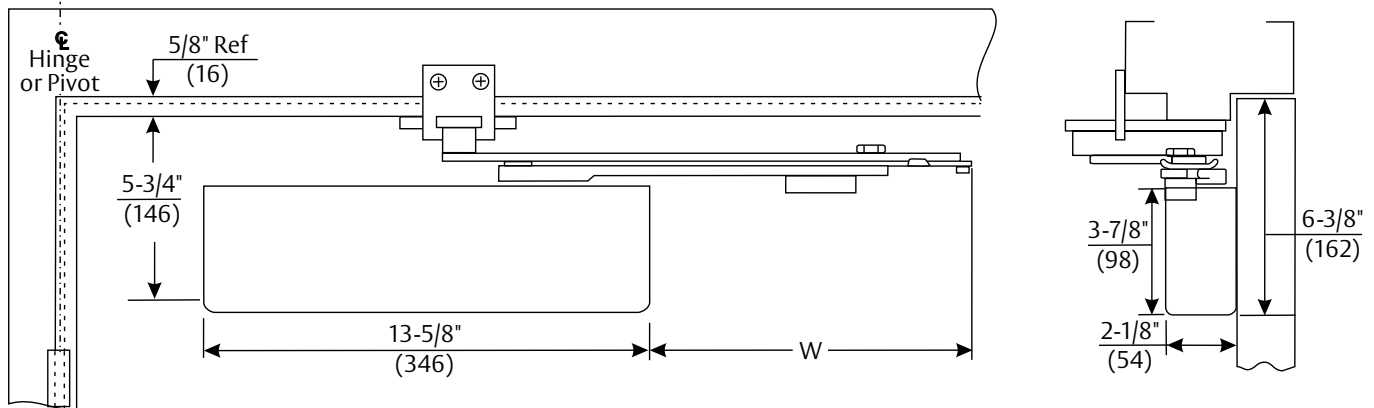
*Specify hand when ordering.

Notes:

- » Door closers are set at midpower range from the factory
- » Measurements are inches/mm unless noted
- » Standard door widths: interior 30"-48" (76-122cm)
exterior 32"-48" (81-122cm)
- » Consult factory if door weight exceeds 250 lbs.

7500 SERIES INSTITUTIONAL DOOR CLOSER

PARALLEL UNITROL® ARM



Mounting holes for closer body are spaced 2-3/8" (86mm) vertically x 6-3/4" (171mm) horizontally.

Door width must be specified when ordering.

Use 6190 bracket for reveals 1-7/8" - 4-5/8" (48 to 117mm). Reveals in excess of 4-5/8" (117mm) require use of a 6191 reinforcing kit. Reveals to 1/8" (3mm) require use of a 2019L angle bracket.

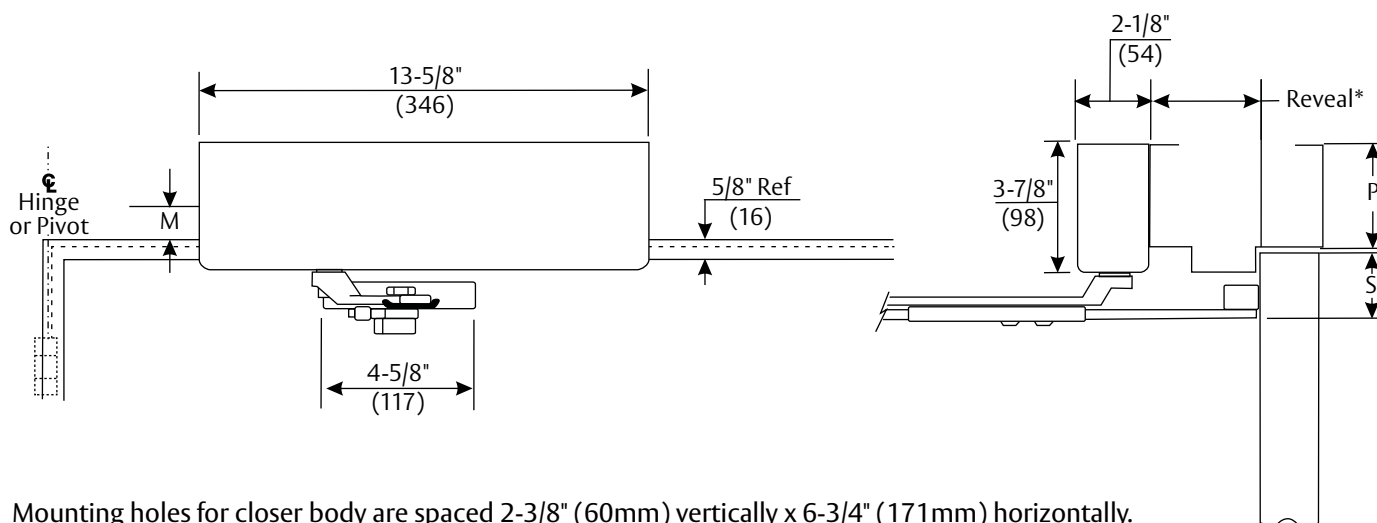
Door Width inches/cm	W Arm Extension Beyond Closer
28-32" (71-81)	8-5/8" (219)
33-41" (84-104)	10-1/8" (257)
42-48" (107-122)	11-1/2" (292)

Model Number		x Specify Door Width
Non-Hold Open	Hold Open	
UNI7500	UNI7500H	

Notes:

- » Door closers are set at midpower range from the factory
- » Measurements are inches/mm unless noted
- » Standard door widths: interior 30"-48" (76-122cm)
- » Consult factory if door weight exceeds 250 lbs.

TOP JAMB UNITROL® ARM



Mounting holes for closer body are spaced 2-3/8" (60mm) vertically x 6-3/4" (171mm) horizontally.

* Reveals up to a maximum of 7-3/8" (187mm).

Reveal must be specified when ordering.

Backplates	M Minimum Frame Face	P Minimum Ceiling Clearance	S Minimum Top Rail Clearance
7786 [^]	1-5/8" (41)	3-1/8" (79)	2-1/4" (57)
7787	1-7/8" (48)		3-1/2" (89)

[^] supplied standard with closer

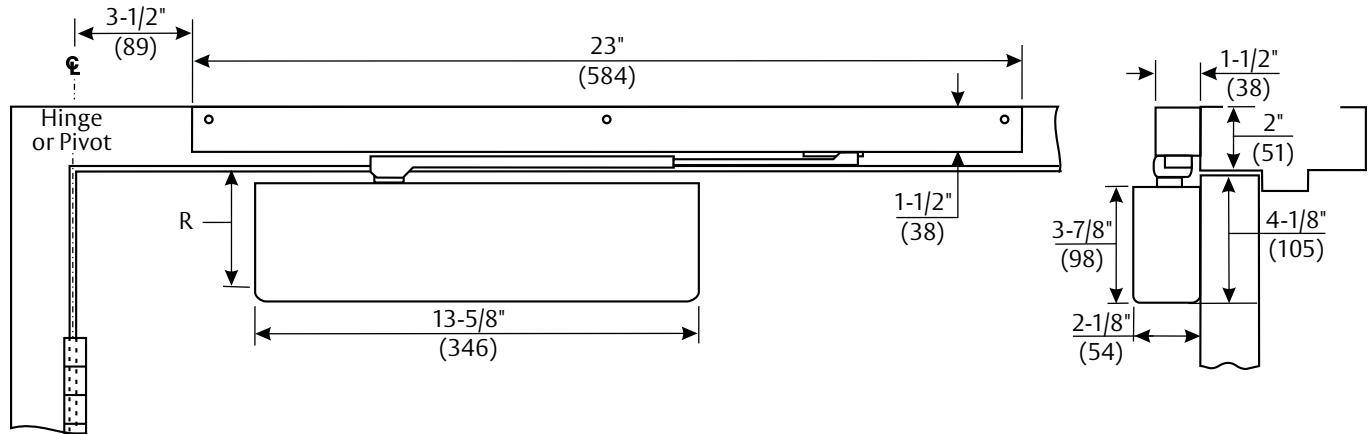
Model Number		x Specify Door Width
Non-Hold Open	Hold Open	
UNIJ7500	UNIJ7500H	

Notes:

- » Door closers are set at midpower range from the factory
- » Measurements are inches/mm unless noted
- » Standard door widths: interior 34"-54" (86-137cm)
- » Consult factory if door weight exceeds 250 lbs.

7500 SERIES INSTITUTIONAL DOOR CLOSER

PULL SIDE SLIDE TRACK



Mounting holes for closer body are spaced 2-3/8" (60mm) vertically x 6-3/4" (171mm) horizontally.

R (inches/mm) Minimum Top Rail of Door with Frame Stop	
Without Drop Plate	With 7786 Drop Plate
3-1/2" (111)	2-5/8" (67)

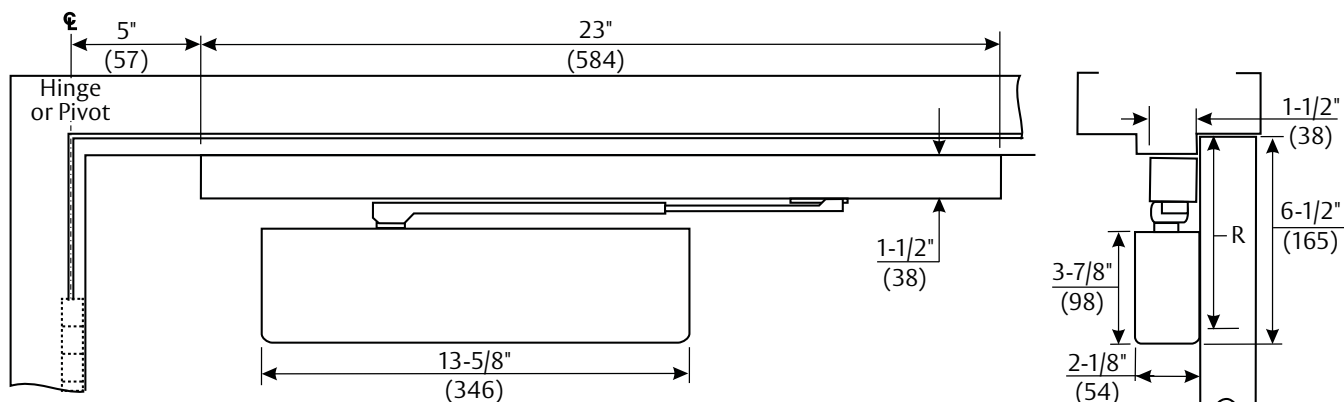
Model Number ^{1,2}		
Non-Hold Open	Hold Open	
85°-100°	85°-180°	85°-180°
7500ST	7500ST-180	7500STH

- 1- Units can also be mounted with the closer body on the jamb. Prefix the model number with a "J". Where the frame face is less than 3-3/8" (86mm) a number 7786JP backplate will be required.
- 2- Units can also be installed on double egress doors using a handed arm that will accommodate the frame profile. Suffix the model number with "DE". For reveal ranges 1/4" to 3" (6 to 76mm).

Notes:

- » Door closers are set at midpower range from the factory
- » Measurements are inches/mm unless noted
- » Standard door widths: interior 32"-48" (81-122cm)
exterior 32"-38" (81-97cm)
- » Consult factory if door weight exceeds 250 lbs.

PUSH SIDE SLIDE TRACK



Mounting holes for closer body are spaced 2-3/8" (60mm) vertically x 6-3/4" (171mm) horizontally.

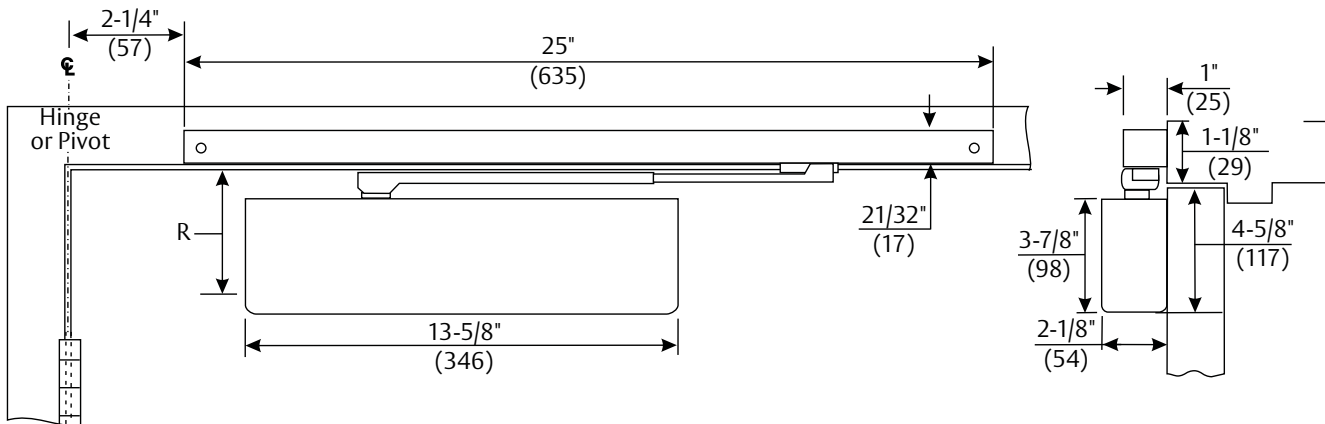
R (inches/mm) Minimum Top Rail of Door with Frame Stop	
Without Drop Plate	With 7786 Drop Plate
6" (152)	2-5/8" (67)

Model Number	
Non-Hold Open 85°-180°	Hold Open 85°-180°
7500ST-180	7500STH

Notes:

- » Door closers are set at midpower range from the factory
- » Measurements are inches/mm unless noted
- » Standard door widths: interior 32"-48" (81-122cm)
exterior 32"-38" (81-97cm)
- » Consult factory if door weight exceeds 250 lbs.

LOW PROFILE PULL SIDE SLIDE TRACK



Mounting holes for closer body are spaced 2-3/8" (60mm) vertically x 6-3/4" (171mm) horizontally.

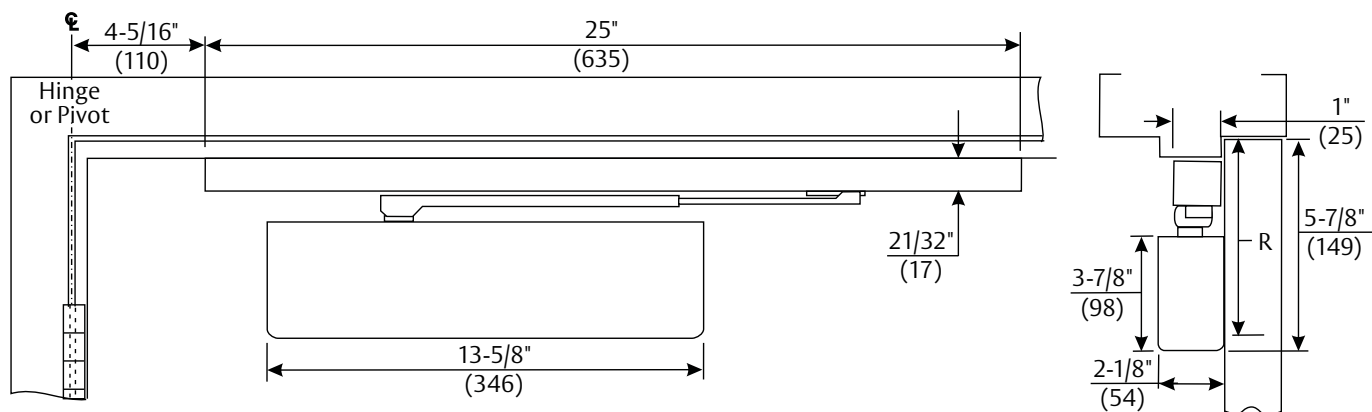
R (inches/mm) Minimum Top Rail of Door with Frame Stop	
Without Drop Plate	With 7786 Drop Plate
3-1/2" (89)	2" (51)

Model Number	
Non-Hold Open	Hold Open
7540ST	7540STH

Notes:

- » Door closers are set at midpower range from the factory
- » Measurements are inches/mm unless noted
- » Standard door widths: interior 32"-48" (81-122cm)
- » Consult factory if door weight exceeds 250 lbs.

LOW PROFILE PUSH SIDE SLIDE TRACK



Mounting holes for closer body are spaced 2-3/8" (60mm) vertically x 6-3/4" (171mm) horizontally.

R (inches/mm) Minimum Top Rail of Door with Frame Stop	
Without Drop Plate	With 7786 Drop Plate
5-1/4" (133)	3-5/8" (92)

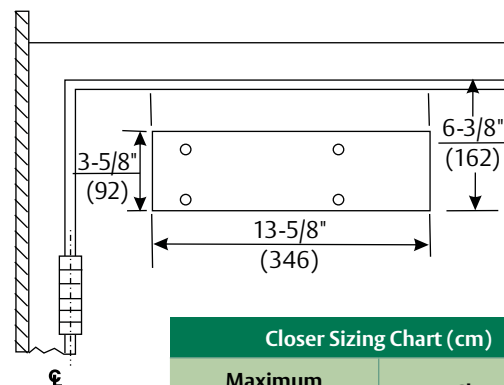
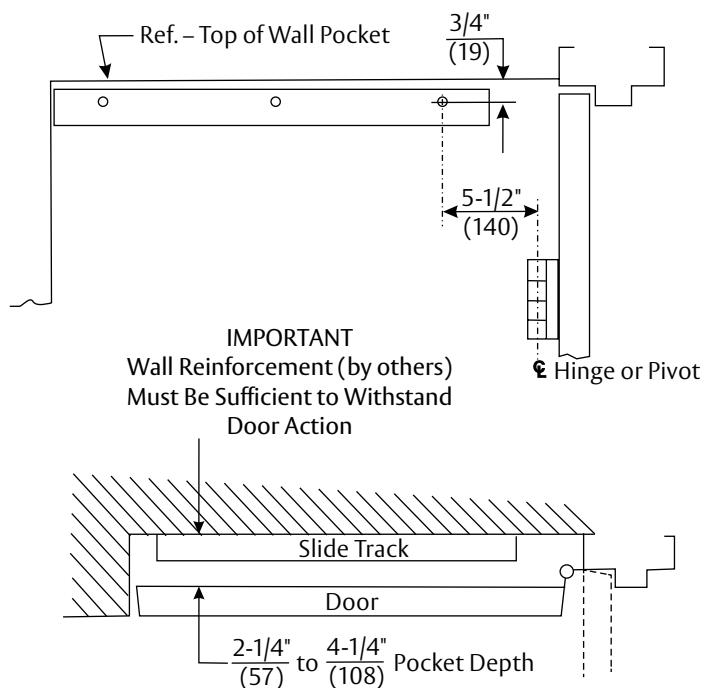
Model Number	
Non-Hold Open	Hold Open
PS7540ST	PS7540STH

Notes:

- » Door closers are set at midpower range from the factory
- » Measurements are inches/mm unless noted
- » Standard door widths: interior 32"-48" (81-122cm)
- » Consult factory if door weight exceeds 250 lbs.

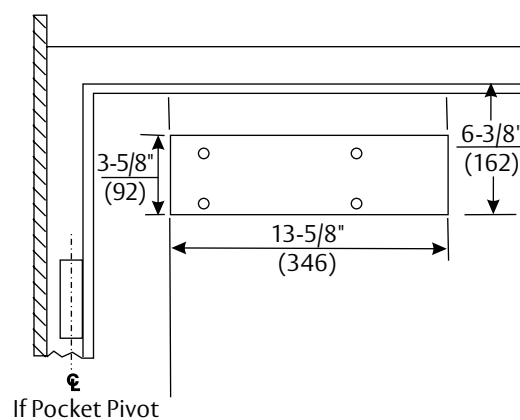
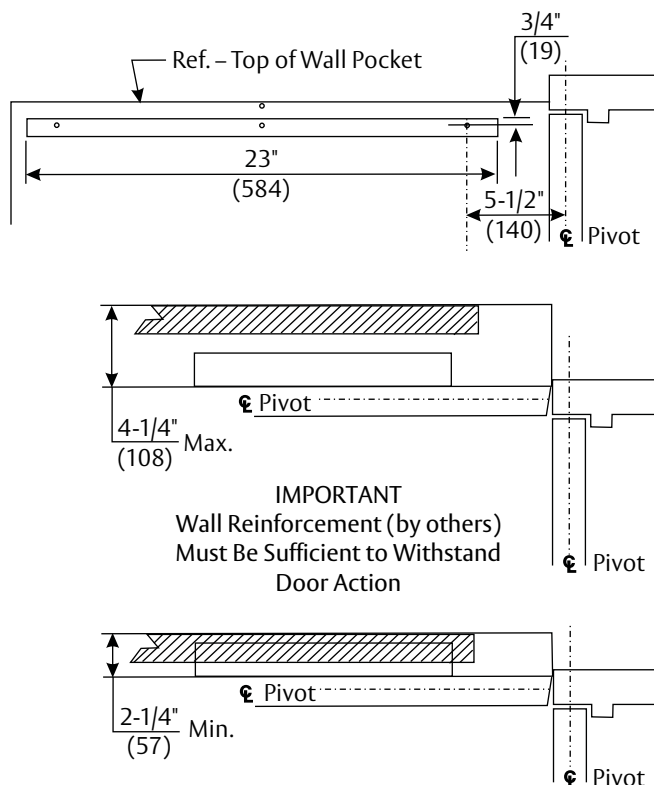
7500 SERIES INSTITUTIONAL DOOR CLOSER

POCKET DOOR 7706STP



Closer Sizing Chart (cm)	
Maximum Door Width	Closer
42" (107)	7706STP
48" (122)	7706EP-STP

7706STP or 7706ED-STP Closers
Slide Track for 90° Wall Pocket Installation
For Pocket Depths 2-1/4" to 4-1/4" (57mm to 108mm)
(See Chart for Closer Sizing)

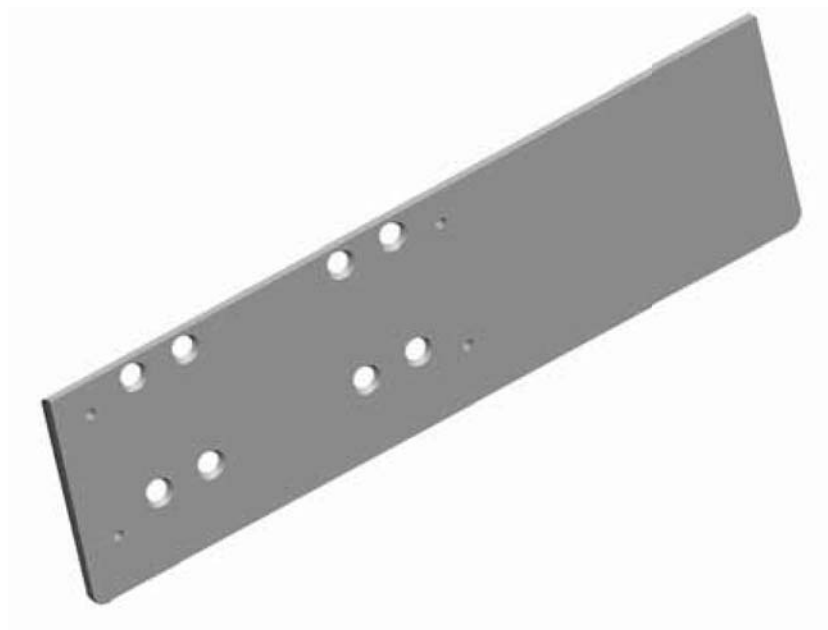


See chart (above) for closer sizing.

Notes:

- » Contact factory if door weight exceeds 250 lbs.

RETROFIT PLATE



The retrofit plates allow the 7500 door closers to replace the 4040 or 4010 closers without modifying the existing hole pattern in the door. The plates will work with regular and parallel arm applications.

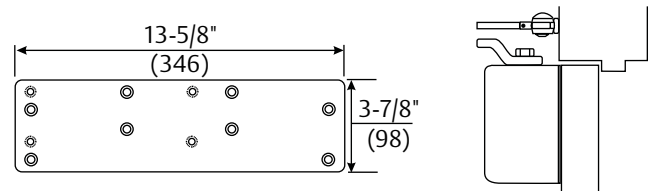
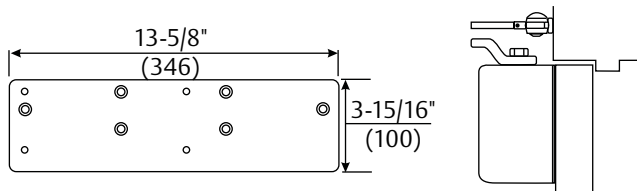
Model Number	Replaces
RP75-4040	LCN-4040XP
RP75-4010	LCN-4010, 4011
RP75-M2020	Rixson® M2020

Notes:

- » The location of the arm shoe on the frame will change, therefore the frame must be patched.

REGULAR ARM

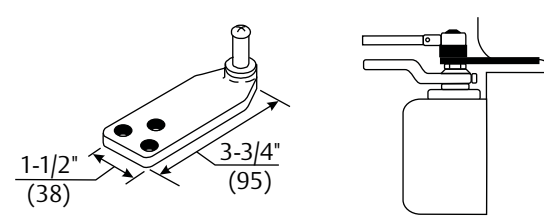
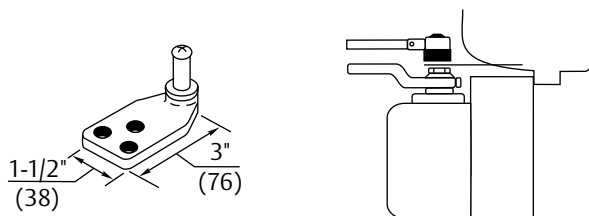
Closer Mounting Plate



Narrow Top Rail - #7786 Drop Plate: For use where the narrow top rail of the door prevents the closer from being mounted directly to the door surface. This drop plate must be used for closer mounted on a top rail between 1-7/8" and 3-3/8" (48 and 86mm) in height.

Overhead Door Holder - #7786OH Drop Plate: For use when the presence of a surface or concealed overhead door holder prevents normal mounting of closer body due to interference between closer's mounting screws and door holder track. This drop plate's mounting screws are located on the door surface 2-3/8" down from the frame rabbet allowing room for placement of the surface mounted or overhead concealed door stop/holder.

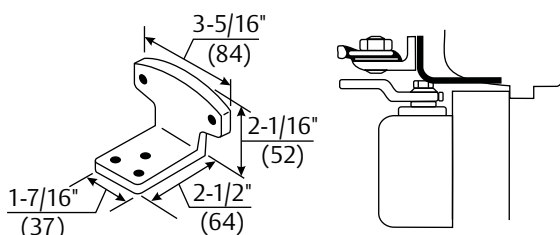
Brackets for Non-Hold Open Arms



Molded/Bull Nose Trim - #2403B Bracket: For use where the door frame has molded or bull nose trim which will not accept a standard non-hold open shoe. The bracket is mortised into the frame rabbet, and projects beyond the face of the frame. It will accommodate a frame rabbet up to 2" (51mm) deep.

Molded/Bull Nose Trim - #2403-3/4 Bracket: This bracket is similar to - but longer than - the 2403B bracket. It is designed to accommodate frame rabbets from 2" to 2-7/8" (51 to 73mm) deep.

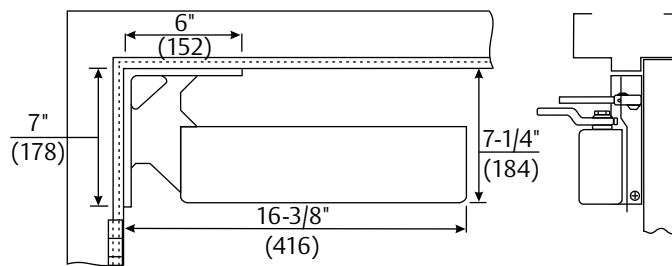
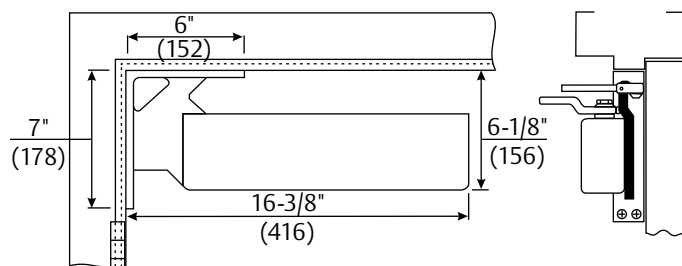
Brackets for Non-Hold Open Arms



Molded/Bull Nose Trim - #80 Bracket: For use where the door frame has molded or bull nose trim which will not accept a standard hold open shoe. It is mortised into the frame rabbet, and projects beyond the face of the frame. It will accommodate a rabbet up to 2" (51mm) deep. This bracket is used in combination with the standard hold open mounting shoe.

REGULAR ARM

Corner Brackets for Closer Mounting

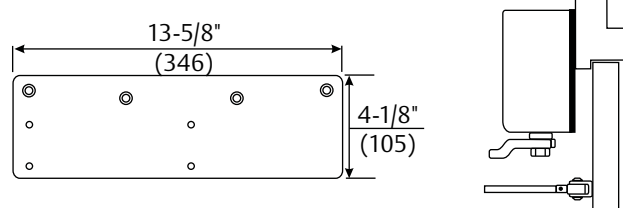
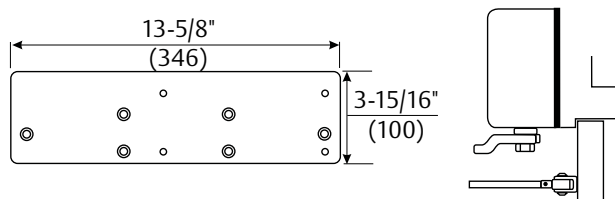


Mounting Opposite Hinge Side - #7798 Standard Drop Corner Bracket: For use where it is desired to mount a regular arm non-hold open closer.

Extra-Drop Mounting Opposite Hinge Side - #7797 Corner Bracket: For use where it is desired to mount a regular arm hold open closer, or where it is necessary for a regular arm non-hold open closer to clear a separate overhead door holder. This bracket drops the closer 1-1/8" (29mm) lower than the #7798 Corner Bracket.

TOP JAMB

Closer Mounting Plates

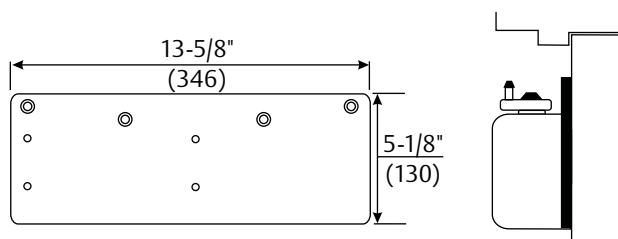


Narrow Frame - #7786 Back Plate: For use where a narrow frame face prevents the closer from being mounted directly to the frame. This back plate must be used for closer mounted on a frame between 1-7/8" and 3-1/8" (48 and 79mm) in height.

Low Ceiling Clearance - Overhead Door Holder - #7787 Drop Plate: For use where the ceiling clearance is between 1-7/8" and 3-7/8" (48 and 98mm) or where a surface or concealed overhead door holder prevents normal top jamb mounting. This plate drops the closer and allows the arm mounting screws to clear the bottom of the door holder. This places the centerline of the arm mounting screws at 3-1/8" (79mm) from the top of the door.

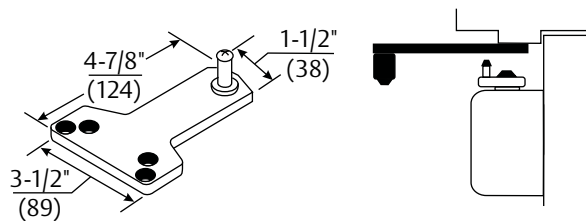
PARALLEL ARM

Closer Mounting Plate

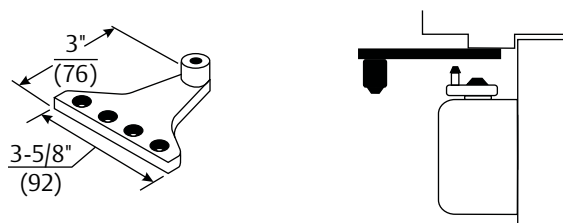


Narrow Top Rail - #7788 Drop Plate: For use where a narrow top rail prevents the closer from being mounted directly to the door surface. This drop plate can be used to mount a closer on a top rail as narrow as 2-1/2" (64mm) in height.

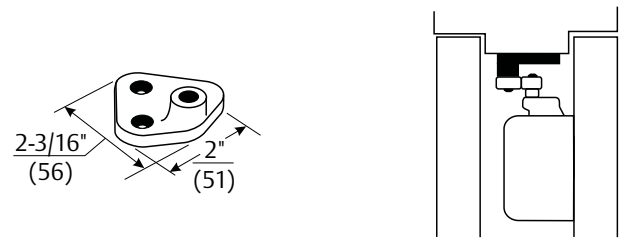
Brackets for Non-Hold Open Arms



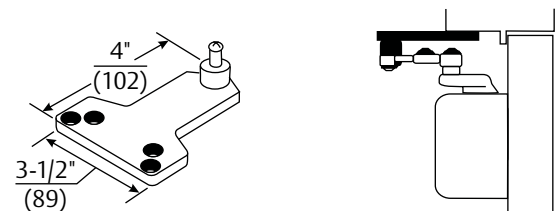
Standard Installation - #1618 Soffit Plate: Supplied standard with parallel arm closers. It can be mounted where the frame soffit is as narrow as 1" (25mm). Specify 1618A-SS for stainless steel soffit plate.



Narrow Frame/Removable Stop - #2018B Soffit Plate: For use where a narrow frame or frame with removable stop does not permit use of the standard soffit plate. This soffit plate may be mounted on the frame soffit or the frame rabbet where the stop does not exceed 5/8" (16mm) in height. All of the screw holes are in a straight line, requiring as little as 1-1/4" (32mm) of frame reveal to mount bracket and maintain good closer arm geometry. Where the frame soffit is as wide as 2" (51mm), this soffit plate may be used to clear weather-stripping that is up to 1-3/8" (35mm) wide and 5/8" (16mm) in height.



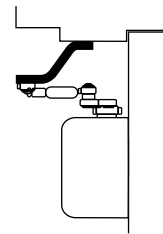
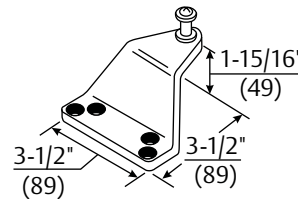
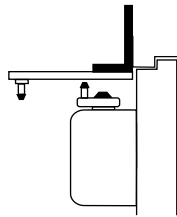
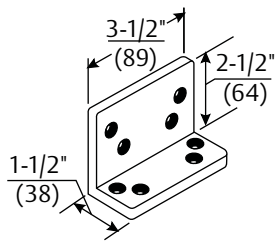
Mounting between Doors - #2018 Soffit Bracket: For use where insufficient space between companion doors does not permit use of other soffit plates. This bracket permits mounting of the closer between doors with as little as 3" (76mm) of header space. Permits closer arm to clear up to 5/8" (16mm) high stop.



Blade/Applied Stop - #2018D Soffit Plate: For use where a blade or applied stop does not permit installation of the standard soffit plate. Mounts to either the frame soffit or rabbet. Since this soffit plate projects 7/8" (22mm) less than a standard soffit plate, it requires a minimum frame reveal of 1-1/2" (38mm). Permits closer to clear up to a 5/8" (16mm) stop.

PARALLEL ARM

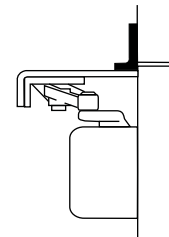
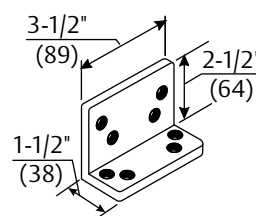
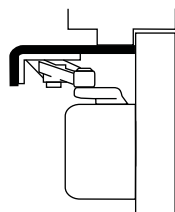
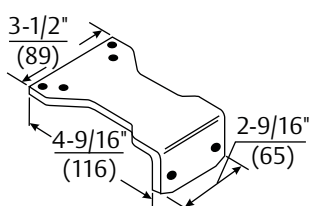
Brackets for Non-Hold Open Arms (continued)



Flush Transom - #2022 Angle Bracket: For use where rabbeted or flush transom conditions prevent installation of a soffit plate. Used in combination with the 1618 soffit plate, or may be used in combination with the 2018S soffit plate when it is necessary for the closer arm to clear a separate overhead door holder.

Extra-Clearance - #2018S Offset Soffit Plate: For use where the need for additional clearance prevents use of the standard soffit plate. This plate mounts to the frame soffit to provide up to 2" (51mm) of clearance when a separate overhead door holder is used. Standard mounting requires a 2-5/8" (67mm) wide frame soffit. It may also be used where unusually high frame stops or weather-stripping prevent the use of other soffit plates.

Brackets for Hold Open Arms

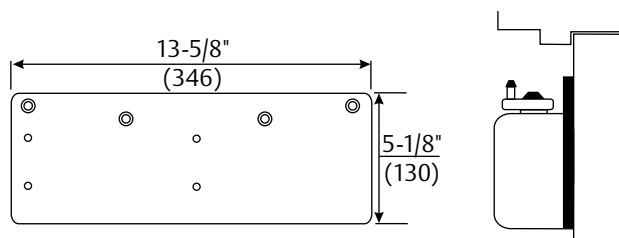


Parallel Hold Open - #1628H Adapter Plate: Supplied standard with all parallel arm hold open closers. It can also be used to convert regular arm or top jamb hold open arms to parallel arm installation. It can be mounted where the frame soffit is as narrow as 1" (25mm).

Flush Transom Hold Open - #2022 Angle Bracket: For use where rabbeted or flush transom conditions prevent installation of the standard 1628H hold open adapter plate. It is used in combination with the 1628H adapter plate.

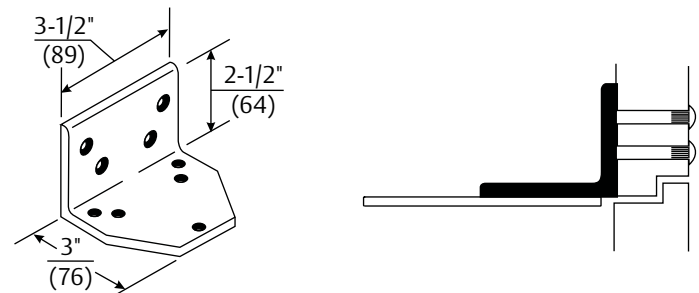
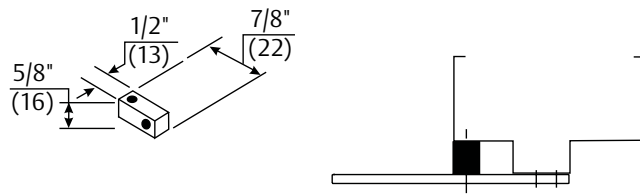
PARALLEL RIGID ARM

Closer Mounting Plate



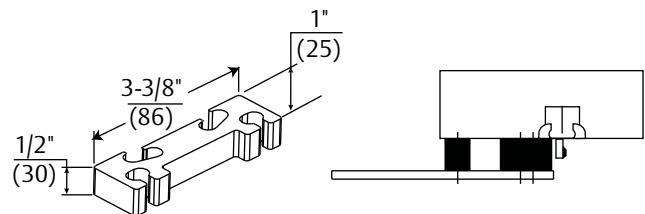
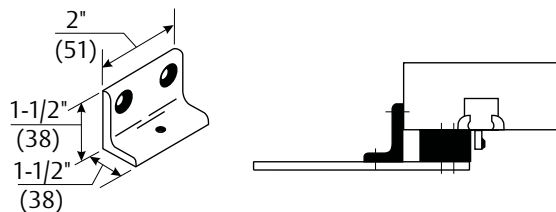
Narrow Top Rail - #7788 Drop Plate: For use where a narrow top rail prevents the closer from being mounted directly to the door surface. This drop plate can be used to mount a closer on a top rail as narrow as 2-1/2" (64mm) in height.

Brackets for Non-Hold Open Arms & Hold Open Arms



Standard - #2019S Spacer Block: For use where a narrow frame soffit does not provide adequate support for the soffit plate. Supplied as standard with all parallel rigid arm closers.

Flush Rabbeted Transom - #2019L Angle Bracket: For use where flush transom conditions prevent mounting of the standard soffit plate. This bracket is used in combination with the standard soffit plate.



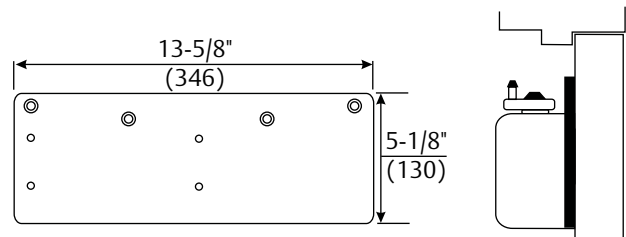
Narrow Frame - #6890 Support Bracket: For use where the frame is narrow, and the soffit plate cannot be mounted directly to the frame soffit or rabbet. Used in combination with the #6891 Spacer B lock on blade stop frames to provide extra support and needed clearance of the blade stop. Used on frames where the frame stop does not exceed 5/8" (11mm) in height.

Clearance/Support Blade Stop - #6891 Spacer Block: For use where the door frame has a blade stop and the soffit plate must be mounted on the frame rabbet. This accessory is used in combination with the standard spacer block to provide clearance of the blade stop.

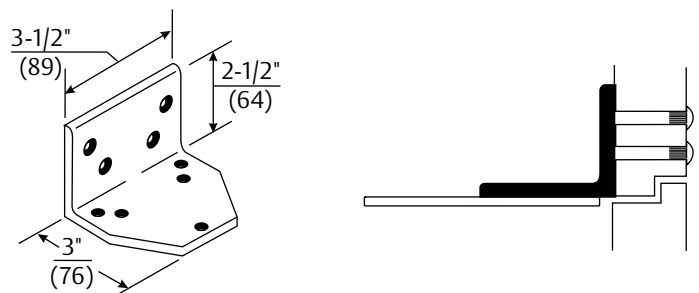
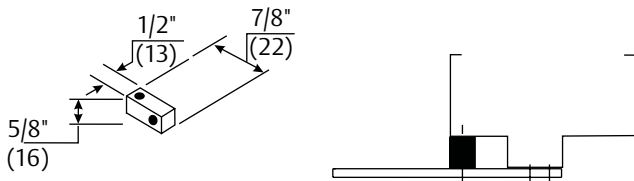
CLOSERPLUS® ARMS

Closer Mounting Plate

Narrow Top Rail - #7788 Drop Plate: For use where a narrow top rail prevents the closer from being mounted directly to the door surface. This drop plate can be used to mount a closer on a top rail as narrow as 2-1/2" (64mm) in height.

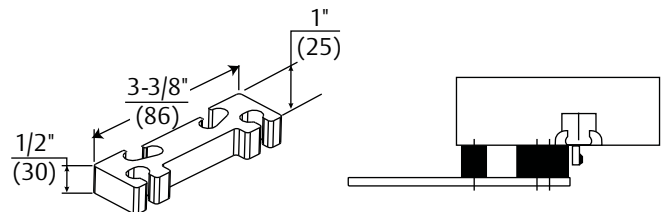
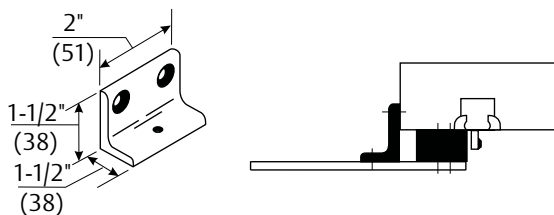


Brackets for Non-Hold Open Arms & Hold Open Arms



Standard - #2019S Spacer Block: For use where a narrow frame soffit does not provide adequate support for the soffit plate. Supplied as standard with all parallel rigid arm closers.

Flush Rabbeted Transom - #2019L Angle Bracket: For use where flush transom conditions prevent mounting of the standard soffit plate. This bracket is used in combination with the standard soffit plate.

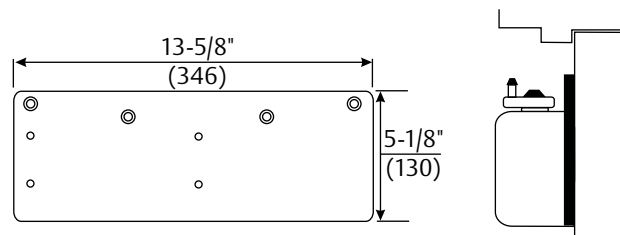


Narrow Frame - #6890 Support Bracket: For use where the frame is narrow, and the soffit plate cannot be mounted directly to the frame soffit or rabbet. Used in combination with the #6891 Spacer Block on blade stop frames to provide extra support and needed clearance of the blade stop. Used on frames where the frame stop does not exceed 5/8" (11mm) in height.

Clearance/Support Blade Stop - #6891 Spacer Block: For use where the door frame has a blade stop and the soffit plate must be mounted on the frame rabbet. This accessory is used in combination with the standard spacer block to provide clearance of the blade stop.

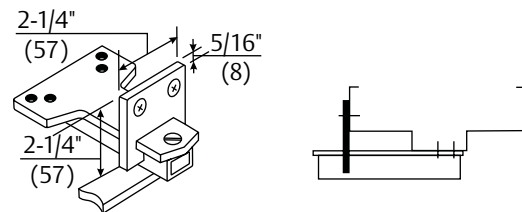
UNITROL® ARM

Closer Mounting Plate (for Parallel Arm)

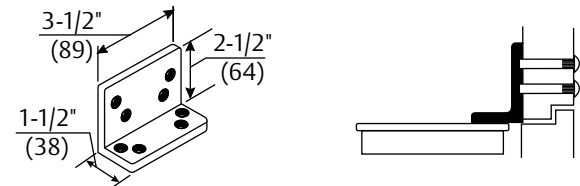
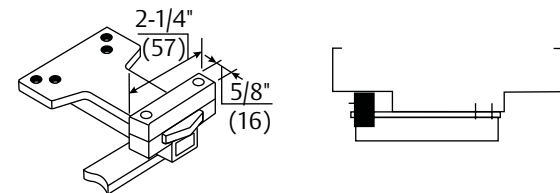


Narrow Top Rail - #7788 Drop Plate: For use where a narrow top rail prevents the closer from being mounted directly to the door surface. This drop plate can be used to mount a closer on a top rail as narrow as 2-3/8" (60mm) in height.

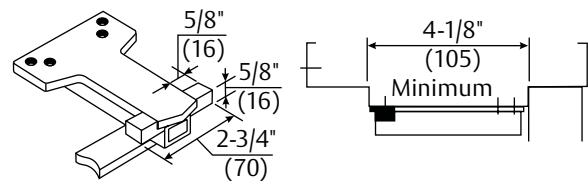
Soffit Plate Reinforcing Brackets (for Parallel Arm)



Additional Support - #6190 Reinforcing Bracket: Standard for use with all Parallel Arm Unitrol Door Controls. Provides additional support to the soffit plate on installations with door frame reveals from 1-7/8" to 4-5/8" (48 to 117mm).

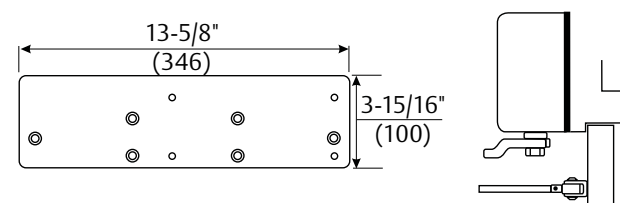


Flush Rabbeted Transom - #2022 Angle Bracket: Optional for use with all Parallel Arm Unitrol Door Controls. For use where rabbeted or flush transom conditions prevent installation of the soffit plate assembly. This bracket fastens to the overhead transom to provide a mounting surface for the soffit plate assembly.

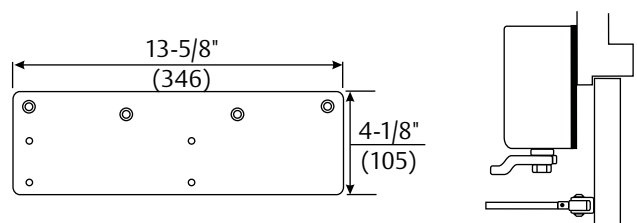


Wide Frame - #6191 Reinforcing Kit: Optional for use with all Parallel Arm Unitrol Door Controls. Used to support the soffit plate on installations with wide frames. Clamps may be used with or without the spacer block, depending on frame conditions.

Closer Mounting Plate (for Top Jamb)

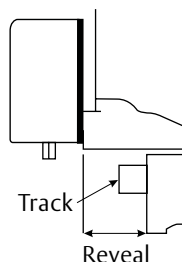
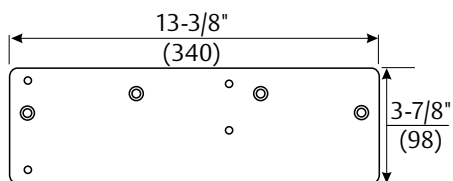


Standard Installation - #7786 Back Plate: Can be mounted where a frame face is as narrow as 1-5/8" (41mm) in height.



Minimum Ceiling Clearance - #7787 Drop Plate: For use where the ceiling clearance is as little as 1-7/8" (48mm).

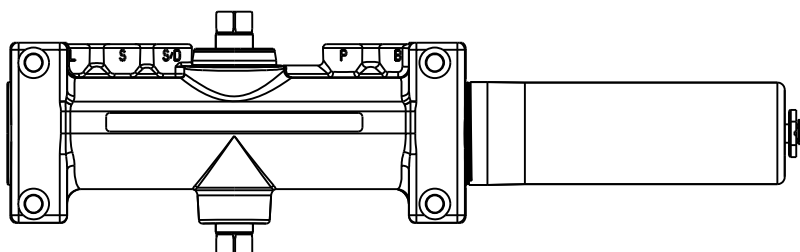
SLIDE TRACK



Slide Track - #7786JP Back Plate: Required for frames with standard 2" (51mm) profile face. Without plate, minimum 4" (102mm) face frame required.

7500 SERIES INSTITUTIONAL DOOR CLOSER

DOOR CLOSER BODY ASSEMBLIES



Model Number	Description
7500LAP	Multi-Size Closer Body
7500SSLAP	Corrosion Resistant Closer Body

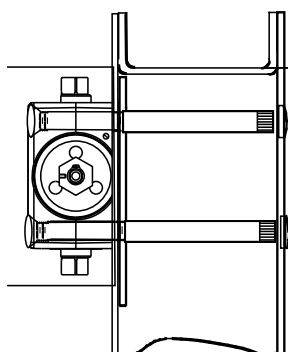
LAP = Less All Parts

Torx® Screw Pack	
Arm Type	Model Number
Regular, Top Jamb & Parallel	TX47
Parallel Rigid, CloserPlus® CloserPlus Spring™	PRTX47
Regular Rigid Heavy-Duty	RTX47
Unitrol® Arm	UNITX47
Slide Track	STTX47

Closer Series	Cover Material	Model No.	Dimensions (Inches/mm)
7500	Plastic	7700P & 7700PG	13-3/4 (349) x 4" (102) x 2-1/8" (54)
	Metal	7700M	13-5/8" (346) x 3-7/8" (98) x 2-3/16" (56)

STEEL DOOR APPLICATION

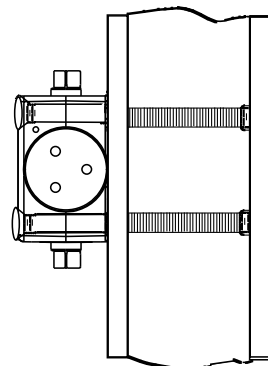
Sleeve Nut: "SN" (4 per pack) or
Sleeve Nut & Screw: "SNB" (4 per pack)



Door Thickness	SN's	SNB's
1-3/4"	SN-134	SNB134-47
2"	NA	SNB200-47
2-1/4"	SN-214	SNB214-47
S.S. SNB'S 1-3/4" (Stainless Steel)	SN-134SS	SNB134SS-47

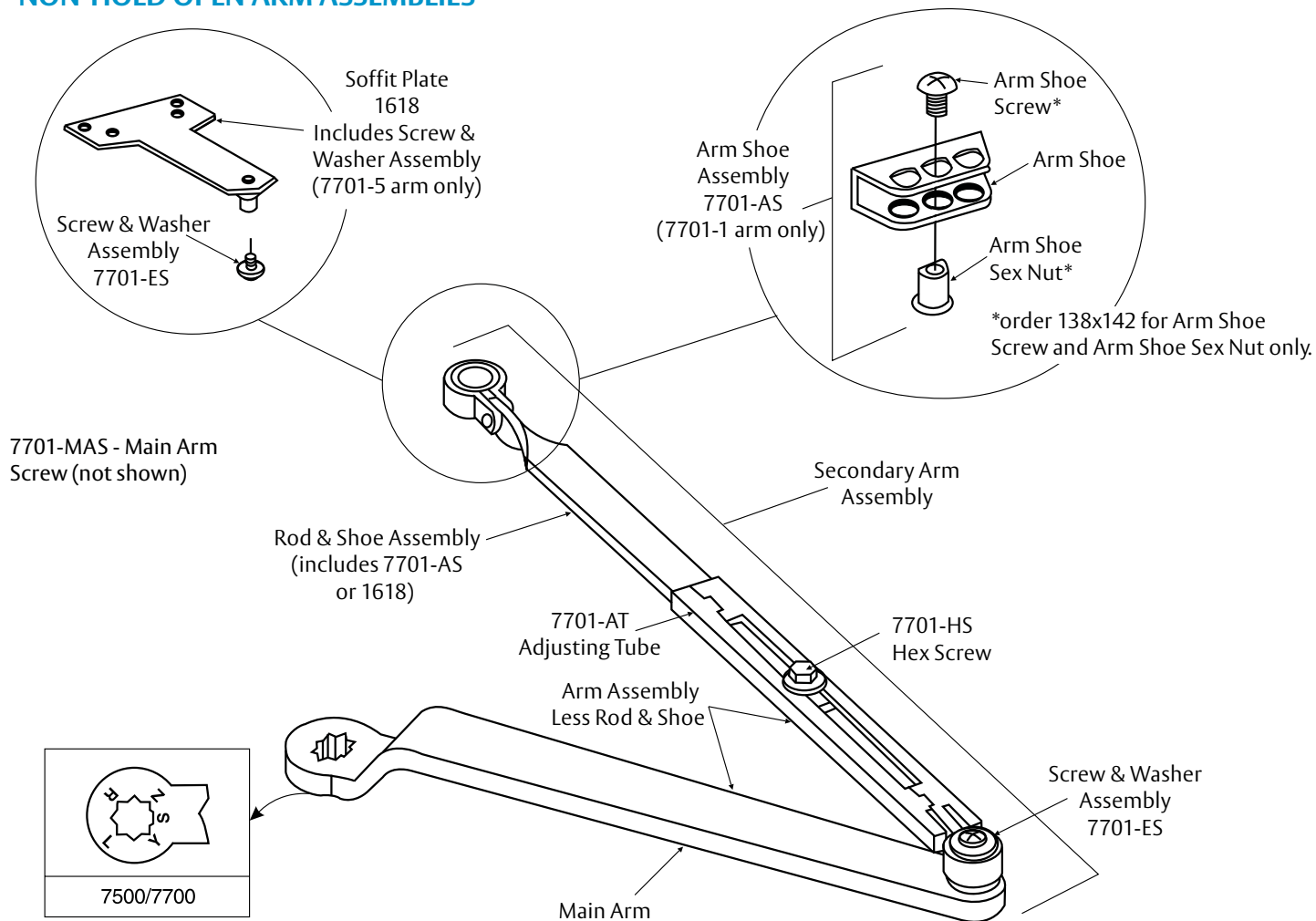
ALUMINUM AND WOOD DOOR APPLICATION (ALUMINUM DOOR SHOWN)

Through-Bolt & Grommet Nut:
"TBGN" (4 per pack)



Door Thickness	SN's
1-3/8"	TBGN138-47
1-3/4"	TBGN134-47

NON-HOLD OPEN ARM ASSEMBLIES

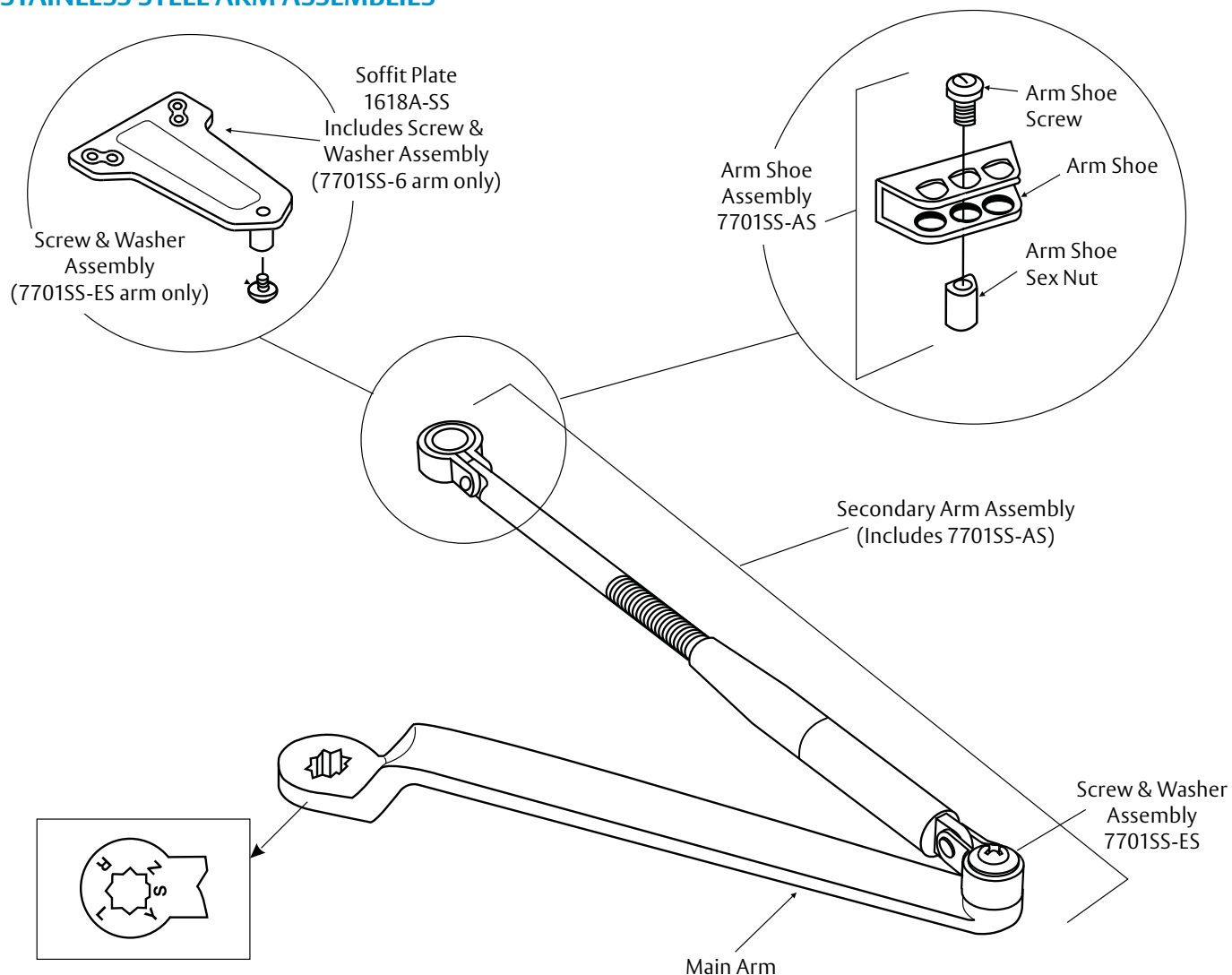


Note: Mounting hardware included with all parts orders.

Closer Series	Complete Arm Assembly	Main Arm Assembly ¹ (length)(mm) (includes 7701-ES)	Secondary Arm Assembly (includes 7701-ES)	Arm Assembly Less Rod and Shoe	Rod & Shoe Assembly ² (length)(mm)
R7570	7701-1	7701-1M (11)(279)	7701-111	7701-1W	7701-11 (8-7/8)(225)
J7500	7701-1A		7701-121		7701-11A (12-9/16)(319)
JL7500	7701-1B	7701-2M (13-1/2)(343)	7701-131	7701-2W	7701-11B (15-3/16)(386)
P7500	7701-5	7701-1M (11)(279)	7701-115	7701-1W	7701-15 (8-7/8)(225)
P7500 ³	7701-5A		7701-115A		7701-15A (12-9/16)(319)
7500	7701-25 (tri-packed includes 7701-1 plus 1618 plate)	1. C to C length shown in parentheses. 2. C of connecting link to end of rod shown in parentheses. 3. For 180° door swing when using a special template for doors hung on 6" to 8" (152 to 203mm) wide throw hinges.			

7500 SERIES INSTITUTIONAL DOOR CLOSER

STAINLESS STEEL ARM ASSEMBLIES

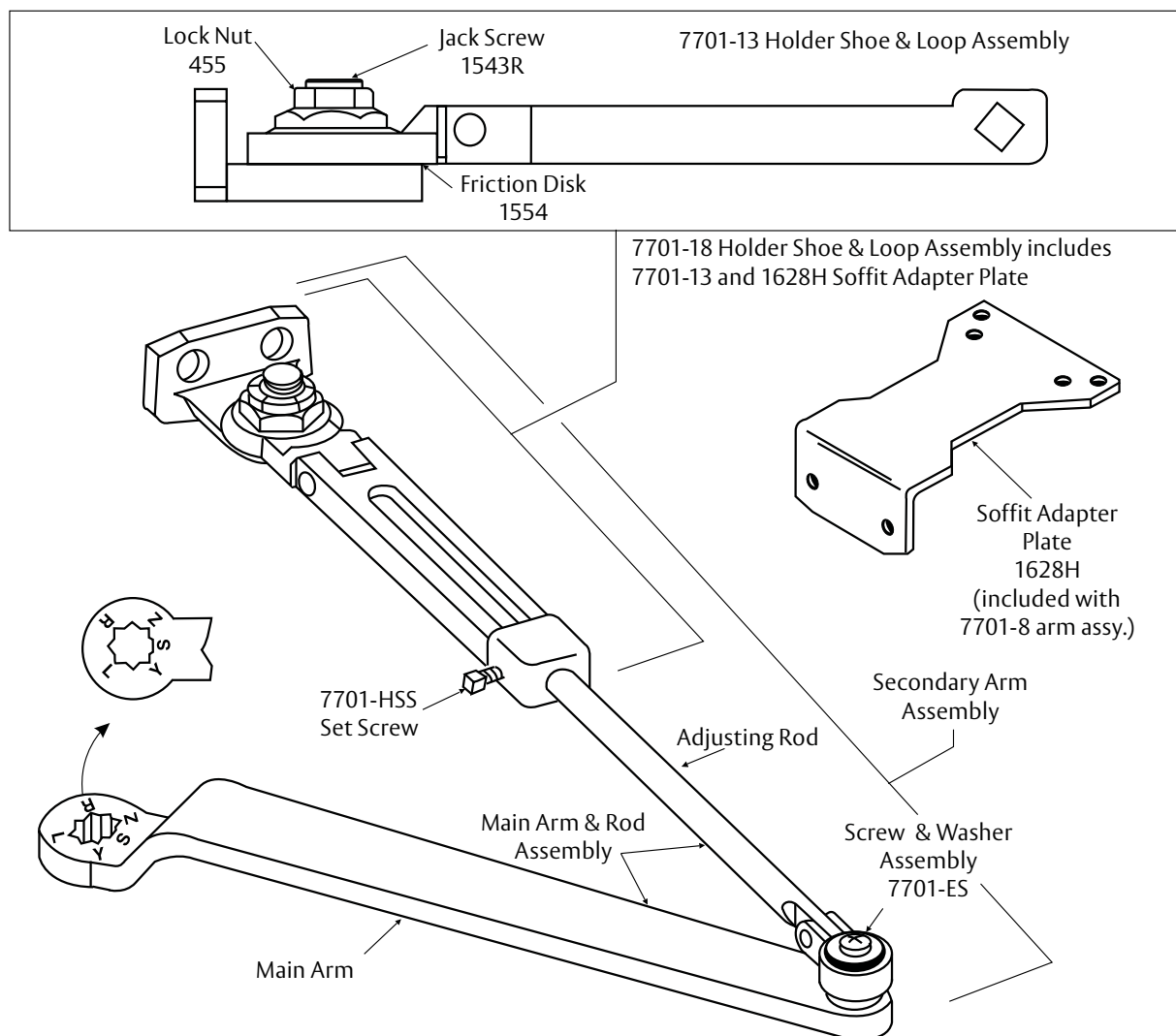


Note: Mounting hardware included with all parts orders.

Closer Series	Complete Arm Assembly	Main Arm Assembly ¹ (length)(mm) (includes 7701SS-ES)	Secondary Arm Assembly (includes 7701SS-ES)
7500SS	7701SS-1		7701SS-111
J7500SS	7701SS-1A	7701SS-1M (11)(279)	7701SS-121
P7500SS	7701SS-6		7701SS-116

1. C to C length shown in parentheses

HOLD OPEN ARM ASSEMBLIES



Note: Mounting hardware included with all parts orders.

Closer Series Assembly	Complete Arm Assembly	Main Arm ¹ (length)(mm) (includes 7701-ES)	Secondary Arm Assembly (includes 7701-ES)	Main Arm & Rod Assembly	Holder Shoe & Loop Assembly	Adjusting Rod ² (Length)(mm)
7500H	7701-3/7701-8 ³	7701-1M (11)(279)	7701-113/7700-118 (Reg.) / (Par.)	7701-3W	7701-13	7701-31 (7-3/8)(187)
JL7500	7701-3A		7701-123	7701-3WA		7701-31A (10-13/16)(275)
JL7500H	7701-3B	7701-2M (13-1/2)(343)	7701-133	7701-3WB		7701-31B (12-7/8)(327)

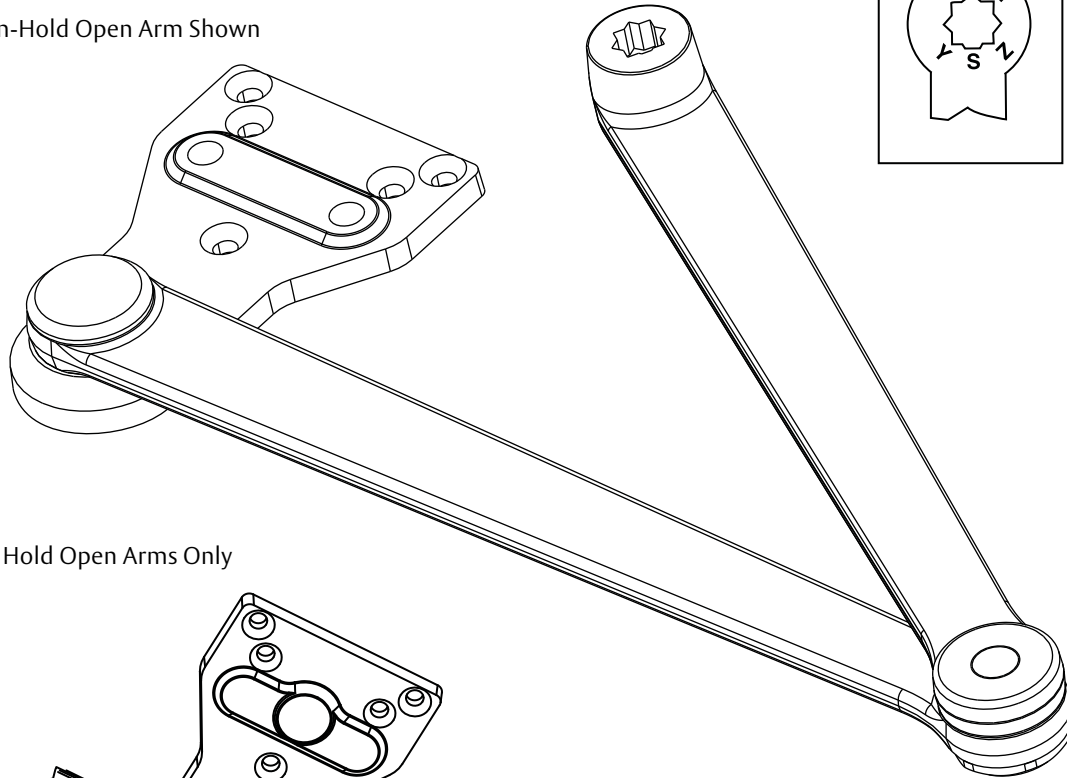
1. C to C length shown in parentheses.

2. C of connecting link to end of rod shown in parentheses.

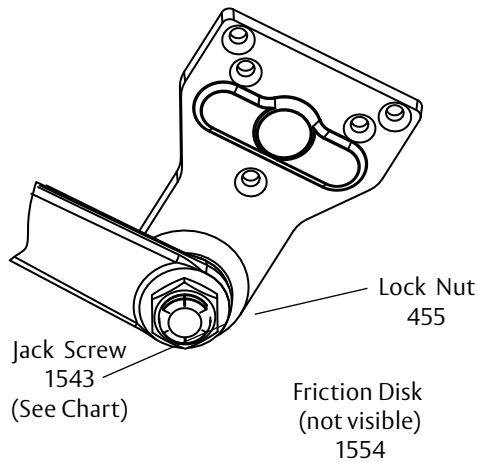
3. Same as 7701-3 but includes #1628H soffit adapter plate.

PARALLEL RIGID ARM ASSEMBLIES

Non-Hold Open Arm Shown



Hold Open Arms Only

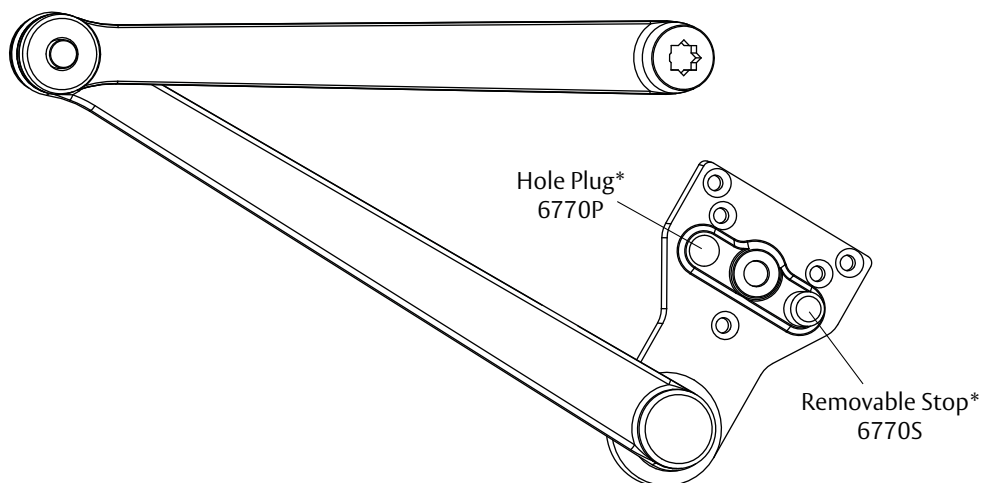


Note: Mounting hardware included with all parts orders.

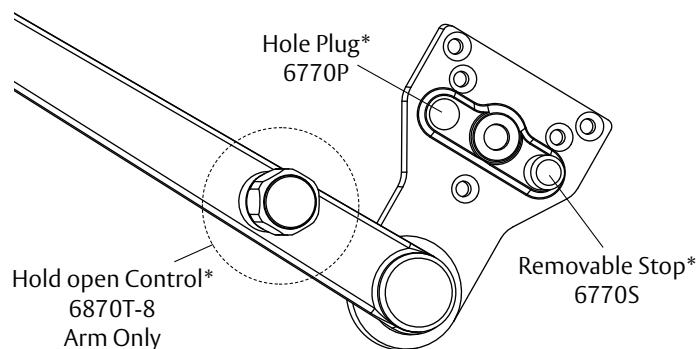
Arm Function	Complete Arm Assembly	Jack Screw
Non-Hold Open	PR7701-5	N/A
Hold Open	PR7701-8R (Right Hand)	1543R
	PR7701-8L (Left Hand)	1543L

CLOSERPLUS® ARM ASSEMBLIES

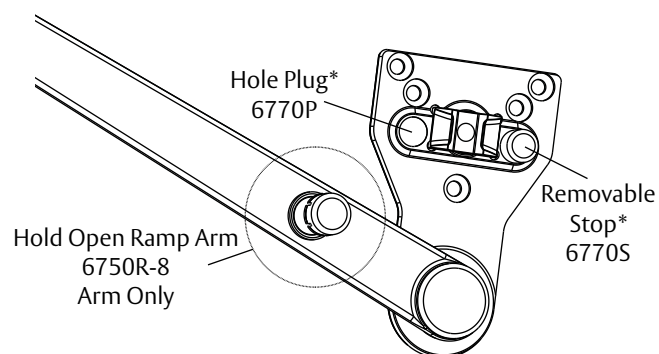
CLP
Non-Hold Open



CLP-T
Thumbturn Hold Open



CLP-R
Ramp Hold Open



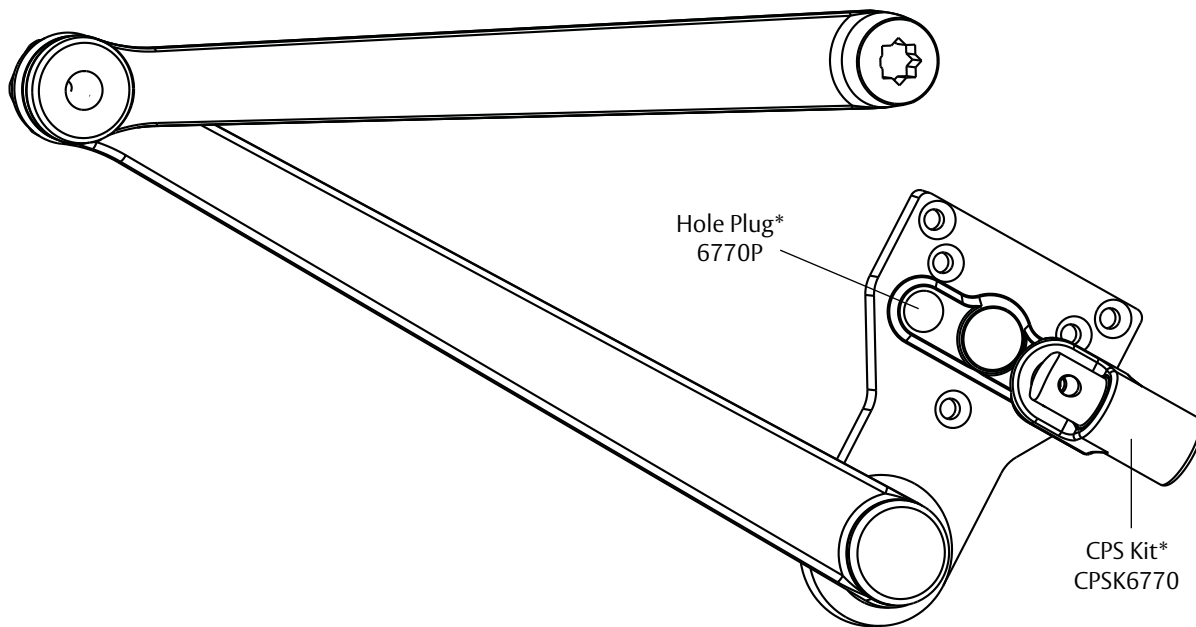
Note: Mounting hardware included with all parts orders.

Arm Function	Complete Arm Assembly
Non-Hold Open	6770-5
Thumbturn Hold Open	6870T-8
Ramp Hold Open	6750R-8

* These parts and screw pack are included with complete arm assemblies.

CLOSERPLUS SPRING™ ARM ASSEMBLIES

Non-Hold Open Arm Shown

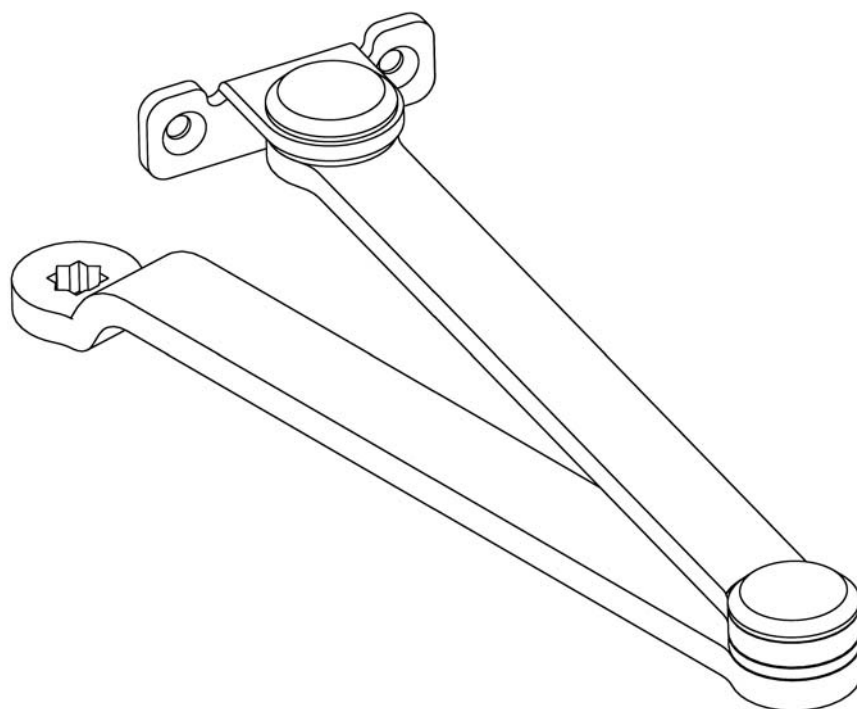


Note: Mounting hardware included with all parts orders.

Arm Function	Complete Arm Assembly
Non-Hold Open	CPS6770-5
Thumbturn Hold Open	CPS6870T-8

* These parts and screw pack are included with complete arm assemblies.

REGULAR RIGID HEAVY-DUTY ARM



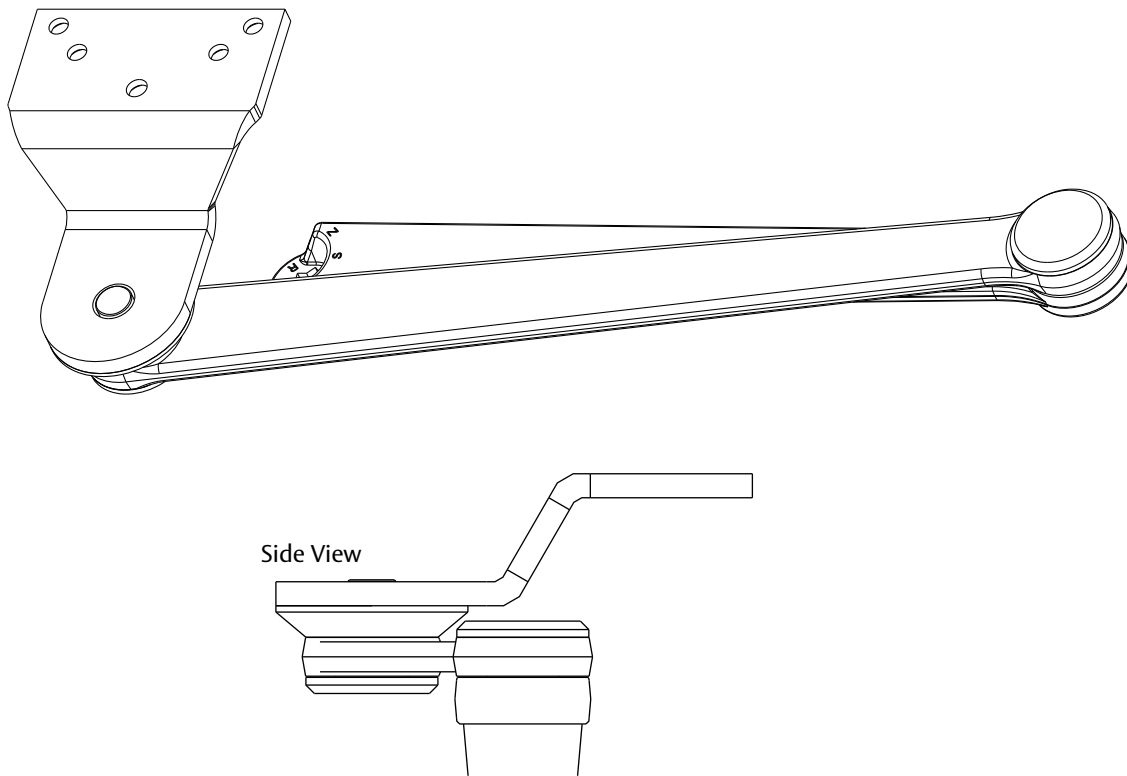
Note: Mounting hardware included with all parts orders.

Closer Series	Arm Function	Complete Arm Assembly
R7500	Non-Hold Open	R7701-1 Furnished with standard fasteners
7570*		7771-1 Furnished with Torx fasteners

* Refer to Norton's Security Closer Catalog.

PARALLEL RIGID OFFSET ARM ASSEMBLIES

Non-Hold Open

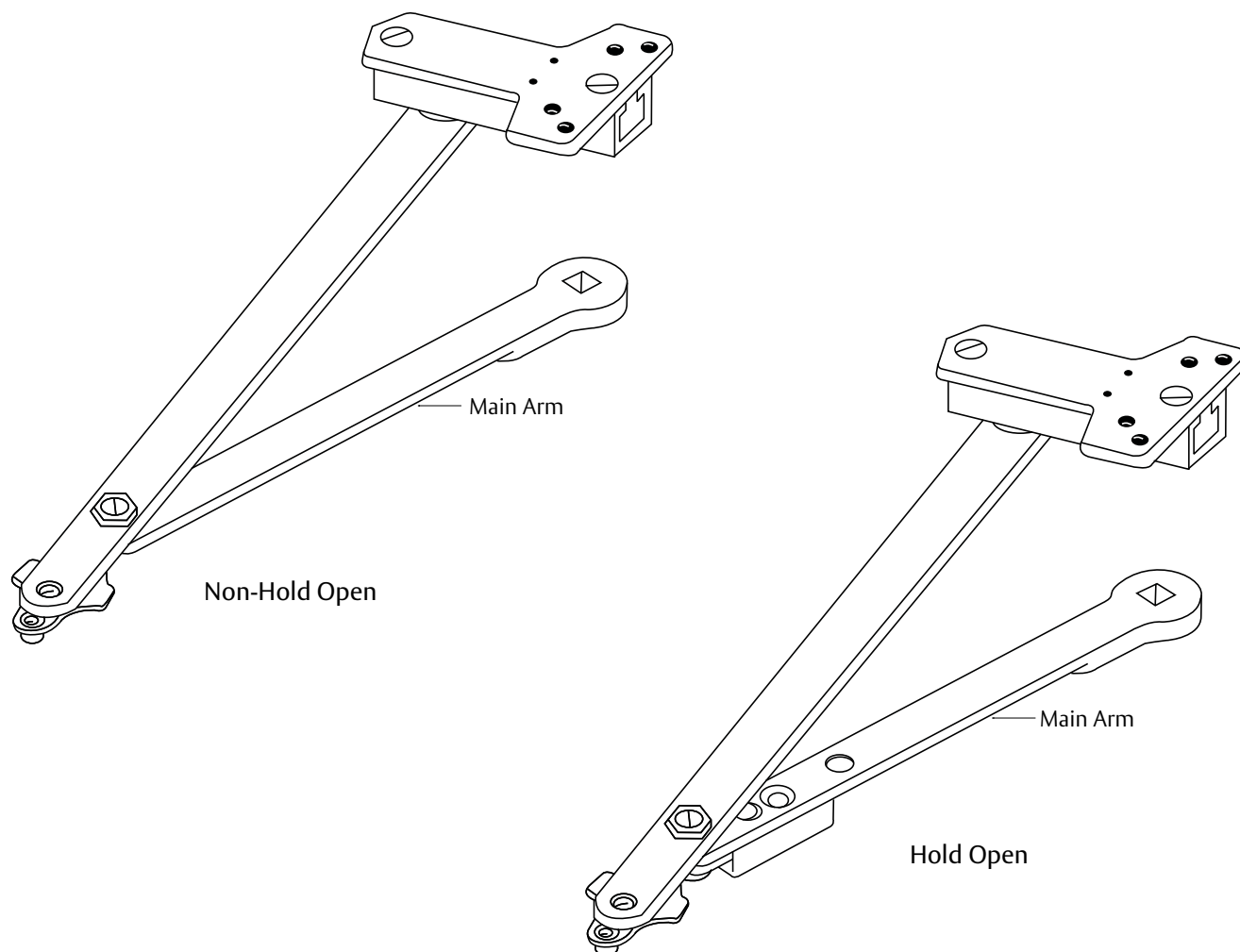


Note: Mounting hardware included with all parts orders.

Complete Arm Assembly	Arm Function
PRO7701-5	Non-Hold Open
PRO7701-8R	Hold Open, Right Hand
PRO7701-8L	Hold Open, Left Hand

UNITROL® ARM ASSEMBLIES

Parallel Arm

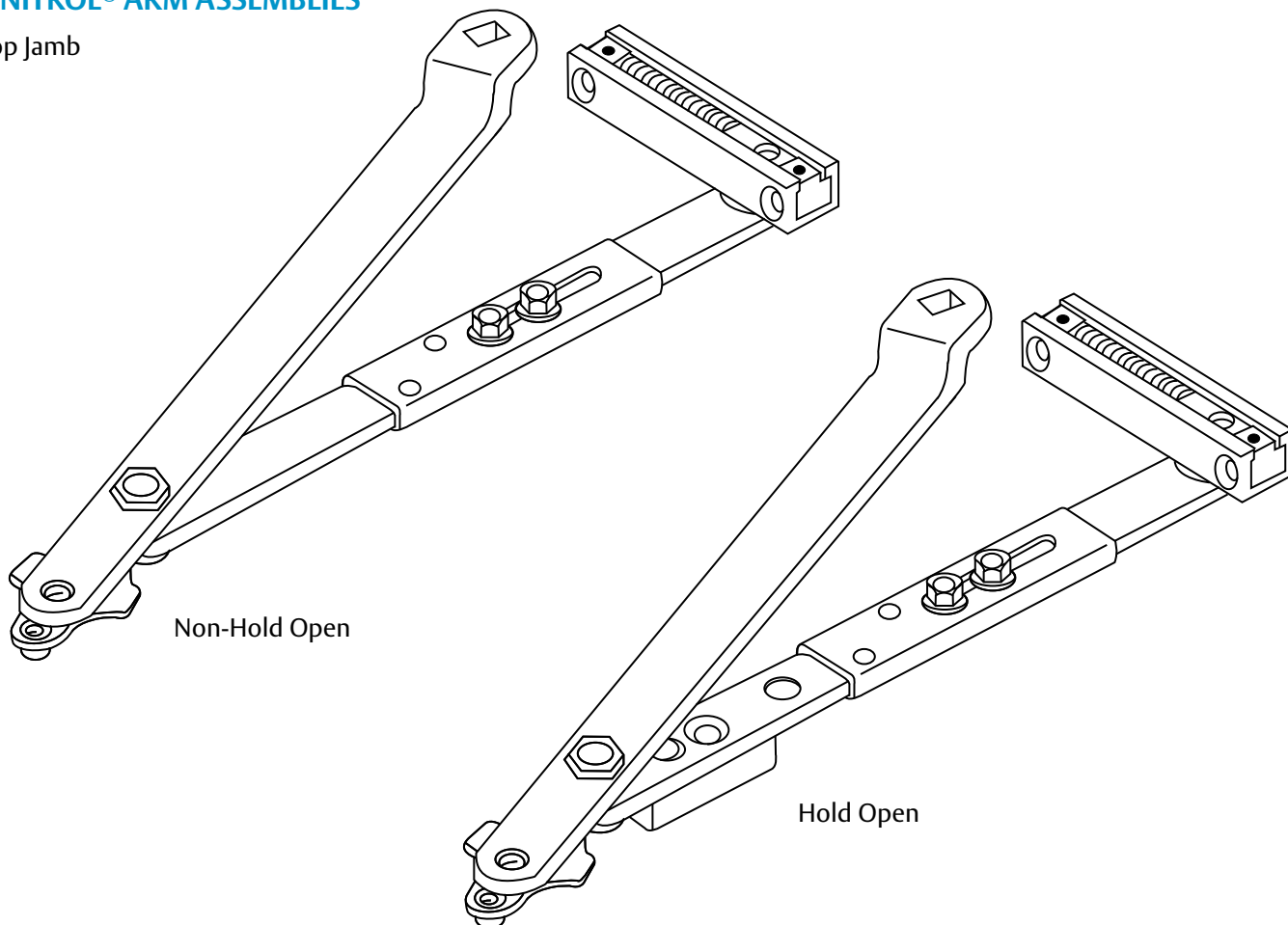


Note: Mounting hardware included with all parts orders.

Door Width (cm)	Main Arm Length* (mm)	Complete Arm Assembly	
		Non-Hold Open	Hold Open
28" - 32" (71 - 81)	9-1/2" (241)	6100-11	6100-1
33" - 41" (84 - 104)	11" (279)	6100-13	6100-3
42" - 48" (107 - 122)	12-1/2" (318)	6100-14	6100-4

UNITROL® ARM ASSEMBLIES

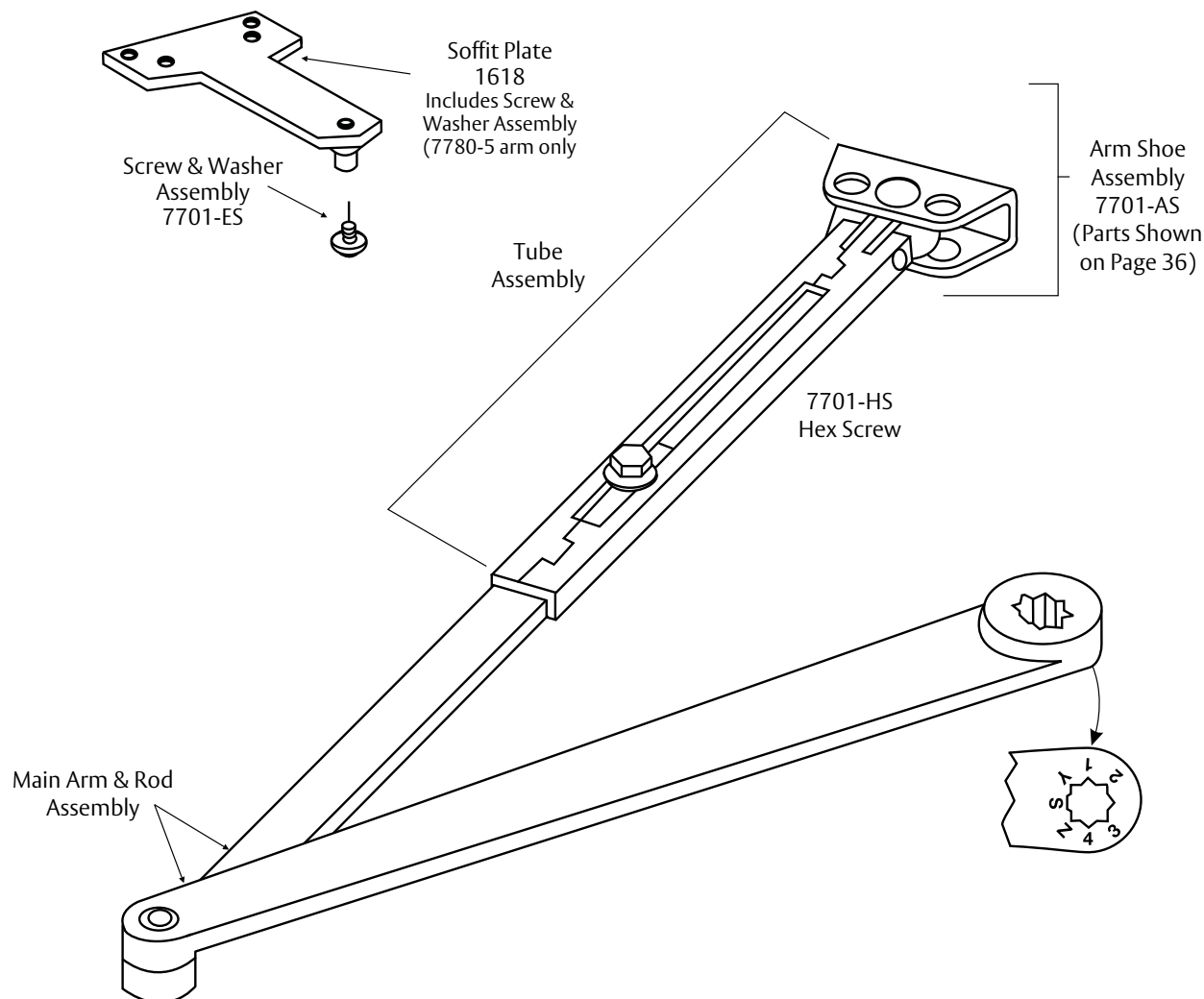
Top Jamb



Note: Mounting hardware included with all parts orders.

Complete Arm Assembly		For Frame Reveals (mm)
Non-Hold Open	Hold Open	
J6100-4	J6100-7	2-1/8" - 3-1/4" (54 - 83)
J6200-4	J6200-7	1/2" - 2" (13 - 51)
J6400-4	J6400-7	3-3/8" - 4-1/4" (86 - 108)
J6500-41	J6500-71	4-3/8" - 5-3/8" (111 - 137)
J6500-42	J6500-72	5-1/2" - 6-3/8" (140 - 162)
J6500-43	J6500-73	6-1/2" - 7-3/8" (165 - 187)
J6600-4	J6600-7	0" - 3/8" (0 - 10)

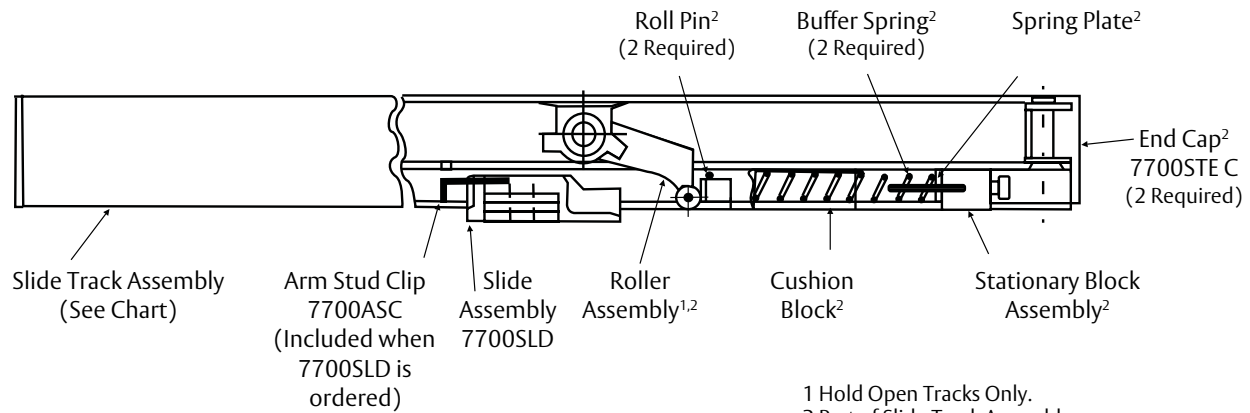
LOW PROFILE ARM ASSEMBLIES



Note: Mounting hardware included with all parts orders.

Arm Application	Complete Arm Assembly	Main Arm & Adjusting Rod Assembly	Tube & Shoe/Soffit Assembly
Regular Arm	7780-1	7780-1MR	7780-1TS (With 7701-AS)
Parallel Arm	7780-5		7780-5TS (With 1618)
Tri-pack	7780-25		

TRACK ASSEMBLIES



1 Hold Open Tracks Only.
2 Part of Slide Track Assembly.

* Consists of track, slider assembly and two end caps
Auxiliary door stop required.

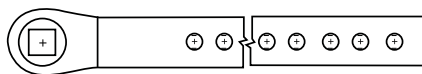
Note: Mounting hardware included with all parts orders.

Track Assemblies	Part Number	
	Non-Hold Open	Hold Open
Pull side mounted	7701ST-1T	7701ST-3T
Push side mounted	7701ST-5T	7701ST-8T
Pull side mounted (180°)	7701ST-1T180°*	N/A

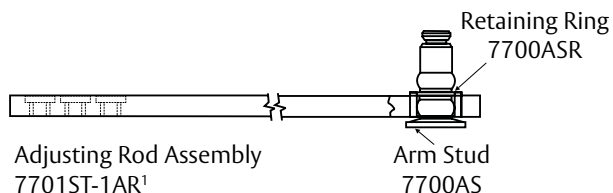
TRACK ASSEMBLIES

Standard Arm Assembly

7701ST-1AT^{1,2}

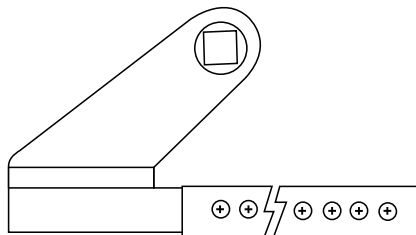


Arm Tube Assembly
7701ST-1AT¹

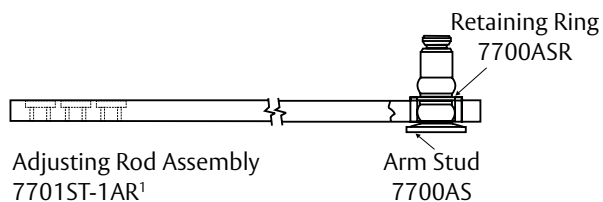


Double Egress Arm Assembly

7701PT-DE-1R (Right Hand)^{1,2}
7701PT-DE-1L (Left Hand)^{1,2}

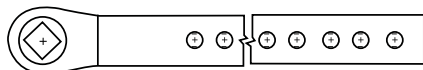


Arm Tube Assembly
7701ST-1ATR¹ (right hand)
7701ST-1ATL¹ (left hand)

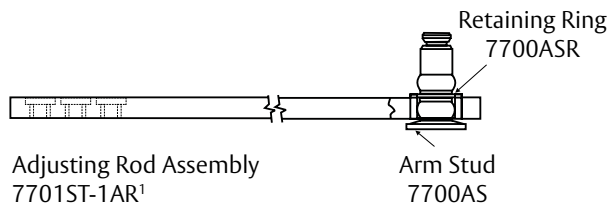


STP Arm Assembly (Pocket Doors Only)

7701STP-1A^{1,2}



Arm Tube Assembly
7701STP-1AT¹

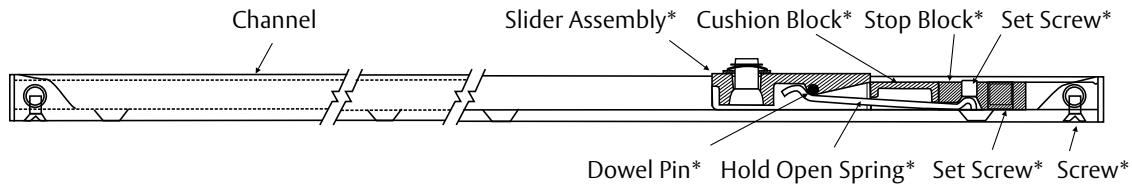


1 Includes arm length adjusting screw #7700ALAS

2 Includes arm tube & adjusting rod assembly

Note: Mounting hardware included with all parts orders.

TRACK ASSEMBLIES - SHALLOW DEPTH

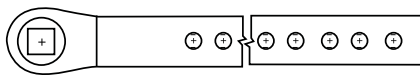


*Part of an Assembly Pack
NHO=7740SLD
HO=7740HSLD

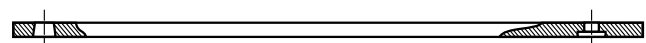
Note: Mounting hardware included with all parts orders.

Track Assemblies	Part Number	
	Non-Hold Open	Hold Open
Pull side mounted	7740ST-1T	7740ST-3T
Push side mounted	7740ST-5T	7740ST-8T

Arm Assembly



Arm Tube Assembly
7701ST-1AT²



Adjusting Rod Assembly
7740ST-1AR²

- 1 Includes arm length adjusting screw.
- 2 Includes arm tube & adjusting rod assembly.

FASTENERS

Type	Description	Arm								
		RA	PA	TJ	Low Profile	PR	CLP/ CPS	UNI	UNI-J	Slide Track
DOOR										
SDST	Self Drilling Self Tapping	S	S	S	S	S	S	S	O	O
MS	Machine Screw	S	S	S	S	S	S	S	S	S
SN	Sleeve Nut/Sex Nut	O	O	O	O	S	S	S	S	S
TBGN	Thru Bolts & Grommet Nuts	O	O	O	O	O	O	O	O	O
SMS	Sheet Metal Screws	O	O	O	O	O	O	O	O	O
TORX®	Torx Drive Security Screw	O	O	O	O	O	O	O	O	O
FRAME										
SDST	Self Drilling Self Tapping	S	S	S	S	S	S	S	S	S
MS	Machine Screw	S	S	S	S	S	S	S	S	S
SMS	Sheet Metal Screws	O	O	O	O	O	O	O	O	O
TORX	Torx Drive Security Screw	O	O	O	O	O	O	O	O	O

S = standard; O = optional

SN are for use on unreinforced hollow metal doors or to prevent any hollow metal door from collapse/dimpling. They can also be used for thru bolting on wood doors. **When selected as an add-on option, SN** are supplied for 1-3/4" (44mm) thick doors unless specified for 2-1/4" (57mm) thick doors.

TBGN are an alternative to SN for wood doors. **When selected as an add-on option, TBGN** are supplied standard for 1-3/4" (44mm) thick doors. They can be specified for 1-3/8" (35mm) thick doors.

SMS - when the option is specified, closer will be packed with sheet metal screws for the door AND sheet metal screws plus machine screws for the frame.

7500 SERIES INSTITUTIONAL DOOR CLOSER

FINISHES

Norton offers waterborne acrylic, polyester powder coat and plated finishes. Custom finishes are available on special order. A sample and approval is required. Waterborne

acrylic and polyester powder coat will withstand 100 hours of salt spray (ANSI requires 25 hours).

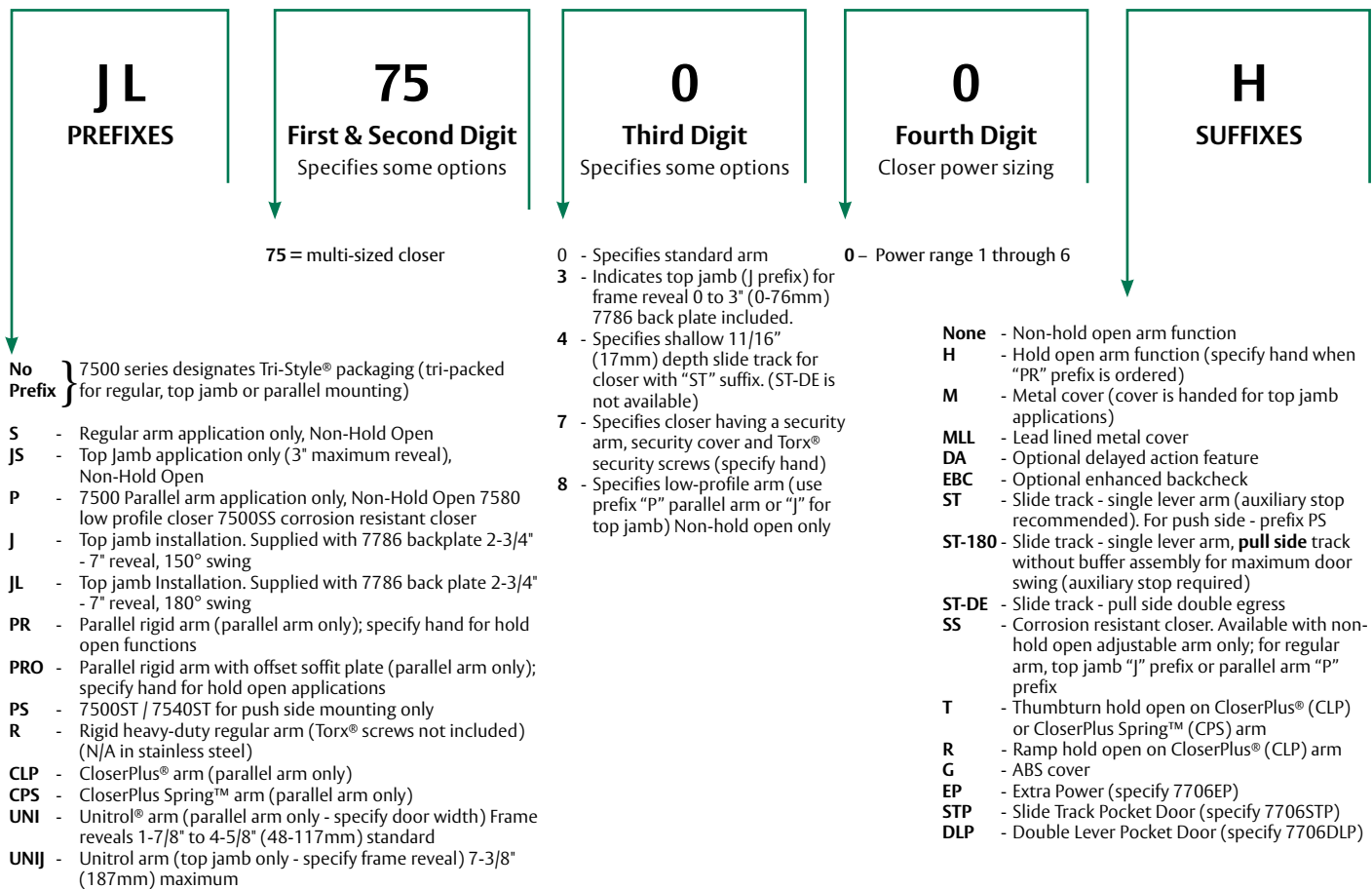
ANSI/BHMA	Description
600*	Prime Coat
605^	Bright Brass
606^	Satin Brass
611^	Bright Bronze
612^	Satin Bronze
613E	Dark Oxidized Satin Bronze - Equivalent
619^	Satin Nickel
625^	Bright Chrome
626^	Satin Chrome

ANSI/BHMA	Description
689	Aluminum
690	Statuary Bronze
691	Dull Bronze
693	Black
694	Medium Amber
N/A	556 White
696	Gold
BSP	Black Suede Powder

- * 600 is a special rust-inhibiting prime coat. Closers can be ordered prime coat only (specify closer x 600). An additional charge applies if finish coat is required over prime coat.
- » Norton closer bodies and plastic covers are available in waterborne acrylic finishes. Arms and metal covers are available in powder coat or plated finishes.
- » When a plated finish is ordered, arm and cover will be plated unless "cover only" is specified.
- ^ Plated finish

HOW TO ORDER

NOTE: For optimum protection of door and frame assemblies, always use auxiliary wall, floor, or overhead door stop.



Note:

- » Door closer warranty becomes void if it is installed on the exterior side of a door in the exterior wall of a building
- » It is strongly recommended, and it is required on fire door assemblies, that doors having a door closer be hung on ball-bearing or anti-friction hinges or pivots
- » Failure to use the correct type and size fasteners may void factory warranty
- » Fasteners for fire/smoke door assemblies must conform to NFPA 80. In some applications additional fasteners may be mandated by NFPA 80 that are not shipped with Norton's standard product, such as sleeve nuts/sex nuts or through-bolts and grommet nuts
- » Sizing charts provided on pages 11-24 are based on 1-3/4" (44mm) x 7" (2.13m) standard weight doors swinging to 110 degrees. Other conditions (such as door height or weight; or wind/draft conditions) may require a larger size closer.

Norton®
ASSA ABLOY

ASSA ABLOY is the global leader in door opening solutions, dedicated to satisfying end-user needs for security, safety and convenience

Since 1880, Norton door controls have been an integral part of schools, hospitals and businesses around the globe. When you need products and people that perform at the highest level, rely on Norton – From Open to Close.

Norton Door Controls | www.nortondoorcontrols.com

3000 Highway 74 East | Monroe, NC 28112 | Tel: 1-877-974-2255 | Fax: 1-800-338-0965

ASSA ABLOY Door Security Solutions Canada | www.assaabloydss.ca

160 Four Valley Drive | Vaughan, Ontario, L4K 4T9 Canada | Tel: 800-461-3007 | Fax: 1-800-461-8989

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High security closers that withstand
maximum abuse and deter tampering

Norton®

ASSA ABLOY

ASSA ABLOY, the global leader
in door opening solutions

7570
S E R I E S

DOOR CLOSER

CATALOG

INTRODUCTION

Norton 7570 Series are high security closers designed to withstand maximum abuse, deter tampering and help protect doors, walls and hardware. Available with a large number of arm and track assemblies, the 7570 Series closers are capable of providing a high level of reliable performance for a wide variety of openings. Schools, government buildings, financial institutions, industrial facilities, and prisons and detention centers are ideal applications for this closer.



FEATURES

- » Adjustable spring sizes 1 through 6
- » Security arms – joints feature permanent, orbital riveted elbow and arm shoe/soffit plate joints which prevent disassembly
- » Adjustable backcheck cushioning and positioning
- » Torx drive machine screws with security pin
- » Heavy-duty arms: Regular Rigid, Parallel Rigid, CloserPlus® and CloserPlus Spring™
- » 25-year limited warranty

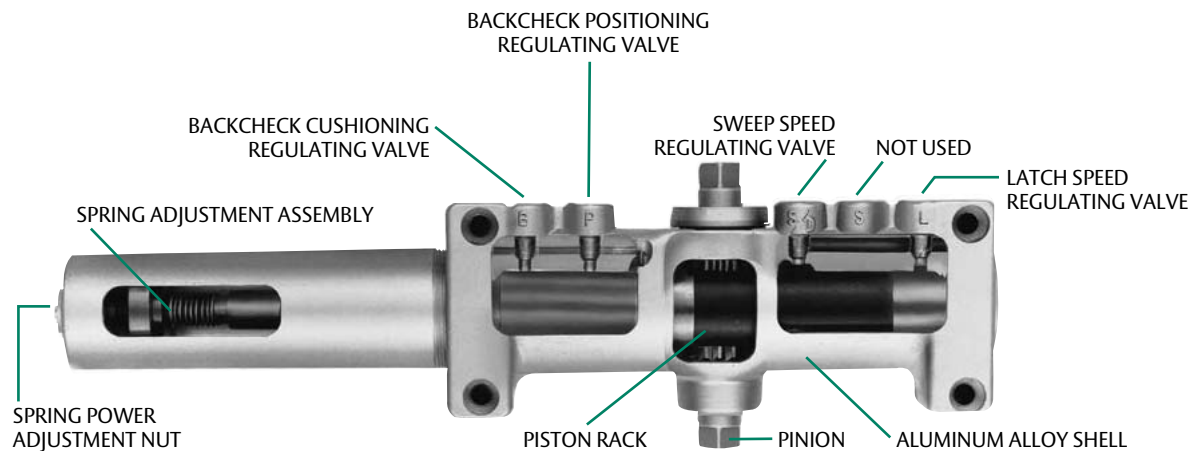
OPTIONAL FEATURES

- » Slide track – push or pull mounting
- » Delayed action
- » Enhanced backcheck




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EXPLODED VIEW OF CLOSER BODY (WITHOUT DELAYED ACTION)



CERTIFICATIONS

- » ANSI/BHMA A156.4, Grade 1 certified 
- » UL / cUL listed for use on fire rated doors 
- » UL10C listed for positive pressure fire test
- » Comply with requirements for the Americans with Disabilities Act (A.D.A) and ANSI standard A117.1 
- » This product is manufactured in an ISO 9001 facility
- » Closers are listed by the New York City Materials and Equipment Acceptance Division

CAUTION: Door Closers for Low Opening Force Applications:

Door closers installed in openings required to meet the requirements of The Americans with Disabilities Act or ANSI/BHMA Standard A117.1, when adjusted to meet those requirements, may not provide adequate closing power to dependably close and latch the door.

EXPLANATION OF FEATURES

Aluminum Alloy Housing

Closer bodies are constructed of a special aluminum alloy, carefully selected to accommodate interactive steel components and operating conditions.

Rack & Pinion Operation

Provides a smooth constant control of the door through its full opening and closing cycle. 180° door swing can be achieved when door, frame, hardware and arm function do not interfere.

Handed

All series 7570 closer covers are handed (closer cover must match hand of door).

Sweep Speed Control Valve

Allows adjustment of door speed from the door's full open position down to approximately 5° from the closed position.

Latch Speed Control Valve

Allows adjustment of door speed from approximately 5° down to the door's fully closed position.

Non-Critical Control Valves

All control valves for sweep speed, latch speed and backcheck cushioning are non-critical and are adjusted by a standard 1/8" (3mm) hex wrench.

Adjustable Backcheck Cushion Valve

Provides control of the door in the opening cycle, beginning at approximately 75° of door opening. It slows/cushions the door opening, when the door is forcibly opened beyond its pre-adjusted limits.

Adjustable Backcheck Position Valve

Allows the door opening position, where backcheck cushioning begins, to be adjusted to a greater door angle, up to a maximum of 20° farther (approximately 95°).

Security Cover

Supplied standard with all series 7570 door closers. This deep drawn steel cover is handed for all applications. The cover is fastened to the closer body at two points on top and to the door closer body stand-offs at two points on the bottom.

Warranty

These closers carry a limited 25-year warranty against defect, and life of the building on the aluminum housing.

Closer Fluid

NorGlide® closer fluid is a specially formulated multi-viscosity hydraulic fluid that contains lubricity and anti-oxidation agents that provide optimum performance and efficiency. This fluid complements the interaction of the door closer's aluminum housing with its steel and brass components, while maintaining stable viscosity to allow the door closer to perform in temperatures ranging from extremely high to as low as -40° F.

DOOR CLOSER POWER OPTIONS

Series 7570 Multi-Sized Door Closer

Adjustable through the entire power range of door closer sizes 1 through 6, as outlined in ANSI/BHMA standard A156.4. Option PT-4H.

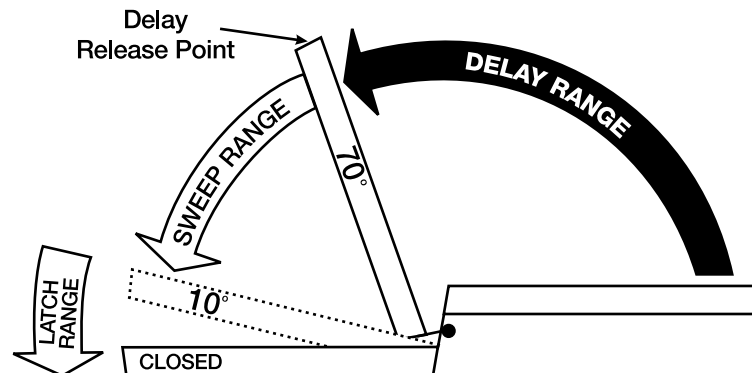
The series 7570 also conforms to the minimum opening force requirements of the Americans with Disabilities Act (A.D.A.) and ANSI/BHMA standard A117.1 for interior doors.

OPTIONAL FEATURES

Adjustable Delayed Action Closing

An optional hydraulic feature that adds a third speed range to the closing cycle. This feature becomes effective when the door is opened and released at any point beyond 70°. The amount of time delay depends upon the combination of the angle of door release and valve adjustment. The valve can be adjusted with a 1/8" (3mm) hex key from no delay time up to maximum delay times of:

Door Opened and Released at	Approximate Time of Delay Cycle
180°	4-5 minutes
120°	2-3 minutes
90°	25-30 seconds



Pressure Relief Safety Valve

The delayed action hydraulic system contains a pressure relief valve. Any time the door is forced toward the closed direction while it is in the closing cycle, the valve will open and permit the door to close. This prevents damage to door, frame and closer.

Suggested Applications

Delayed Action closing allows slow-moving traffic to clear the opening before the door closer's normal closing cycle begins. This feature can be helpful in health care facilities such as hospitals and nursing homes. It provides sufficient

time for persons on crutches or in wheelchairs to pass through a door without concern of it closing. At the same time, it can accommodate the facility's staff with movement of food service carts, beds, and other wheeled traffic.

Use of delayed action closers on many doors throughout industrial and commercial buildings can also assist the flow of traffic. Locations where additional time to clear the opening is advantageous are doors between office and factory/warehouse facilities, doors to workshops or laboratories, to kitchen and food processing areas.

Non-Hold Open

Self-closes door every time door is opened. Auxiliary stop (by others) required except when using the CloserPlus®, CloserPlus Spring™ or Unitrol® arms.

Hold Open

Achieved by means of ball and detent/roller. Ball and detent or roller hold open is effective in a range of 85° to 110°.

Hold open arm door closers are not permitted to be used on fire door assemblies.

Arm Function	Regular Rigid Arm	Parallel Rigid Arm	CloserPlus® Parallel Arm	CloserPlus Spring™ Parallel Arm	Unitrol® Parallel Arm	Slide Track
Non-Hold Open	✓	✓	85° to 110°	85° to 110°	85° to 110°	85° to 110°/180°
Hold Open	—	—	85° to 110°	85° to 110°	—	—

✓=180° trim and template permitting

SPECIFICATIONS

7570 Series

Closers for interior and exterior doors shall be full rack-and-pinion type with cast aluminum alloy body. Closers shall be surface mounted and shall project no more than 2-3/16" from the surface of the door. Closers shall be reversible but supplied with a handed metal cover. Closer fluid shall contain lubricity and anti-oxidation agents. Closer fluid shall maintain stable viscosity to allow door closer to perform in temperatures ranging from extremely high to as low as -40°F. Closers shall have multi-size spring power adjustment to permit setting of spring from 1 through 6. Closers shall have two non-critical valves, hex key adjusted, to independently regulate sweep and latch speed. Closers shall have backcheck cushioning controlled by a hex key adjustable valve. Closers shall have backcheck position controlled by a hex key adjustable valve.

[Closers shall have adjustable delayed-action closing controlled by a hex key adjustable valve.]

****Closers shall be enclosed in a [plated] [sprayed] metal cover. Closers to be Norton® [7570]. Covers shall be fastened to the body at four points, two at the top and two at the bottom to prevent prying.**

****For special arms insert the appropriate specification from column three on this page.**

****Unitrol® Arm**

Door closers shall have built-in door stop effective at one point selected at installation, from 85° - 110° in five-degree increments. Door stop shall be cushioned by a shock-absorbing heavy-duty spring action effective at the soffit plate pivot. Closers shall be provided for parallel arm installation using rigid steel main arm and secondary arm lengths proportional to the door width.

****CloserPlus® Arm**

Door closers shall have built-in door stop [and holder] effective at one point selected at installation, from 85° - 110° in five-degree increments. Door stop mechanism shall be reversible and attached to soffit plate. [Hold open mechanism shall have engage/disengage selection actuated by thumbturn]. Closers shall be provided for parallel arm installation using rigid steel main and secondary arms.

****CloserPlus Spring™ Arm**

Door closers shall have built in door stop [and holder] effective at one point selected at installation, from 85° - 110° in five-degree increments. Door stop mechanism shall have a buffer spring that engages prior to the dead stop feature, reducing shock loads to the door and frame assembly. Door stop mechanism shall be reversible and attached to soffit plate. [Hold open mechanism shall have engage/disengage selection actuated by thumbturn]. Closers shall be provided for parallel installation using rigid steel main and secondary arms.

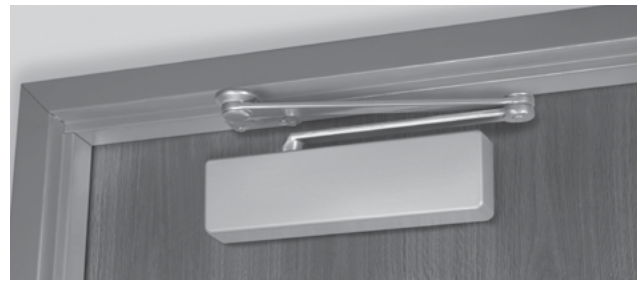
APPLICATIONS



Regular Rigid Arm

This double lever arm features a non-adjustable secondary arm. Orbitally riveted joints prevent tampering or disassembly. The rigid heavy-duty arm is standard with the security closers featuring a regular arm applicaton.

Auxiliary door stop required. Available non-hold open only.



Parallel Rigid Arm

An enhanced variation of the standard parallel arm assembly that is intended for use in heavy traffic areas where auxiliary door stops are installed.

Auxiliary door stop required. Available non-hold open only.



CloserPlus® Arm

Similar to the Parallel Rigid arm, this arm incorporates a stop at the arm's soffit plate to dead stop the door at a predetermined degree of door swing between 85° and 110°, in 5° increments. Prior to dead stop the door closer's backcheck feature slows the door speed to reduce the impact of the stop action.

CloserPlus arm is intended for use where an auxiliary door stop cannot be utilized and no more than moderate abuse is anticipated. Where more extreme conditions are expected, use of a Unitrol® arm is recommended.

Thumbturn hold open available. (Hold open strength is adjustable.)

APPLICATIONS



CloserPlus Spring™ Arm

This heavy-duty stop arm includes all of the features of the CloserPlus Arm, plus an added buffer spring that is compressed prior to the arm hitting the dead stop point. This greatly reduces the shock of the stopping action that occurs with the CloserPlus arm.

CloserPlus Spring Arm is intended for use where an auxiliary door stop cannot be utilized and no more than moderate abuse is anticipated. Where more extreme conditions are expected, use of a Unitrol arm is recommended.

Thumbturn hold open available. (Hold open strength is adjustable.)



Unitrol® Arm (Parallel Arm)

Unitrol arms combine the features of a double lever arm overhead door stop/holder with the backcheck feature of the door closer to reduce door stopping shock loads to a minimum. This arm uses a compression spring buffer at the soffit plate/arm shoe that will absorb 30 lbs. of force, 5° prior to the door's dead stop. Coupled with the door closer's backcheck feature, the Unitrol Arm offers the most controlled stop available with a surface door closer.

There are three different length arm assemblies. Each length is designed for a specific range of door widths to provide precise door control. This further lessens the dead stop impact on the door's hinges/pivots.



Pull Side



Push Side

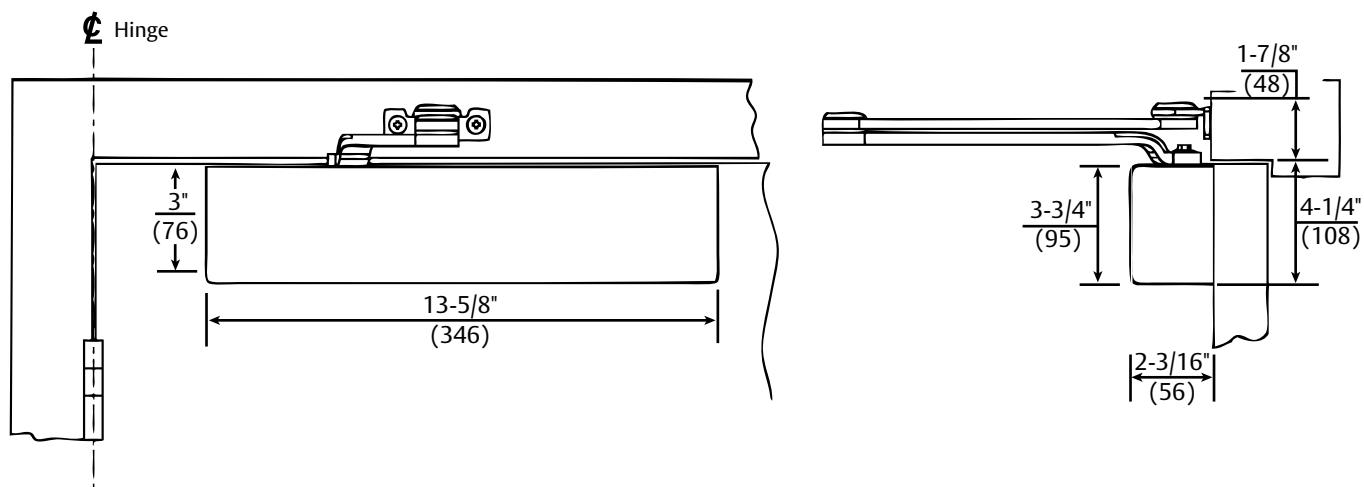
Slide Track Mounting

Whether pull or push side mounted, this application provides the designer with the smoothest lines available in a surface-mounted door closer. The single lever arm allows components to be located in a stack configuration to minimize projection and eliminate obtrusive arm angles.

Auxiliary door stop is recommended for this application.

7570 SERIES SECURITY DOOR CLOSER

REGULAR RIGID ARM



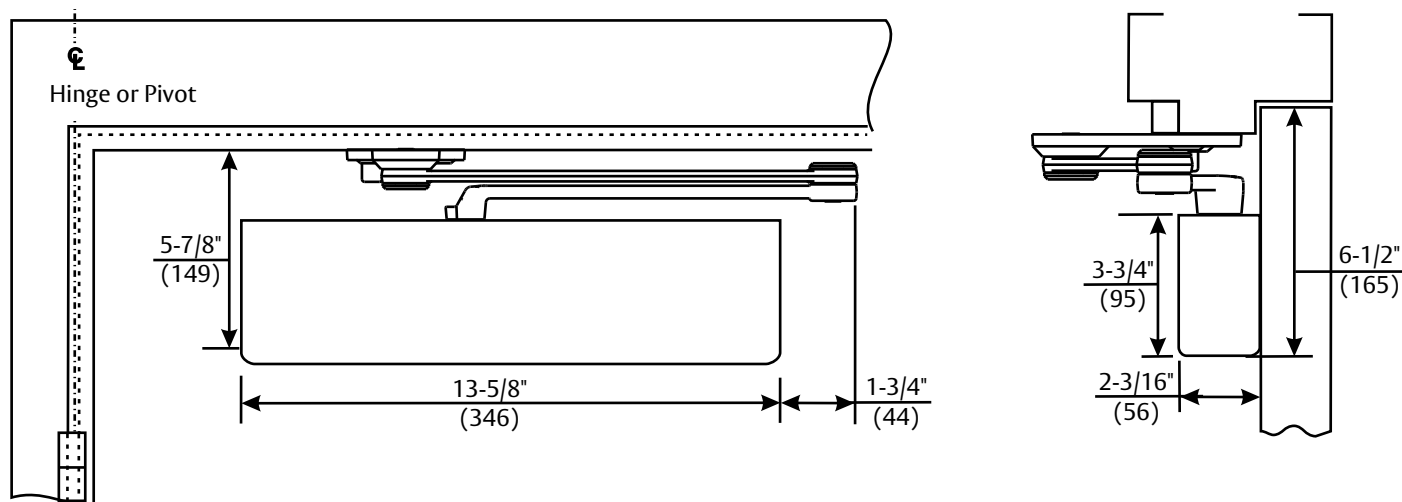
Mounting holes for closer body are spaced 2-3/8" (60mm) vertically x 6-3/4" (171mm) horizontally.

Maximum Door Width Inches (cm)		Model #
Interior	Exterior	Non-Hold Open
36" (91)	30" (76)	7570
42" (107)	36" (91)	
46" (117)	42" (107)	
54" (137)	48" (122)	
—	52" (132)	

Notes:

- » 7570 door closers are set at midpower range from the factory and can be adjusted for door sizes noted above.
- » Sizing charts are based on 1-3/4" (44mm) x 7'0" (2.13m) standard weight doors swinging to 110 degrees. Other conditions (such as door height or weight, or wind/draft conditions) may require a larger size closer.
- » Contact factory if door weight exceeds 250 lbs.

PARALLEL RIGID ARM



Mounting holes for closer body are spaced 2-3/8" (60mm) vertically x 6-3/4" (171mm) horizontally.

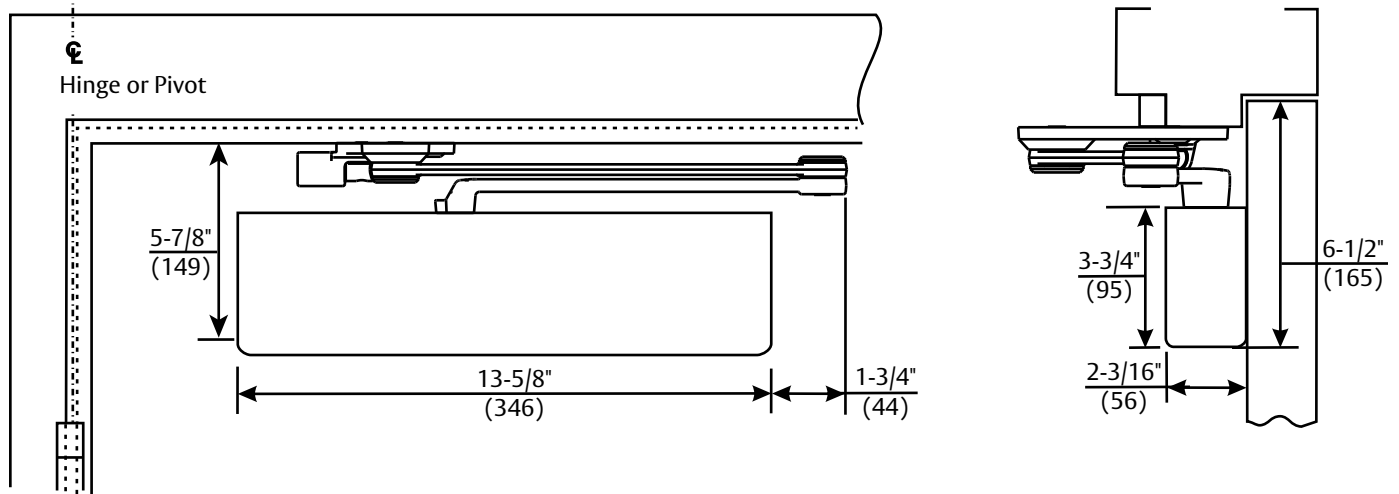
Maximum Door Width Inches (cm)		Model #
Interior	Exterior	Non-Hold Open
30" (76)	—	PR7570
36" (91)	32" (81)	
42" (107)	36" (91)	
48" (122)	42" (107)	
—	48" (122)	

Notes:

- » 7570 door closers are set at midpower range from the factory and can be adjusted for door sizes noted above.
- » Sizing charts are based on 1-3/4" (44mm) x 7'0" (2.13m) standard weight doors swinging to 110 degrees. Other conditions (such as door height or weight, or wind/draft conditions) may require a larger size closer.
- » Contact factory if door weight exceeds 250 lbs.

7570 SERIES SECURITY DOOR CLOSER

CLOSERPLUS® ARM



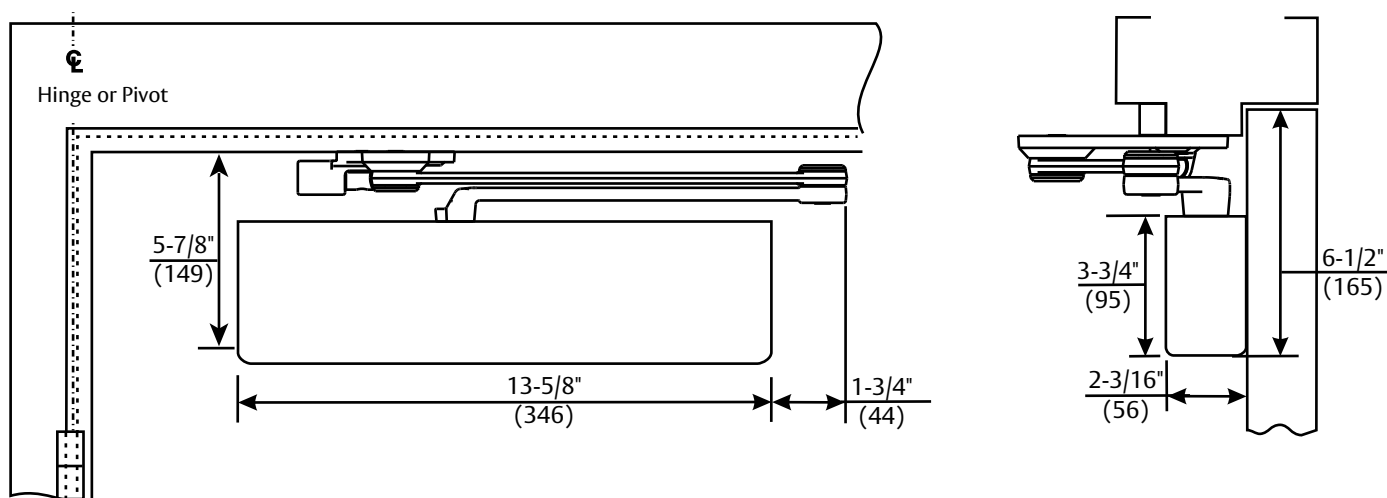
Mounting holes for closer body are spaced 2-3/8" (60mm) vertically x 6-3/4" (171mm) horizontally.

Maximum Door Width Inches (cm)		Model #	
Interior	Exterior	Non-Hold Open	Hold Open
30" (76)	—	CLP7570	CLP7570T
36" (91)	32" (81)		
42" (107)	36" (91)		
48" (122)	42" (107)		
—	48" (122)		

Notes:

- » 7570 door closers are set at midpower range from the factory and can be adjusted for door sizes noted above.
- » Sizing charts are based on 1-3/4" (44mm) x 7'0" (2.13m) standard weight doors swinging to 110 degrees. Other conditions (such as door height or weight, or wind/draft conditions) may require a larger size closer.
- » Contact factory if door weight exceeds 250 lbs.

CLOSERPLUS SPRING™ ARM



Mounting holes for closer body are spaced 2-3/8" (60mm) vertically x 6-3/4" (171mm) horizontally.

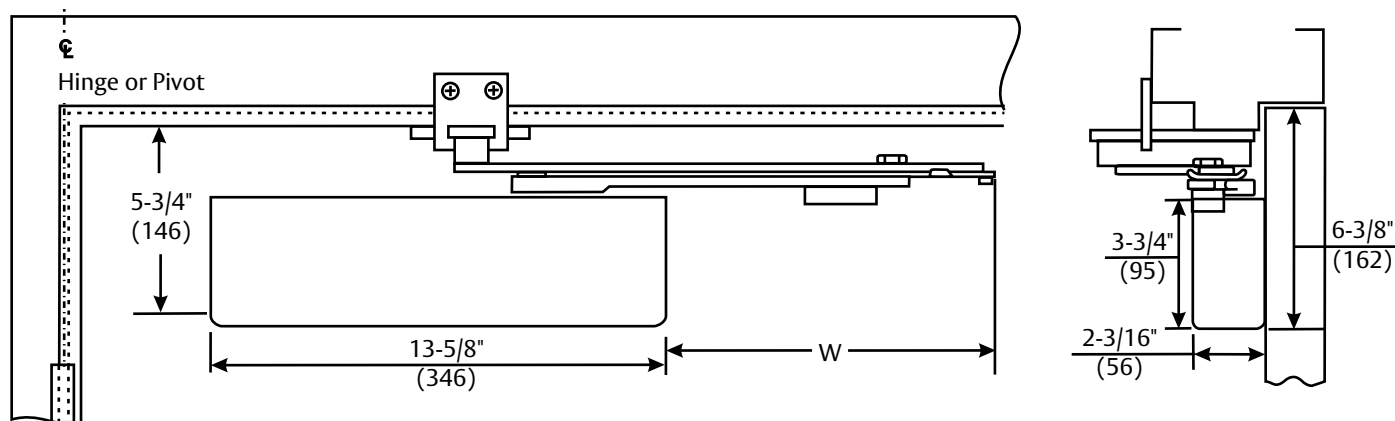
Maximum Door Width Inches (cm)		Model #	
Interior	Exterior	Non-Hold Open	Thumbturn Hold Open
30" (76)	—	CPS7570	CPS7570T
36" (91)	32" (81)		
42" (107)	36" (91)		
48" (122)	42" (107)		
—	48" (122)		

Notes:

- » 7570 door closers are set at midpower range from the factory and can be adjusted for door sizes noted above.
- » Sizing charts are based on 1-3/4" (44mm) x 7'0" (2.13m) standard weight doors swinging to 110 degrees. Other conditions (such as door height or weight, or wind/draft conditions) may require a larger size closer.
- » Contact factory if door weight exceeds 250 lbs.

7570 SERIES SECURITY DOOR CLOSER

UNITROL® PARALLEL ARM



Door width must be specified when ordering.

Mounting holes for closer body are spaced 2-3/8" (60mm) vertically x 6-3/4" (171mm) horizontally.

Use 6190* bracket for reveals 1-7/8" - 4-5/8" (48 to 117mm). Reveals in excess of 4-5/8" (117mm) requires use of 6191** reinforcing kit. Reveals to 1/8" (3mm) require use of a 2022** angle bracket.

* 6190 bracket is supplied standard with Unitrol arms.

** 6191 and 2022 must be specified in lieu of 6190 when required.

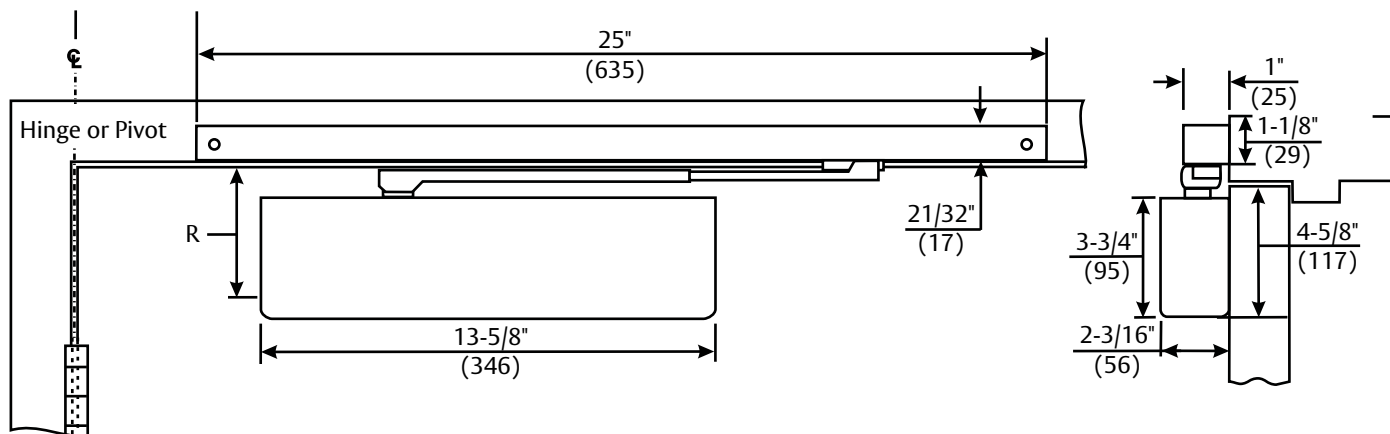
Door Width Inches (cm)	W Arm Extension Beyond Closer
28-32" (71-81)	8-5/8" (219)
33-41" (84-104)	10-1/8" (257)
42-48" (107-122)	11-1/2" (292)

Maximum Door Width Inches (cm)		Model #
Interior	Exterior	Non-Hold Open
30" (76)	—	UNI7570
36" (91)	30" (76)	
42" (107)	36" (91)	
48" (122)	42" (107)	
—	48" (122)	

Notes:

- » 7570 door closers are set at midpower range from the factory and can be adjusted for door sizes noted above.
- » Sizing charts are based on 1-3/4" (44mm) x 7'0" (2.13m) standard weight doors swinging to 110 degrees. Other conditions (such as door height or weight, or wind/draft conditions) may require a larger size closer.
- » Contact factory if door weight exceeds 250 lbs.

PULL SIDE SLIDE TRACK



Mounting holes for closer body are spaced 2-3/8" (60mm) vertically x 6-3/4" (171mm) horizontally.

R Minimum Top Rail of Door with Frame Stop	
Without Drop Plate	With 7786 Drop Plate
3-1/2" (89mm)	2" (51mm)

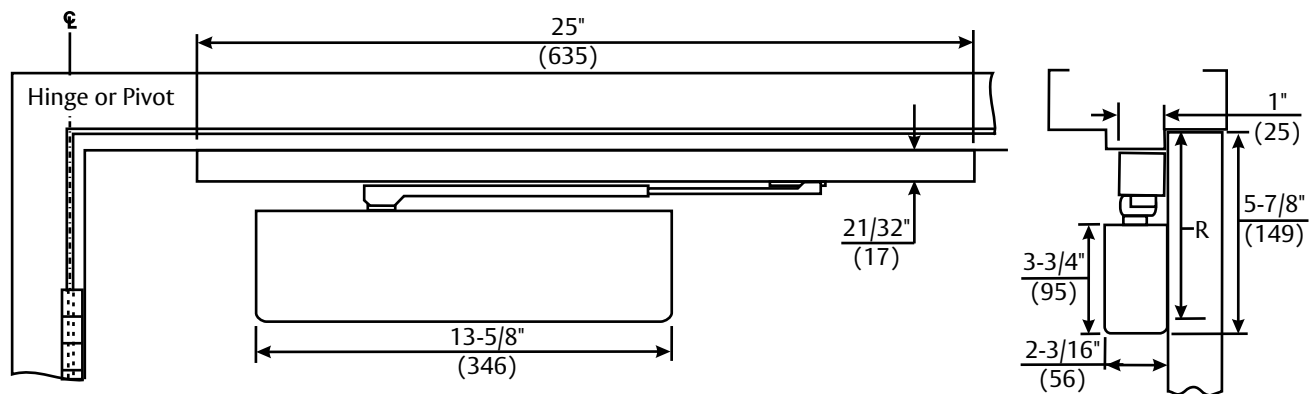
Maximum Door Width Inches (cm)	Model #
Interior	Non-Hold Open
32" (81)	7570ST
38" (97)	
48" (122)	

Notes:

- » 7570 door closers are set at midpower range from the factory and can be adjusted for door sizes noted above.
- » Sizing charts are based on 1-3/4" (44mm) x 7'0" (2.13m) standard weight doors swinging to 110 degrees. Other conditions (such as door height or weight, or wind/draft conditions) may require a larger size closer.
- » Door will swing up to 110° with buffer. Without buffer, door will swing to 180°. Auxiliary stop required for all applications.
- » Contact factory if door weight exceeds 250 lbs.

7570 SERIES SECURITY DOOR CLOSER

PUSH SIDE SLIDE TRACK



Mounting holes for closer body are spaced 2-3/8" (60mm) vertically x 6-3/4" (171mm) horizontally.

R Minimum Top Rail of Door with Frame Stop 5/8" (16mm)	
Without Drop Plate	With 7788 Drop Plate
5-1/4" (133mm)	3-5/8" (92mm)

Maximum Door Width Inches (cm)	Model #
Interior	Non-Hold Open
32" (81)	PS7570ST
38" (97)	
48" (122)	

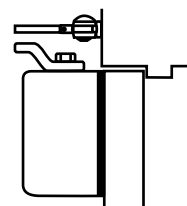
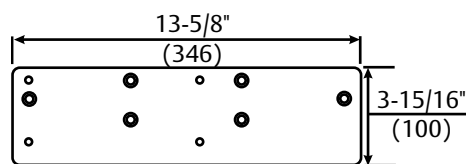
Notes:

- » 7570 door closers are set at midpower range from the factory and can be adjusted for door sizes noted above.
- » Sizing charts are based on 1-3/4" (44mm) x 7'0" (2.13m) standard weight doors swinging to 110 degrees. Other conditions (such as door height or weight, or wind/draft conditions) may require a larger size closer.
- » Maximum degree of door swing is 125°. Auxiliary stop required for all applications.
- » Contact factory if door weight exceeds 250 lbs.

REGULAR RIGID ARM

Closer Mounting Plate

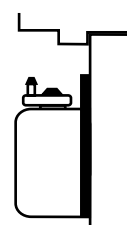
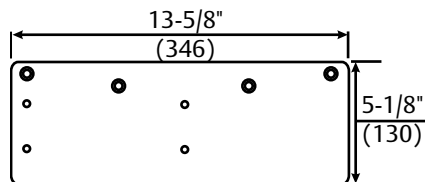
Narrow Top Rail - #7786 Drop Plate: For use where the narrow top rail of the door prevents the closer from being mounted directly to the door surface. This drop plate must be used for a closer mounted on a top rail between 1-7/8" and 3-3/8" (48 and 86mm) in height.



PARALLEL RIGID ARM

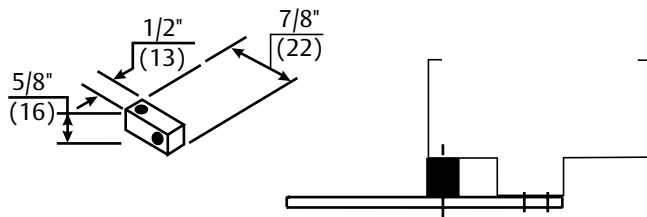
Closer Mounting Plate

Narrow Top Rail - #7788 Drop Plate: For use where a narrow top rail prevents the closer from being mounted directly to the door surface. This drop plate can be used to mount a closer on a top rail as narrow as 2-1/2" (64mm) in height.

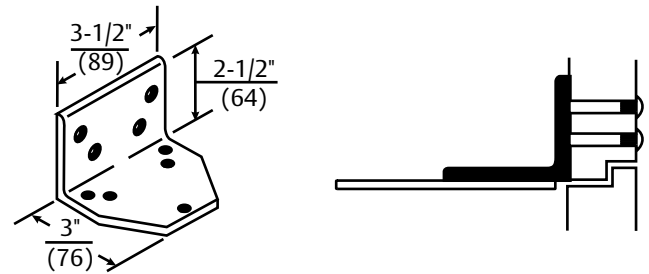


PARALLEL RIGID ARM

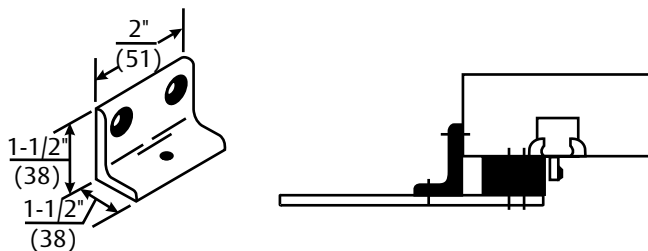
Brackets for Non-Hold Open Arms



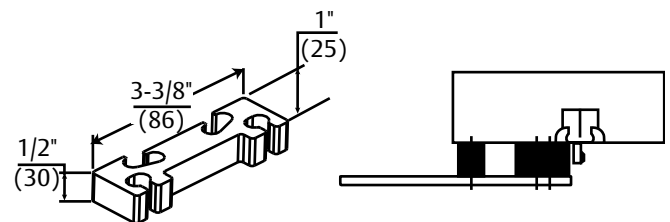
Standard - #2019S Spacer Block: For use where a narrow frame soffit does not provide adequate support for the soffit plate. Supplied as standard with all parallel rigid arm closers.



Flush Rabbeted Transom - #2019L Angle Bracket: For use where flush transom conditions prevent mounting of the standard soffit plate. This bracket is used in combination with the standard soffit plate.



Narrow Frame - #6890 Support Bracket: For use where the frame is narrow, and the soffit plate cannot be mounted directly to the frame soffit or rabbet. Used in combination with the #6891 Spacer Block on blade stop frames to provide extra support and needed clearance of the blade stop.

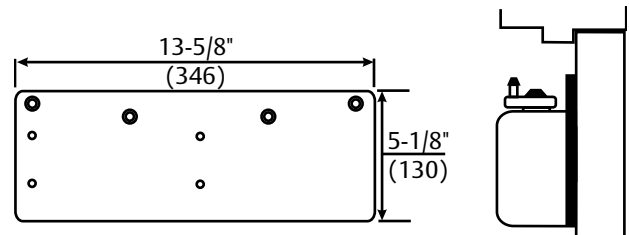


Clearance/Support Blade Stop - #6891 Spacer Block: For use where the door frame has a blade stop and the soffit plate must be mounted on the frame rabbet. This accessory is used in combination with the standard spacer block to provide clearance of the blade stop.

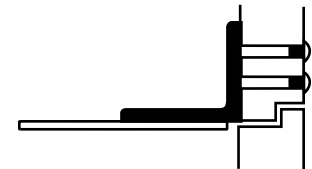
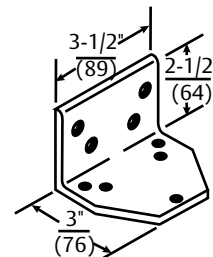
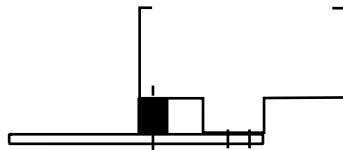
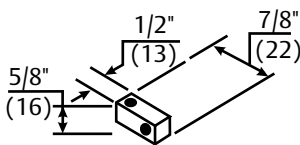
CLOSER PLUS® AND CLOSER PLUS SPRING™ ARMS

Closer Mounting Plate

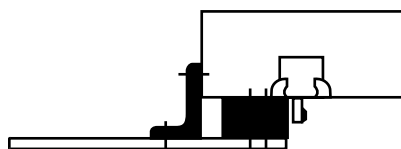
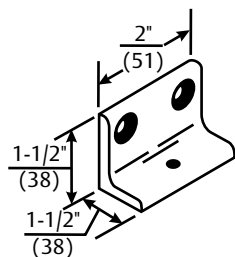
Narrow Top Rail - #7788 Drop Plate: For use where a narrow top rail prevents the closer from being mounted directly to the door surface. This drop plate can be used to mount a closer on a top rail as narrow as 2-1/2" (64mm) in height.



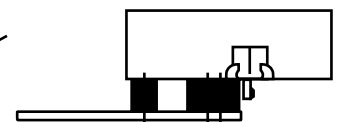
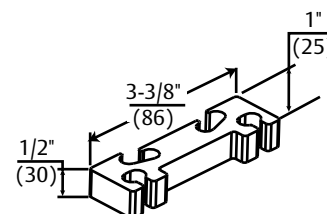
Brackets for Non-Hold Open Arms & Hold Open Arms



Standard - #2019S Spacer Block: For use where a narrow frame soffit does not provide adequate support for the soffit plate. Supplied standard with all parallel rigid arm closers.



Flush Rabbeted Transom - #2019L Angle Bracket: For use where flush transom conditions prevent mounting of the standard soffit plate. This bracket is used in combination with the standard soffit plate.



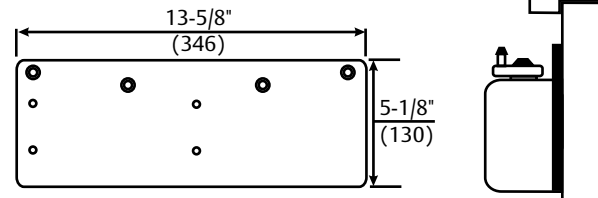
Narrow Frame - #6890 Support Bracket: For use where the frame is narrow, and the soffit plate cannot be mounted directly to the frame soffit or rabbet. Used in combination with the #6891 Spacer Block on blade stop frames to provide extra support and needed clearance of the blade stop.

Clearance/Support Blade Stop - #6891 Spacer Block: For use where the door frame has a blade stop and the soffit plate must be mounted on the frame rabbet. This accessory is used in combination with the standard spacer block to provide clearance of the blade stop.

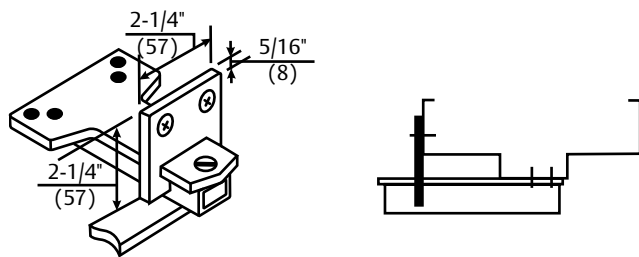
UNITROL® ARM

Closer Mounting Plate

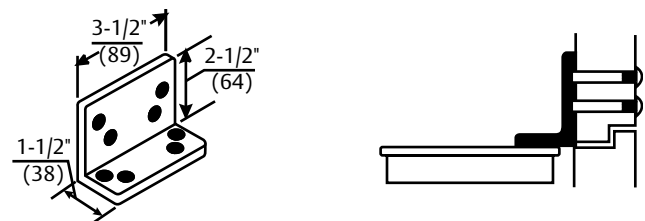
Narrow Top Rail - #7788 Drop Plate: For use where a narrow top rail prevents the closer from being mounted directly to the door surface. This drop plate can be used to mount a closer on a top rail as narrow as 2-3/8" (60mm) in height.



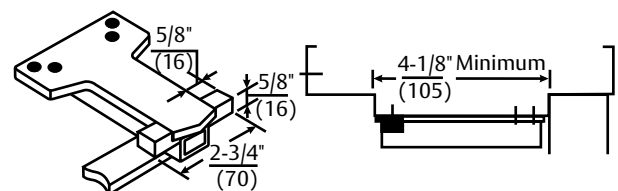
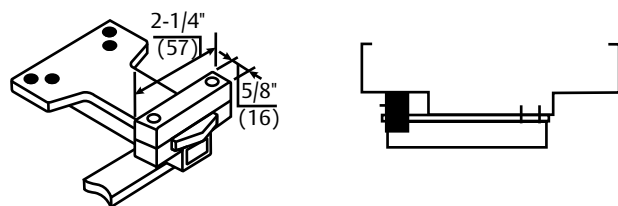
Soffit Plate Reinforcing Brackets



Additional Support - #6190 Reinforcing Bracket: Standard for use with all Parallel Arm Unitrol Door Controls. Provides additional support to the soffit plate on installations with door frame reveals from 1-7/8" to 4-5/8" (48 to 117mm).

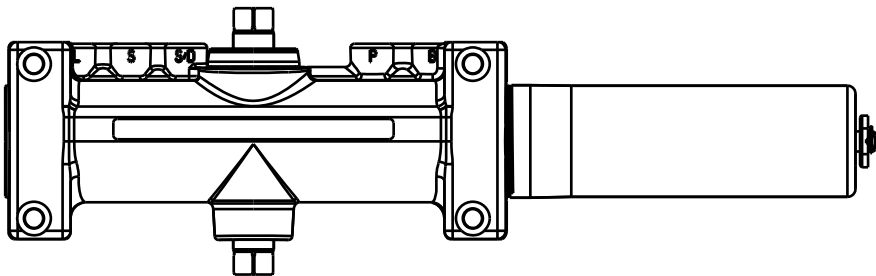


Flush Rabbeted Transom - #2022 Angle Bracket: Optional for use with all Parallel Arm Unitrol Door Controls. For use where rabbeted or flush transom conditions prevent installation of the soffit plate assembly. This bracket fastens to the overhead rabbeted transom to provide a mounting surface for the soffit plate assembly.



Wide Frame - #6191 Reinforcing Kit: Optional for use with all Parallel Arm Unitrol Door Controls. Used to support the soffit plate on installations with wide frames. Clamps may be used with or without the spacer block, depending on frame conditions.

BODY ASSEMBLIES, COVERS



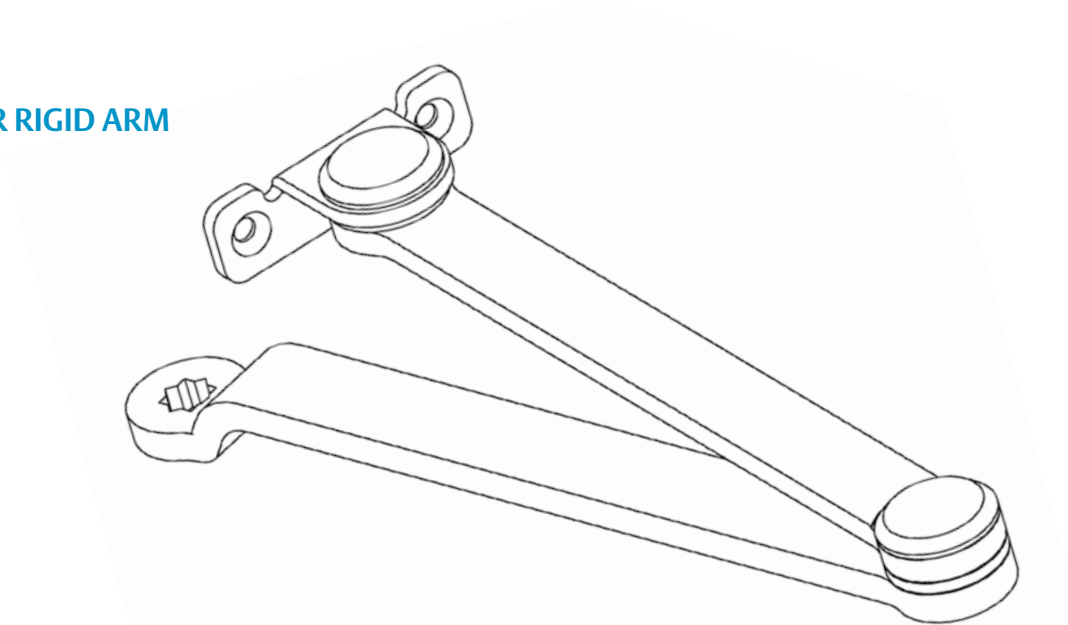
Closer Bodies	
Part Number	Description
7500LAP	Multi-Size Closer Body
7500DALAP	With Delayed Action

LAP = Less All Parts

Covers				
Part Number	Mounting	Handing	Dimensions	Material
7770MRR	Regular Arm	Right Hand	Length: 13-5/8" (346mm) Width: 3-3/4" (95mm) Projection: 2-3/16" (56mm)	Metal
7770MRL		Left Hand		
7770MPR	Parallel Arm	Right Hand		
7770MPL		Left Hand		

7570 SERIES SECURITY DOOR CLOSER

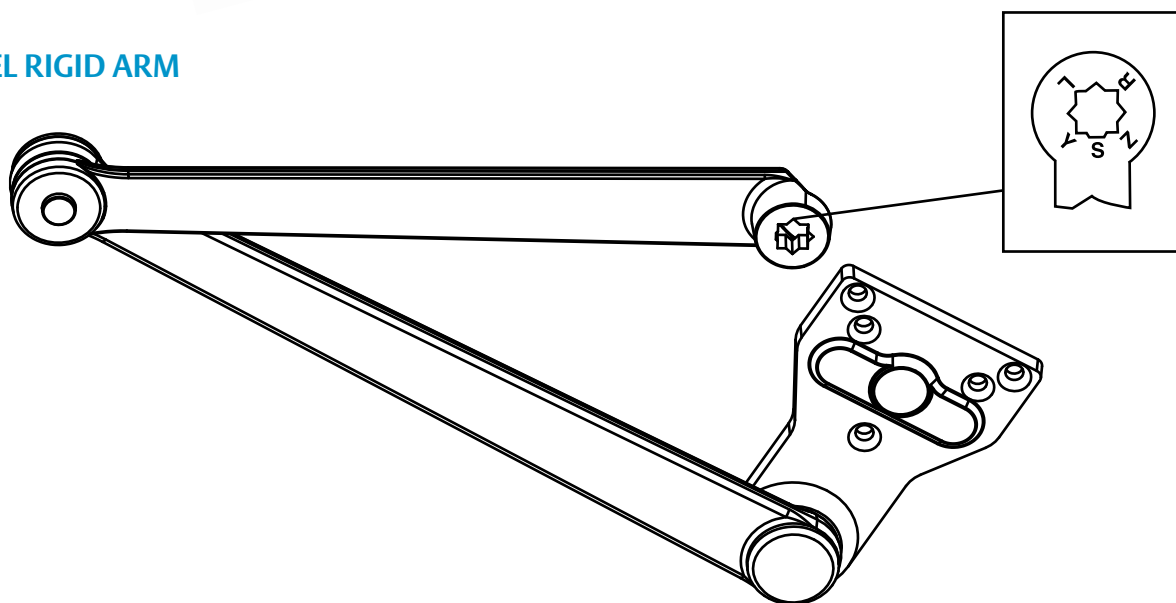
REGULAR RIGID ARM



Note: Mounting hardware included with all parts orders.

Closer Series	Arm Function	Complete Arm Assembly
R7570	Non-Hold Open	7771-1

PARALLEL RIGID ARM

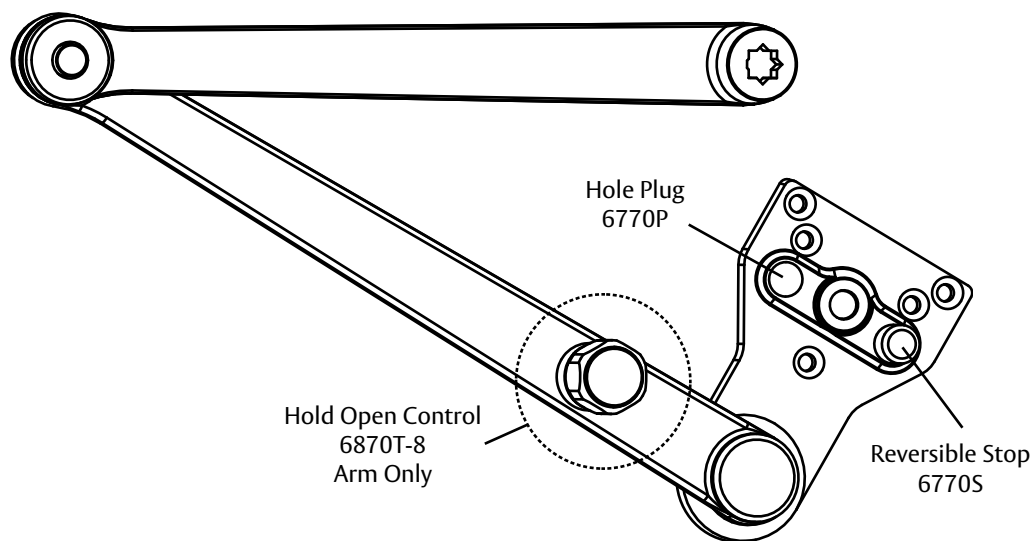


Note: Mounting hardware included with all parts orders.

Closer Series	Arm Function	Complete Arm Assembly
PR7570	Non-Hold Open	7771-5

CLOSERPLUS® ARM

Hold Open Arm Shown (CLP-T)

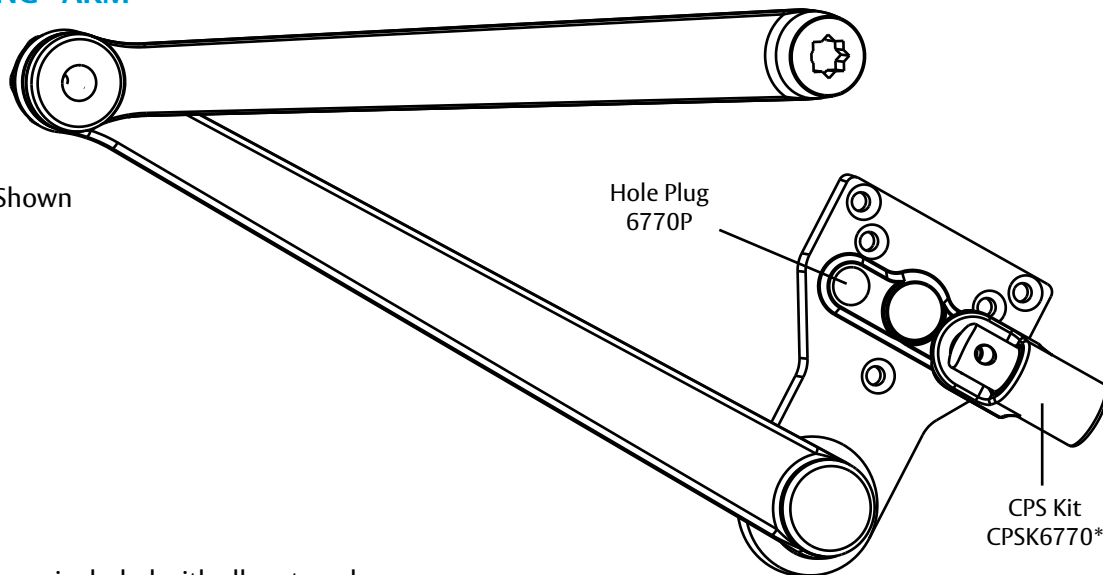


Note: Mounting hardware included with all parts orders.

Closer Series	Arm Function	Complete Arm Assembly
CLP7570	Non-Hold Open	CLP7771-5
CLP7570T	Thumbturn Hold Open	CLP7771-8T

CLOSERPLUS SPRING™ ARM

Non-Hold Open Arm Shown



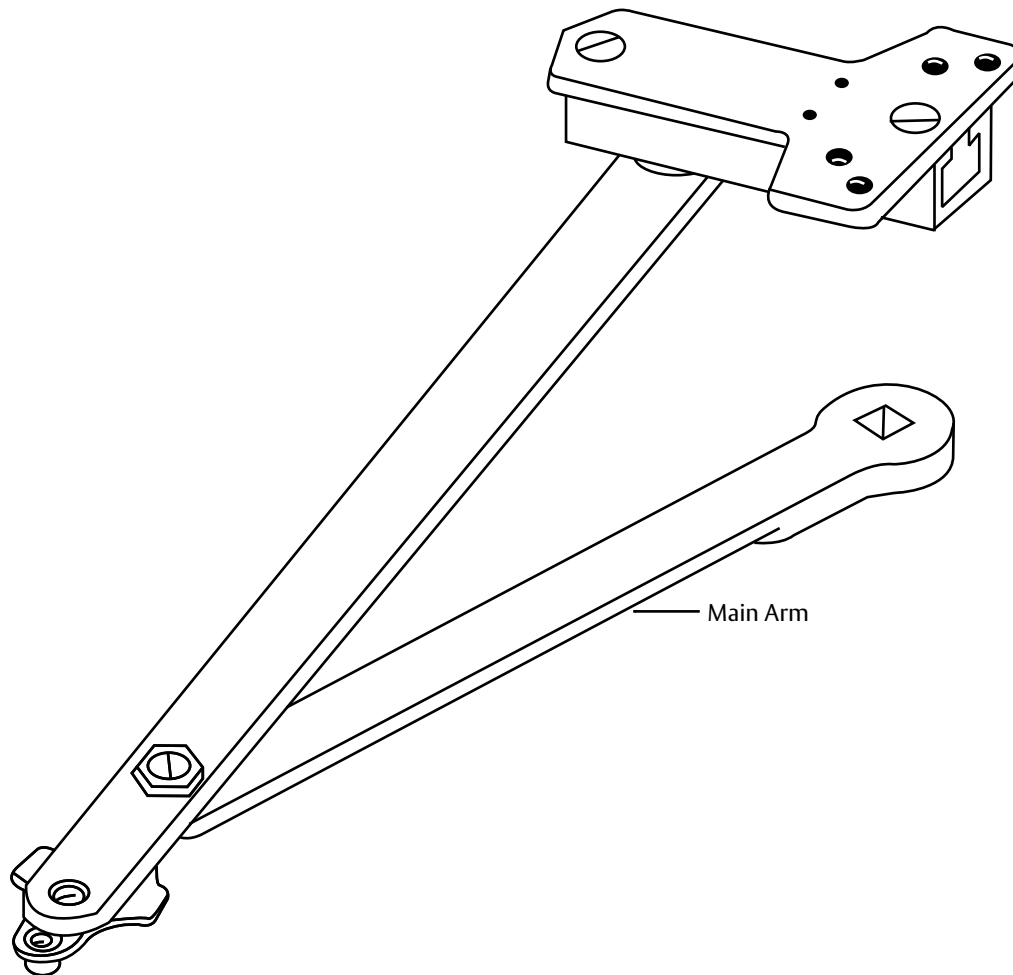
Note: Mounting hardware included with all parts orders.

Closer Series	Arm Function	Complete Arm Assembly
CPS7570	Non-Hold Open	CPS7771-5
CPS7570T	Thumbturn Hold Open	CPS7771-8T

* CPSK6770 Kit can be used to upgrade CLP7771-5 or CLP7771-8T arms.

7570 SERIES SECURITY DOOR CLOSER

UNITROL® ARM



Note: Mounting hardware included with all parts orders.

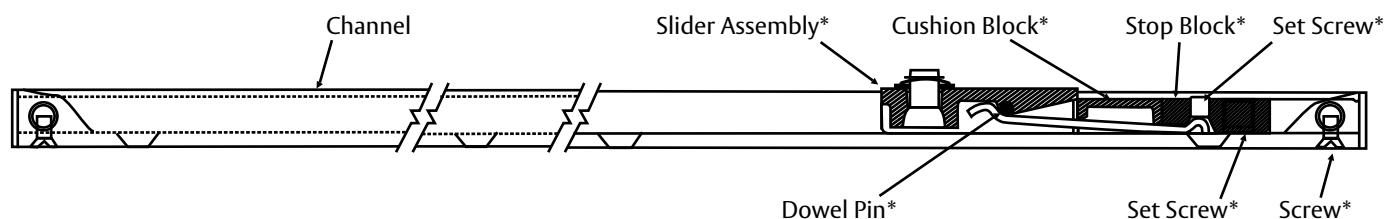
Door Width (cm)	Main Arm Length* (mm)	Complete Arm Assembly
		Non-Hold Open
28" - 32" (71 - 81)	9-1/2" (241)	6100-11
33" - 41" (84 - 104)	11" (279)	6100-13
42" - 48" (107 - 122)	12-1/2" (318)	6100-14

* Center to center length.

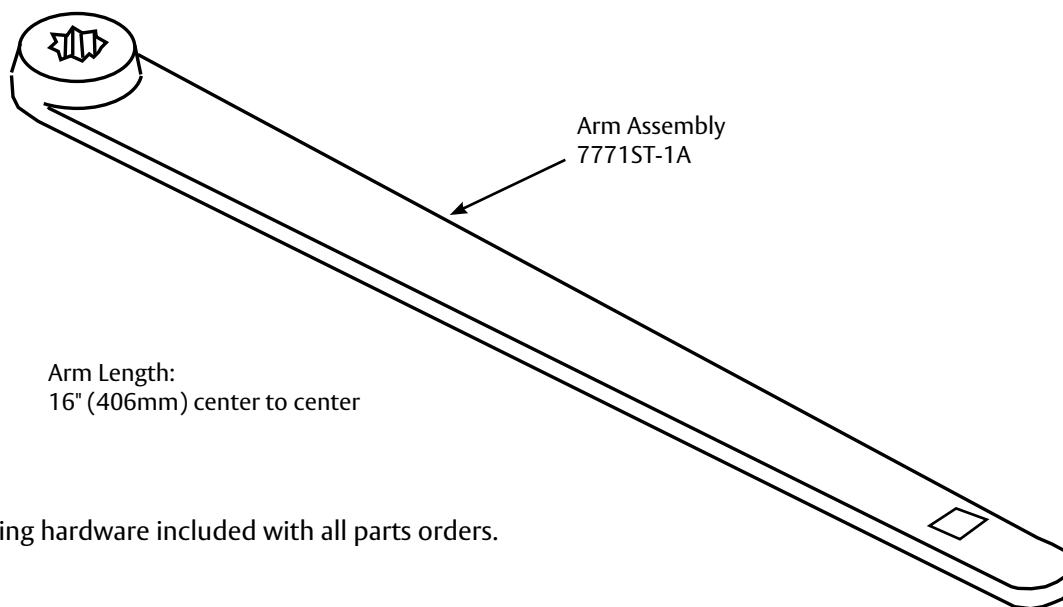
TRACK ASSEMBLIES

Non-Hold Open Arm Shown

Non-Hold Open	
Model	Slide Track Assembly
Pull-side mounted	7771ST-1T
Push-side mounted	7771ST-5T



*Part of an Assembly Pack
 Non-Hold Open = 7740SLD



Note: Mounting hardware included with all parts orders.

FASTENERS

Type	Description	Arm					
		RA	PR	CLP	CLS	UNI	ST
Torx®	Lobular Torx drive screws	S	S	S	S	S	S
SN	Sex Nut	O	O	O	O	S	S
SDST	Self Drilling Self Tapping	O	O	O	O	O	O

S = Standard; O = Optional

Torx drive screws, for tamper resistance are standard with 7570 closers. These screws are only offered with machine threads for fastening to metal doors and frames. #14-10 wood or sheet metal fasteners if required, must be supplied by others.

SN are for use on unreinforced hollow metal doors or to prevent any hollow metal door from collapse/dimpling. They can also be used for through bolting on wood doors. SN are supplied for 1-3/4" (44mm) thick doors unless specified for 2-1/4" (57mm) thick doors.

Torx® Screw Pack^	
Arm Type	Part Number
Regular Rigid Heavy-Duty	RTX47
Parallel Rigid, CloserPlus® CloserPlus Spring™	PRTX47
Unitrol® Arm	UNITX47

^Torx screws with machine screw threads are supplied with security closers.

FINISHES

Norton offers waterborne acrylic, polyester powder coat and plated finishes. Custom finishes are available on special order. A sample and approval is required.

Waterborne acrylic and polyester powder coat will withstand 100 hours of salt spray (ANSI requires 25 hours).

ANSI/BHMA	Description
600*	Prime Coat
605^	Bright Brass
606^	Satin Brass
611^	Bright Bronze
612^	Satin Bronze
613E	Dark Oxidized Satin Bronze - Equivalent
619^	Satin Nickel
625^	Bright Chrome
626^	Satin Chrome
689	Aluminum
690	Statuary Bronze
691	Dull Bronze
693	Black
694	Medium Amber
696	Gold
N/A	556 White

*600 is a special rust inhibiting prime coat. Closers can be ordered prime coat only (specify closer x 600). An additional charge applies if finish coat is required over prime coat (ex: 5610 x 600 x 689).

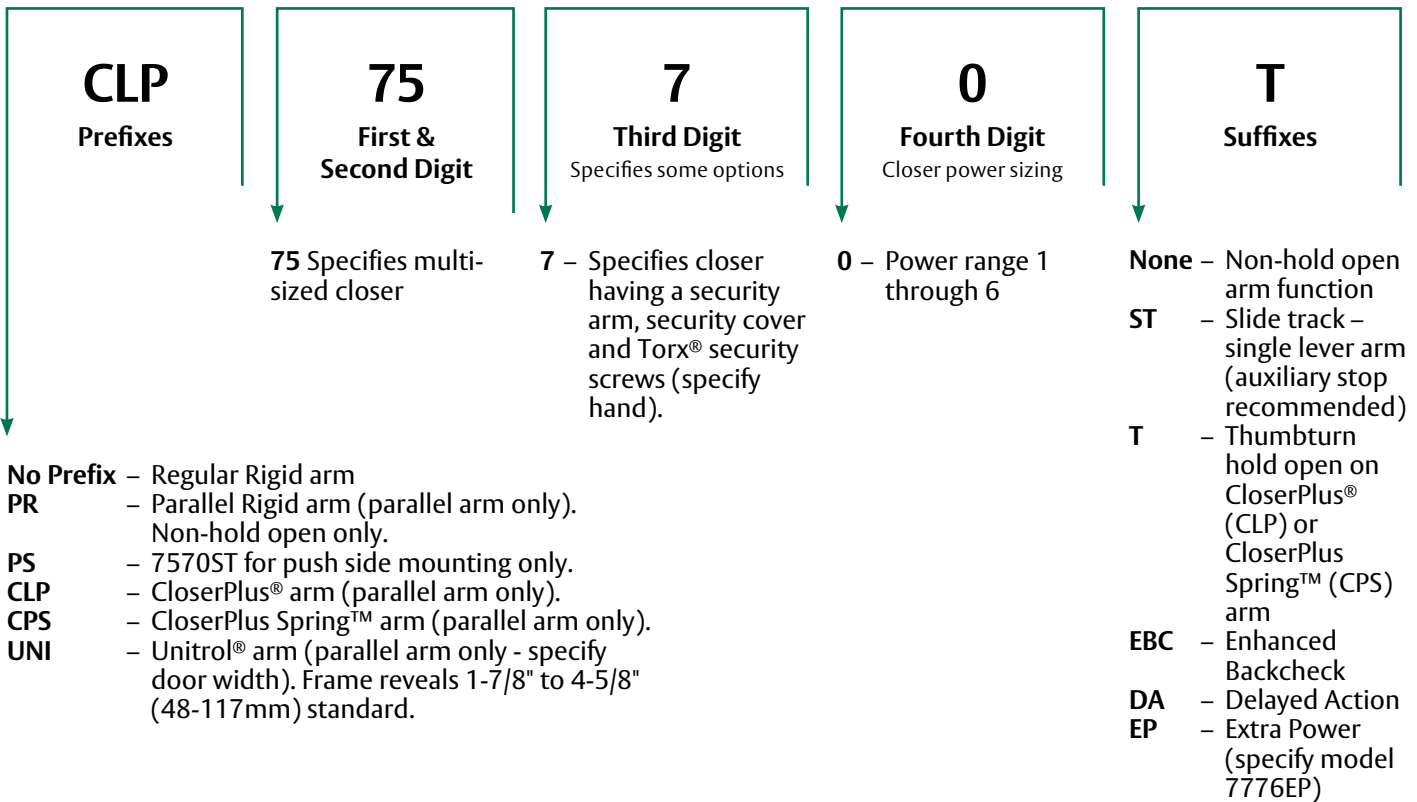
^Plated finishes.

- » Norton closer bodies and plastic covers are available in waterborne acrylic finishes. Arms and metal covers are available in powder coat or plated finishes.
- » When a plated finish is ordered, arm and cover will be plated unless "cover only" is specified.

7570 SERIES
SECURITY DOOR CLOSER

HOW TO ORDER

For optimum protection of door and frame assemblies, always use auxiliary wall, floor, or overhead door stop.



Note:

- » Door closer warranty becomes void if it is installed on the exterior side of a door in the exterior wall of a building.
- » It is strongly recommended, and it is required on most fire door assemblies, that doors having a door closer be hung on ball-bearing or anti-friction hinges or pivots.
- » Failure to use the correct type and size fasteners may void factory warranty.
- » Fasteners for fire/smoke door assemblies must conform to NFPA 80. In some applications additional fasteners may be mandated by NFPA 80 that are not shipped with standard product, such as sleeve-nuts/sex-nuts or through-bolts and grommet nuts.
- » The Torx® drive screws (with security pin), provided with the 7570 door closers are only available with machine screw threads.

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ASSA ABLOY is the global leader in door opening solutions, dedicated to satisfying end-user needs for security, safety and convenience

Since 1880, Norton door controls have been an integral part of schools, hospitals and businesses around the globe. When you need products and people that perform at the highest level, rely on Norton – From Open to Close.

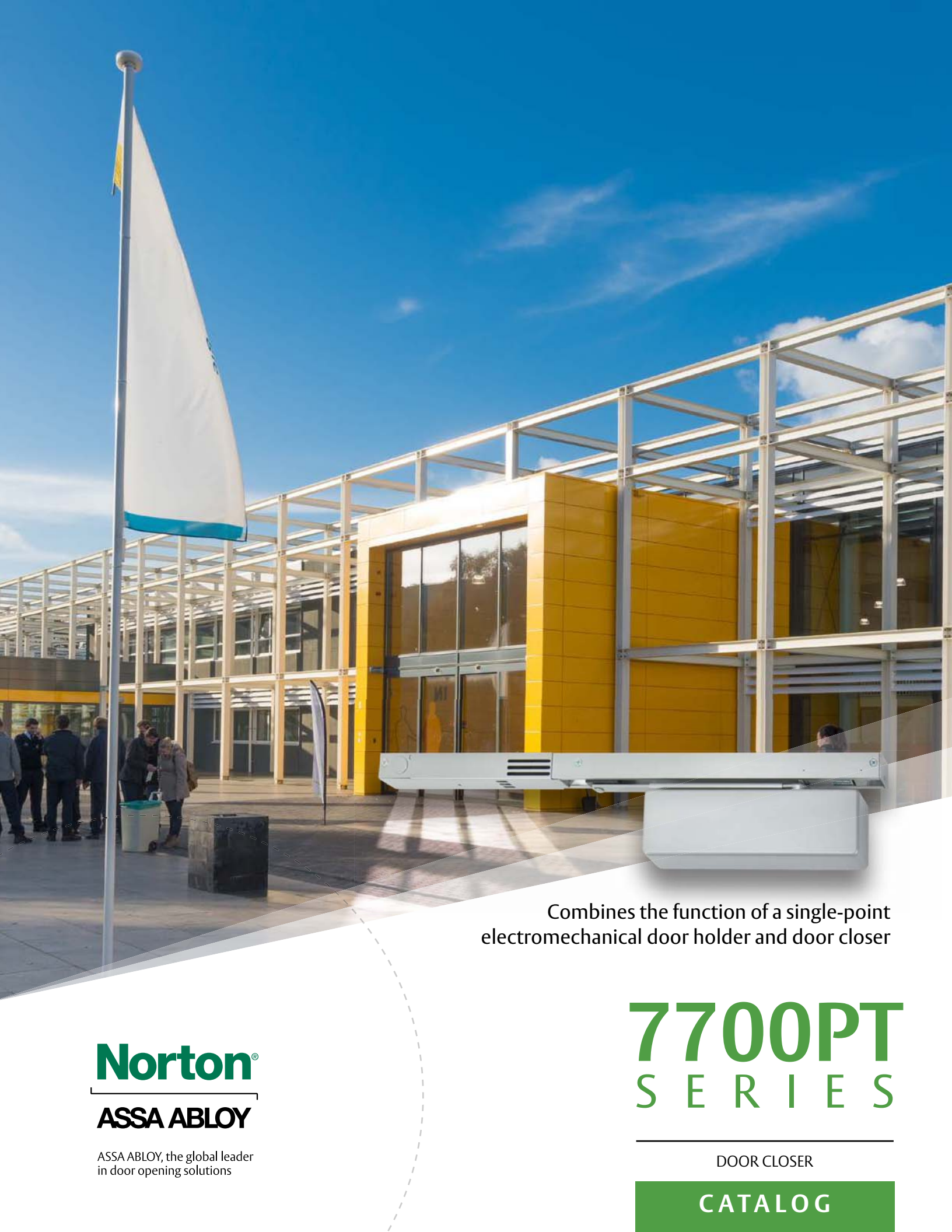
Norton Door Controls | www.nortondoorcontrols.com

3000 Highway 74 East | Monroe, NC 28112 | Tel: 1-877-974-2255 | Fax: 1-800-338-0965

ASSA ABLOY Door Security Solutions Canada | www.assaabloy.ca

160 Four Valley Drive | Vaughan, Ontario, L4K 4T9 Canada | Tel: 800-461-3007 | Fax: 1-905-738-2478

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Combines the function of a single-point
electromechanical door holder and door closer

Norton®

ASSA ABLOY

ASSA ABLOY, the global leader
in door opening solutions

7700PT
S E R I E S

DOOR CLOSER

CATALOG

INTRODUCTION

The Norton Power Track® Closer-Holders combine the functions of a single point electromechanical door holder with the proven reliability of a 7700 Series Door Closer. The track assembly contains an arm slide and solenoid operated hold open mechanism and is available with or without an integral smoke detector.



FEATURES

Master Unit

- » Unit comprised of integral smoke detector and solenoid hold open mechanism in the slide track, a hook-up box and door closer.
- » Can be used to control a single door or a pair of doors in conjunction with a 24VDC Support Unit.
- » **Suffix “PTDO” to model number.**

Support Unit

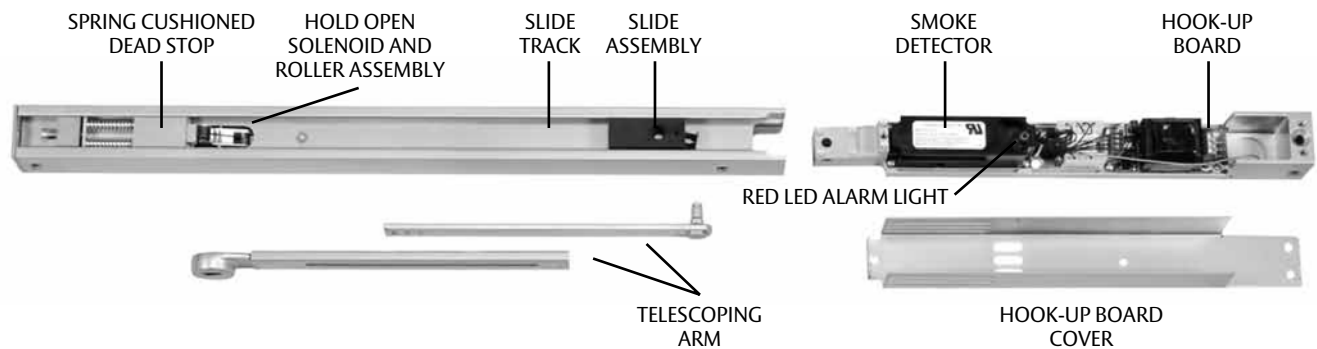
- » Unit is comprised of a solenoid hold open mechanism in the slide track, hook-up box and a door closer.
- » Units can be installed on a single door or a pair of doors when controlled by compatible UL listed detection equipment such as area ceiling detectors, pull stations, and remote alarm panels.
- » A 24VDC Support Unit can also serve as a slave unit when used on the inactive leaf of a pair of doors. The active leaf of the pair of doors must be controlled by a Master Unit.
- » **Suffix “PTO” to model number.**

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7700PT SERIES POWER TRACK®

OVERVIEW



CERTIFICATIONS

- » ANSI/BHMA A156.15 certified **BHMA CERTIFIED**
- » UL / cUL listed for use on fire rated doors **UL**
- » UL10C listed for positive pressure fire test
- » This product is manufactured in an ISO 9001 facility

California State Fire Marshal Listings: 03550-0944:101, 03550-0944:102

STANDARD FEATURES

Selective Single-Point Hold Open:

The Power Track® has one template position. The single-point hold open position is selected by adjusting the telescoping arm with a hex drive set screw. Hold open range is 85° thru 110° in approximately 3° increments.

Non-Handed:

Units are non-handed except when ordered with "DE" Double Egress arms. Choice of Push or Pull Side Installation: No prefix indicates pull side application. Prefix "P" for push side installation.

Choice of Supply Voltage:

Available in 24VAC/DC or 120VAC, 60Hz. voltages. Power to these devices must be within a range of (+) 10% (-) 15% of the stated voltage.

Fail Safe:

In the event of a power outage, the Power Track solenoid will be de-energized and the closer/holder will then operate as a normal door closer.

Wiring Option:

Both pull and push side applications will accommodate either concealed or surface wiring. The hook-up box will accept 3/4" (19mm) conduit. Each Power Track is supplied with a thin-walled conduit nut to attach the conduit clamp. The hook-up box base is prepared for surface wiring. State and local building codes will dictate the type of wiring.

Spring Cushioned Dead Stop:

A spring-loaded buffer block at the point of hold open prevents over travel of the arm slide and provides a cushioned dead stop. Use of an additional wall or floor stop is always recommended.

FEATURES – SMOKE DETECTOR

Photoelectric Sensing

Detector employs a photoelectric chamber to substantially reduce the probability of false alarms.

Fire/Smoke Control Circuit

Interprets the alarm signal from the detector and provides switching contacts to interrupt power to the hold open solenoid and divert it to activate optional audio/visual alarms.

Alarm (Relay) Contacts

Normally open in standby condition (energized, non-alarm state). These contacts close during an alarm condition (smoke detected) and switch power from the solenoid to an optional local alarm.

Trouble (Relay) Contacts

Normally closed in standby condition, these supervisory contacts monitor the continuity of power within the detector circuit. Any power interruption within the detector circuit will open these contacts. They can then be used to simultaneously indicate a trouble condition to the alarm panel on a separate trouble circuit.

Quick Disconnect Modules

Each component, solenoid coil, detector and control feature quick disconnect wiring for easy servicing and replacement.

Locked-In Alarm

When a unit alarms, it must be manually reset. This can be accomplished by remote control from the alarm console or by the reset button in the smoke detector. Reset button is accessible through the center louver in the underside of the track. Reset by rotating LED chamber using small flat blade screwdriver.

Indicator Lights

Normal Mode: A red LED flashes once every eight (8) seconds.

Clean Mode: A red LED flashes once every second.

Alarm Mode: A red LED illuminates continuously.

ORDERING VOLTAGES

Type of Unit Model	Model	# of Power Input Lines	Choices of Voltage Input	Can be used with
Master	PTDO-24	1	24 VAC/DC	24V Support Model PTO
	PTDO-120		120 VAC, 60 Hz	
Support	PTO-24	1	24 VAC/DC	Area Smoke Detection System
	PTO-120		120 VAC, 60Hz	

Operating voltage for the control of fire/smoke doors are specified by the architect, electrical engineer and alarm system engineer and/or contractor. Consulting with these sources will verify which operating voltage should be ordered.

“PTDO” Master Units

- » Two components require electrical power:
 - › Integral smoke detector requires 24VDC input power.
 - › Hold open solenoid requires 24VDC input.
- » Hook-up box receives primary voltage input and distributes it to the smoke detector and hold open solenoid(s).
- » Available with two voltage options:
 - › **PTDO-24** suffix –
 - Accepts 24VAC or 24VDC power input.
 - A rectifier in the hook-up box will rectify alternating current to direct current for operation of both the smoke detector and hold open solenoid(s).
 - › **PTDO-120** suffix –
 - Accepts 120VAC power input.
 - A 120VAC to 24VAC transformer in the hook-up box steps the input voltage down to 24VAC. It is then rectified to 24VDC for operation of both the smoke detector and the 24VDC hold open solenoid(s).

“PTO” Support Units

- » Hold open solenoid requires electrical power.
- » Solenoid controlled by smoke detection equipment (ceiling detectors) or remote alarm panels.
- » Available for operation on 24VAC/DC or 120VAC, 60Hz.
- » Hold open solenoid operates on direct current.
- » Contains built-in rectifier that converts alternating current to direct current.

7705 POWER TRACK®

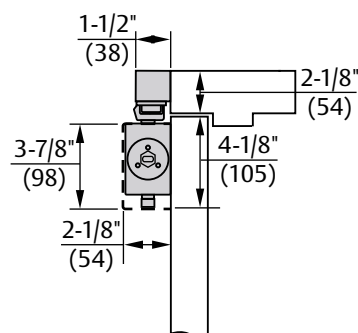
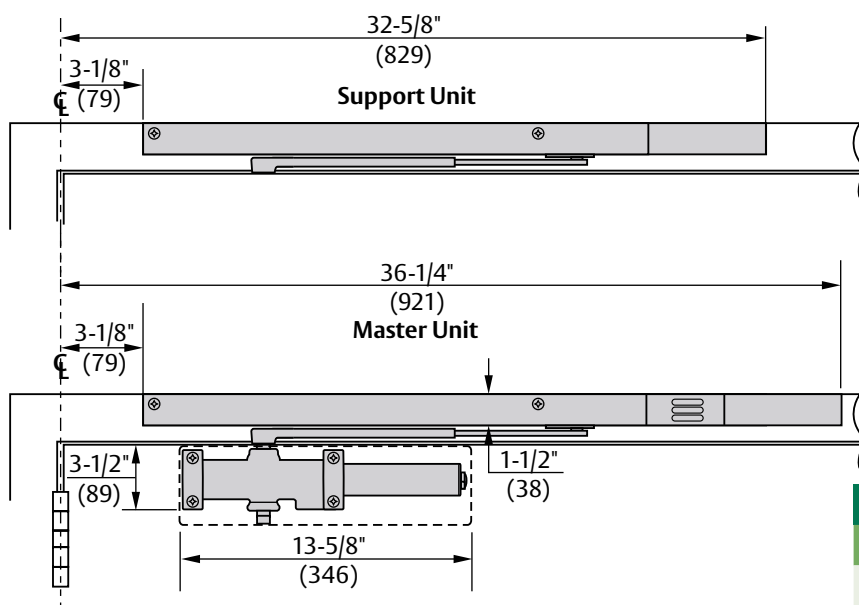
Pull (Hinge) Side Mounting



Model #	Description
7705PTDO	Master Unit Controlled by Integral Smoke Detector
7705PTO	Support Unit Controlled by Remote Detection Equipment

7705PTDO Shown

Technical Details



Minimum Top Rail	
Without Drop Plate	With 7786 Drop Plate
3-1/2" (89mm)	1-7/8" (48mm)

Door Size

	Door(s) Opening Inches (cm)		Model Number & Type
	Max.*	Min.**	
Single Door	48" (122)	36" (91)	(1) 7705PTDO Master Unit
	48" (122)	32" (81)	(1) 7705PTO Support Unit
Pairs of Doors	96" (244)	68" (173)	(1) 7705PTDO Master Unit and (1) 7705PTO Support Unit
	96" (244)	64" (163)	(2) 7705PTO Support Units (controlled by remote detection equipment)

2-1/8" (54mm) minimum ceiling clearance required for Power Track.

* Maximum door size for door closer power.

** Minimum door opening for standard installation. Consult factory for door openings narrower than those shown.

Consult factory if door weight exceeds 250 lbs.

Double Egress Doors: With reveals greater than 1/8" (3mm); a special handed arm for the pull (hinge) side Power Track is available. Accommodates reveals to 3" (76mm). Suffix "DE" to model number; specify hand.

P7705 POWER TRACK®

Push (Stop) Side Mounting

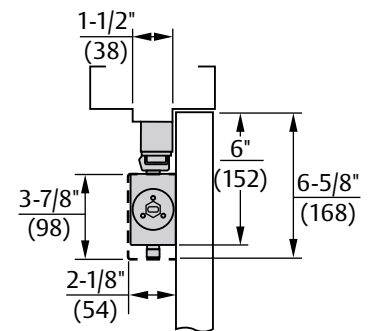
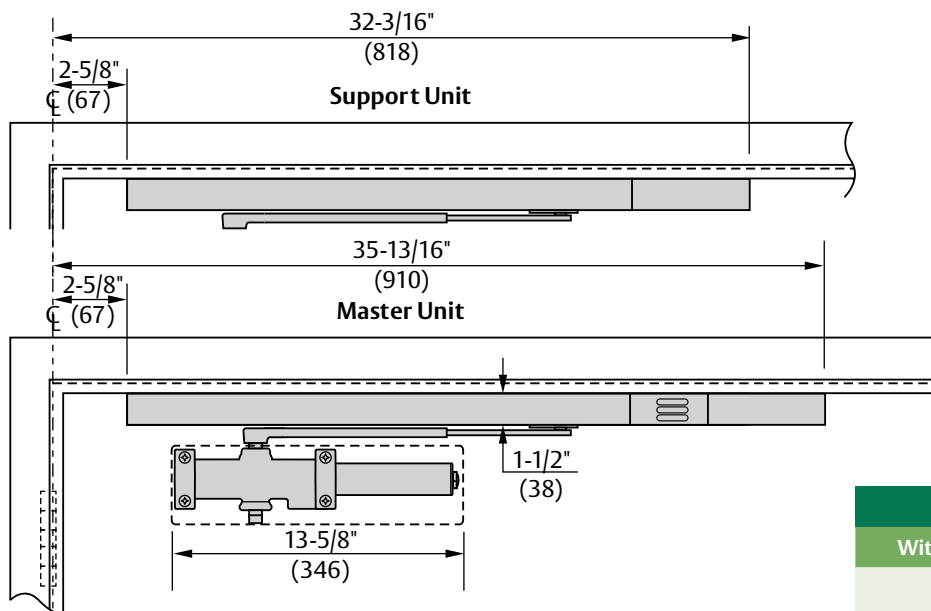


Model #	Description
P7705PTDO	Master Unit Controlled by Integral Smoke Detector
P7705PTO	Support Unit Controlled by Remote Detection Equipment

NOTE: Interference with other hardware such as vertical rod exit devices, magnetic locks, and door coordinators, etc., must be considered when selecting this product.

P7705PTO Shown

Technical Details



Minimum Top Rail	
Without Drop Plate	With 7788 Drop Plate
6" (152mm)	2-3/4" (70mm)

Door Size

	Door(s) Opening Inches (cm)		Model Number & Type
	Max.*	Min.**	
Single Door	48" (122)	36" (91)	(1) P7705PTDO Master Unit
	48" (122)	33" (84)	(1) P7705PTO Support Unit
Pairs of Doors	96" (244)	68" (173)	(1) P7705PTDO Master Unit and (1) P7705PTO Support Unit
	96" (244)	64" (163)	(2) P7705PTO Support Units

1-1/2" (38mm) minimum frame soffit required for Power Track.

* Maximum door size for door closer power.

** Minimum door opening for standard installation.

Consult factory for door openings narrower than those shown. Consult factory if door weight exceeds 250 lbs.

ELECTRICAL INFORMATION

Model Number		No. Power Input Lines* (Pairs)	Operating Voltage	Amperage Draw		
				Smoke Detector		Solenoid Coil
				Sized Closers	Alarm	
Master	7705PTDO P7705PTDO	1	24VAC/DC	.016 @ 24VDC	.035 @ 24VDC	.090 @ 24VDC
			120VAC, 60Hz			
Support	7705PTO P7705PTO		24VAC/DC	N/A	N/A	.090 @ 24VDC
			120VAC, 60Hz			.018 @ 120VAC

*Number of Input Lines (pairs) required to supply Operating Voltage.
This does not include signal or control lines (pairs) to Alarm Panels.

SUGGESTED SPECIFICATIONS

Closers for _____ doors shall be electromechanical closer-holder. Hold open to be achieved by electric solenoid locking of closer arm slide in its track. Track, arm, slide (and) solenoid (and integral smoke detector) to be contained in a single aluminum extrusion 1-1/2" (38mm) high, 1-1/2" (38mm) deep.

Closer shall be door mounted. Track and hold open mechanism shall be surface mounted to the frame face for application on the pull side of the door and frame soffit mounted for application on the push side of the door. Single point hold open shall be selective through a range of 85° to 110°. Hold open point to be achieved by adjustment of a telescoping closer arm.

Closer shall be hydraulic with full rack and pinion enclosed in a cast aluminum alloy shell. Hydraulic fluid shall be non-gumming and non-freezing. Closer shall have two non-critical valves to independently regulate sweep speed and latch speed. It shall have an adjustable backcheck cushioning valve and an adjustable backcheck positioning valve. All valves shall be adjustable with a hex-key. (Closer shall have spring power adjustment to permit 50% increase in closing power.) Closer to be enclosed in a molded full cover.

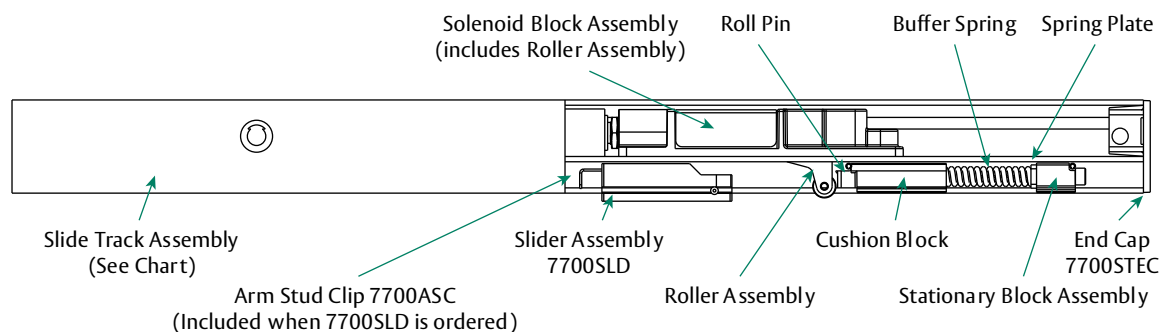
(Master units to have an integral smoke detector with photoelectric chamber. Master units integral smoke detector shall have latching alarm and reset switch.) (Support units to be controlled by U.L. Listed Smoke Detection Equipment.) Units to be fail safe and close the door during an interruption to the electrical power. The hold open solenoid coil shall have a maximum amperage draw of (.090 Amps at 24 volts) (.018 Amps at 120 volts). Unit shall have a switch to permit testing of the releasing device function without alarming the system.

All wiring connections shall be made without the need of wire nuts or soldering. Master unit(s) shall require a (24VAC/DC) (120VAC, 60Hz) power input. Support unit(s) shall require a (24VAC/DC) (120, 60Hz) power input. Supplier to coordinate electrical requirements with electrical and alarm system engineers. Wiring (and conduit) by others. Electromechanical Closer-Holder to be Norton® Power Track® [(P)7700(PTO)(PTDO)].

TRACK ASSEMBLIES

Description	Voltage	Part Number^	
		Hinge Side	Stop Side
Master or Support	24V	PTO24	PPTO24

Master and Support Unit Track Assemblies include track, slider assembly and solenoid block assembly. Hook-up box not included.



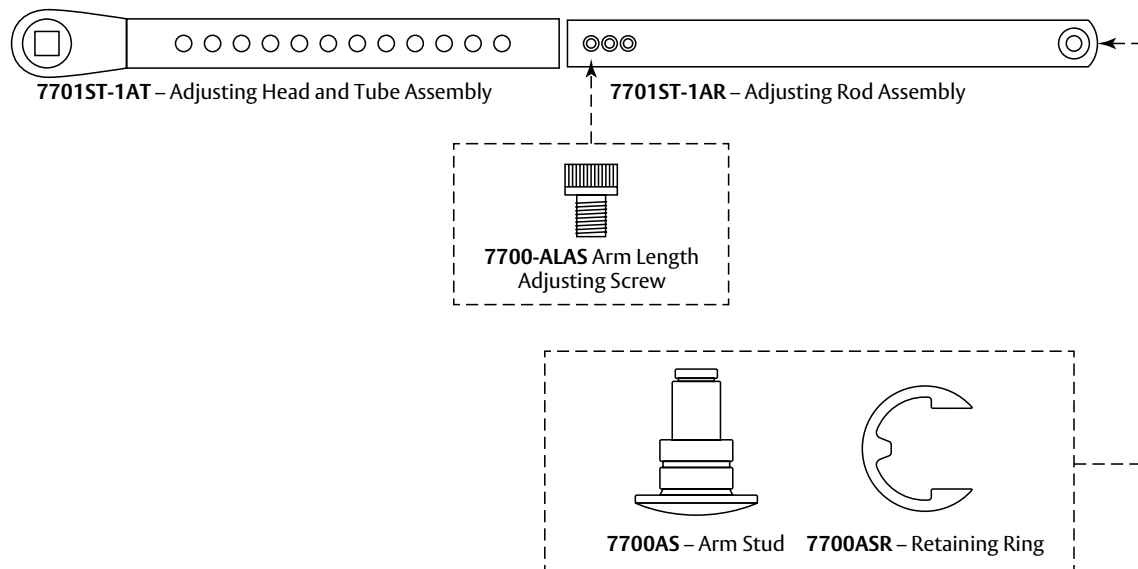
Hook-Up Box Cover Kit^	
Description	Part Number
Master	PTDOHBCOV
Support	PTOHBCOV

Hook-Up Boards^		
Description	Voltage	Part Number
Master or Support	24V	PTOPCB24
	120V	PTOPCB120

^ Not compatible with products manufactured prior to March 2009.

STANDARD ARM ASSEMBLY

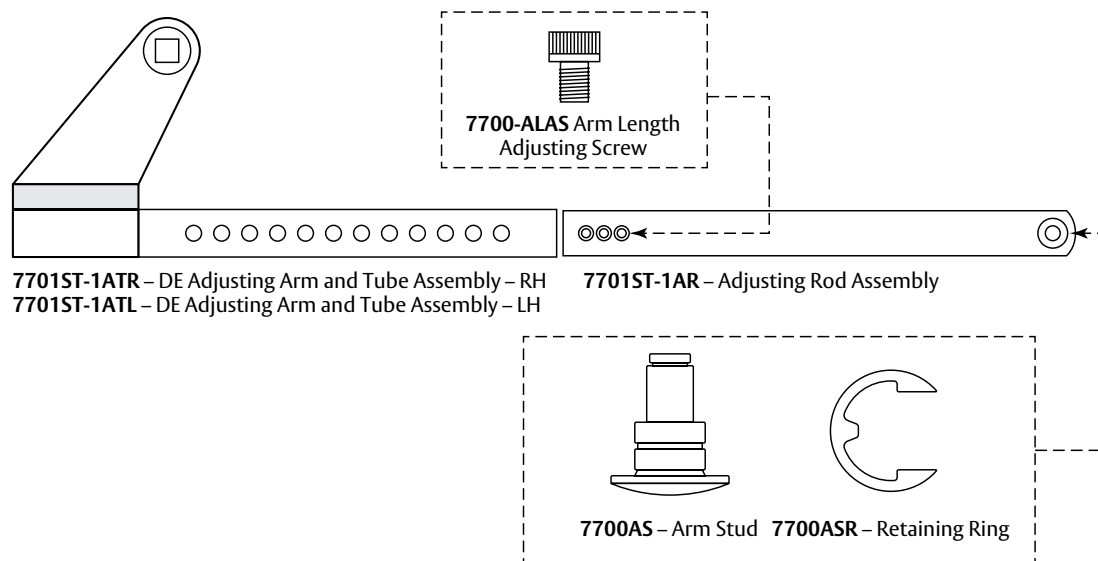
7701ST-1A^{1,2}



DOUBLE EGRESS ARM ASSEMBLY

7701PT-DE-1R^{1,2} – (Right Hand)

7701PT-DE-1L^{1,2} – (Left Hand)



Notes:

1 Includes arm length adjusting screw #7700-ALAS

2 Includes arm tube & adjusting rod assembly

Mounting hardware included with all parts orders

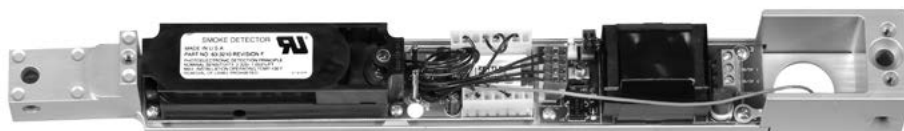
PARTS

Hook-Up Box (shown less cover**)

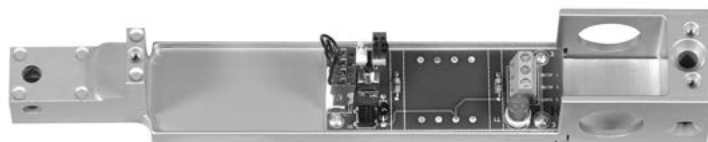
** For identification purposes only – box is only supplied with cover



Master, 24V



Master, 120V



Support, 24V



Support, 120V

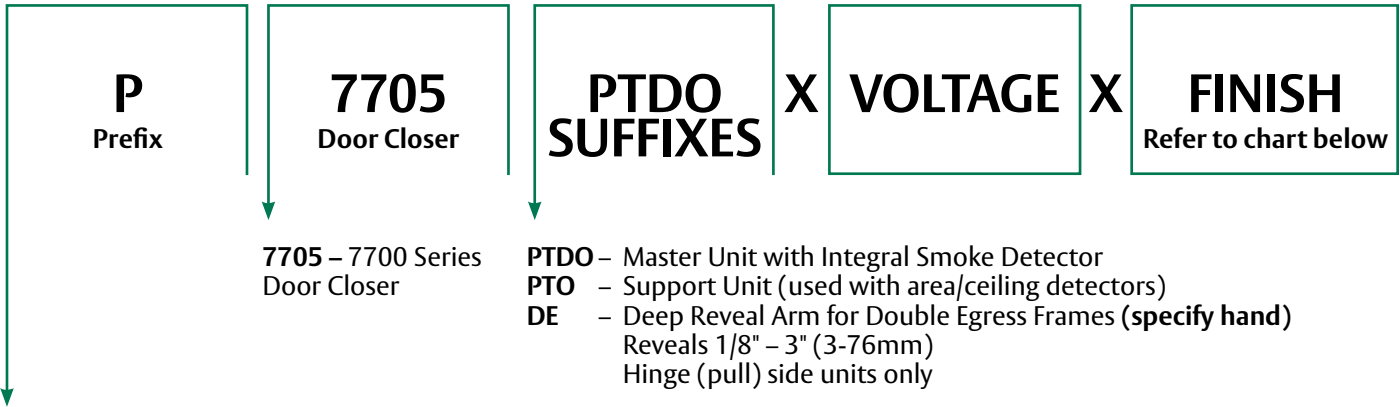
Description	Voltage	Hook-Up Boxes [^]	
		Hinge Side	Stop Side
Master	24V	PTDOHB24	PPTDOHB24
	120V	PTDOHB120	PPTDOHB120
Support	24V	PTOHB24	PPTOHB24
	120V	PTOHB120	PPTOHB120

Miscellaneous Parts	
Description	Part Number
Fuse [^]	PTO125V
Smoke Detector Board* [^]	MPDOSD24
Solenoid Block Assembly (24V)	PT24SOL
Push Side Hook-Up Box Plug Button	P7700PB

[^] Not compatible with products manufactured prior to March 2009

* Same as Norton® 7200 Electromechanical Smoke Detector

HOW TO ORDER



- None** – Unit mounted on pull (hinge) side of door
 Maximum reveal 1/8" (3mm)
 For greater reveals up to 3" (76mm) suffix
 "DE" to model number
- P** – Unit mounted on push (stop) side of door

Sprayed Finishes			
Description	Specify Designation	Complements the following finishes	Old Designation
Aluminum	689	628, 625, 629, 630, 651, 652	AL
Statuary Bronze	690	690 640, 613, 695	STAT
Dull Bronze	691	612, 637, 639	DB
Black	693	315	315
Medium Amber	694	312	312
Gold	696	605, 606, 632, 633	GB
Prime Coat*	600		SRI

Product will be painted with a combination of waterborne acrylic and polyester powder coat.

* 600 is a special rust inhibiting prime coat. Closers can be ordered prime coat only (specify closer x 600).
 An additional charge applies if finish coat is required over prime coat (ex: 7705PTO x 600 x 689).

Finishes other than those listed above may be available on special order. Sample chips will be required.

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ASSA ABLOY Door Security Solutions Canada | www.assaabloy.ca

160 Four Valley Drive | Vaughan, Ontario, L4K 4T9 Canada | Tel: 800-461-3007 | Fax: 1-905-738-2478

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Concealed overhead closer
for high-end applications

Norton®
ASSA ABLOY

ASSA ABLOY, the global leader
in door opening solutions

7900
S E R I E S

DOOR CLOSERS

CATALOG

INTRODUCTION

The 7900 Series Overhead Concealed Closers offer extremely durable operation with the vandal resistance and concealment necessary for high security and high end architectural openings.



Applications

- » Mental Health Facilities
- » Detention Centers
- » Healthcare Facilities
- » Office Buildings
- » Theatres
- » Conference Centers

FEATURES

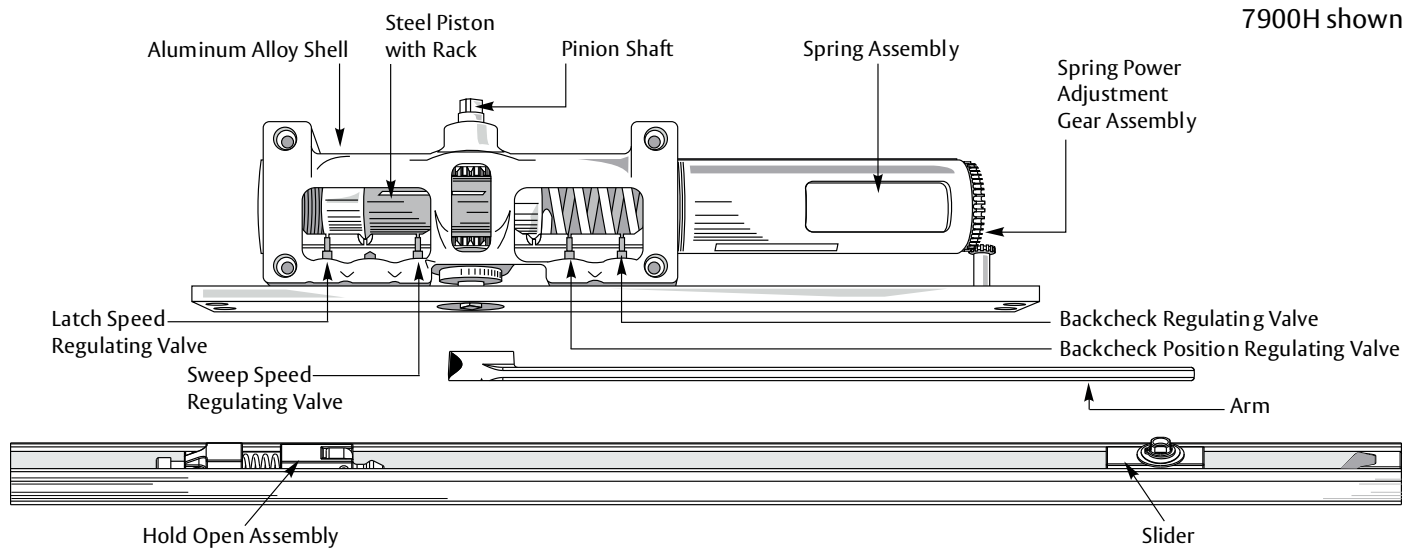
- | | | |
|--|--|--|
| <ul style="list-style-type: none"> » Steel track & slider » Polymer slider pads » Fully adjustable, multi-point hold open (7900) » Dress plates furnished standard » Shock absorbing door stop » Aluminum alloy shell » Rack & pinion operation | <ul style="list-style-type: none"> » Non-critical valves » Adjustable sweep speed » Adjustable latch speed » Adjustable backcheck cushioning » Adjustable backcheck positioning » Delayed action option » Enhanced backcheck option | <ul style="list-style-type: none"> » Power choices <ul style="list-style-type: none"> » Sized closer (4, 5, 6) » Multi-size closer (0) » Torx® screws furnished standard (7970 only) » Door Position Switch (DPS) option (7970 only) » 10-year limited warranty |
|--|--|--|

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7900 SERIES OVERHEAD CONCEALED DOOR CLOSERS

OVERVIEW



CERTIFICATIONS

- » ANSI A156.4, Grade 1
- » UL / cUL listed for use on fire rated doors 
- » UL10C listed for positive pressure fire test
- » Comply with requirements for the Americans with Disabilities Act (A.D.A) and ANSI standard A117.1 
- » This product is manufactured in an ISO 9001 facility

NYC Listing

These closers are also listed with New York City Materials and Equipment Acceptance Division (41-60-SM).

WHI

The Norton Fire Block door liner is listed with Warnock Hersey International for use in 20-minute (wood) fire doors that are listed with WHI, when used with the Series 7900 door closer. Specify model number 790. The combination of a 7900 door closer installed in a UL labeled hollow metal door frame and a Norton Fire Block installed in a WHI labeled 20-minute (wood) fire door, which has the tested preparation, may qualify as a 20-minute fire door assembly. Always consult local authorities to determine the acceptance and proper application of fire door and hardware applications.

EXPLANATION OF FEATURES

Concealed Transom Mounting:

Closer is concealed in the header of hollow metal, aluminum or wood frames. Installation requires a minimum 4" (102mm) high frame header. A removable frame stop furnished by the frame supplier is required where doors are less than 2" (51mm) thick. A dust/grout box 2" x 4" (51 x 102mm) x required length furnished by the frame supplier where conditions warrant the need for one. Consult factory for wood header installations.

Door Thickness:

1-3/4" - 2-1/4" (44-57mm) thick doors

Top Rail Mounted Slide Track:

Slide track is mounted into a recess prepared in the top rail of wood, aluminum or hollow metal doors. Depth of cutout at top of door 1-3/16" (30mm).

Fire Block Door Liner:

Available for use in 20-minute fire door assemblies where recognized by the local authority having jurisdiction.

Standard Door Hanging Hardware:

Closer and slide track can be installed on doors hung with butt hinges, offset pivots or center pivots. Hinges or pivots furnished by others.

Concealed Arm:

Closer arm is concealed when the door is closed. Requires a 3/8" (9.5mm) deep stop side door cutout for arm clearance.

Shock-Absorbing Door Stop:

Non-hold open and hold open units have a shock-absorbing adjustable position stop in the slide track. Use of auxiliary door stop is always recommended, not supplied.

Hold Open:

Sliding mechanism in channel changes position of hold open. The range of hold open points is dependent upon how the door is hung:

- » 85° to 110° for doors hung on butt hinges.
- » 85° to 95° for doors hung on offset pivots.
- » 85° to 100° for doors hung on center pivots.

Adjustable Hold Open Tension:

Hold Open tension can be increased or decreased by adjusting the tension on the slide track spring with a hex-key drive adjusting screw; or the hold open function can be totally eliminated by this same means.

Aluminum Alloy Shell:

Series 7900 closer bodies are constructed of a special aluminum alloy carefully selected to accommodate individual closer characteristics and operating conditions.

Rack & Pinion Operation:

A smooth power transmission through entire opening and closing cycle is provided by a long addendum gear form.

Spring Power Adjustment:

- » 50% power adjustment for closer sizes 4, 5 and 6. Each closer can be adjusted by 50% over the minimum closing force for each size.
- » Multi-sized power adjustment for closer sizes "0".

Adjustable Sweep Speed:

An independent, hex-key operated regulating valve permits adjustment of the general closing speed.

Adjustable Latch Speed:

An independent, hex-key operated regulating valve permits adjustment of the door's speed for approximately the last 5° of the closing cycle.

Adjustable Backcheck Cushioning:

An independent, hex-key operated regulating valve provides an adjustable hydraulic cushion to the door opening speed toward the end of the opening cycle.

Adjustable Backcheck Positioning:

An independent hex-key operated regulating valve allows adjustment of the point in the door's opening cycle at which backcheck cushioning takes effect. It provides a range of 20° within which backcheck can be set.

Non-Critical Valves:

All control valves for sweep/latch speed, backcheck control and delayed action closing are non-critical and are adjusted by a standard 1/8" hex-key.

Non-Hold Open and Hold Open Arms:

Arm is 13" (330mm) long with an offset bend to permit door openings to 180°. Arm is handed. A special arm is furnished when hold open is required and the door is hung on center hung pivots. This straight arm is 16" long and non-handed.

Separate Hinges/Pivots:

Door is hung with butt hinges, 3/4" offset pivots or center pivots (by others). There is no need to open the door closer packaging to supply the hinges/pivots to the job or the door supplier. This eliminates problems with coordination of the hardware with other trades and reduces the probability of lost hardware.

OPTIONAL FEATURES

Enhanced Backcheck:

Adjustable backcheck intensity beginning at approximately 15° of the door opening cycle. It is intended for use in situations where the standard backcheck beginning at approximately 75° of opening allows too much unrestricted door travel to obtain control of the door without the fear of peripheral damage to the door closer, door, frame, hinges or pivots; or adjacent walls or structures. Specify EBC when ordering. **Offered in lieu of standard backcheck and backcheck positioning.**

Door Position Switch (7970 only):

This switch is Single Pole Double Throw (SPDT) momentary contact, with one normally open and one normally closed set of contacts. The three switch terminals are wired to the integral conduit box for connection to incoming wiring. The switch and wiring are for operation with 6 to 24 VAC/DC systems.

Door Position Switch Adjustment: Can be made at the opening without removing the closer from the frame. The door position adjustment test socket is accessible during installation for easy adjustment of the switch cam. Test probes from a volt meter are inserted into the test socket while using 1/8" hex wrench to adjust the position switch adjustment.

» Test Socket:

Volt meter or test light may be connected to test socket to test normally open circuit or normally closed circuit at the door opening. The door position switch may be adjusted at the same time without removal of closer from door.

- » **Adjustable Delayed Action Closing:** An optional hydraulic feature that adds a third speed range to the closing control cycle. This feature becomes effective when the door is opened and released at any point beyond 70°. This delayed closing enables traffic to clear the opening before the normal closing cycle starts. This feature is advantageous to the handicapped, elderly or wheeled traffic. Order by suffixing "DA" to the model number.

Accessibility Code Closer:

These closers provide reduced opening forces to conform with barrier code requirements (as specified in ANSI A117.1) for the handicapped while still providing acceptable door control. **Specify 7900 or 7970.**

SPECIFICATIONS

Closers for exterior (and) interior doors shall be full rack and pinion type with cast aluminum alloy shell. Closers shall be concealed in a 4" (102 mm) high frame header. The slide track shall be concealed in the top rail of the door. Hydraulic fluid shall be non gumming and non-freezing. (Closer shall be provided with a fireblocking door liner to permit installation in 20-minute wood fire door assemblies.) Closer shall have (four) (five) noncritical valves, hex-key operated, to independently regulate sweep speed, latch speed, backcheck cushioning (and backcheck positioning) (and delayed action closing). [Closers shall be sized units (4, 5 or 6)].

[Closers shall have power adjustment to permit a 50% increase in power over the minimum closing force for any size.]

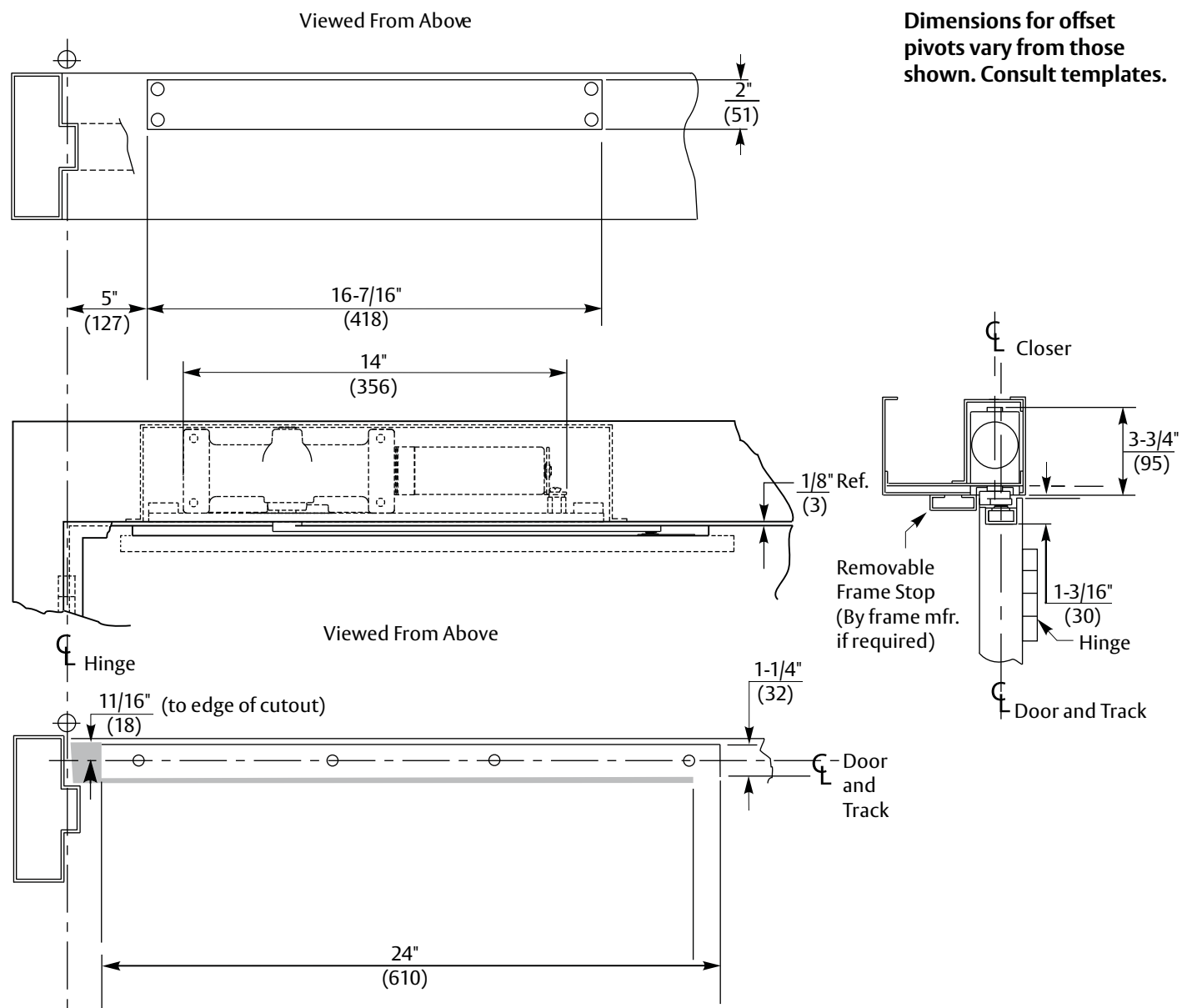
[Closers shall have multi-sized adjustment for (interior doors)(exterior doors)]. Closer shall conform to Accessibility Code specifications. Degree of stop shall be field adjustable.

Slide track shall have a built-in cushioning shock absorber mechanism. (Hold open mechanism shall be capable of release when holding function is not required. Hold open mechanism shall have an adjustable range 85°-110° of door opening and shall release with a manual pressure on the edge of the door in the direction of closer). Closer to be Norton® [Series 7900] [Series 7970] (with Norton® #790 Fire Block). 7970/7970DPS shall be supplied with Torx® lobular drive fasteners having a center security pin.

7970 DPS

Closer to have a door position switch to indicate "Door Open/Door Closed" condition.

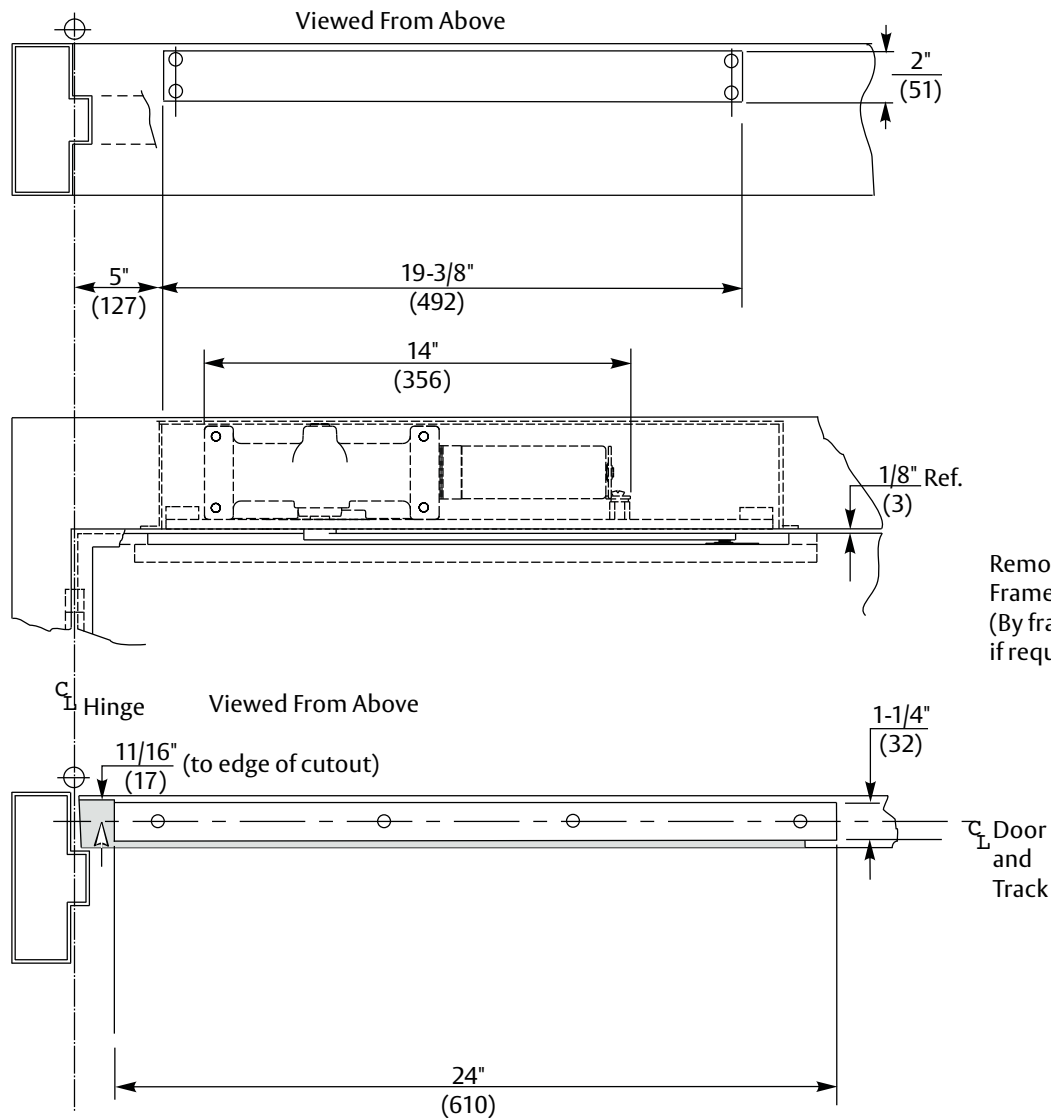
7900 BUTT HINGE INSTALLATION



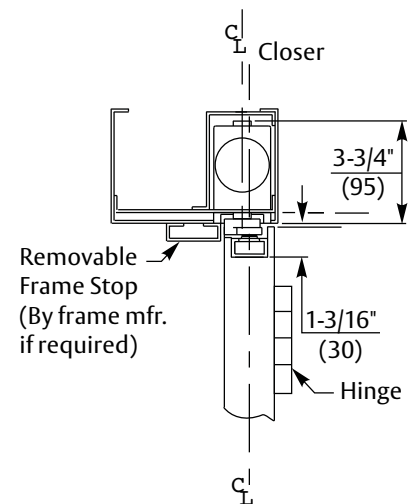
Note:

- » Left hand door shown
- » Minimum door width 27"
- » 1-3/4" to 2-1/4" thick doors
- » Maximum width hinge is 5"
- » Contact factory if door weight exceeds 250 lbs.

7900 SERIES OVERHEAD CONCEALED DOOR CLOSERS



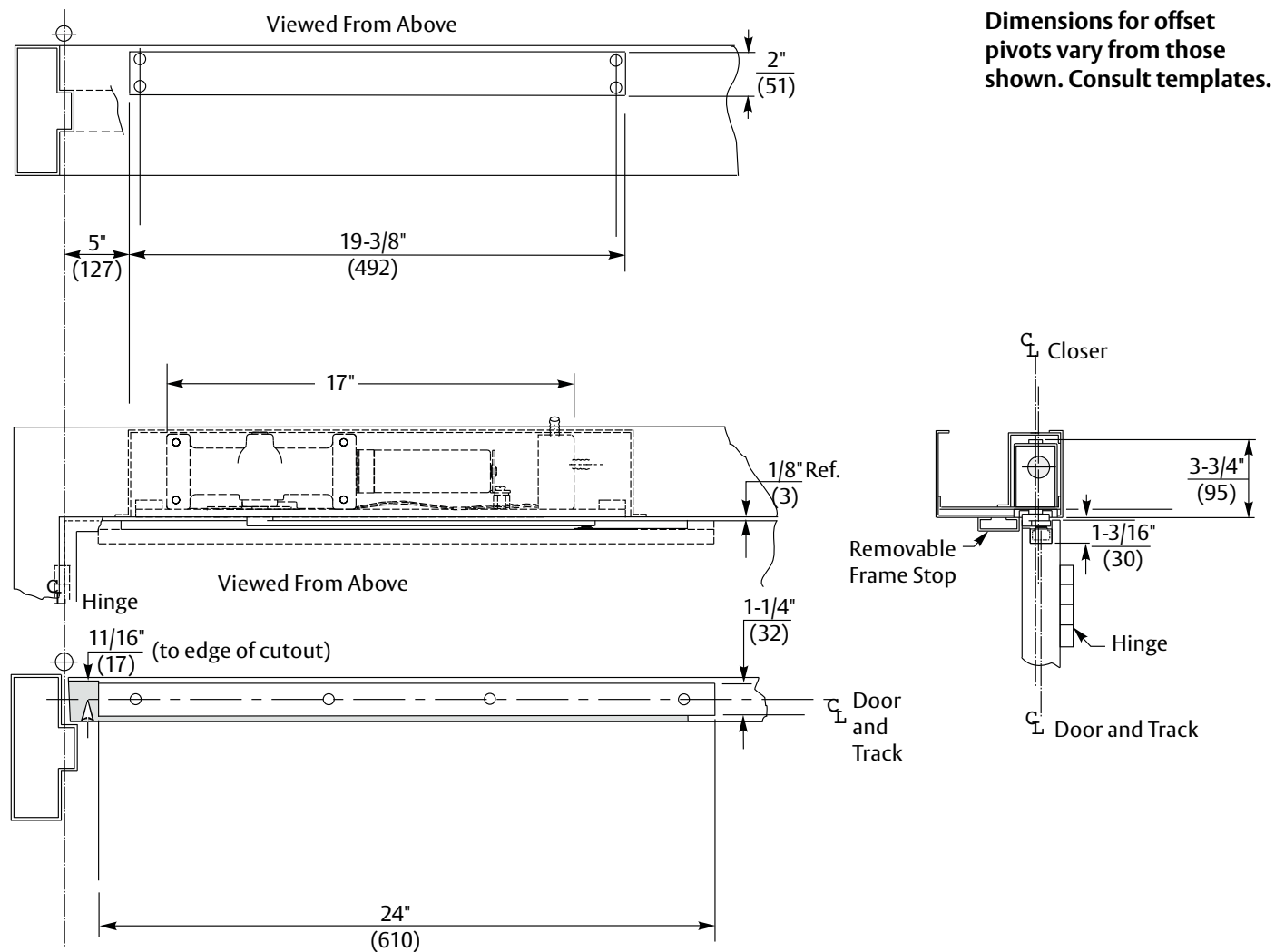
Dimensions for offset pivots vary from those shown. Consult templates.



Note:

- » Left hand door shown
- » Minimum door width 27"
- » 1-3/4" to 2-1/4" thick doors
- » Maximum width hinge is 5"
- » Contact factory if door weight exceeds 250 lbs.

7970DPS BUTT HINGE INSTALLATION

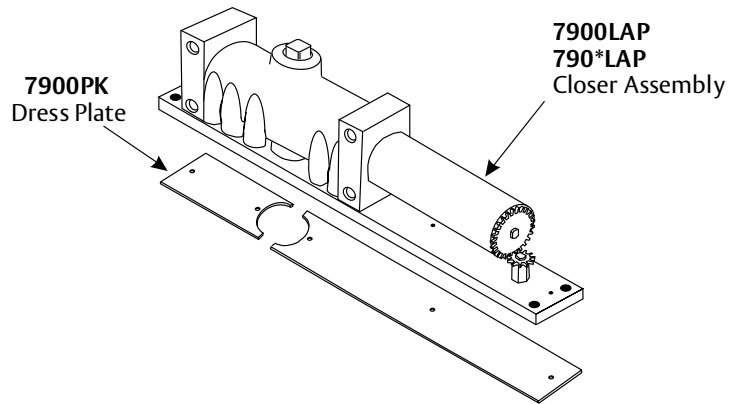


Note:

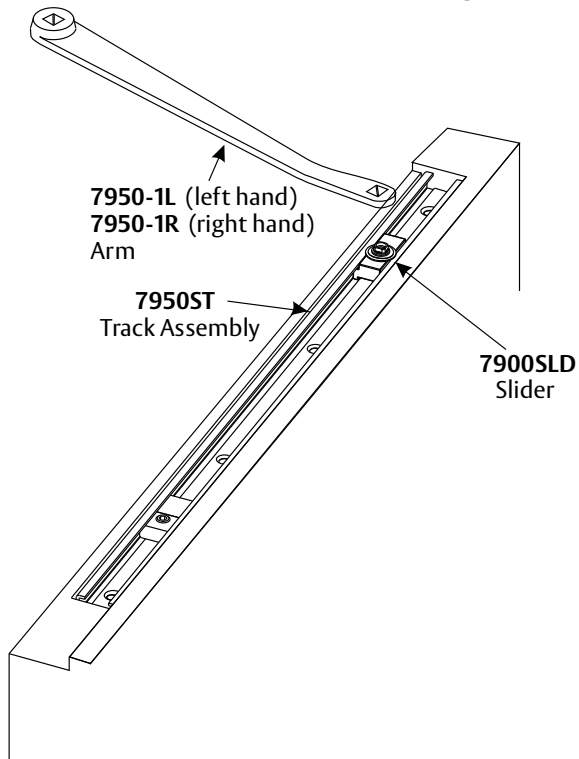
- » Left hand door shown
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- » 1-3/4" to 2-1/4" thick doors
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- » Contact factory if door weight exceeds 250 lbs.

7900 SERIES OVERHEAD CONCEALED DOOR CLOSERS

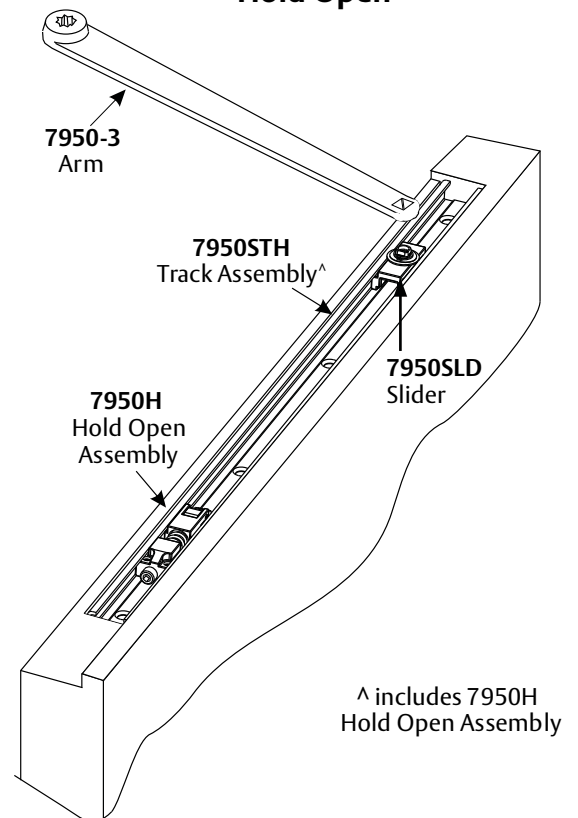
PARTS



Non-Hold Open



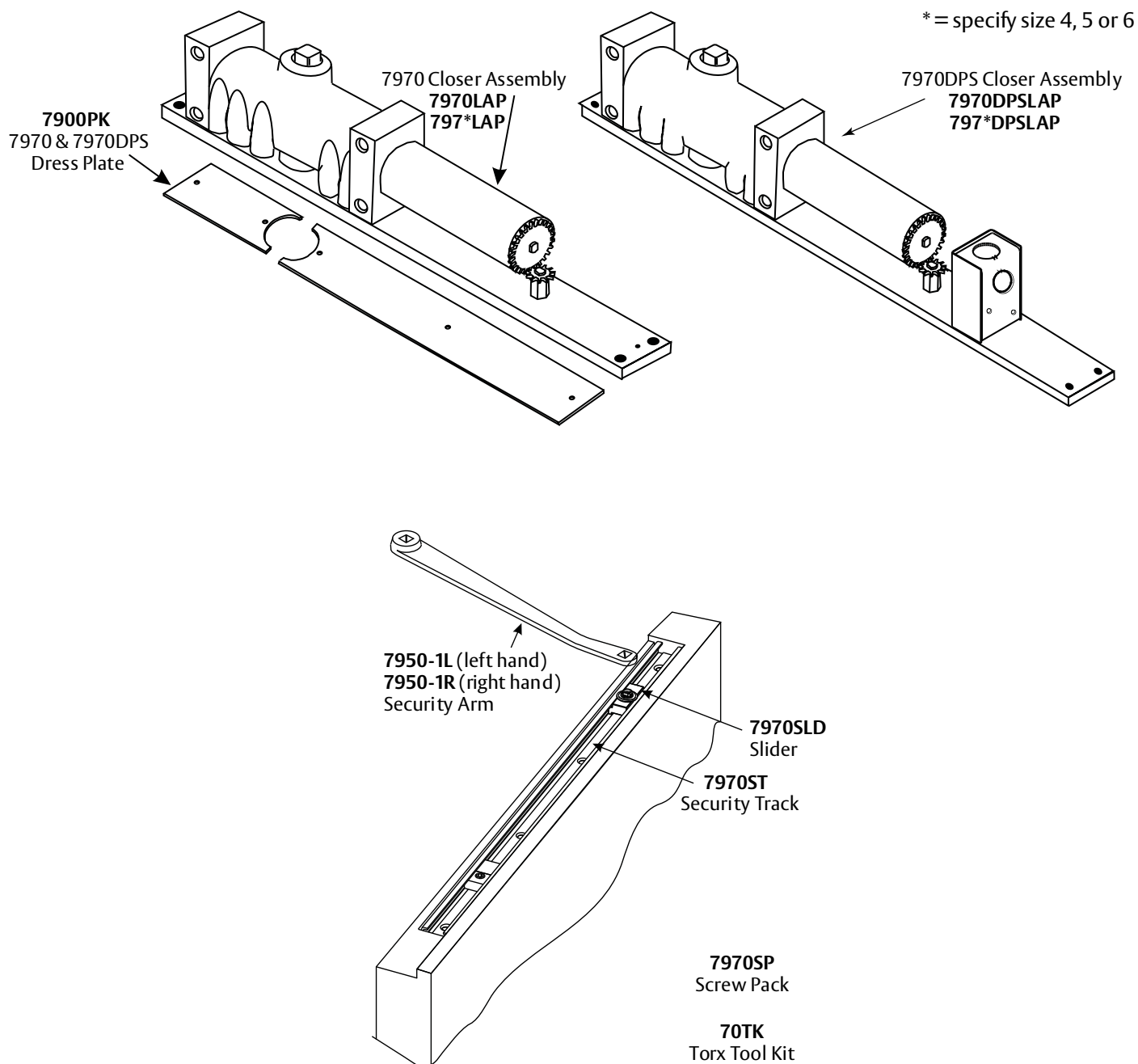
Hold Open



Specify finish when ordering parts.

7900SP
Screw Pack

PARTS



Specify finish when ordering parts.

7900 SERIES OVERHEAD CONCEALED DOOR CLOSERS

DOOR SIZE

Maximum Door Size Wood or Metal Inches (Centimeters)		Model Number	
Interior	Exterior	Non-Hold Open	Hold Open
32" (81)	—	7904/7974	7904H STAT
38" (97)	32" (81)	7905/7975	7905H
48" (122)	38" (97)	7906/7976	7906H
Accessibility Code Compliance			
48" (122)	36" (91)	7900	7900H

Door sizing information is based on installation on standard weight doors hung on anti-friction hinges or pivots and operating under normal conditions. For doors in excess of 7'6" or on extra-heavy doors, where draft conditions exist or where door swings beyond 150°, use next larger size closer.

Ball-bearing or anti-friction hinges or pivots are always recommended for use with doors having door closers. They are required for fire door applications, except where a door manufacturer has a specifically listed fire door assembly.

When requesting templates, specify door hanging hardware (i.e. B = butt hinges, CP = center hung pivots, OP = offset pivots).

FINISHES

Sprayed Finishes

Description	BHMA Designation	Complements the following finishes
Aluminum	689	628, 625, 629, 630, 651, 652
Statuary Bronze	690	640, 613
Dull Bronze	691	612, 637, 639
Black	693	315
Medium Amber	694	312
Gold	696	605, 606, 632, 633

Plated Finishes

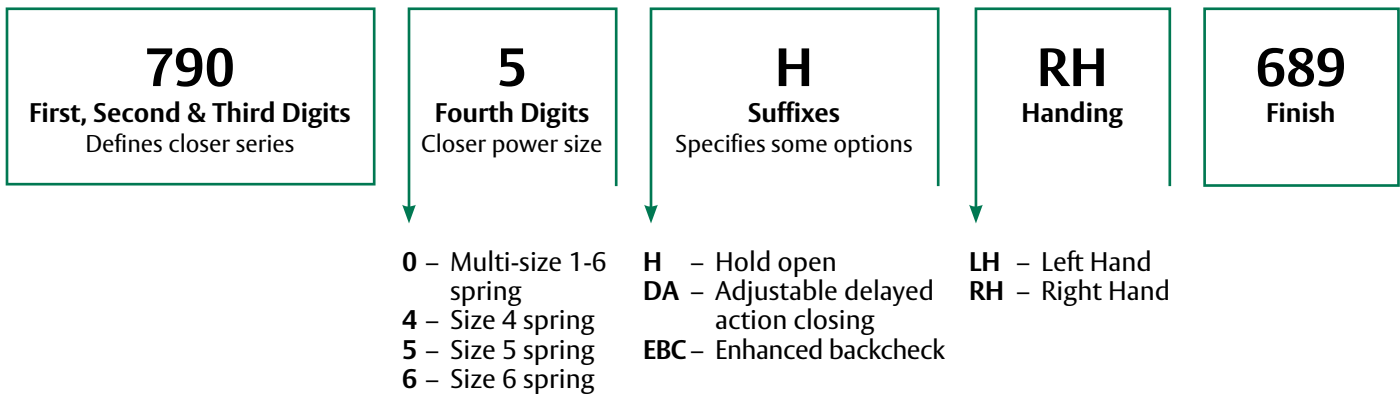
Description	BHMA Designation
Bright Brass	605
Satin Brass	606
Bright Chrome	625
Satin Chrome	626

Order sprayed and plated finishes by BHMA designations.

HOW TO ORDER

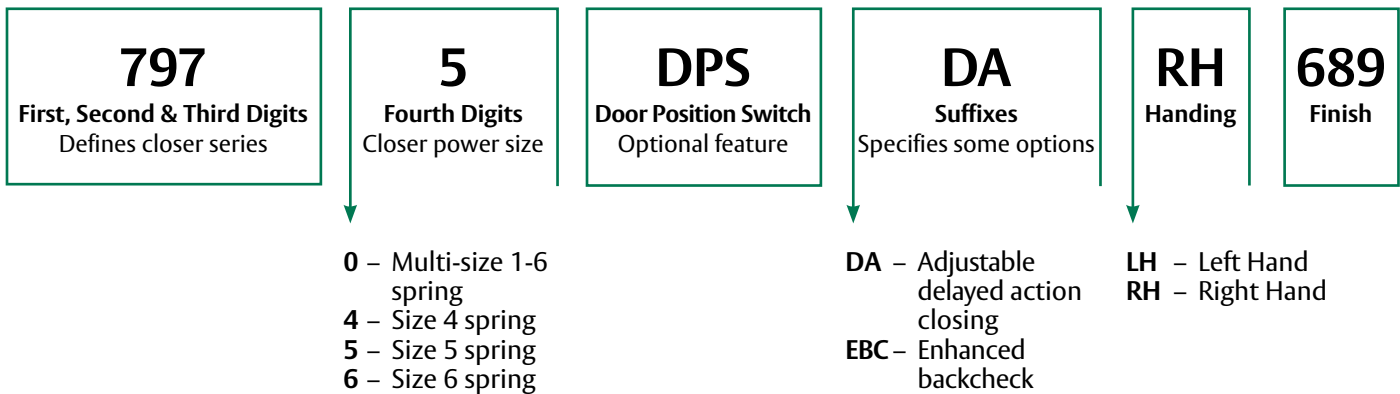
7900 Door Closers

Use the following outline to select the correct catalog number for the closer you require.



Note: For 20-min wood fire doors, order 790 Fire Block package.

7970/7970DPS Security Door Closers



Note: For 20-min wood fire doors, order 790 Fire Block package.

Packaging information:

All Norton® Series 7900 closers are packed one to a box, with an arm and a slide track, one hex key for control valve adjustment (and hold open tension adjustment), one hex key for arm to track attachment, one hex key for anchoring cushion stop in track. Installation instructions and both wood screws and metal screws for mounting are included.



ASSA ABLOY is the global leader in door opening solutions, dedicated to satisfying end-user needs for security, safety and convenience

Since 1880, Norton door controls have been an integral part of schools, hospitals and businesses around the globe. When you need products and people that perform at the highest level, rely on Norton – From Open to Close.

Norton Door Controls | www.nortondoortcontrols.com

3000 Highway 74 East | Monroe, NC 28112 | Tel: 1-877-974-2255 | Fax: 1-800-338-0965

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Multi-sized closer with sleek design
for busy architectural openings

Norton®

ASSA ABLOY

ASSA ABLOY, the global leader
in door opening solutions

8000
S E R I E S

DOOR CLOSER

CATALOG

INTRODUCTION

Multi-sized surface closer offering a complete range of arms and a sleek, minimal design suited for moderate- to high-traffic, architectural openings.



FEATURES

- » Exceeds 25 million cycles based on internal cycle testing
- » Adjustable spring sizes 1 through 6
- » Tri-Style® packaging standard (regular arm, top jamb and parallel arm mounting)
- » Non-handed
- » Staked valves
- » Cast aluminum body
- » Rack and pinion design
- » 1-1/4" (32mm) diameter piston
- » 5/8" (16mm) diameter pinion journals
- » 2-1/8" (54mm) projection (standard covers)
- » All standard arm applications (with slim, full or metal covers) allow doors to swing 180 degrees, conditions permitting
- » Full size template
- » Standard, separate and independent, latch, sweep and back check intensity valves
- » Application specific arms: Regular (S), Top Jamb (JS) and Parallel (P)
- » Heavy-duty arms; Regular Rigid, Parallel Rigid, CloserPlus®, CloserPlus Spring™, Unitrol®
- » Slide Tracks: push or pull side mounting
- » 25-year limited warranty

OPTIONAL FEATURES

- » Lead lined metal cover - suffix MLL
- » Metal, architectural plastic or architectural metal covers (8501 only)
- » Delayed action

Features	8301	8501
Slim Line Cover	✓	
Full cover		✓

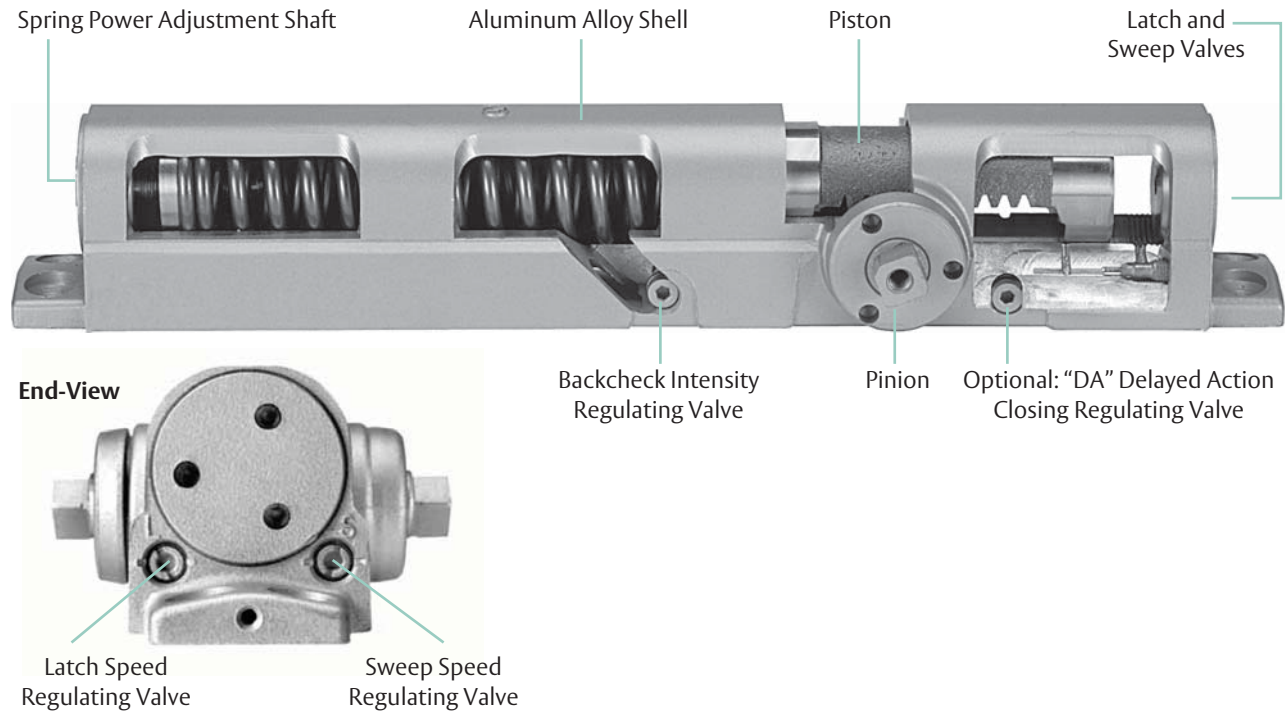
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8000 SERIES ARCHITECTURAL DOOR CLOSER

OVERVIEW

CUTAWAY VIEW



CERTIFICATIONS

- » ANSI/BHMA A156.4, Grade 1 certified 
- » UL / cUL listed for use on fire rated doors 
- » UL10C listed for positive pressure fire test
- » 8301 and 8501 door closers are designed to comply with requirements for the Americans with Disabilities Act (A.D.A) and ANSI standard A117.1 
- » This product is manufactured in an ISO 9001 facility

CAUTION: Door Closers for Low Opening Force Applications:

Door closers installed in openings required to meet the requirements of The Americans with Disabilities Act or ANSI/BHMA Standard A117.1, when adjusted to meet those requirements, may not provide adequate closing power to dependably close and latch the door.

EXPLANATION OF FEATURES

Aluminum Alloy Housing

Closer bodies are constructed of a special aluminum alloy, carefully selected to accommodate interactive steel components and operating conditions.

Rack & Pinion Operation

Provides a smooth constant control of the door through its full opening and closing cycle. 180° door swing can be achieved when door, frame, hardware and arm function do not interfere.

Non-handed

With few exceptions all series 8301/8501 door closers are non-handed and can be installed on either right- or left-hand swing doors. Pinion shaft extends vertically through the closer body in both directions. Some options will require that the hand of the closer be specified.

Sweep Speed Control Valve

Allows adjustment of door speed from the door's full open position down to approximately 10° from the closed position.

Latch Speed Control Value

Allows adjustment of door speed from approximately 10° down to the door's fully closed position.

Tri-Style®

8301/8501 comes with screws, brackets and soffit plates to allow for regular, top jamb, and parallel arm installations.

Adjustable Backcheck Cushion Valve

Provides control of the door in the opening cycle, beginning at approximately 75° of door opening. It cushions the door opening when the door is forcibly opened beyond its pre-adjusted limits.

Standard Molded Covers

Molded of high-impact U.L. listed material. These covers are non-handed for all applications.

Warranty

Limited 25-year warranty for defects and life of the building on the aluminum housing.

Closer Fluid

NorGlide® closer fluid is a specially formulated multi-viscosity hydraulic fluid that contains lubricity and anti-oxidation agents that provide optimum performance and efficiency. This fluid complements the interaction of the door closer's aluminum housing with its steel and brass components, while maintaining stable viscosity to allow the door closer to perform in temperatures ranging from extremely high to as low as -40° F.

DOOR CLOSER POWER OPTIONS

Series 8301/8501 Multi-Sized Door Closer

Adjustable through the power range of sizes 1 through 6; as outlined in ANSI/ BHMA specification A156.4 option PT 4H.

Closers will also comply with the opening force requirements as outlined in the Americans with Disabilities Act (ADA) and ANSI/BHMA standard A117.1 for interior doors.

Optional Metal Cover

This steel cover is non-handed for regular and parallel arm applications, but is handed for top jamb applications. Cover is available in sprayed or plated finishes.



Optional Architectural Covers *

Plastic

Architectural plastic covers are molded of high-impact U.L. listed material. They are non-handed and available in sprayed finishes.

Metal

The architectural metal covers are steel and non-handed for all applications. These covers are available in sprayed or plated finishes.



Optional ABS Cover

Consult factory for details

EXPLANATION OF FEATURES

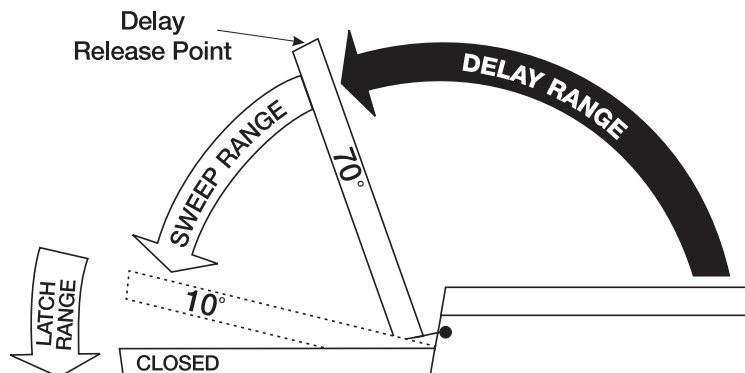
Adjustable Delayed Action Closing

An optional hydraulic feature that adds a third speed range to the closing cycle. This feature becomes effective when the door is opened and released at any point beyond 70°. The amount of time delay depends upon the combination of the angle of door release and valve adjustment. The valve can be adjusted with a 1/8" (3mm) hex key from no delay time up to maximum delay times of:

Door Opened and Released at	Approximate Time of Delay Cycle
180°	4-5 minutes
120°	2-3 minutes
90°	25-30 seconds

Pressure Relief Safety Valve

The delayed action hydraulic system contains a pressure relief valve. Any time the door is forced toward the closed direction while it is in the closing cycle, the valve will open and permit the door to close. This prevents damage to door, frame and closer.



Suggested Applications

Delayed Action closing allows slow moving traffic to clear the opening before the door closer's normal closing cycle begins. This feature can be helpful in health care facilities such as hospitals and nursing homes. It provides sufficient time for persons on crutches or in wheelchairs to pass through a door without concern of it closing. At the same time, it can accommodate the facility's staff with movement of food service carts, beds, and other wheeled traffic.

Use of delayed action closers on many doors throughout industrial and commercial buildings can also assist the flow of traffic. Locations where

additional time to clear the opening is advantageous are doors between office and factory/warehouse facilities, doors to workshops or laboratories, to kitchen and food processing areas, etc.

Non-Hold Open

Self-closes door every time door is opened. Auxiliary stop (by others) required except when using the CloserPlus®, CloserPlus Spring™ or Unitrol® arms.

Hold Open

Achieved by means of friction or ball and detent/ roller. Friction hold open has a range of 90° to 180° using template location and mechanical adjustment.

Ball and detent or roller hold open is effective in a range of 85° to 110°.

Hold open arm door closers are not permitted to be used on fire door assemblies.

Door Opening Degrees

Arm Function	Regular Top Jamb Parallel Arm	Parallel Rigid Arm	CloserPlus® Parallel Arm	CloserPlus Spring™ Parallel Arm	Unitrol® Parallel Arm	Unitrol® Top Jamb	Low Profile Regular, Parallel	Slide Track
Non-Hold Open	✓	✓	85° to 110°	85° to 110°	85° to 110°	85° to 110°	✓	85° to 110°/180°
Hold Open	90° to 180°	85° to 180°	85° to 110°	85° to 110°	85° to 180°	85° to 180°	N/A	85° to 110°

✓=180° trim and template permitting

SUGGESTED SPECIFICATIONS

8301/8501 Series

Closers for interior and exterior doors shall be full rack-and-pinion type with cast aluminum alloy shell. Closers shall be surface mounted and shall project no more than 2-1/8" from the surface of the door with standard cover. Closers shall be non-handed to permit installation on doors of either hand. Closer fluid shall contain lubricity and anti-oxidation agents. Closer fluid shall maintain stable viscosity to allow door closer to perform in temperatures ranging from extremely high to as low as -40°F. Closers shall have multi-size spring power adjustment to permit setting of spring from size 1 through size 6. Closers shall have two non-critical valves, hex key adjusted, to independently regulate sweep speed and latch speed. Closers shall have adjustable backcheck intensity controlled by a hex key adjusted valve.

[Closers shall have adjustable delayed action closing controlled by a hex key adjustable valve.]

Regular arm and top jamb closers shall have a non-hold open shoe permitting 15% (+ or – 7-1/2%) power adjustment. **Closers shall be enclosed in a [molded resin cover] [plated or sprayed metal cover], Closers to be Norton® [8301/8501] [8501M] [8501MA] [8501A].

**For special arms insert the appropriate specification from column three on this page.

**Unitrol® Arm

Door closers shall have a fixed door stop feature effective at one point selected at installation, from 85° - 110° in five-degree increments.

Door stop shall be cushioned by a shock-absorbing heavy-duty spring action effective at the [soffit plate] [arm shoe] pivot. [Closers shall be provided for parallel arm installation using a rigid steel main arm and secondary arm lengths proportional to the door width.] [Closers shall be provided for top jamb installation using a forged steel, rigid main arm and telescoping secondary arm adequate for the frame reveal of the openings.]

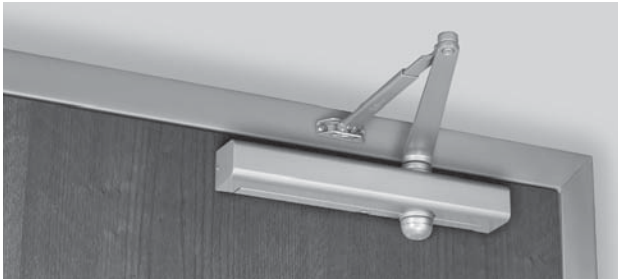
**CloserPlus® Arm

Door closers shall have a field reversible door stop. Door closer shall have a feature with selectable on and off ball and detent hold open. Hold open tension shall be adjustable effective at one point selected at installation, from 85° - 110° in five degree increments. [Hold open mechanism shall have engage/disengage selection actuated by thumbturn]. Closers shall be provided for parallel arm installation using a forged rigid steel main arm and secondary arm.

**CloserPlus Spring™ Arm

Door closers shall have built-in door stop [and holder] effective at one point selected at installation, from 85° - 110° in five-degree increments. Door stop mechanism shall be reversible and have a buffer spring that engages prior to the dead stop feature, reducing shock loads to the door and frame assembly. Door stop mechanism shall be non-handed and attached to soffit plate. [Hold open mechanism shall have engage/disengage selection actuated by thumbturn]. Closers shall be provided for parallel installation using a forged rigid steel main arm and secondary arm.

APPLICATIONS



8301 - slim cover

Regular Arm

This is the only pull side application where a double lever arm is used. It is the most power-efficient application for a door closer. Sufficient frame, door and/or ceiling clearance must be considered.



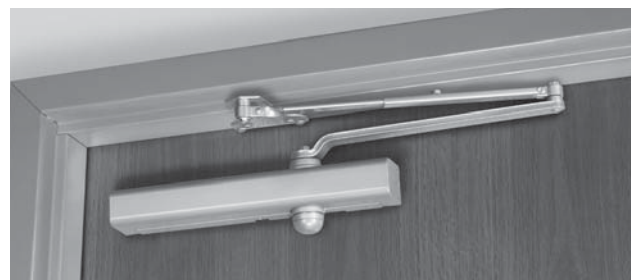
8501 - full cover

Since the arm assembly projects directly out from the frame, this application may present an aesthetics issue or be prone to vandalism.



Top Jamb

For efficiency reasons this application provides the best alternative to the regular arm application. There must be sufficient frame face and/or ceiling clearance for this application. It requires a top rail on the door of just 2-1/4" (57mm). This application provides the best door control for doors in exterior walls that swing out of a building.



Parallel Arm

This application provides the most appealing design appearance for a surface mounted door closer having a double lever arm. This also makes it beneficial in vandalism-prone areas. It is on the push side of the door and the arm assembly extends almost parallel to the door. In the closed position, there is very little or no hardware projecting beyond the frame face in most situations.



Due to the geometry of the arm it is approximately 25% less power efficient than a regular arm application. The entire closer and arm assembly are mounted below the frame stop. Top rail clearance dimensions will vary based on the type of cover used.

APPLICATIONS



Parallel Rigid Arm

Non-hold open arm shown

An enhanced variation of the standard parallel arm assembly that is intended for use in heavy traffic areas where auxiliary door stops are installed.

Hold open available - specify hand when ordering.



CloserPlus® Arm

Non-hold open arm shown

Similar to the Parallel Rigid arm, this arm incorporates a stop at the arm's soffit plate to dead stop the door at a predetermined degree of door swing between 85° to 110°, in 5° increments. Prior to dead stop the door closer's backcheck feature slows the door speed to reduce the impact of the stop action.

The CloserPlus Arm is intended for use where an auxiliary door stop cannot be utilized and no more than moderate abuse is anticipated. Where more extreme conditions are expected, use of a Unitrol arm is recommended.

Available with or without hold open. (Hold open strength is adjustable.)



Non-hold open arm shown

CloserPlus Spring™

This arm has all the characteristics of the CloserPlus arm with an additional steel buffer spring that provides greater protection at the end of the door opening cycle.

For extreme conditions, use of a Unitrol arm is recommended. Available with or without hold open.



CloserPlus Ramp™

The CLP-R uses a patent pending ramp and plunger design that easily slides into place reducing wear often seen on traditional hold open arms. Ideal for applications where the door will constantly be pulled out of hold open.

APPLICATIONS



Regular Rigid Arm

This double lever arm features a non-adjustable secondary arm. Orbitally riveted joints prevent tampering or disassembly. Prefix "R" to model number. Available non-hold open only.



Non-hold open arm shown

Parallel Rigid Offset Arm

This heavy-duty parallel rigid arm provides additional vertical clearance. It is well suited for applications where weather stripping or other hardware prevents the use of the standard Parallel Rigid (PR) soffit plate. The non-hold open and hold arms allow 1-1/4" clearance. When used in conjunction with a 6891 spacer block, the PRO arm provides 1-7/8" clearance to accommodate the use of a surface overhead stop/holder.



Parallel

Unitrol® Arm

Can be used for either parallel arm or top jamb applications. Unitrol arms combine the features of a double lever arm overhead door stop/holder with the backcheck feature of the door closer to reduce door stopping shock loads to a minimum. The Unitrol uses a compression spring buffer at the soffit plate/arm shoe that will absorb 30 lbs. of force, 5° prior to the door's dead stop. Coupled with the door closer's backcheck feature, this arm provides the most controlled stop available with a surface door closer.

For parallel arm applications there are three different length arm assemblies. Each length is designed for a specific range of door widths, to provide precise door control. This further lessens the dead stop impact on the door's hinges/pivots.



Top Jamb

APPLICATIONS



Pull Side



Low Profile Pull Side



Push Side



Low Profile Push Side

Slide Track

Whether pull or push side mounted, slide track applications provide the designer with the smoothest lines available in a surface mounted door closer. The single lever arm allows components to be located in a stack configuration to minimize projection and eliminate obtrusive arm angles. The arm geometry reduces door closer power efficiency by approximately 25% from that of a regular arm.

Standard Unit

Adjustable 85° to 110° (hold open and non-hold open). Track is supplied with a spring buffered stop. An auxiliary stop, by others, is recommended.

- » Specify if hold open unit is required.
- » 180° swing (non-hold open, pull side only) is also available. This track assembly requires that a door stop, by others, be supplied to stop the door.



Regular Arm - Regular Arm allows closer to be installed where there is as little as 1" (25mm) of frame face or ceiling clearance.



Parallel Arm - Parallel Arm allows closer to be installed 1/2" (13mm) higher up on door than standard parallel arm application.

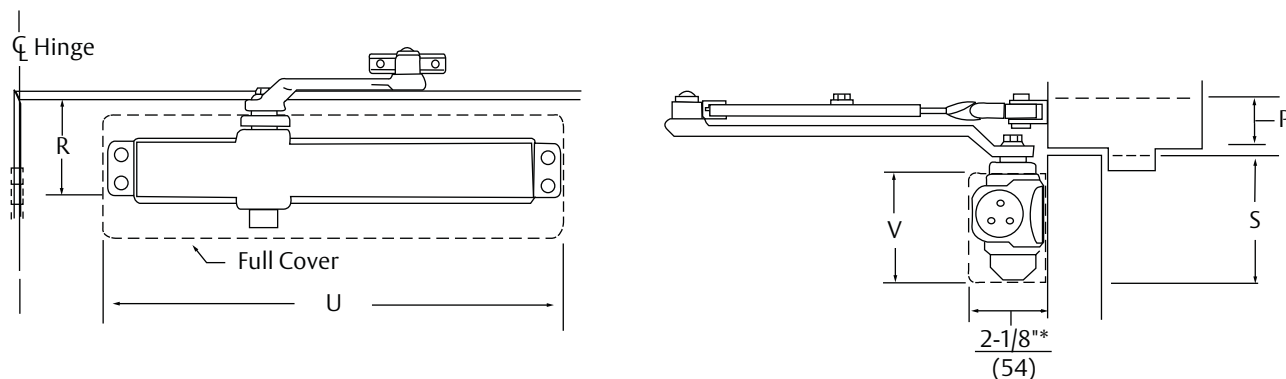
Low Profile Arm

Supplied with 8381/8581 series door closers for non-hold open installations only. Low profile arms have a reduced height elbow joint and a straight main arm. This enables the door closer to be installed in less vertical space.

- » **Note:** Low profile arm door closers are not supplied with Tri-Style® packaging.

8000 SERIES ARCHITECTURAL DOOR CLOSER

REGULAR ARM



Mounting holes for closer body are spaced 3/4" (19mm) vertically x 12" (305mm) horizontally.

* Projection is for Slim Line or Full Covers. Projection for Metal Covers = 2-3/16" (56mm). Projection for Architectural Plastic & Architectural Metal Covers = 2-1/4" (57mm).

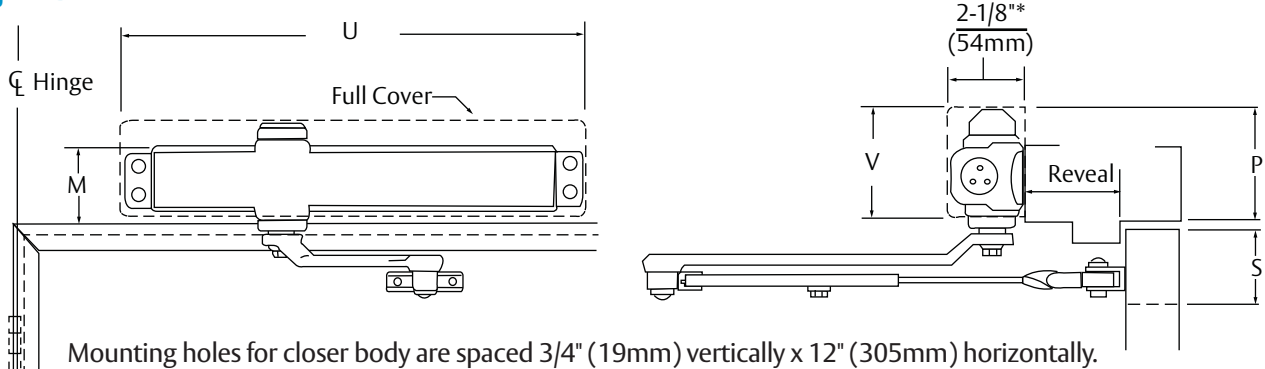
Closer Series	Covers	P Minimum Ceiling Clearance			R Minimum Top Rail				S Minimum Top Rail Clearance		U Closer Length	V Closer Height	
					W/O Drop Plate		W/8146 Drop Plate						
		NHO	Low Profile	HO	NHO	Low Profile	NHO	Low Profile	NHO	Low Profile			
8101	No Cover	1-1/2" (38)	1" (25)	1-5/8" (41)	2-1/2" (64)	2-3/8" (60)	1-5/8" (41)	1-1/2" (38)	3-1/2" (89)	3-3/8" (86)	12-3/4" (324)	2-7/8" (73)	
8301	Slim Line Plastic										13" (330)		
8501	Full Plastic												
8501M	Metal								4-1/4" (108)	4-1/8" (105)	13-5/8" (346)		3-3/4" (95)
8501A	Arch. Plastic								3-5/8" (92)	3-1/2" (89)	14" (356)		3-1/8" (79)
8501MA	Arch. Metal								3-1/2" (89)	3-3/8" (86)			3" (76)

Model Numbers	
Non-Hold Open	Hold Open
8301 8501	8301H 8501H

Notes:

- » Door closers are set at midpower range from the factory
- » Measurements are inches/mm unless noted
- » Standard door widths: 30"-48" (76-122cm)
- » Contact factory if door weight exceeds 250 lbs.

TOP JAMB ARM



Mounting holes for closer body are spaced 3/4" (19mm) vertically x 12" (305mm) horizontally.

* Projection is for Slim Line or Full Covers. Projection for Metal Covers = 2-3/16" (56mm). Projection for Architectural Plastic & Architectural Metal Covers = 2-1/4" (57mm).

Closer Series	Covers	M Minimum Frame Face			P Minimum Ceiling Clearance			S Minimum Top Rail Clearance 5/8" (16mm) Frame Stop									U Closer Length	V Closer Height
		W/O Drop Plate	With 8146 Drop Plate	With 8148, 8158, 8547, 8547A Drop Plate	W/O Drop Plate	With 8146 Drop Plate	With 8148, 8158, 8547, 8547A Drop Plate	W/O Drop Plate			W/8146 Drop Plate			With 8148/8547 Drop Plate				
								NHO	Low Profile	HO	NHO	Low Profile	HO	NHO	Low Profile	HO		
8101	No Cover	1-3/4" (40)	1-1/8" (29)	1-1/2" (38)	2-3/4" (70)	1-5/8" (41)	1-1/2" (38)	2-1/4" (57)	N/A	2-1/2" (64)	3-3/8" (86)	2-3/4" (70)	3-5/8" (92)	4-3/8" (111)	3-3/4" (95)	4-5/8" (117)	12-3/4" (324)	2-7/8" (73)
8301	Slim Line Plastic																13" (330)	
8501	Full Plastic																	
8501M	Metal			1-5/8" (41)	3-3/4" (95)		1-5/8" (41)										13-5/8" (346)	3-3/4" (95)
8501A	Arch. Plastic		N/A	1-1/2" (38)	3" (76)	N/A	1-1/2" (38)										14" (356)	3-1/8" (79)
8501MA	Arch. Metal				2-7/8" (73)													3" (76)

Reveal Information

Model Number	Reveal Range Inches (mm)	Maximum Door Opening	
		NHO	HO
J8301, J8501	2-3/4" (70) to 4-1/4" (108)	180°	
J8301, J8501	4-1/4" (108) to 7" (178)	150°	
J8301H, J8501H	2-1/8" (54) to 4-1/4" (108)		180°
J8301H, J8501H	4-1/4" (108) to 6-3/4" (171)		150°

Reveal Information (regular arm installed top jamb)

Model Number	Reveal Range Inches (mm)	Maximum Door Opening	
		NHO	HO
8301, 8501	0 to 2-7/8" (73)	180°	—
8301, 8501 w/Drop Plate ^{^^}	0 to 2-3/4" (70)	180°	
8301H, 8501H	0 to 2-3/4" (70)		180°

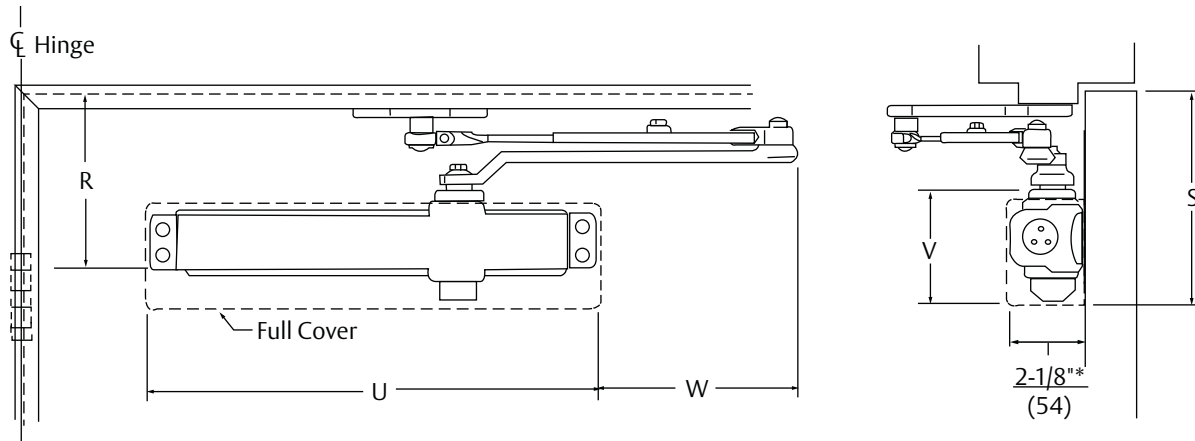
^{^^} Drop plate 8146, 8148, 8158, 8547 or 8547A

Notes:

- » Door closers are set at midpower range from the factory
- » Measurements are inches/mm unless noted
- » Standard door widths: 30"-48" (76-122cm)
- » Contact factory if door weight exceeds 250 lbs.
- » Reveal range information is based upon 1-3/4" (44) doors hung on 4-1/2" wide hinges

8000 SERIES ARCHITECTURAL DOOR CLOSER

PARALLEL ARM



Mounting holes for closer body are spaced 3/4" (19mm) vertically x 12" (305mm) horizontally.

* Projection is for Slim Line or Full Covers. Projection for Metal Covers = 2-3/16" (56mm). Projection for Architectural Plastic & Architectural Metal Covers = 2-1/4" (57mm).

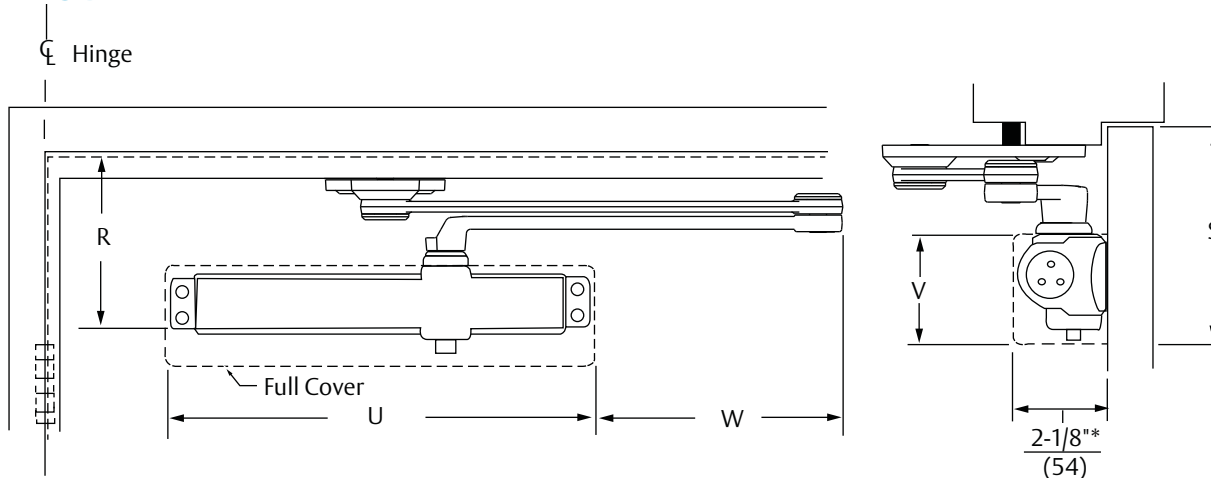
Closer Series	Covers	R Minimum Top Rail Minimum Top Rail 5/8" (16mm) Frame Stop						S Minimum Top Rail Clearance			U Closer Length	V Closer Height	W Arm Extension
		W/O Drop Plate			With 8148, 8158, 8548, 8548A Drop Plate								
		NHO	Low Profile	HO	NHO	Low Profile	HO	NHO	Low Profile	HO			
8101	No Cover	5-1/4" (133)	4-5/8" (117)	5-1/4" (133)	3" (76)	2-3/8" (60)	3" (76)				12-3/4" (324)	2-7/8" (73)	8-1/8" (206)
8301	Slim Line Plastic							6-1/4" (159)	5-5/8" (143)	6-1/4" (159)	13" (330)		8" (203)
8501	Full Plastic												
8501M	Metal							6-7/8" (175)	6-1/4" (159)	6-7/8" (175)	13-5/8" (346)	3-3/4" (95)	7-5/8" (194)
8501A	Arch. Plastic							6" (152)	5-3/8" (137)	6" (152)	14" (356)	3-1/8" (79)	
8501MA	Arch. Metal							5-7/8" (149)	5-1/4" (133)	5-7/8" (149)		3" (76)	

Model Numbers	
Non-Hold Open	Hold Open
8301 8501	8301H 8501H

Notes:

- » Door closers are set at midpower range from the factory
- » Measurements are inches/mm unless noted
- » Standard door widths: 30"-48" (76-122cm)
- » Contact factory if door weight exceeds 250 lbs.

PARALLEL RIGID ARM



Mounting holes for closer body are spaced 3/4" (19mm) vertically x 12" (305mm) horizontally.

* Projection is for Slim Line or Full Covers. Projection for Metal Covers = 2-3/16" (56mm). Projection for Architectural Plastic & Architectural Metal Covers = 2-1/4" (57mm).

Closer Series	Covers	R Minimum Top Rail		S Minimum Top Rail Clearance	U Closer Length	V Closer Height	W Arm Extension
		W/O Drop Plate	With Drop Plate				
8101	No Cover	4-5/8" (117)	2-3/8" (60)	5-7/8" (149)	12-3/4" (324)	2-7/8" (73)	8" (203)
8301	Slim Line Plastic				13" (330)		
8501	Full Plastic						
8501M	Metal			6-1/2" (165)	13-5/8" (346)	3-7/8" (98)	7-5/8" (194)
8501A	Arch. Plastic			6" (152)	14" (356)	3-1/8" (79)	7-1/2" (191)
8501MA	Arch. Metal			5-7/8" (149)		3" (76)	

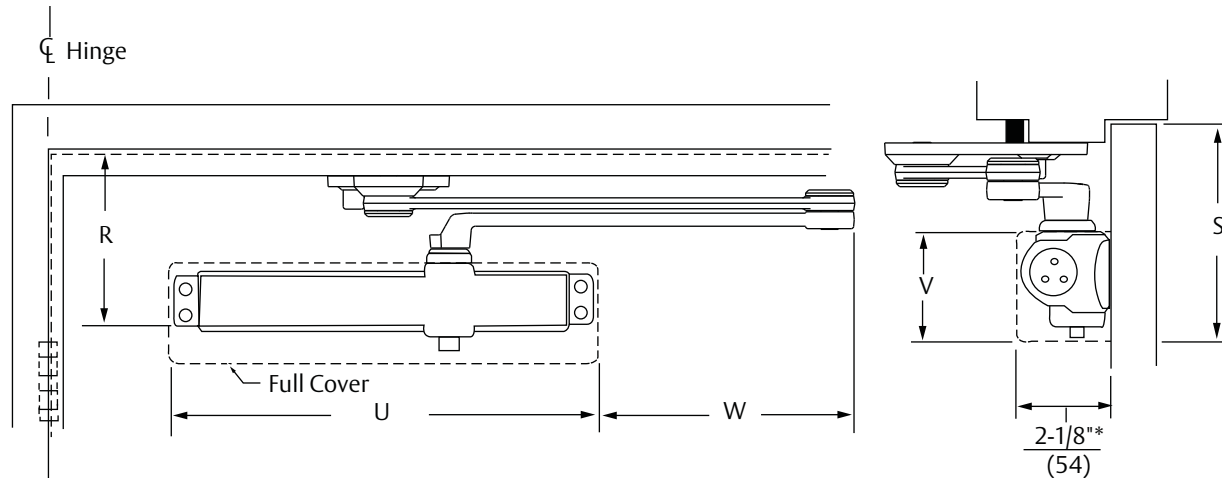
Model Number	
Stop Only	Hold Open
PR8301 PR8501	PR8301H PR8501H

Notes:

- » Door closers are set at midpower range from the factory
- » Measurements are inches/mm unless noted
- » Standard door widths: 28"-48" (71-122cm)
- » Contact factory if door weight exceeds 250 lbs.

8000 SERIES ARCHITECTURAL DOOR CLOSER

CLOSERPLUS® ARM



Mounting holes for closer body are spaced 3/4" (19mm) vertically x 12" (305mm) horizontally.

* Projection is for Slim Line or Full Covers. Projection for Metal Covers = 2-3/16" (56mm). Projection for Architectural Plastic & Architectural Metal Covers = 2-1/4" (57mm).

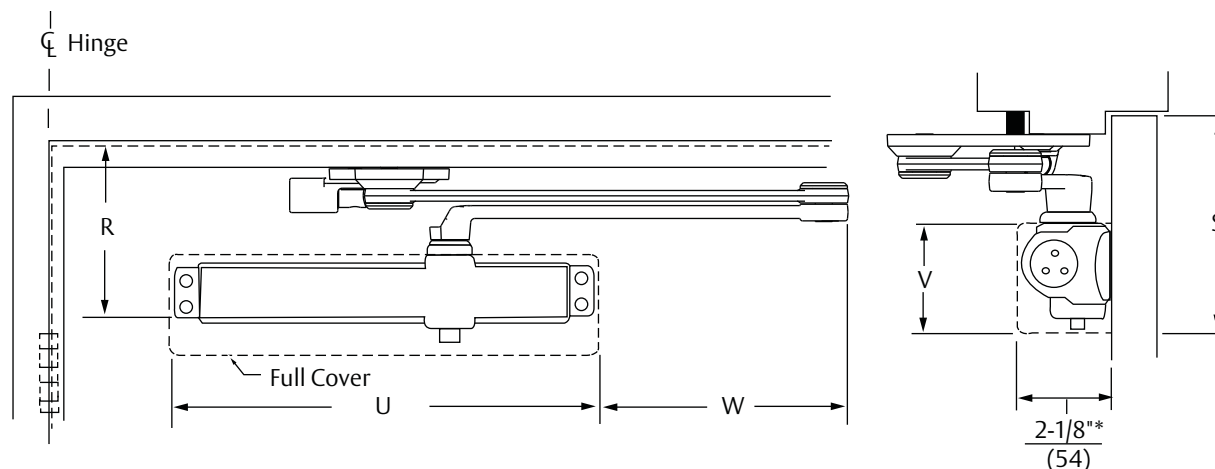
Closer Series	Covers	R Minimum Top Rail		S Minimum Top Rail Clearance	U Closer Length	V Closer Height	W Arm Extension
		W/O Drop Plate	With Drop Plate				
8101	No Cover	4-5/8" (117)	2-3/8" (60)	5-7/8" (149)	12-3/4" (324)	2-7/8" (73)	8" (203)
8301	Slim Line Plastic				13" (330)		
8501	Full Plastic			6-1/2" (165)	13-5/8" (346)	3-7/8" (98)	7-5/8" (194)
8501M	Metal	4-5/8" (117)	2-3/8" (60)	6" (152)	14" (356)	3-1/8" (79)	7-1/2" (191)
8501A	Arch. Plastic			5-7/8" (149)		3" (76)	
8501MA	Arch. Metal						

Model Number		
Stop Only	Thumbturn Hold Open	Ramp Hold Open
CLP8301 CLP8501	CLP8301T CLP8501T	CLP8301R CLP8501R

Notes:

- » Door closers are set at midpower range from the factory
- » Measurements are inches/mm unless noted
- » Standard door widths: 28"-48" (71-122cm)
- » Contact factory if door weight exceeds 250 lbs.

CLOSERPLUS SPRING™ ARM



Mounting holes for closer body are spaced 3/4" (19mm) vertically x 12" (305mm) horizontally.

* Projection is for Slim Line or Full Covers. Projection for Metal Covers = 2-3/16" (56mm). Projection for Architectural Plastic & Architectural Metal Covers = 2-1/4" (57mm).

Closer Series	Covers	R Minimum Top Rail		S Minimum Top Rail Clearance	U Closer Length	V Closer Height	W Arm Extension
		W/O Drop Plate	With Drop Plate				
8101	No Cover	4-5/8" (117)	2-3/8" (60)	5-7/8" (149)	12-3/4" (324)	2-7/8" (73)	8" (203)
8301	Slim Line Plastic				13" (330)		
8501	Full Plastic			6-1/2" (165)	13-5/8" (346)	3-7/8" (98)	7-5/8" (194)
8501M	Metal						
8501A	Arch. Plastic			6" (152)	14" (356)	3-1/8" (79)	7-1/2" (191)
8501MA	Arch. Metal			5-7/8" (149)		3" (76)	

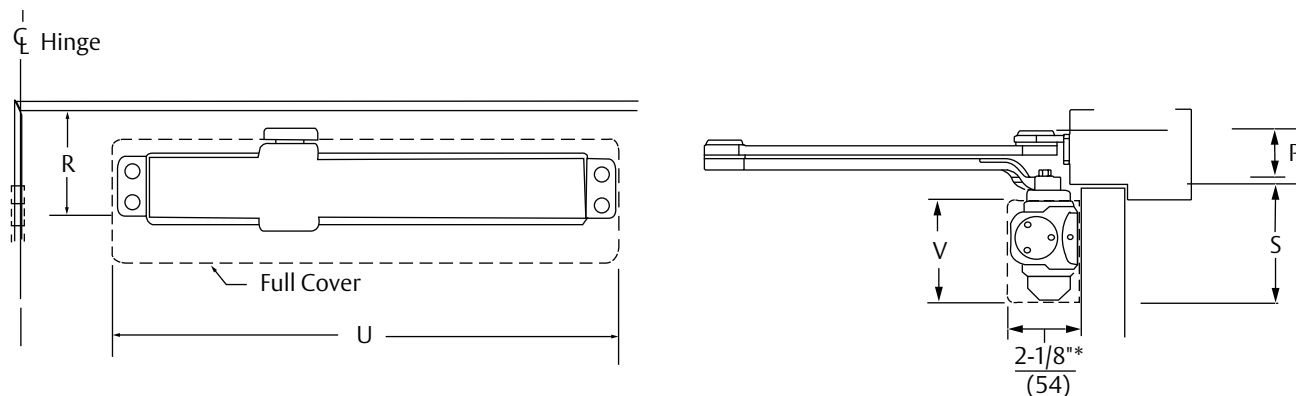
Model Number	
Stop Only	Hold Open
CPS8301 CPS8501	CPS8301T CPS8501T

Notes:

- » Door closers are set at midpower range from the factory
- » Measurements are inches/mm unless noted
- » Standard door widths: 28"-48" (71-122cm)
- » Contact factory if door weight exceeds 250 lbs.

8000 SERIES ARCHITECTURAL DOOR CLOSER

REGULAR RIGID HEAVY-DUTY ARM



Mounting holes for closer body are spaced 3/4" (19mm) vertically x 12" (305mm) horizontally.

* Projection is for Slim Line or Full Covers. Projection for Metal Covers = 2-3/16" (56mm). Projection for Architectural Plastic & Architectural Metal Covers = 2-1/4" (57mm).

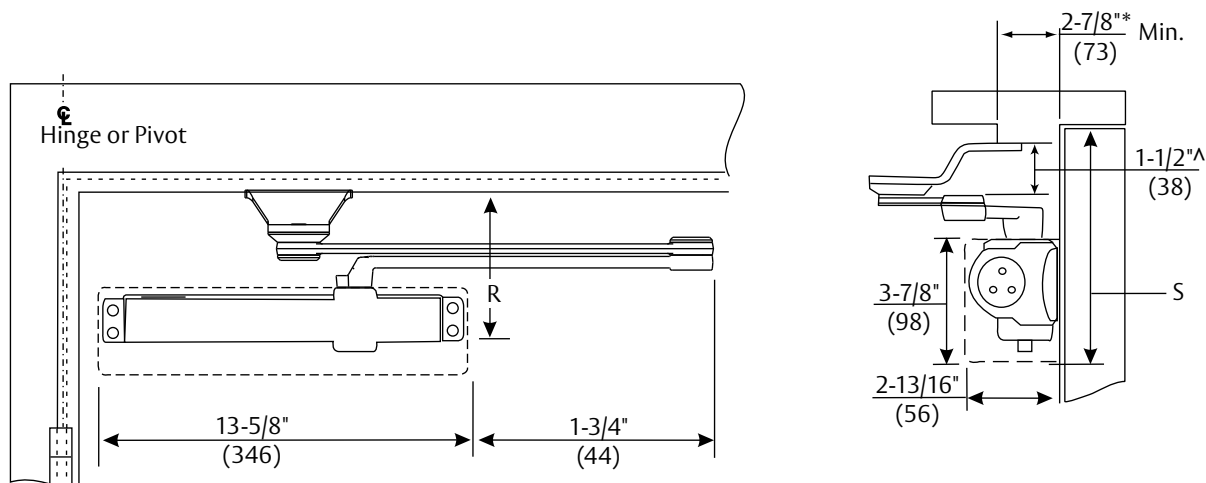
Closer Series	Covers	P Minimum Ceiling Clearance	R Minimum Top Rail		S Minimum Top Rail Clearance	U Closer Length	V Closer Height
			W/O Drop Plate	W/8146 Drop Plate			
		NHO	NHO	NHO	NHO		
8101	No Cover					12-3/4" (324)	
8301	Slim Line Plastic				3-1/2" (89)"	13" (330)	2-7/8" (73)
8501	Full Plastic						
8501M	Metal	1-3/4" (44)	2-1/2" (64)	1-5/8" (41)	4-1/4" (108)	13-5/8" (346)	3-3/4" (95)
8501A	Arch. Plastic				3-5/8 (92)	14" (356)	3-1/8" (79)
8501MA	Arch. Metal				3-1/2" (89)		3" (76)

Model Number
Non-Hold Open Only
R8301
R8501

Notes:

- » Door closers are set at midpower range from the factory
- » Measurements are inches/mm unless noted
- » Standard door widths: interior – 36"-54" (91-137cm)
exterior – 30"-52" (76-132cm)
- » Contact factory if door weight exceeds 250 lbs.

PARALLEL RIGID OFFSET ARM



Mounting holes for closer body are spaced 2-3/8" (60mm) vertically x 6-3/4" (171mm) horizontally.

^ If clearance greater than 1-1/2" is needed, 6891 spacer block is required.

* Projection is for Slim Line or Full Covers. Projection for Metal Covers = 2-3/16" (56mm). Projection for Architectural Plastic & Architectural Metal Covers = 2-1/4" (57mm).

R (inches/mm) Minimum Top Rail of Door with 5/8" (16mm) Frame Stop		S Minimum Top Rail of Door	
Without 6891 Spacer	With 6891 Spacer	Without 6891 Spacer	With 6891 Spacer
7-1/8" (181)	7-5/8" (194)	7-5/8" (194)	8-1/8" (206)

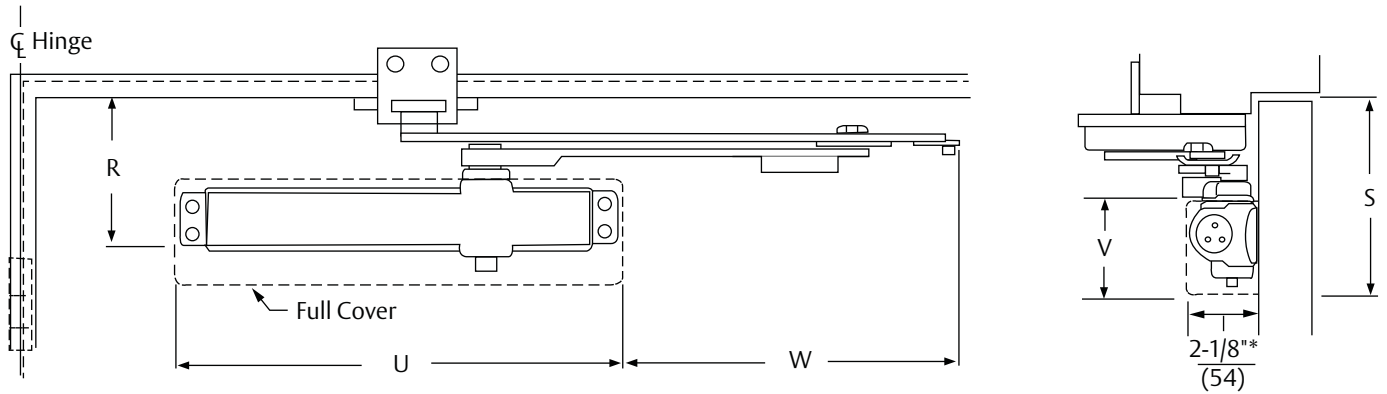
Model Number	
Non-Hold Open	Hold Open
PRO8301	PRO8301H
PRO8501	PRO8501H

Notes:

- » Door closers are set at midpower range from the factory
- » Closers with hold open arms are handed. Specify when ordering.
- » Measurements are inches/mm unless noted
- » Standard door widths: interior 30"-48" (76-122cm)
exterior 32-48" (81-122cm)
- » Contact factory if door weight exceeds 250 lbs.

8000 SERIES ARCHITECTURAL DOOR CLOSER

PARALLEL UNITROL® ARM



Mounting holes for closer body are spaced 3/4" (19mm) vertically x 12" (305mm) horizontally.

*Projection is for Slim Line or Full Covers. Projection for Metal Covers = 2-3/16" (56mm). Projection for Architectural Plastic & Architectural Metal Covers = 2-1/4" (57mm).

Closer Series	Door Width	Covers	R Minimum Top Rail		S Minimum	U Closer Length	V Closer Height	W Arm Extension
			W/O Drop Plate	With Drop Plate				
8301	28"-32"	Slim Line	4-3/4" (121)	2-1/2" (64)	5-3/4" (146)	13" (330)	2-7/8" (73)	8-3/8" (213)
	33"-41"							9-7/8" (251)
	42"-48"							11-1/4" (286)
8501	33"-41"△	Full Plastic			6-3/8" (162)	13-5/8" (346)	3-7/8 (98)	9-7/8" (251)
8501M		Metal						9-1/2" (241)
8501A		Arch. Plastic			5-1/2" (140)	14" (356)	3-1/8" (79)	9-3/8" (238)
8501MA		Arch. Metal			5-3/8" (137)		3" (76)	9" (229)

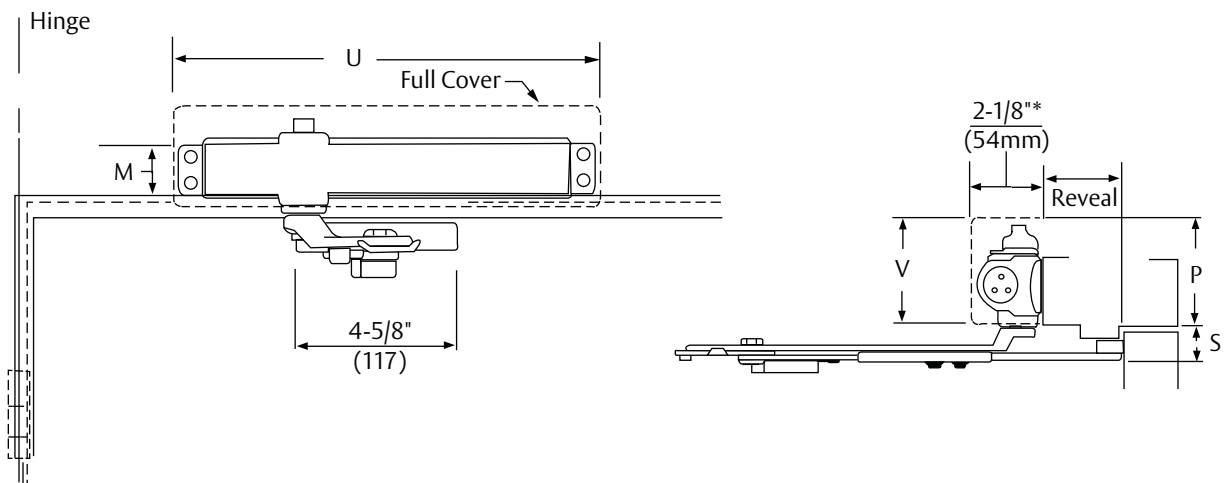
△ Consult installation instructions for additional door width dimensions.

Model Number		
Sized Closers		
Stop Only	Hold Open	x Specify Door Width
UNI8301 UNI8501	UNI8301H UNI8501H	

Notes:

- » Door closers are set at midpower range from the factory
- » Measurements are inches/mm unless noted
- » Standard door widths: 28"-48" (71-122cm)
- » Contact factory if door weight exceeds 250 lbs.

TOP JAMB UNITROL® ARM



Mounting holes for closer body are spaced 3/4" (19mm) vertically x 12" (305mm) horizontally.

* Projection is for Slim Line or Full Covers. Projection for Metal Covers = 2-3/16" (56mm). Projection for Architectural Plastic & Architectural Metal Covers = 2-1/4" (57mm).

Closer Series	Covers	R Minimum Top Rail		P Minimum Ceiling Clearance		S Minimum Top Rail Clearance		U Closer Length	V Closer Height
		W/O Drop Plate	With 8148, 8158, 8547, 8547A Drop Plate	W/O Drop Plate	With Drop Plate	W/O Drop Plate	With 8148, 8158, 8547, 8547A Drop Plate		
8301	Slim Line		1-1/2" (38)	2-3/4" (70)	1-1/2" (38)			13" (330)	2-7/8" (73)
8501	Full								
8501M	Metal	1-3/4" (44)	1-5/8" (41)	3-3/4" (95)	1-5/8" (41)	1-7/8" (48)	3-3/4" (95)	13-5/8" (346)	3-7/8" (98)
8501A	Arch. Plastic		1-1/2" (38)	3" (76)	1-1/2" (38)			14" (356)	3-1/8" (79)
8501MA	Arch. Metal			2-7/8" (73)					

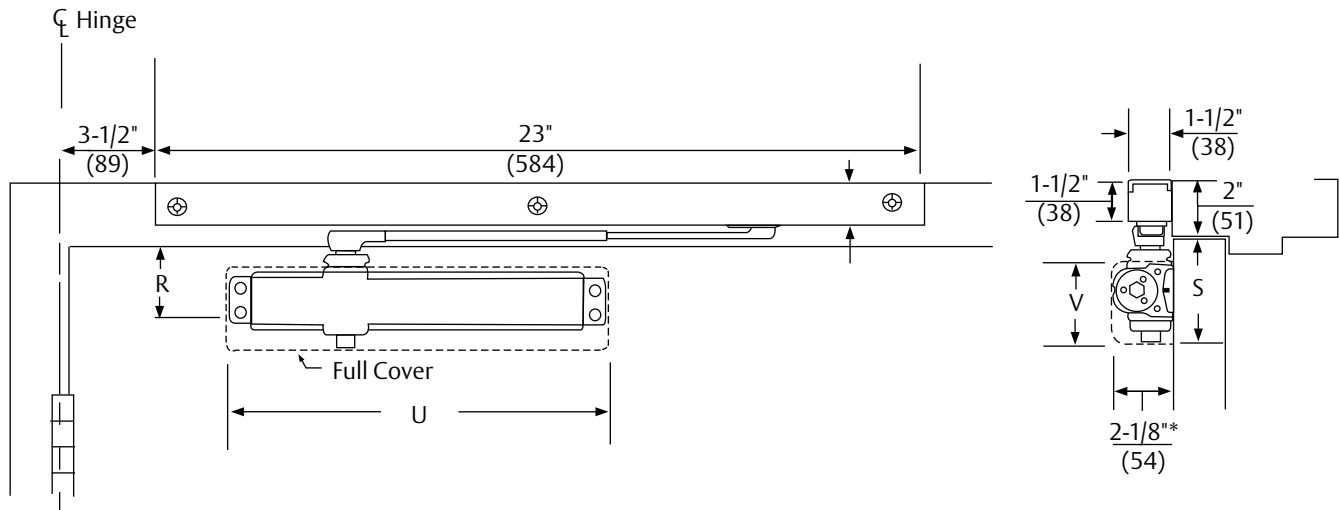
Model Number		
Non-Hold Open	Hold Open	
UNIJ8301 UNIJ8501	UNIJ8301H UNIJ8501H	x Specify Frame Reveal

Notes:

- » Door closers are set at midpower range from the factory
- » Measurements are inches/mm unless noted
- » Standard door widths: 28"-48" (71-122cm)
- » Contact factory if door weight exceeds 250 lbs.

8000 SERIES ARCHITECTURAL DOOR CLOSER

PULL SIDE SLIDE TRACK



Mounting holes for closer body are spaced 3/4" (19mm) vertically x 12" (305mm) horizontally.

* Projection is for Slim Line or Full Covers. Projection for Metal Covers = 2-3/16" (56mm). Projection for Architectural Plastic & Architectural Metal Covers = 2-1/4" (57mm).

Closer Series	R Minimum Top Rail		S Minimum Top Rail Clearance				U Closer Length				V Closer Height			
	W/O Drop Plate	With 8146 Drop Plate	Slim or Full Cover	Metal Cover	Arch Plastic	Arch Metal	Slim or Full Cover	Metal Cover	Arch Plastic	Arch Metal	Slim or Full Cover	Metal Cover	Arch Plastic	Arch Metal
8301ST	2-1/2"	1-5/8"	3-1/2"	4-1/8"	3-5/8"	3-1/2"	13"	13-5/8"	14"		2-7/8"	3-3/4"	3-1/8"	3"
8501ST	(64)	(41)	(89)	(105)	(92)	(89)	(330)	(346)	(356)		(73)	(95)	(79)	(76)

Model Number		
Non-Hold Open		Hold Open
85°-110°++	85°-180°~~	85°-110°~~
8301ST 8501ST	8301ST-180 8501ST-180	8301STH 8501STH

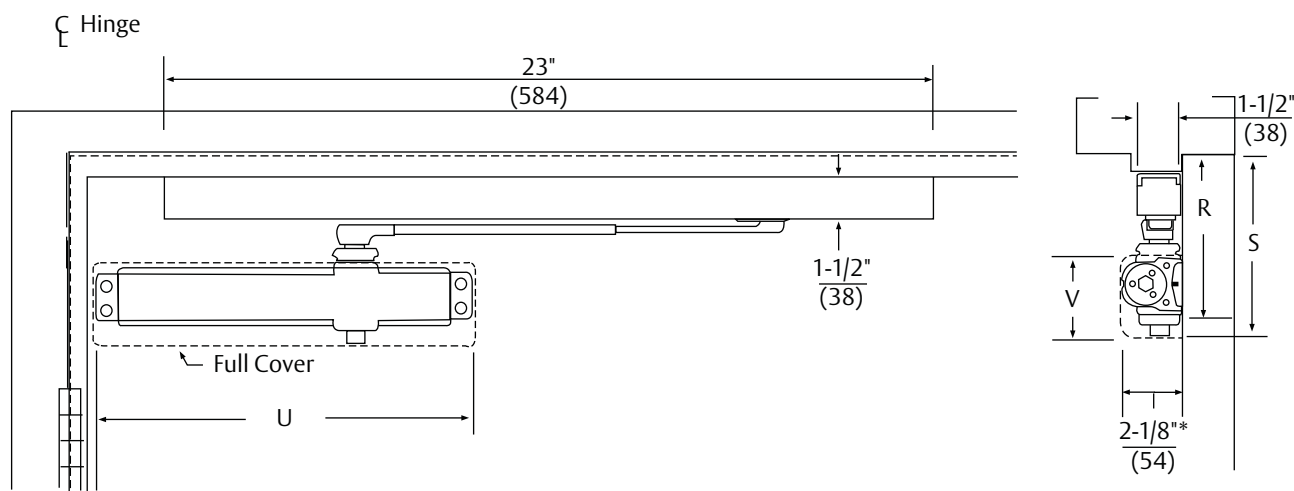
Notes:

- » Door closers are set at midpower range from the factory
- » Measurements are inches/mm unless noted
- » Standard door widths: interior 32"-48" (81-122cm)
exterior 32"-38" (81-97cm)
- » Contact factory if door weight exceeds 250 lbs.

++ Track is furnished with a spring buffered stop. Additional stop, by others, is recommended where abusive conditions are anticipated.

~~ Track is supplied without the spring buffered assembly. An auxiliary door stop, by others, is required.

PUSH SIDE SLIDE TRACK



Mounting holes for closer body are spaced 3/4" (19mm) vertically x 12" (305mm) horizontally.

* Projection is for Slim Line or Full Covers. Projection for Metal Covers = 2-3/16" (56mm). Projection for Architectural Plastic & Architectural Metal Covers = 2-1/4" (57mm).

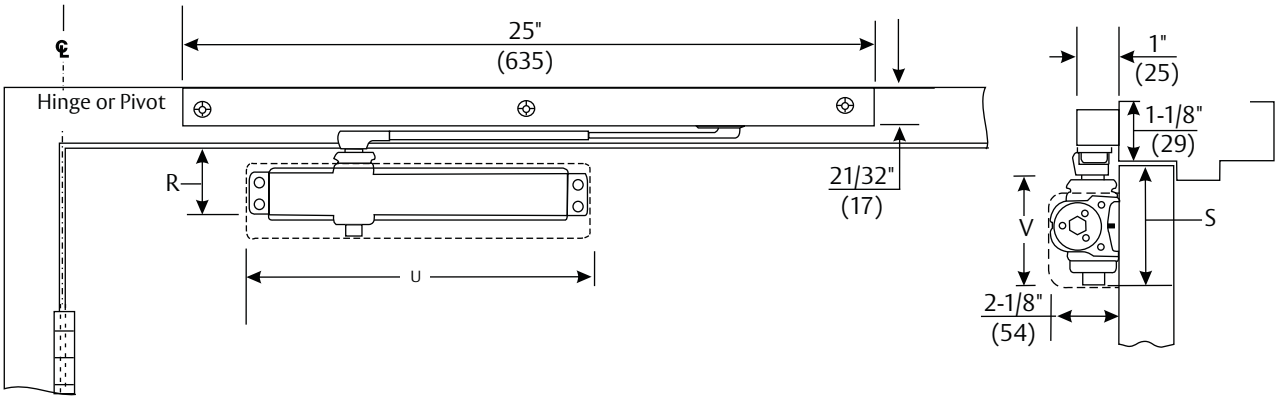
Closer Series	R Minimum Top Rail		S Minimum Top Rail Clearance				U Closer Length				V Closer Height			
	W/O Drop Plate	With 8146, 8158, 8548, 8548A Drop Plate	Slim or Full Cover	Metal Cover	Arch Plastic	Arch Metal	Slim or Full Cover	Metal Cover	Arch Plastic	Arch Metal	Slim or Full Cover	Metal Cover	Arch Plastic	Arch Metal
PS8301ST	5"	2-3/4"	6"	6-5/8"	6-1/8"	6"	13"	13-5/8"	14"		2-7/8"	3-3/4"	3-1/8"	3"
PS8501ST	(127)	(70)	(152)	(168)	(156)	(152)	(330)	(346)	(356)		(73)	(95)	(79)	(76)

Model Number	
Non-Hold Open	Hold Open
85°-110°	
PS8301ST PS8501ST	PS8301STH PS8501STH

Notes:

- » Door closers are set at midpower range from the factory
- » All track assemblies are supplied with a spring buffered stop
- » A separate door stop, by others, is recommended where abusive conditions are anticipated
- » Measurements are inches/mm unless noted
- » Standard door widths: interior 32"-48" (81-122cm)
exterior 32"-38" (81-97cm)
- » Contact factory if door weight exceeds 250 lbs.

LOW PROFILE PULL SIDE SLIDE TRACK



Mounting holes for closer body are spaced 3/4" (19mm) vertically x 12" (305mm) horizontally.

*Projection is for Slim Line or Full Covers. Projection for Metal Covers = 2-3/16" (56mm). Projection for Architectural Plastic & Architectural Metal Covers = 2-1/4" (57mm).

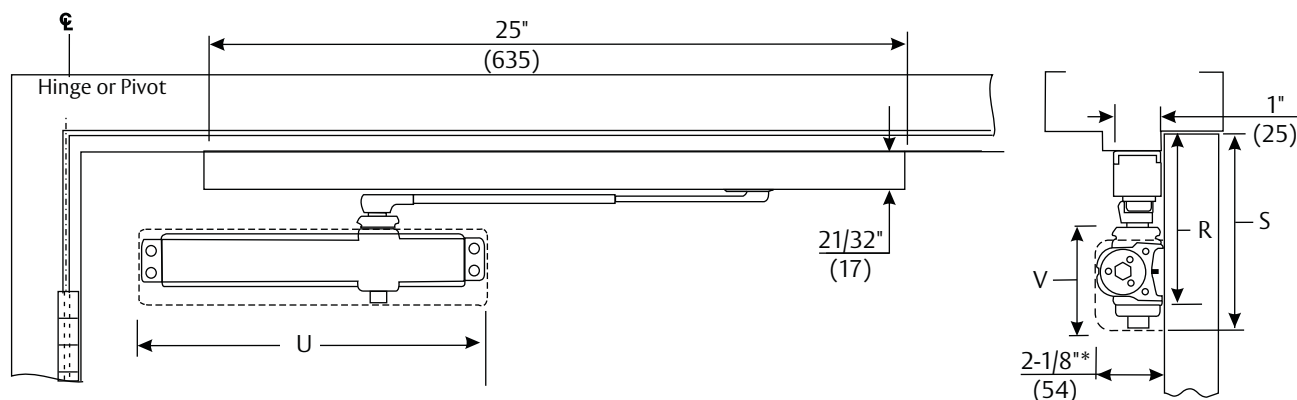
Closer Series	R Minimum Top Rail		S Minimum Top Rail Clearance				U Closer Length				V Closer Height			
	W/O Drop Plate	With 8146 Drop Plate	Slim or Full Cover	Metal Cover	Arch Plastic	Arch Metal	Slim or Full Cover	Metal Cover	Arch Plastic	Arch Metal	Slim or Full Cover	Metal Cover	Arch Plastic	Arch Metal
8341ST	2-1/2"	5/8"	3"	4-5/8"	3-1/8"	3"	13"	13-5/8"	14"		3"	3-7/8"	3-1/4"	3-1/8"
8541ST	(64)	(16)	(76)	(117)	(79)	(76)	(330)	(346)	(356)		(76)	(98)	(83)	(79)

Model Number	
Non-Hold Open	Hold Open
8341ST 8541ST	8341STH 8541STH

Notes:

- » Door closers are set at midpower range from the factory
- » Measurements are inches/mm unless noted
- » Standard door widths: **interior only** 32"-48" (81-122cm)
- » Contact factory if door weight exceeds 250 lbs.

LOW PROFILE PUSH SIDE SLIDE TRACK



Mounting holes for closer body are spaced 3/4" (19mm) vertically x12" (305mm) horizontally.

*Projection is for Slim Line or Full Covers. Projection for Metal Covers = 2-3/16" (56mm). Projection for Architectural Plastic & Architectural Metal Covers = 2-1/4" (57mm).

Closer Series	R Minimum Top Rail		S Minimum Top Rail Clearance				U Closer Length				V Closer Height			
	W/O Drop Plate	With 8146, 8158, 8548, 8548A Drop Plate	Slim or Full Cover	Metal Cover	Arch Plastic	Arch Metal	Slim or Full Cover	Metal Cover	Arch Plastic	Arch Metal	Slim or Full Cover	Metal Cover	Arch Plastic	Arch Metal
PS8341ST	4"	1-3/4"	5"	5-5/8"	5-1/8"	5"	13"	13-5/8"	14"		3"	3-7/8"	3-1/4"	3-1/8"
PS8541ST	(102)	(44)	(127)	(143)	(130)	(127)	(330)	(346)	(356)		(76)	(98)	(83)	(79)

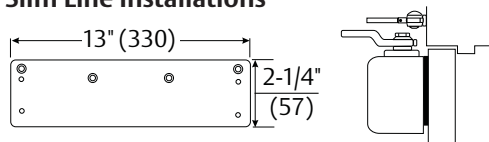
Model Number	
Non-Hold Open	Hold Open
PS8341ST PS8541ST	PS8341STH PS8541STH

Notes:

- » Door closers are set at midpower range from the factory
- » Measurements are inches/mm unless noted
- » Standard door widths: **interior only** 32"-48" (81-122cm)
- » Contact factory if door weight exceeds 250 lbs.

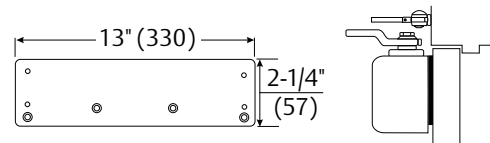
REGULAR ARM

Closer Mounting Plate Slim Line Installations



Narrow Top Rail - #8146 Drop Plate:

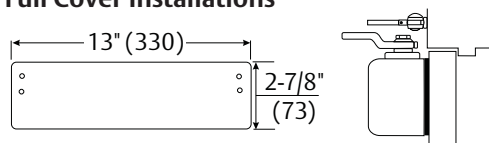
For use where the narrow top rail of the door prevents the closer from being mounted directly on to the door surface. This drop plate must be used for any Series 8000 closer mounted on a top rail between 1-9/16" and 2-7/16" (40 and 62mm) in height, or any Series 8080 closer mounted on a top rail between 1-7/16" and 2-5/16" (36 and 59mm) in height.



Concealed Door Holder - #8146 Drop Plate:

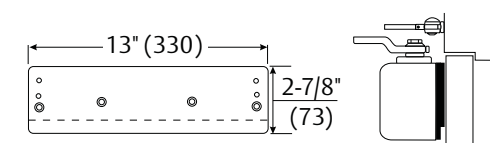
For use where a concealed door holder prevents normal mounting of the closer to the door. This is the same plate used for narrow rail mounting, but is inverted for this application to permit the mounting screws to clear the bottom of the door-holder preparation in the top rail of the door. This places the centerline of the plate's upper mounting screws at 2-3/16" (56mm) from the top of the door.

Full Cover Installations



Exposed Back - #8445 Molded Full Cover Decorative Back Plate:

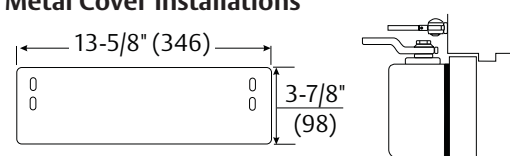
For use on doors with glass lights where a closer with a molded full cover is installed and the closer back is exposed. This plate covers the back of the installation to give a pleasing appearance from the reverse side.



Exposed Back/Narrow Top Rail - Exposed Back Concealed Door Holder - #8446 Molded Full Cover Drop Plate Kit:

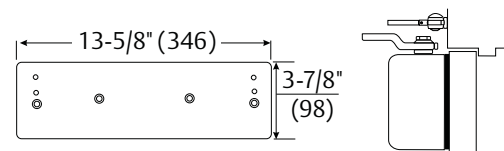
For use with molded full cover installation when an 8146 Plate is needed as a drop plate on a narrow top rail, or as a clearance plate for a concealed door holder, and the closer back is exposed. Kit contains an 8146 Drop Plate and an 8445 Decorative Plate.

Metal Cover Installations



Exposed Back - #8545 Metal Cover Decorative Back Plate:

For use on doors with glass lights where a closer with a metal full cover is installed and the closer back is exposed. This plate covers the back of the installation to give a pleasing appearance from the reverse side.

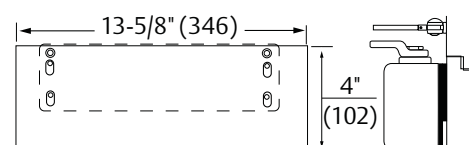


Concealed Door Holder - #8546 Metal Cover Drop Plate:

For use where a concealed door holder prevents the normal mounting of the closer to the door. This plate permits the mounting screws to clear the bottom of the door-holder preparation in the top rail of the door. This places the centerline of the plate's upper mounting screws at 2-3/16" (56mm) from the top of the door.

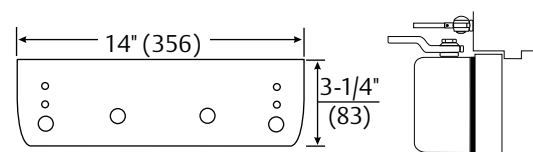
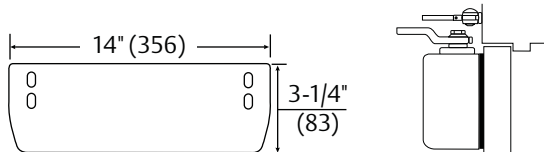
Exposed Back/Narrow Top Rail - #8549 Metal Cover Drop Plate Kit:

For use with metal full cover installations, when an 8146 Plate is needed as a drop plate on a narrow top rail and the closer back is exposed. Kit contains an 8146 Drop Plate and an 8545 Decorative Plate.



REGULAR ARM

Closer Mounting Plate Architectural Plastic or Metal Cover Installations

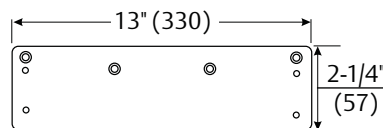
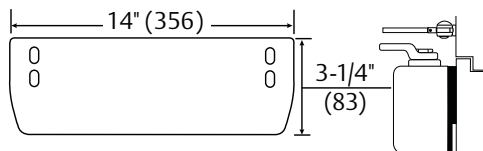


Exposed Back - #8545A Architectural Plastic or Architectural Metal Cover Decorative Back Plate:

For use on doors with glass lights where a closer with an architectural plastic or metal cover is installed and the closer back is exposed. This plate covers the back of the installation to give a pleasing appearance from the reverse side.

Concealed Door Holder - #8546A Architectural Plastic or Architectural Metal Cover Drop Plate:

For use where a concealed door holder prevents the normal mounting of the closer to the door. This plate permits the mounting screws to clear the bottom of door-holder preparation in the top rail of the door. This places the centerline of the plate's upper mounting screws at 2-3/16" (56mm) from the top of the door.

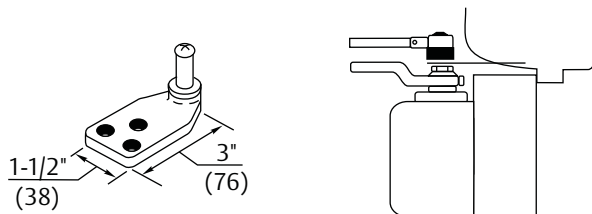


Exposed Back/Narrow Top Rail - #8549A Architectural Plastic or Architectural Metal Cover Drop Plate Kit:

For use with architectural plastic or metal cover installations when an 8146 plate is needed as a drop plate on a narrow top rail and the closer back is exposed. Kit contains an 8146 Drop Plate and an 8545A Decorative Plate.

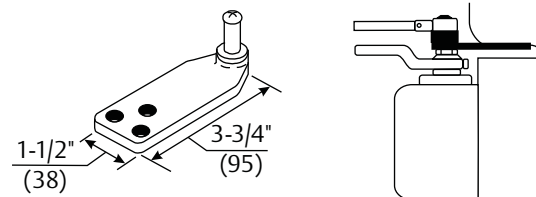
REGULAR ARM

Brackets for Non-Hold Open Arms



Molded/Bull Nose Trim - #2403B Bracket:

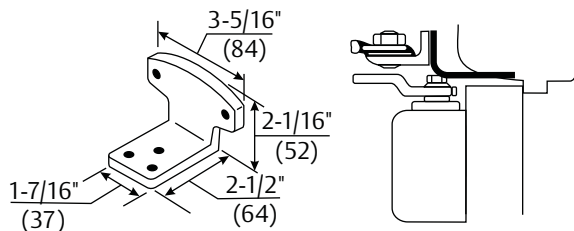
For use where the door frame has molded or bull nose trim which will not accept a standard non-hold open shoe. The bracket is mortised into the frame rabbet, and projects beyond the face of the frame. It will accommodate a frame rabbet up to 2" (51mm) deep.



Molded / Bull Nose Trim - #2403-3/4 Bracket:

This bracket is similar to, but longer than, the 2403B bracket. It is designed to accommodate frame rabbets from 2" to 2-7/8" (51 to 73mm) deep.

Brackets for Non-Hold Open Arms

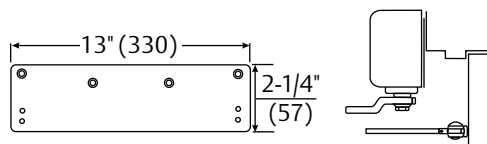


Molded / Bull Nose Trim - #80 Bracket:

For use where the door frame has molded or bull nose trim which will not accept a standard hold open shoe. It is mortised into the frame rabbet, and projects beyond the face of the frame. It will accommodate a rabbet up to 2" (51mm) deep. This bracket is used in combination with the standard hold-open mounting shoe.

TOP JAMB ARM

Closer Mounting Plates Slim Line Installations



Low Ceiling Clearance - #8146 Drop Plate:

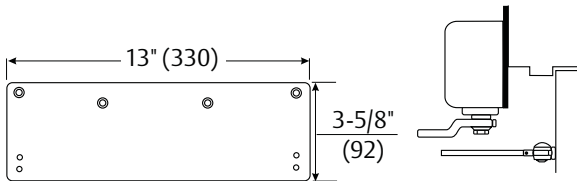
For use where low ceiling clearance prevents normal top jamb mounting. This plate is used when clearance is from 1-7/8" to 2-7/8" (48 to 73mm). Where ceiling clearance is less than 1-7/8" (48mm) see #8148 Drop Plate on page 28.

Overhead Door Holder - #8146 Drop Plate:

For use where a surface or concealed overhead door holder prevents normal top jamb mounting. This plate drops the closer and allows arm mounting screws to clear the bottom of the door holder. This places the centerline of the arm mounting screws at 2-7/8" (73mm) from the top of the door.

TOP JAMB ARM

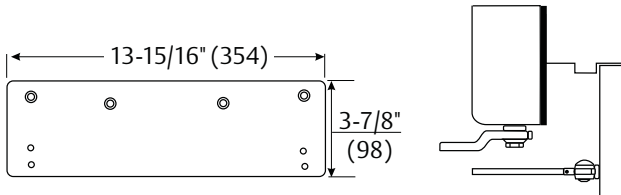
Closer Mounting Plates Slim Line Installations



Low Ceiling Clearance - #8148 Drop Plate:

For use where the ceiling clearance is between 1-1/2" and 1-3/4" (38 and 44mm).

Metal Cover Installations

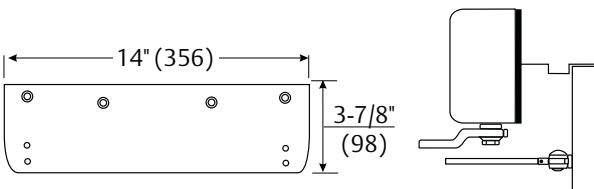


Low Ceiling Clearance - Overhead Door Holder - #8547 Metal Full Cover Drop Plate:

For use where a low ceiling clearance prevents normal top jamb mounting. This plate is used when the clearance is between 1-5/8" and 3-7/8" (41 and 98mm). Or for use where a surface or concealed overhead door holder prevents normal top jamb mounting of a closer with a metal full cover.

This plate drops the closer and allows arm mounting screws to clear the bottom of the door holder. This places the centerline of the arm mounting screws at 3-7/8" (98mm) from the top of the door.

Architectural Plastic or Metal Cover Installations

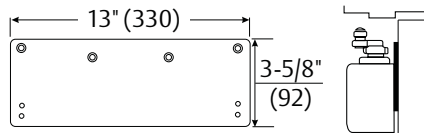


Low Ceiling Clearance - Overhead Door Holder - #8547A Architectural Plastic or Architectural Metal Cover Drop Plate:

For use where low ceiling clearance prevents normal top jamb mounting. This plate is used when the clearance is between 1-5/8" and 3-7/8" (41 and 98mm). Also for use where a surface or concealed overhead door holder prevents normal top jamb mounting of a closer with an architectural plastic or metal full cover. This plate drops the closer and allows arm mounting screws to clear the bottom of the door holder. This places the centerline of the arm mounting screws at 3-7/8" (98mm) from the top of the door.

PARALLEL ARM

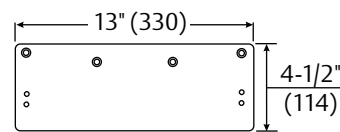
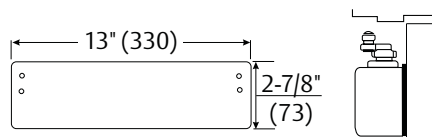
Closer Mounting Plates Slim Line Installations



Narrow Top Rail - #8148 Drop Plate:

For use where a narrow top rail prevents the closer from being mounted directly to the door surface. This drop plate can be used to mount a closer on a top rail as narrow as 2-7/8" (73mm) in height.

Full Cover Installations



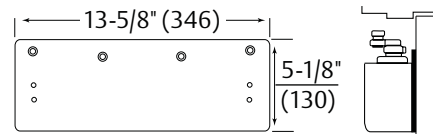
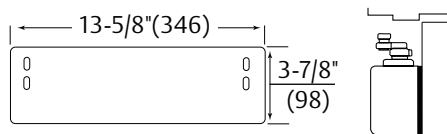
Exposed Back - #8445 Molded Full Cover Decorative Back Plate:

For use on doors with glass lights where a closer with molded full cover is installed and the closer back is exposed. This plate covers the back of the installation to give a pleasing appearance from the reverse side.

Exposed Back/Narrow Top Rail - #8158 Molded Full Cover Drop Plate:

For use on doors with glass lights where a closer with molded full cover is installed and the back of the closer is exposed. This covers the back of the installation and gives a pleasing appearance from the reverse side.

Metal Cover Installations



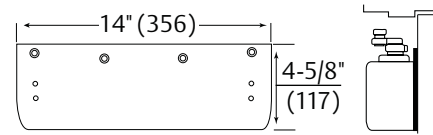
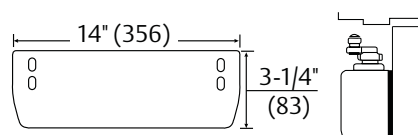
Exposed Back - #8545 Metal Full Cover Decorative Back Plate:

For use on doors with glass lights where a closer with full metal cover is installed and the back of the closer is exposed. This plate covers the back of the installation and gives a pleasing appearance from the reverse side.

Exposed Back/Narrow Top Rail - #8548 Metal Full Cover Drop Plate:

For use on doors with glass lights where a closer with metal full cover is installed on a narrow top rail, and the back of the cover is exposed. This drop plate can be used to mount a closer on a top rail as narrow as 2-7/8" (73mm) in height. This plate covers the back of the installation and gives a pleasing appearance from the reverse side.

Architectural Plastic or Metal Cover Installations



Exposed Back - #8545A Architectural Plastic or Architectural Metal Cover Decorative Back Plate:

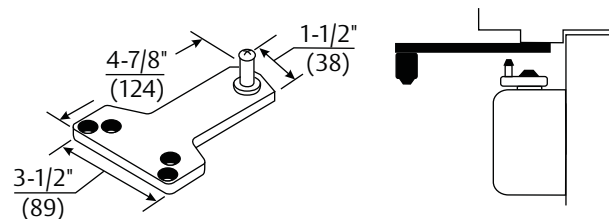
For use on doors with glass lights where a closer with an architectural plastic or metal cover is installed and the closer back is exposed. This plate covers the back of the installation to give a pleasing appearance from the reverse side.

Exposed Back/Narrow Top Rail - #8548A Architectural Plastic or Architectural Metal Cover Drop Plate:

For use on doors with glass lights where a closer with an architectural plastic or metal cover is installed on a narrow top rail, and the back of the cover is exposed. This drop plate can be used to mount a closer on a top rail as narrow as 2-7/8" (73mm) in height. This plate covers the back of the installation to give a pleasing appearance from the reverse side.

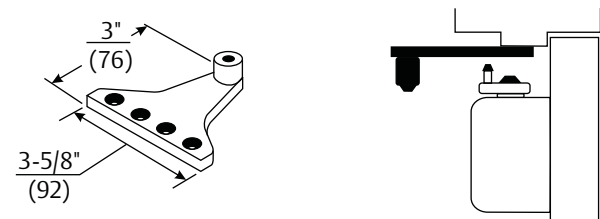
PARALLEL ARM

Brackets for Non-Hold Open Arms



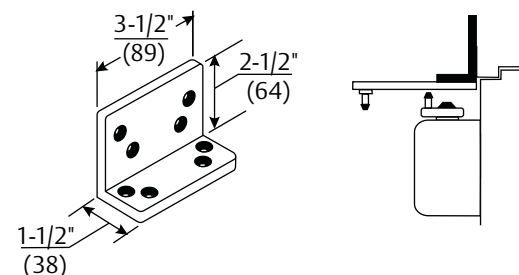
Standard Installation - #1618A Soffit Plate:

This soffit plate is supplied standard with parallel arm closers. It can be mounted where the frame soffit is as narrow as 1" (25 mm).



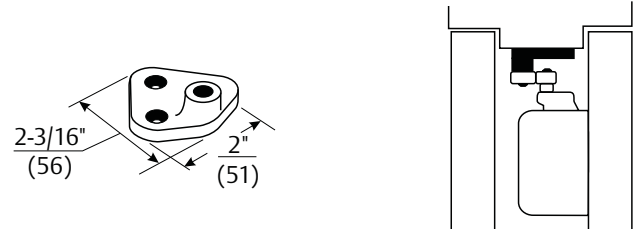
Narrow Frame/Removable Stop - #2018B Soffit Plate:

For use where a narrow frame or frame with removable stop does not permit use of the standard soffit plate. This soffit plate may be mounted on the frame soffit or the frame rabbet where the stop does not exceed 5/8" (16mm) in height. All of the screw holes are in a straight line, requiring as little as 1-1/4" (32mm) of frame reveal to mount bracket and maintain good closer arm geometry. Where the frame soffit is as wide as 2" (51mm), this soffit plate may be used to clear weather-stripping that is up to 1-3/8" (35mm) wide and 5/8" (16mm) in height.



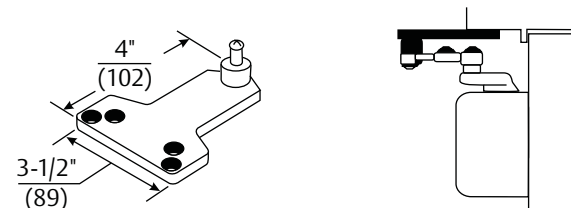
Flush Transom - #2022 Angle Bracket:

For use where rabbeted or flush transom conditions prevent installation of a soffit plate. Used in combination with the 1618 soffit plate, or may be used in combination with the 2018S soffit plate when it is necessary for the closer arm to clear a separate overhead door holder.



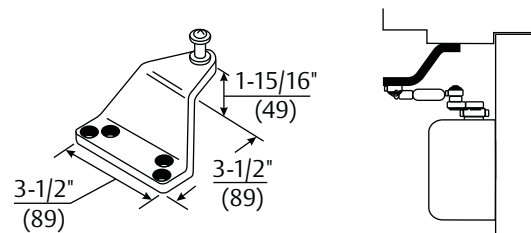
Mounting between Doors - #2018 Soffit Bracket:

For use where insufficient space between companion doors does not permit use of other soffit plates. This bracket permits mounting of the closer between doors with as little as 3" (76mm) of header space. Permits closer arm to clear up to 5/8" (16mm) high stop.



Blade/Applied Stop - #2018D Soffit Plate:

For use where a blade or applied stop does not permit installation of the standard soffit plate. Mounts to either the frame soffit or rabbet. Since this soffit plate projects 7/8" (22mm) less than a standard soffit plate, it requires a minimum frame reveal of 1-1/2" (38mm). Permits closer to clear up to a 5/8" (16mm) stop.

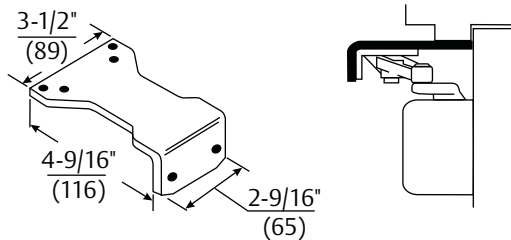


Extra-Clearance - #2018S Offset Soffit Plate:

For use where the need for additional clearance prevents use of the standard soffit plate. This plate mounts to the frame soffit to provide up to 2" (51 mm) of clearance when a separate overhead door holder is used. Standard mounting requires a 2-5/8" (67mm) wide frame soffit. It may also be used where unusually high frame stops or weatherstripping prevent the use of other soffit plates.

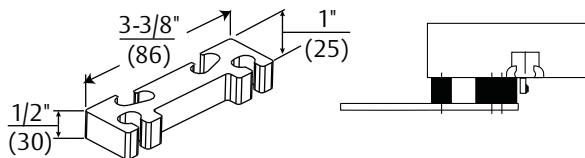
PARALLEL ARM

Brackets for Non-Hold Open & Hold Open Arms



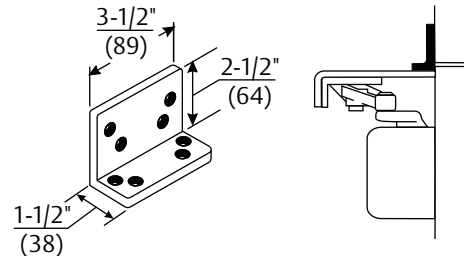
Parallel Hold Open - #1628H Adapter Plate:

Supplied standard with all parallel arm hold open closers. It can also be used to convert regular arm or top jamb hold open arms to parallel arm installation. It can be mounted where the frame soffit is as narrow as 1" (25mm).



Clearance/Support Blade Stop - #6891 Spacer Block:

For use where the door frame has a blade stop and the soffit plate must be mounted on the frame rabbet. This accessory is used in combination with the standard spacer block to provide clearance of the blade stop. Also used with non-hold open arms.

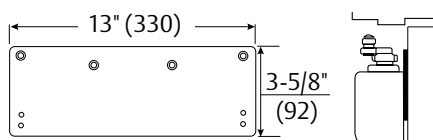


Flush Transom - #2022 Angle Bracket:

For use where rabbeted or flush transom conditions prevent installation of a soffit plate. Used in combination with the 1628H adapter plate, this bracket fastens to the overhead transom to provide a mounting surface for the soffit plate assembly.

PARALLEL RIGID, CLOSERPLUS & CLOSERPLUS SPRING ARMS

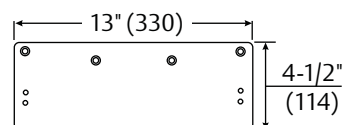
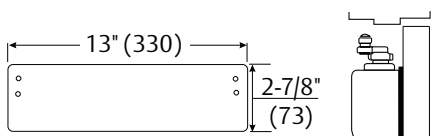
Closer Mounting Plate Slim Line Installations



Narrow Top Rail - #8148 Drop Plate:

For use where a narrow top rail prevents the closer from being mounted directly to the door surface. This drop plate can be used to mount a closer on a top rail as narrow as 2-9/16" (65mm) in height.

Full Cover Installations



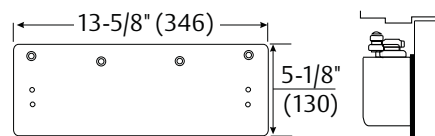
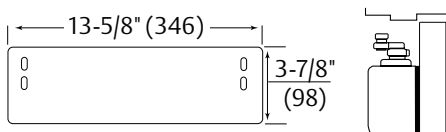
Exposed Back - #8445 Molded Full Cover Decorative Back Plate:

For use on doors with glass lights where a closer with molded full cover is installed and the closer back is exposed. This plate covers the back of the installation to give a pleasing appearance from the reverse side.

Exposed Back/Narrow Top Rail - #8158 Molded Full Cover Drop Plate:

For use on doors with glass lights where a closer with molded full cover is installed and the back of the closer is exposed. This covers the back of the installation and gives a pleasing appearance from the reverse side.

Metal Cover Installations



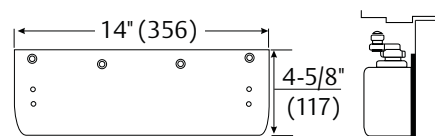
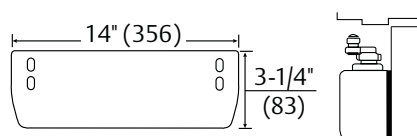
Exposed Back - #8545 Metal Full Cover Decorative Back Plate:

For use on doors with glass lights where a closer with full metal cover is installed and the back of the closer is exposed. This plate covers the back of the installation and gives a pleasing appearance from the reverse side.

Exposed Back/Narrow Top Rail - #8548 Metal Full Cover Drop Plate:

For use on doors with glass lights where a closer with metal full cover is installed on a narrow top rail, and the back of the cover is exposed. This drop plate can be used to mount a closer on a top rail as narrow as 2-9/16" (65mm) in height. This plate covers the back of the installation and gives a pleasing appearance from the reverse side.

Architectural Plastic or Metal Cover Installations



Exposed Back - #8545A Architectural Plastic or Architectural Metal Cover Decorative Back Plate:

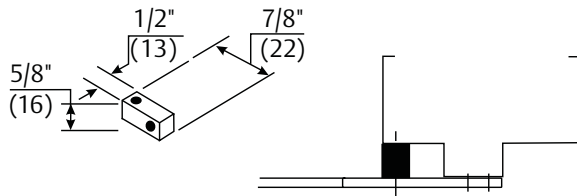
For use on doors with glass lights where a closer with an architectural plastic or metal cover is installed and the closer back is exposed. This plate covers the back of the installation to give a pleasing appearance from the reverse side.

Exposed Back/Narrow Top Rail - #8548A Architectural Plastic or Architectural Metal Cover Drop Plate:

For use on doors with glass lights where a closer with an architectural plastic or metal cover is installed on a narrow top rail, and the back of the cover is exposed. This drop plate can be used to mount a closer on a top rail as narrow as 2-9/16" (65mm) in height. This plate covers the back of the installation to give a pleasing appearance from the reverse side.

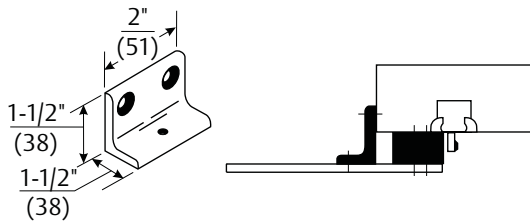
PARALLEL RIGID, CLOSERPLUS & CLOSERPLUS SPRING ARMS

Brackets for Non-Hold Open Arms & Hold Open Arms



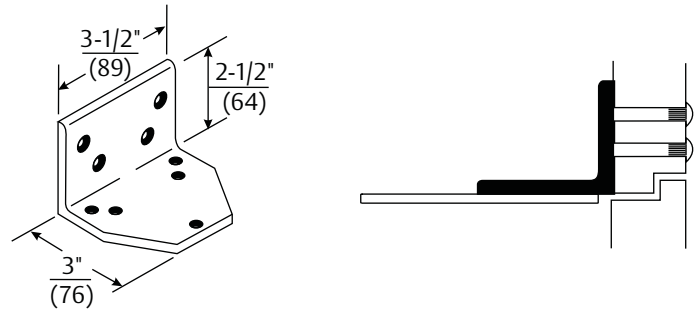
Standard - #2019S Spacer Block:

For use where a narrow frame soffit does not provide adequate support for the soffit plate. Supplied as standard with all parallel rigid arm closers.



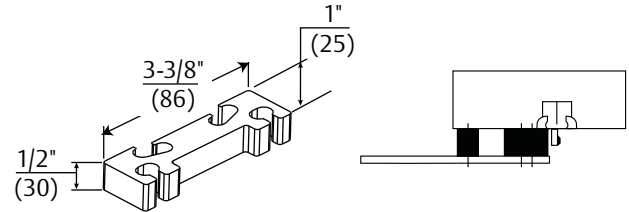
Narrow Frame - #6890 Support Bracket:

For use where the frame is narrow and the soffit plate cannot be mounted directly to the frame soffit or rabbet. Used in combination with the #6891 Spacer B lock on blade stop frames to provide extra support and needed clearance of the blade stop. Used on frames where the frame stop does not exceed 5/8 inch (16mm) in height.



Flush Rabbeted Transom - #2019L Angle Bracket:

For use where flush transom conditions prevent mounting of the standard soffit plate. This bracket is used in combination with the standard soffit plate.

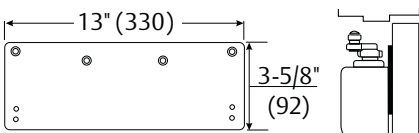


Clearance/Support Blade Stop - #6891 Spacer Block:

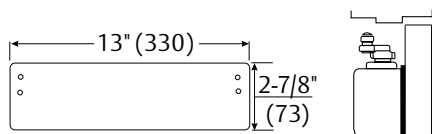
For use where the door frame has a blade stop and the soffit plate must be mounted on the frame rabbet. This accessory is used in combination with the standard spacer block to provide clearance of the blade stop.

UNITROL® ARM

Closer Mounting Plate Parallel Arm



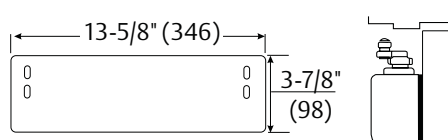
Full Cover Installations



Exposed Back - #8445 Molded Full Cover Decorative Back Plate:

For use on doors with glass lights where a closer with molded full cover is installed and the closer back is exposed. This plate covers the back of the installation to give a pleasing appearance from the reverse side.

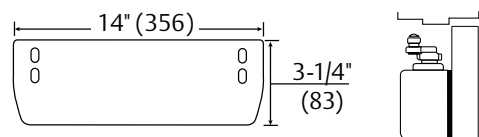
Metal Cover Installations



Exposed Back - #8545 Metal Full Cover Decorative Back Plate:

For use on doors with glass lights where a closer with full metal cover is installed and the back of the closer is exposed. This plate covers the back of the installation and gives a pleasing appearance from the reverse side.

Architectural Plastic or Metal Cover Installations

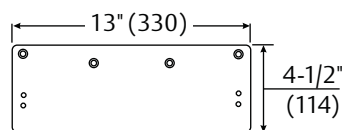


Exposed Back - #8545A Architectural Plastic or Architectural Metal Cover Decorative Back Plate:

For use on doors with glass lights where a closer with an architectural plastic or metal cover is installed and the closer back is exposed. This plate covers the back of the installation to give a pleasing appearance from the reverse side.

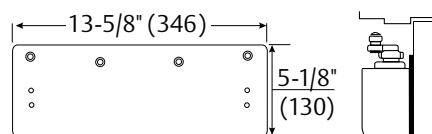
Narrow Top Rail - #8148 Drop Plate:

For use where a narrow top rail prevents the closer from being mounted directly to the door surface. This drop plate can be used to mount a closer on a top rail as narrow as 2-7/16" (62mm) in height.



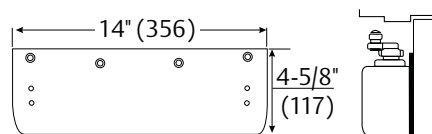
Exposed Back/Narrow Top Rail - #8158 Molded Full Cover Drop Plate:

For use on doors with glass lights where a closer with molded full cover is installed and the back of the closer is exposed. This covers the back of the installation and gives a pleasing appearance from the reverse side.



Exposed Back/Narrow Top Rail - #8548 Metal Full Cover Drop Plate:

For use on doors with glass lights where a closer with metal full cover is installed on a narrow top rail, and the back of the cover is exposed. This drop plate can be used to mount a closer on a top rail as narrow as 2-9/16" (65mm) in height. This plate covers the back of the installation and gives a pleasing appearance from the reverse side.

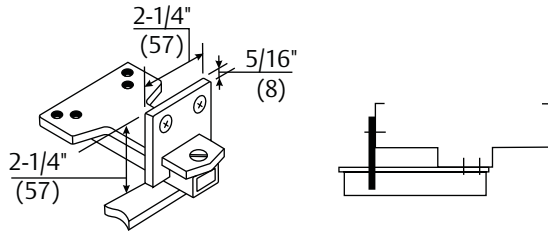


Exposed Back/Narrow Top Rail - #8548A Architectural Plastic or Architectural Metal Cover Drop Plate:

For use on doors with glass lights where a closer with an architectural plastic or metal cover is installed on a narrow top rail, and the back of the cover is exposed. This drop plate can be used to mount a closer on a top rail as narrow as 2-7/16" (62mm) in height. This plate covers the back of the installation to give a pleasing appearance from the reverse side.

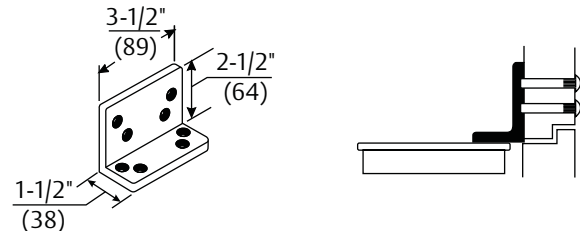
UNITROL® ARM

Soffit Plate Reinforcing Brackets (for Parallel Arm)



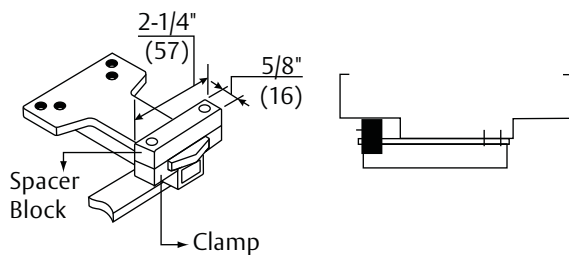
Additional Support - #6190 Reinforcing Bracket:

Standard for use with all parallel arm Unitrol door controls. Provides additional support to the soffit plate on installations with door frame reveals from 1-7/8" to 4-5/8" (48 to 117mm).



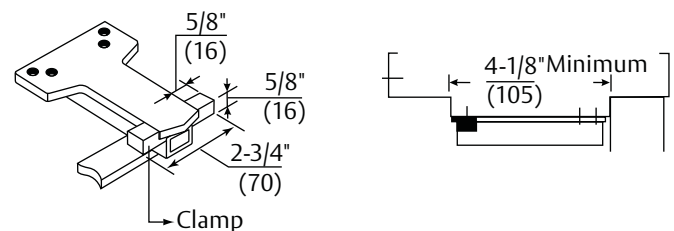
Flush Rabbeted Transom - #2022 Angle Bracket:

Optional for use with all parallel arm Unitrol door controls. For use where rabbeted or flush transom conditions prevent installation of the soffit plate assembly. This bracket fastens to the overhead transom to provide a mounting surface for the soffit plate assembly.



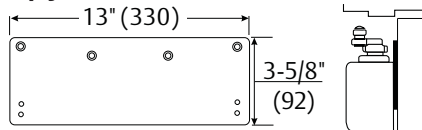
Wide Frame - #6191 Reinforcing Kit:

Optional for use with all parallel arm Unitrol door controls. Used to support the soffit plate on installations with wide frames. Clamps may be used with or without the spacer block, depending on frame conditions.



UNITROL® ARM

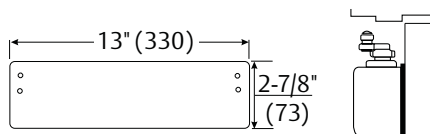
Closer Mounting Plate Top Jamb



Narrow Top Rail - #8148 Drop Plate:

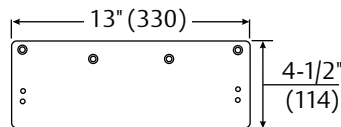
For use where a narrow top rail prevents the closer from being mounted directly to the door surface. This drop plate can be used to mount a closer on a top rail as narrow as 2-7/16" (62mm) in height.

Full Cover Installations



Exposed Back - #8445 Molded Full Cover Decorative Back Plate:

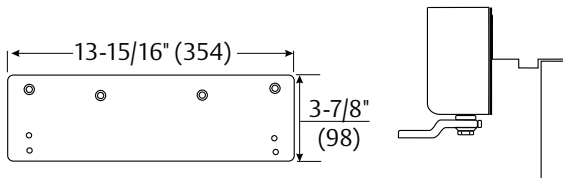
For use on doors with glass lights where a closer with molded full cover is installed and the closer back is exposed. This plate covers the back of the installation to give a pleasing appearance from the reverse side.



Exposed Back/Narrow Top Rail - #8158 Molded Full Cover Drop Plate:

For use on doors with glass lights where a closer with molded full cover is installed and the back of the closer is exposed. This covers the back of the installation and gives a pleasing appearance from the reverse side.

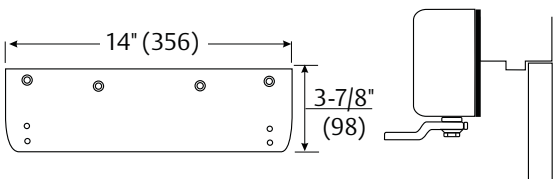
Metal Cover Installations



Low Ceiling Clearance - Overhead Door Holder - #8547 Metal Full Cover Drop Plate:

For use where a low ceiling clearance prevents normal top jamb mounting. This plate is used when the clearance is between 1-5/8" and 3-3/4" (41 and 95mm). Or for use where a surface or concealed overhead door holder prevents normal top jamb mounting of a closer with a metal full cover. This plate drops the closer and allows arm mounting screws to clear the bottom of the door holder. This places the centerline of the arm mounting screws at 3-7/8" (98mm) from the top of the door.

Architectural Plastic or Metal Cover Installations



Low Ceiling Clearance - Overhead Door Holder - #8547A Architectural Plastic or Architectural Metal Cover Drop Plate:

For use where low ceiling clearance prevents normal top jamb mounting. This plate is used when the clearance is between 1-5/8" and 3-3/4" (41 and 95mm). Or for use where a surface or concealed overhead door holder prevents normal top jamb mounting of a closer with an architectural plastic or metal full cover. This plate drops the closer and allows arm mounting screws to clear the bottom of the door holder. This places the centerline of the arm mounting screws at 3-7/8" (98mm) from the top of the door.

8000 SERIES ARCHITECTURAL DOOR CLOSER

DOOR CLOSER BODY ASSEMBLIES



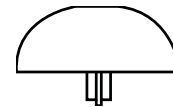
Model Number	Description
8101LAP	Multi-sized closer bodies (8101, 8301 or 8501)

LAP = Less All Parts

Closer Series	Plastic	Metal	Arch. Plastic	Arch. Metal
8301	8200P	N/A	N/A	N/A
8501	8400P	8400M	8400A	8400MA

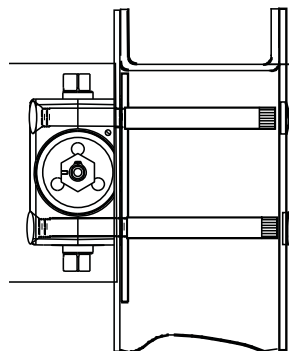
Cover Model	Cover Drawing
Slim Line* 8200P or 8200PG 1-3/4" high x 2-1/8" deep x 13" long (44 x 54 x 330)	
Full Plastic 8400P or 8400PG 2-7/8" high x 2-1/8" deep x 13" long (73 x 54 x 330)	
Full Metal 8400M 3-7/8" high x 2-3/16" deep x 13-5/8" long (98 x 54 x 346)	
Architectural Plastic 8400A or 8400AG 3-3/32" high x 2-1/4" deep x 13-7/8" long (79 x 56 x 352)	
Architectural Metal 8400MA 3" high x 2-3/16" deep x 13-15/16" long (76 x 56 x 354)	

*Pinion cap not included with Slim Line cover. Part #1639



STEEL DOOR APPLICATION

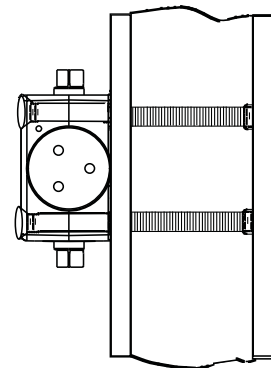
Sleeve-nut : "SN" (4 per pack)
Sleeve-nut & Screw: "SNB" (4 per pack)



Door	SN's	SNB's
1-3/4"	SN-134	SNB134-38
2"	NA	SNB200-38
2-1/4"	SN-214	SNB214-38
S.S. SNB'S 1-3/4"	SN-134SS	SNB134SS-38

ALUMINUM AND WOOD DOOR APPLICATION (ALUMINUM DOOR SHOWN)

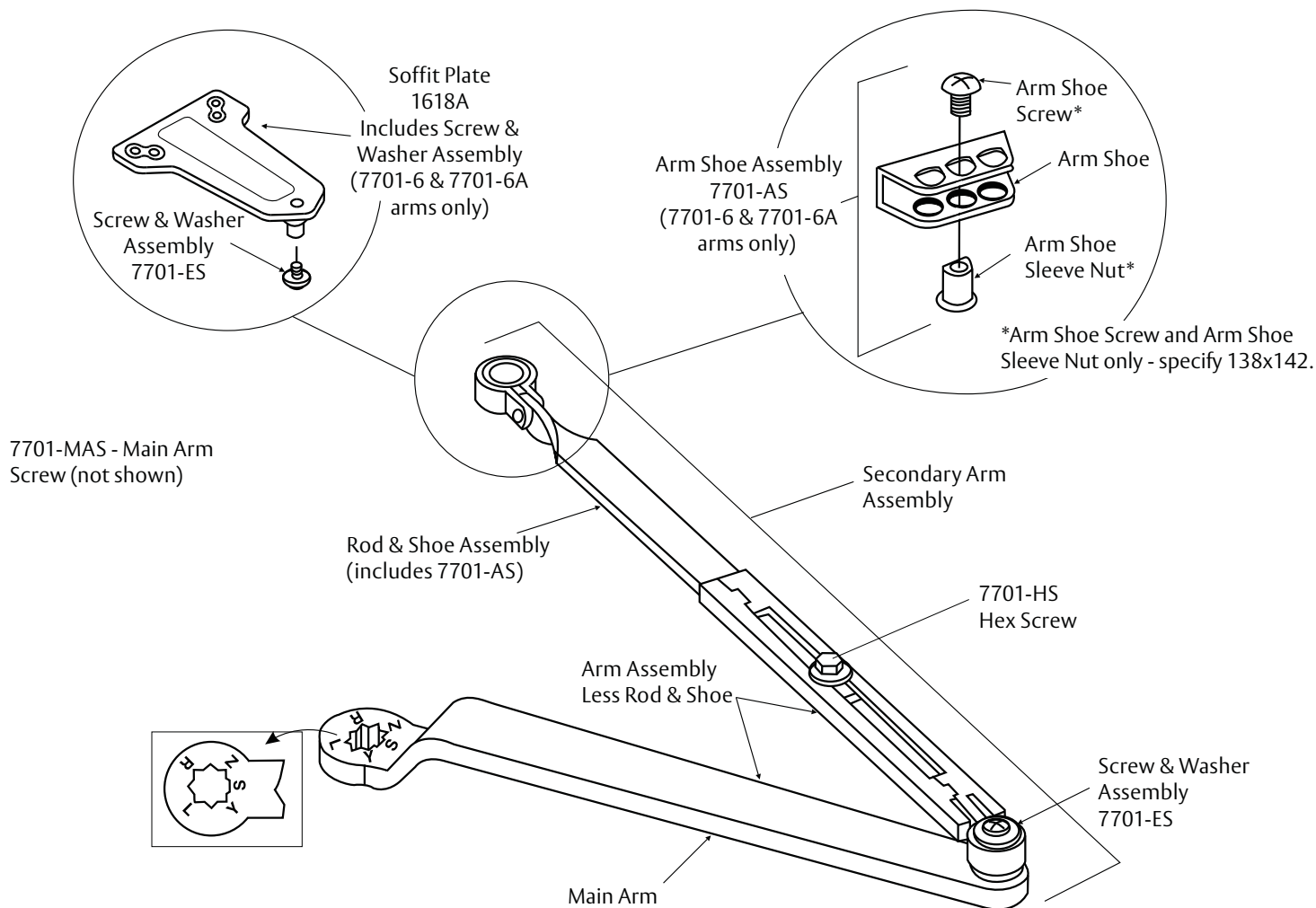
Thru Bolt & Grommet Nut : "TBGN" (4 per pack)



Door	SN's
1-3/8"	TBGN138-38
1-3/4"	TBGN134-38
2-1/4"	TBGN214-38

Arm Type	Torx® Screw Packs
Regular, Parallel & Top Jamb	TX38
Parallel Rigid, CloserPlus® & CloserPlus Spring™	PRTX38
Regular Rigid Heavy-Duty	RTX38
Unitrol®	UNITX38
Slide Track	STTX38

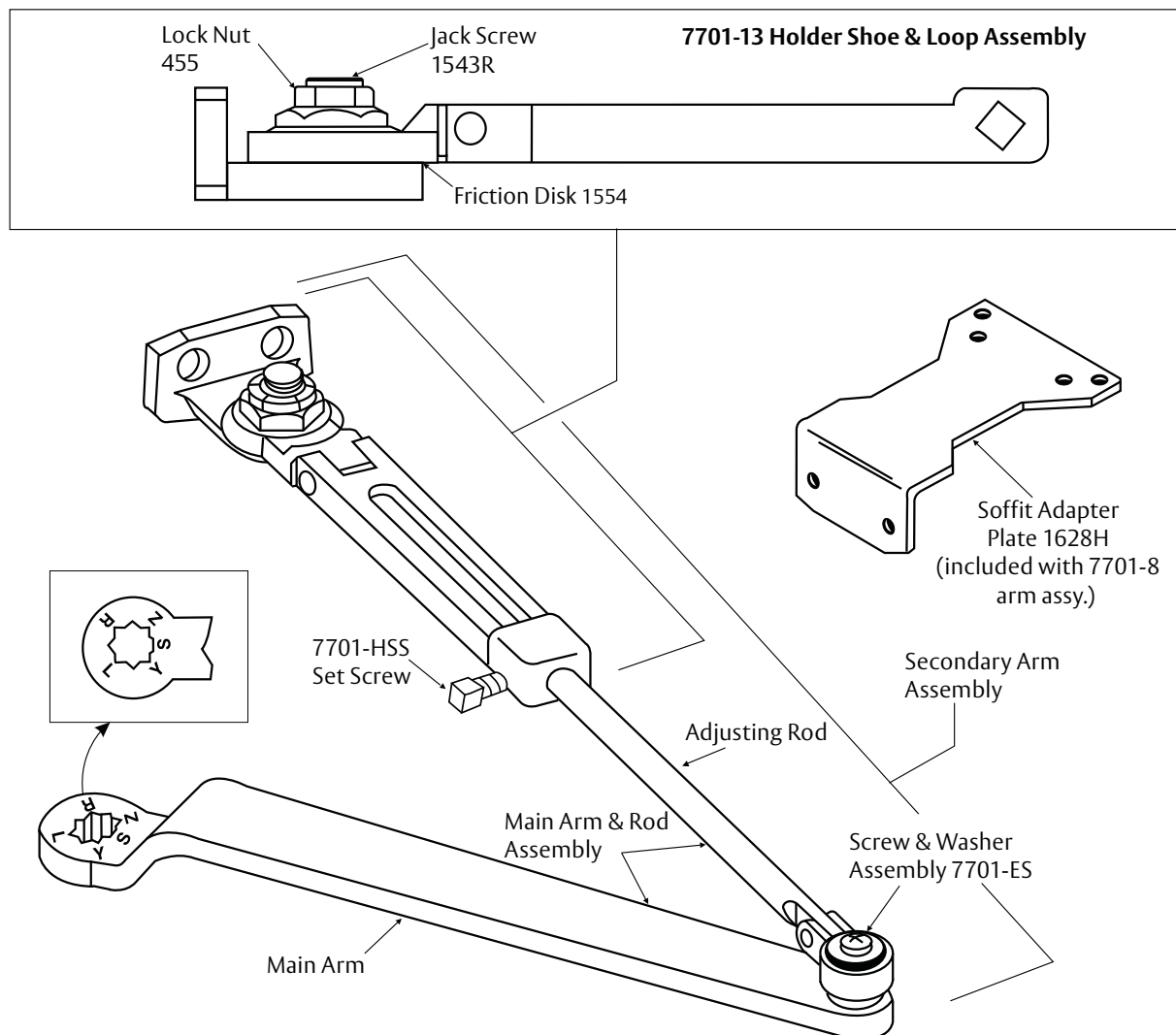
NON-HOLD OPEN ARM ASSEMBLIES



Note: Mounting hardware included with all parts orders.

Closer Series	Complete Arm Assembly	Main Arm Assembly ¹ (length)(mm) (includes 7701-ES)	Secondary Arm Assembly (includes 7701-ES)	Arm Assembly Less Rod and Shoe	Rod & Shoe Assembly ² (length)(mm)
8000	7701-1	7701-1M (11)(279)	7701-111	7701-1W	7701-11 (8-7/8)(225)
J8000	7701-1A		7701-121		7701-11A (12-9/16)(319)
P8000	7701-6		7701-116		7701-16 (8-7/8)(225)
P8000 ³	7701-6A		7701-116A		7701-16A (12-9/16)(319)
7500	7701-26 (tri pack includes 7701-1 plus 1618A plate)	1. C to C length shown in parentheses. 2. C of connecting link to end of rod shown in parentheses. 3. For 180° door swing when using a special template for doors hung on 6" to 8" (162 to 203mm) wide throw hinges.			

HOLD OPEN ARM ASSEMBLIES



Note: Mounting hardware included with all parts orders.

Closer Series	Complete Arm	Main Arm Assembly¹ (mm) (includes 7701-ES)	Secondary Arm (includes 7701-ES)	Main Arm & Rod Assembly	Holder Shoe & Loop Assembly	Adjusting Rod² (Length)(mm)
8000H	7701-3/7701-8³	7701-1M (11)(279)	7701-113/7700- 118 (Reg.) / (Par.)	7701-3W	7701-13/7701-18⁴	7701-31 (7-3/8)(187)
J8000H	7701-3A		7701-123	7701-3WA	7701-13	7701-31A (10-13/16)(275)

1. C to C length shown in parentheses.

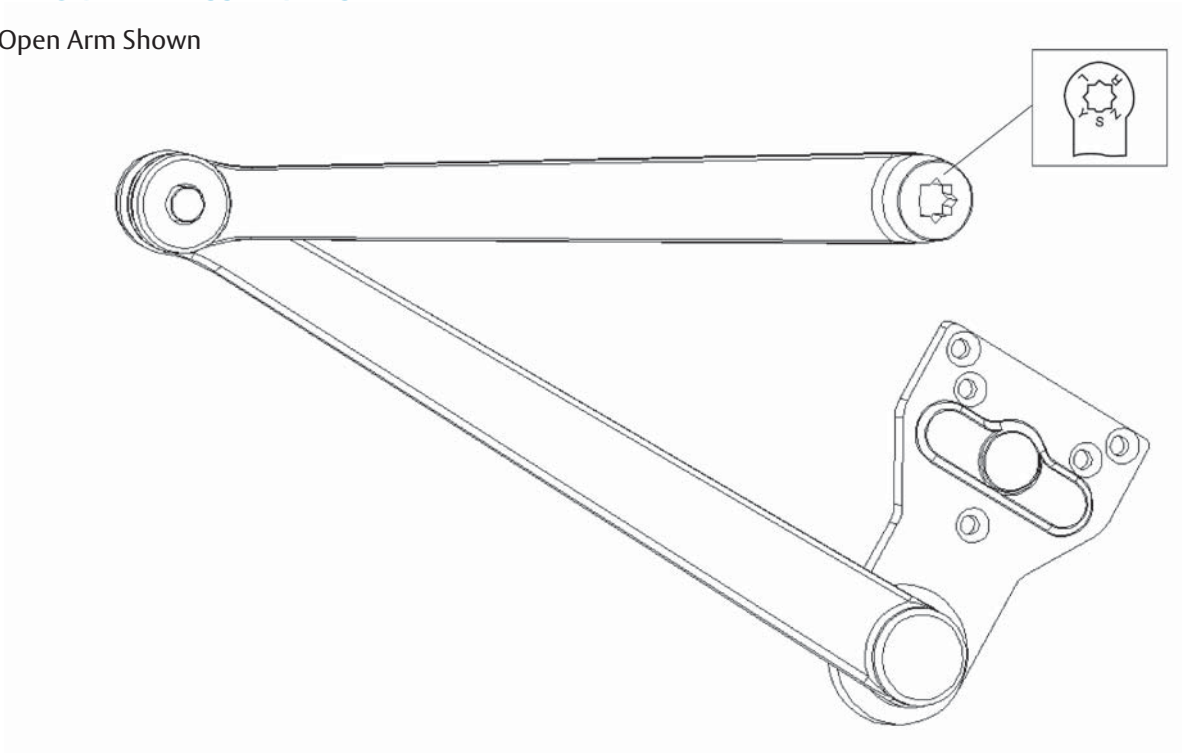
2. C of connecting link to end of rod shown in parentheses.

3. Same as 7701-3 but includes #1628H soffit adapter plate.

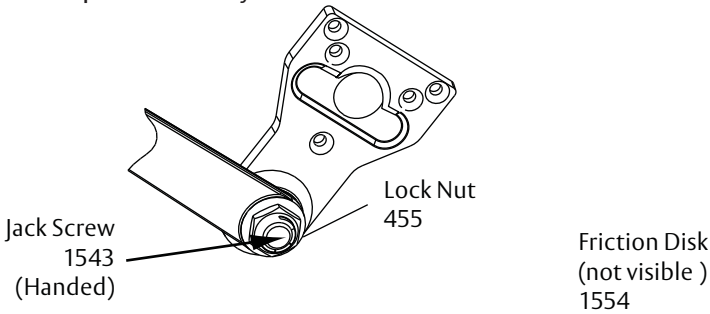
4. Same as 7701-13 but includes #1628H soffit adapter plate.

PARALLEL RIGID ARM ASSEMBLIES

Non-Hold Open Arm Shown



Hold Open Arms Only

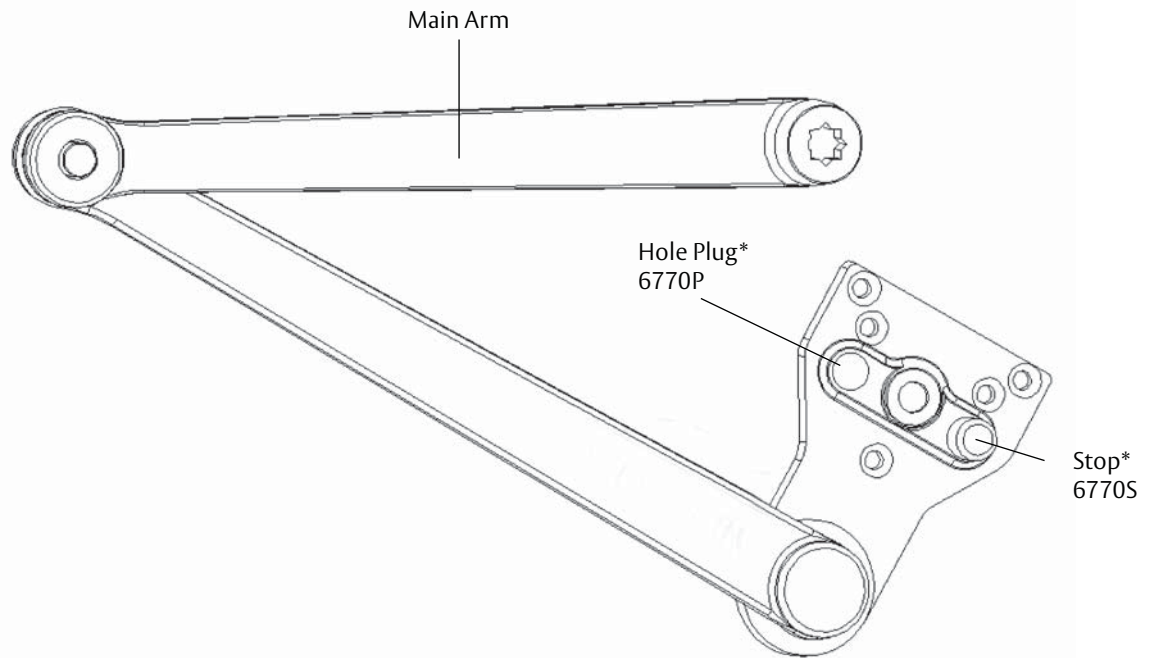


Note: Mounting hardware included with all parts orders.

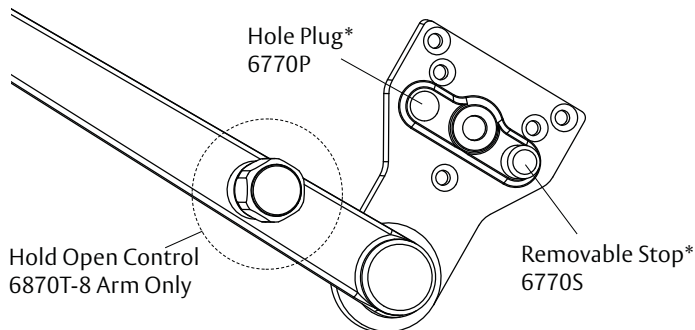
Arm Function	Complete Arm Assembly
Non-Hold Open	PR7701-5
Hold Open	PR7701-8R (Right Hand)
	PR7701-8L (Left Hand)

CLOSERPLUS® ARM ASSEMBLIES

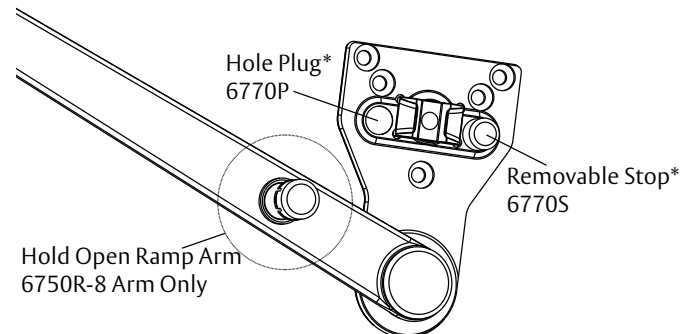
CLP
Non-Hold Open



CLP-T
Thumbturn Hold Open



CLP-R
Ramp Hold Open



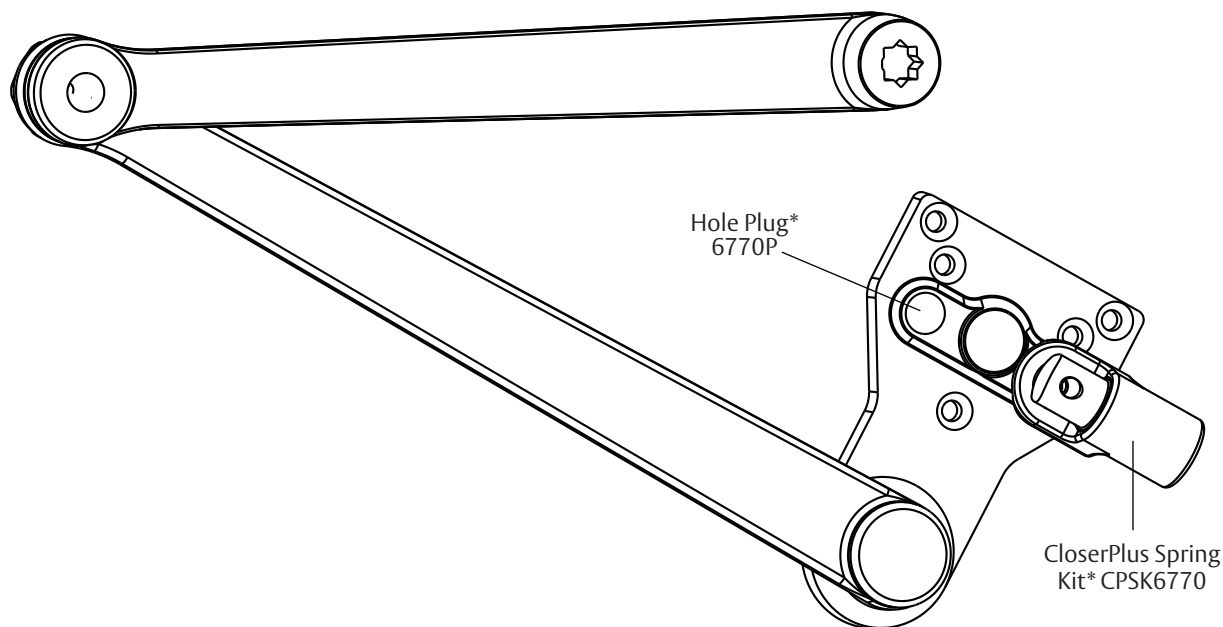
Note: Mounting hardware included with all parts orders.

Arm Function	Complete Arm Assembly
Non-Hold Open	6770-5
Thumbturn Hold Open	6870T-8
Ramp Hold Open	6750R-8

* These parts and screw pack are included with complete arm assemblies.

CLOSERPLUS SPRING™ ARM ASSEMBLIES

Non-Hold Open Arm Shown

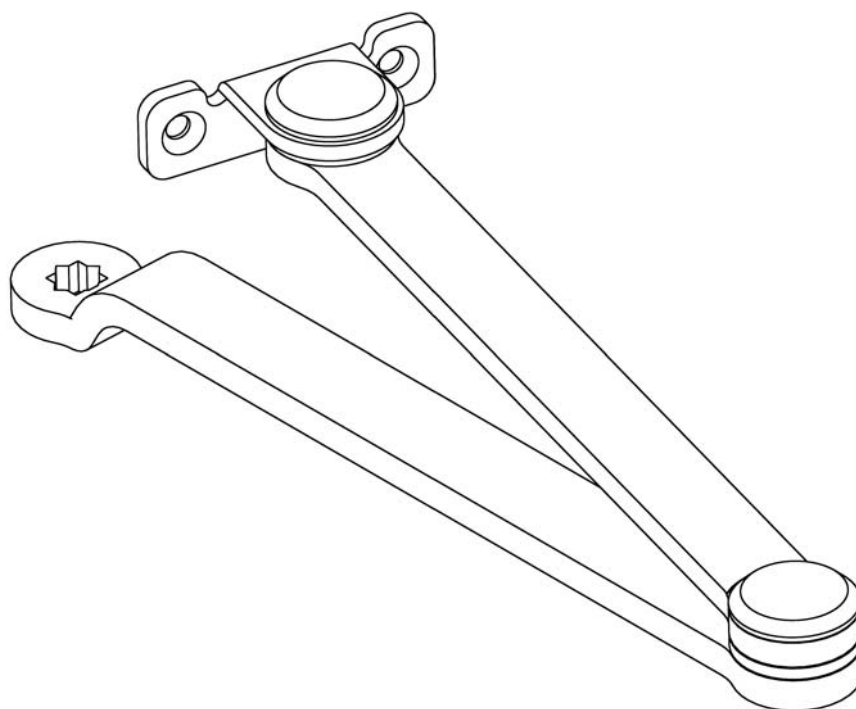


Note: Mounting hardware included with all parts orders.

Arm Function	Complete Arm Assembly
Non-Hold Open	CPS6770-5
Thumbturn Hold Open	CPS6870T-8

* These parts and screw pack are included with complete arm assemblies.

REGULAR RIGID HEAVY-DUTY ARMS

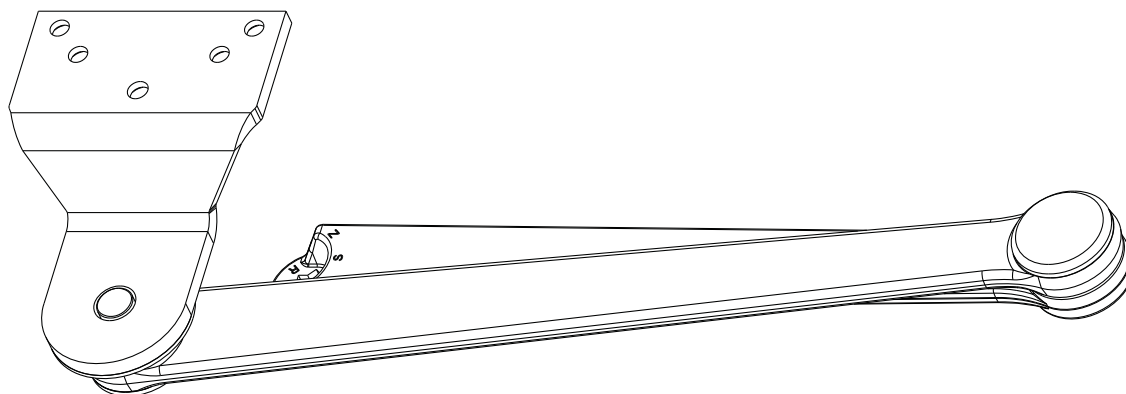


Note: Mounting hardware included with all parts orders.

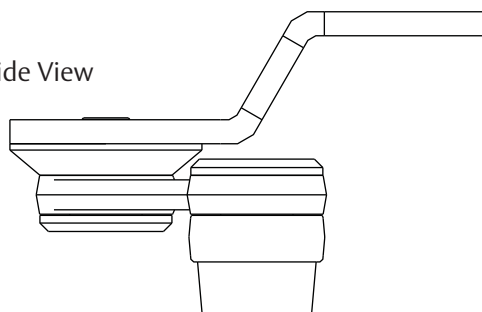
Arm Function	Complete Arm Assembly
Non-Hold Open	R7701-1

PARALLEL RIGID OFFSET ARM ASSEMBLIES

Non-Hold Open



Side View

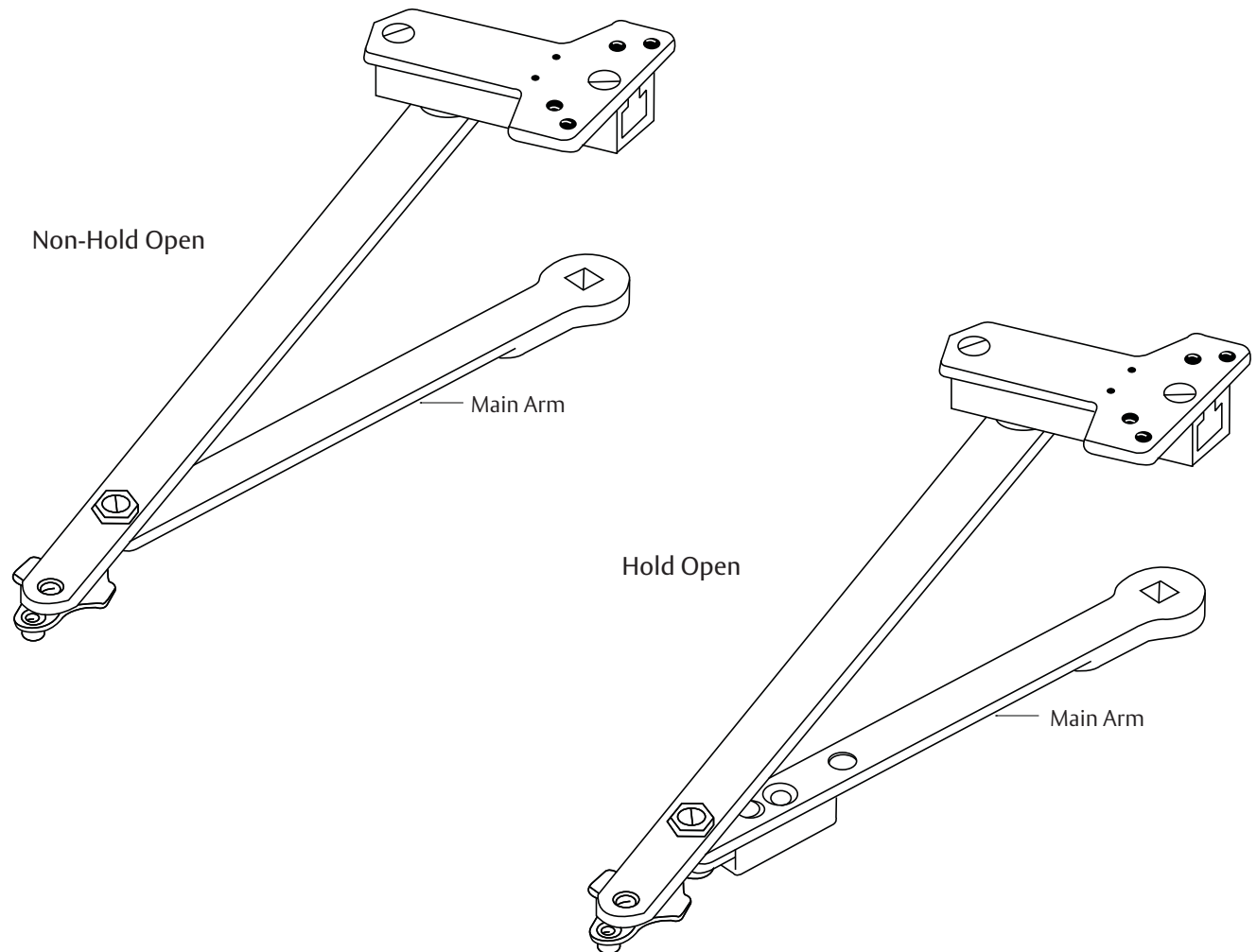


Note: Mounting hardware included with all parts orders.

Arm Function	Complete Arm Assembly
Non-Hold Open	PRO7701-5
Hold Open, Right Hand	PRO7701-8R
Hold Open, Left Hand	PRO7701-8L

UNITROL® ARM ASSEMBLIES

Parallel Arm



Note: Mounting hardware included with all parts orders.

Door Width (cm)	Main Arm Length* (mm)	Complete Arm Assembly	
		Non-Hold Open	Hold Open
28" - 32" (71 - 81)	9-1/2" (241)	6100-11	6100-1
33" - 41" (84 - 104)	11" (279)	6100-13	6100-3
42" - 48" (107 - 122)	12-1/2" (318)	6100-14	6100-4

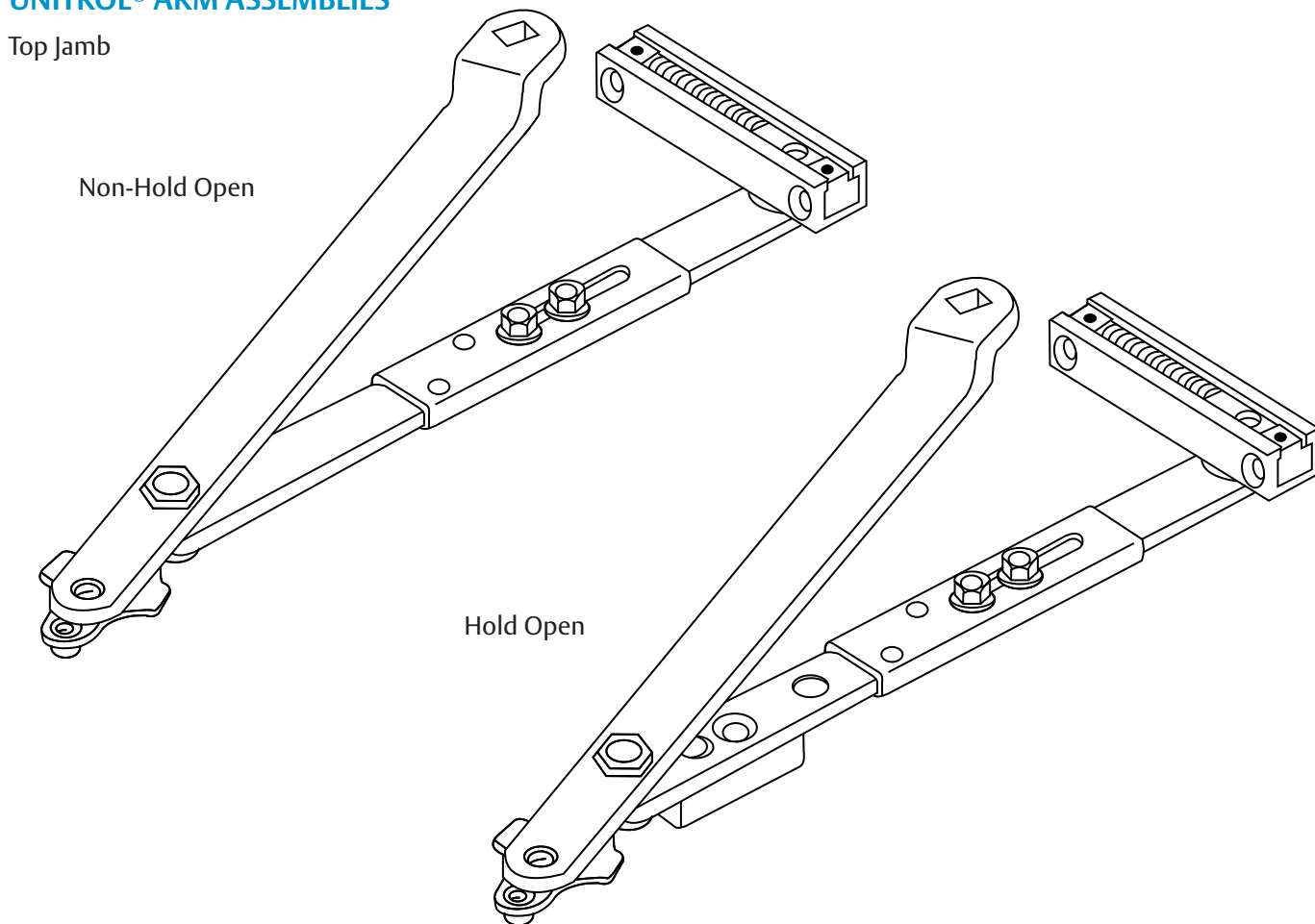
*Center to center length.

UNITROL® ARM ASSEMBLIES

Top Jamb

Non-Hold Open

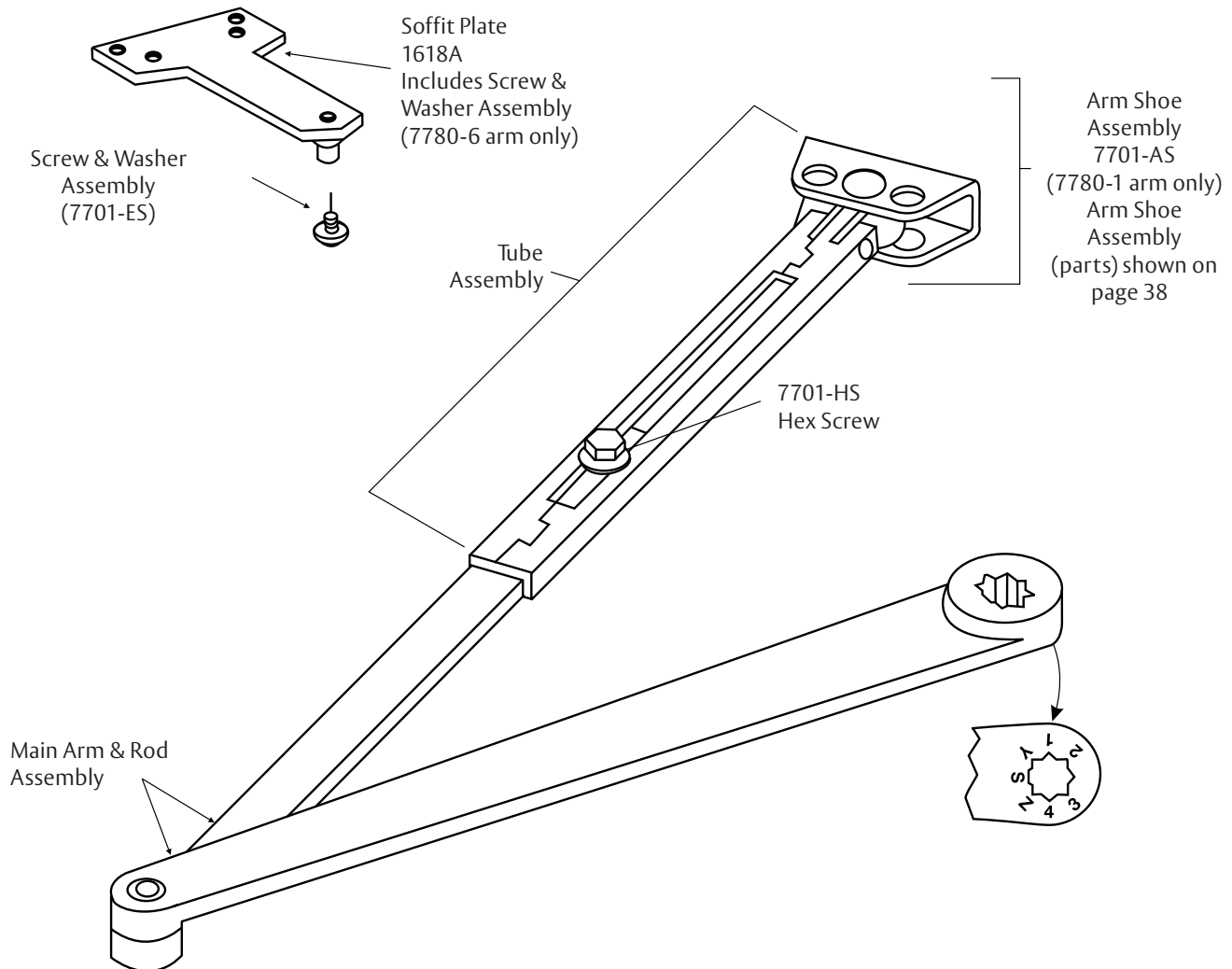
Hold Open



Note: Mounting hardware included with all parts orders.

Complete Arm Assembly		For Frame Reveals (mm)
Non-Hold Open	Hold Open	
J6100-4	J6100-7	2-1/8" - 3-1/4" (54 - 83)
J6200-4	J6200-7	1/2" - 2" (13 - 51)
J6400-4	J6400-7	3-3/8" - 4-1/4" (86 - 108)
J6500-41	J6500-71	4-3/8" - 5-3/8" (111 - 137)
J6500-42	J6500-72	5-1/2" - 6-3/8" (140 - 162)
J6500-43	J6500-73	6-1/2" - 7-3/8" (165 - 187)
J6600-4	J6600-7	0" - 3/8" (0 - 10)

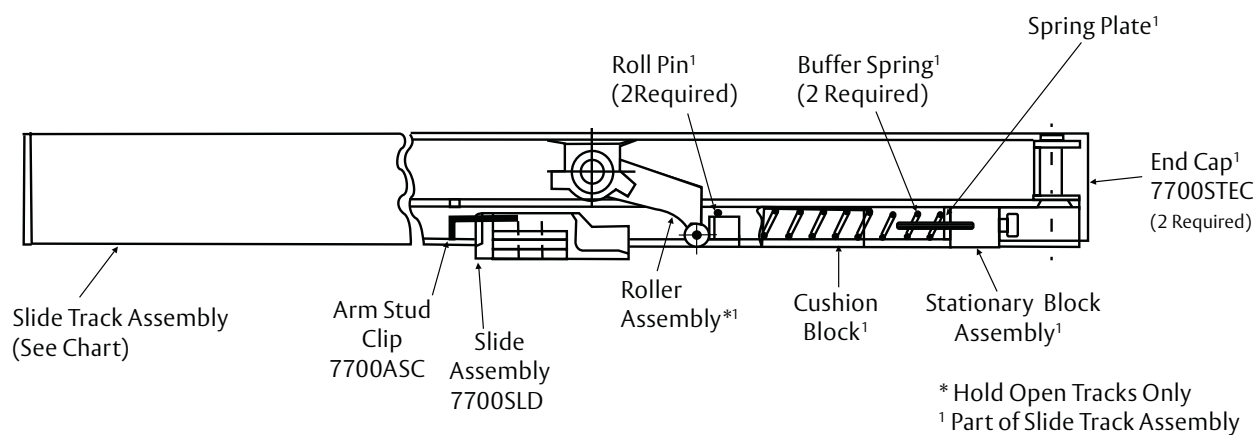
LOW PROFILE ARM ASSEMBLIES



Note: Mounting hardware included with all parts orders.

Arm Application	Complete Arm Assembly	Main Arm & Adjusting Rod Assembly	Tube & Shoe/Soffit Assembly
Regular Arm	7780-1	7780-1MR	7780-1TS (With 7701-AS)
Parallel Arm	7780-6		7780-6TS (With 1618A)
Tri-pack	7780-26		

TRACK & ARM ASSEMBLIES



Note: Mounting hardware included with all parts orders.

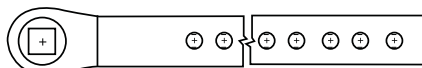
Slide Track Assembly	Part Number	
	Non-Hold Open	Hold Open
Pull-side	7701ST-1T	7701ST-3T
Pull Side (180°)	7701ST-1T180	N/A
Push Side	7701ST-5T	7701ST-8T

TRACK & ARMS ASSEMBLIES

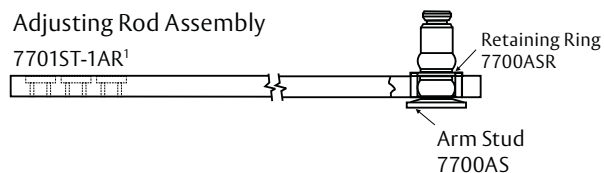
Standard Arm Assembly

7701ST-1A*¹

Arm Tube Assembly
7701ST-1AT¹

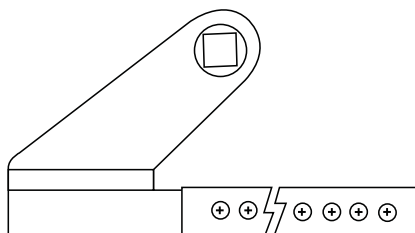


Adjusting Rod Assembly
7701ST-1AR¹

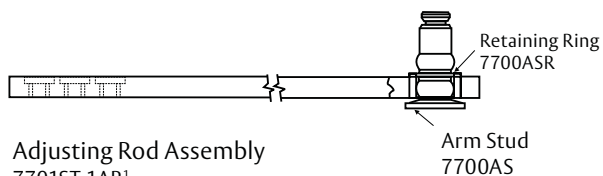


Double Egress Arm Assembly

7701PT-DE-1R (Right Hand)*¹
7701PT-DE-1L (Left Hand)*¹

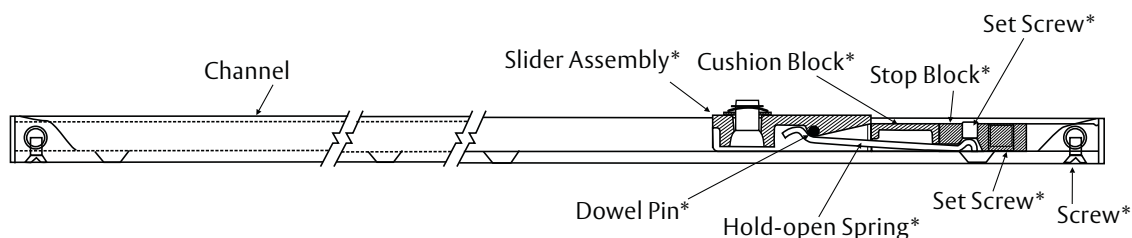


Arm Tube Assembly
7701ST-1ATR¹ (right hand)
7701ST-1ATL¹ (left hand)



Adjusting Rod Assembly
7701ST-1AR¹

TRACK ASSEMBLIES - SHALLOW DEPTH



*Part of an Assembly Pack

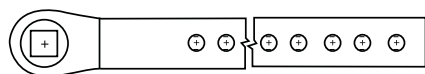
NHo = 7740SLD

Ho = 7740HSLD

Note: Mounting hardware included with all parts orders.

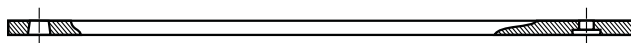
Track Assemblies	Part Number	
Description	Non-Hold Open	Hold Open
Pull-side mounted	7740ST-1T	7740ST-3T
Push-side mounted	7740ST-5T	7740ST-8T

Arm Assembly



Arm Tube Assembly
7701ST-1AT²

7740ST-1A^{1,2}



Adjusting Rod Assembly
7740ST-1AR²

1 Includes arm length adjusting screw.

2 Includes arm tube & adjusting rod assembly.

8000 SERIES

ARCHITECTURAL DOOR CLOSER

FASTENERS

Type	Description	Arm								
		RA	PA	TJ	Low Profile	PR	CLP/ CPS	UNI	UNI-J	Slide Track
DOOR										
SDST	Self Drilling Self Tapping	S	S	S	S	S	S	S	O	O
MS	Machine Screw	S	S	S	S	S	S	S	S	S
SN	Sleeve Nut/Sex Nut	O	O	O	O	S	S	S	S	S
TBGN	Thru Bolts & Grommet Nuts	O	O	O	O	O	O	O	O	O
SMS	Sheet Metal Screws	O	O	O	O	O	O	O	O	O
TORX®	Torx Drive Security Screw	O	O	O	O	O	O	O	O	O
FRAME										
SDST	Self Drilling Self Tapping	S	S	S	S	S	S	S	S	S
MS	Machine Screw	S	S	S	S	S	S	S	S	S
SMS	Sheet Metal Screws	O	O	O	O	O	O	O	O	O
TORX	Torx Drive Security Screw	O	O	O	O	O	O	O	O	O

S = standard; O = optional

SN are for use on unreinforced hollow metal doors or to prevent any hollow metal door from collapse/dimpling. They can also be used for thru bolting on wood doors. **When selected as an add-on option**, SN are supplied for 1-3/4" (44mm) thick doors unless specified for 2-1/4" (57mm) thick doors.

TBGN are an alternative to SN for wood doors. **When selected as an add-on option**, TBGN are supplied standard for 1-3/4" (44mm) thick doors. They can be specified for 1-3/8" (35mm) thick doors.

SMS - when the option is specified, closer will be packed with sheet metal screws for the door AND sheet metal screws plus machine screws for the frame.

Torx® drive screws, for tamper resistance are standard with Security Door Closers. Torx may be specified for all other series applications. Torx are only available with machine screw threads. Sheet metal screw threads or wood screw threads are not available.

Note: To order special fasteners with closers, specify model number x fastener (Ex: 8501 x 689 x TBGN).

FINISHES

Norton offers waterborne acrylic, polyester powder coat and plated finishes. Custom finishes are available on special order. A sample and approval is required.

Waterborne acrylic and polyester powder coat will withstand 100 hours of salt spray (ANSI requires 25 hours).

ANSI/BHMA	Description
600*	Prime Coat
605^	Bright Brass
606^	Satin Brass
611^	Bright Bronze
612^	Satin Bronze
613E	Dark Oxidized Satin Bronze - Equivalent
619^	Satin Nickel
625^	Bright Chrome
626^	Satin Chrome

* 600 is a special rust-inhibiting prime coat. Closers can be ordered prime coat only (specify closer x 600). An additional charge applies if finish coat is required over prime coat.

^ Plated finish

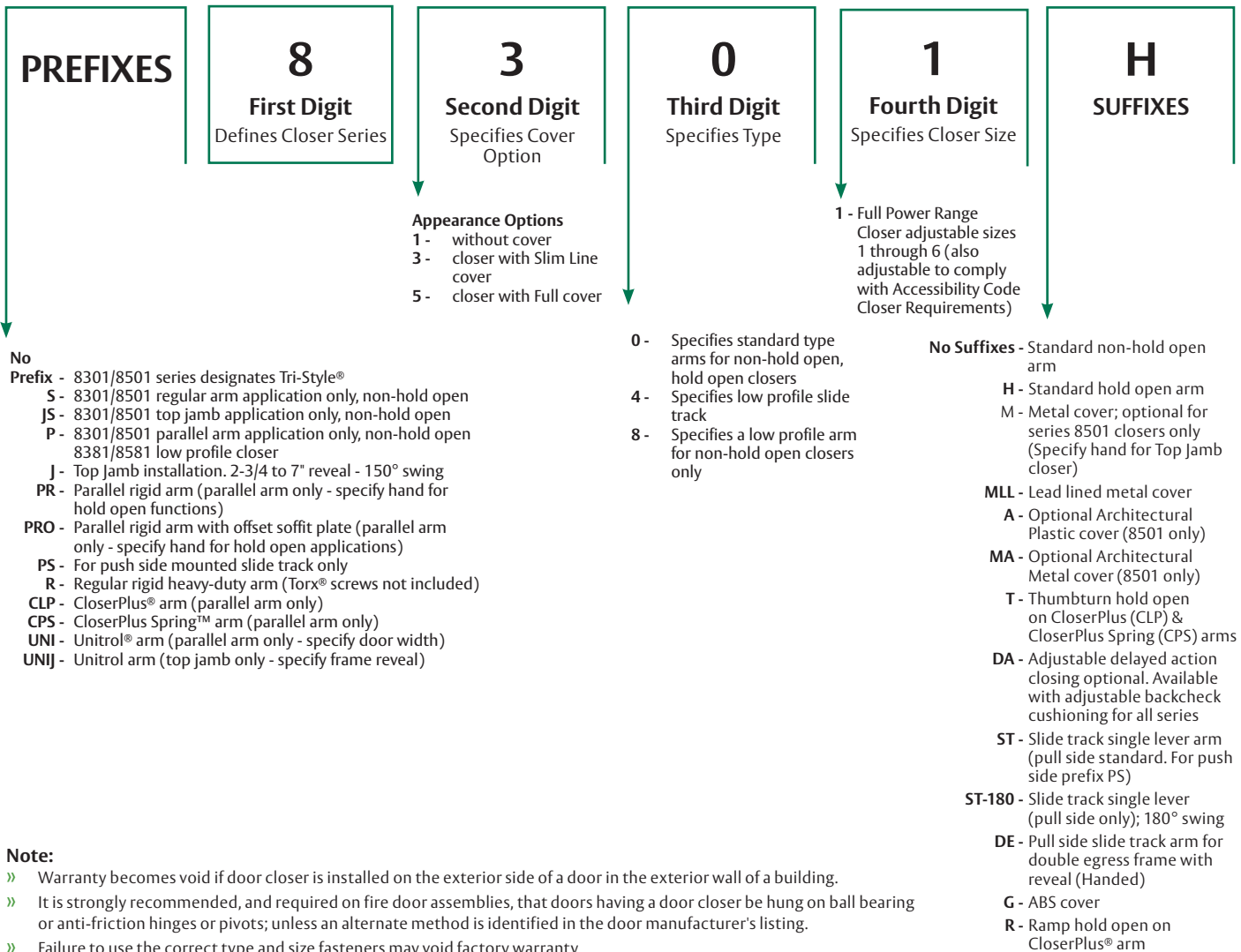
ANSI/BHMA	Description
689	Aluminum
690	Statuary Bronze
691	Dull Bronze
693	Black
694	Medium Amber
696	Gold
N/A	556 White
BSP	Black Suede Powder

» Norton closer bodies and plastic covers are available in waterborne acrylic finishes. Arms and metal covers are available in powder coat or plated finishes.

» When a plated finish is ordered, arm and cover will be plated unless "cover only" is specified.

HOW TO ORDER

For optimum protection of door and frame assemblies, always use auxiliary wall, floor, or overhead door stop.



Note:

- » Warranty becomes void if door closer is installed on the exterior side of a door in the exterior wall of a building.
- » It is strongly recommended, and required on fire door assemblies, that doors having a door closer be hung on ball bearing or anti-friction hinges or pivots; unless an alternate method is identified in the door manufacturer's listing.
- » Failure to use the correct type and size fasteners may void factory warranty.
- » Fasteners for fire/smoke door assemblies must conform to NFPA 80. In some applications additional fasteners may be mandated by NFPA 80 that are not shipped with standard Norton product, such as sleeve-nuts/sex nuts or through-bolts and grommet nuts.
- » Sizing charts provided are based on 1-3/4" (44mm) x 7" (2.13m) standard weight doors swinging to 110°. Other conditions (such as door height or weight; or wind/draft conditions) may require a larger size closer.

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Since 1880, Norton door controls have been an integral part of schools, hospitals and businesses around the globe. When you need products and people that perform at the highest level, rely on Norton – From Open to Close.

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160 Four Valley Drive | Vaughan, Ontario, L4K 4T9 Canada | Tel: 800-461-3007 | Fax: 1-800-461-8989

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43085-C8/18



For interior and exterior doors
in light commercial and industrial applications

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in door opening solutions

9300BC
S E R I E S

DOOR CLOSER

CATALOG

INTRODUCTION

The 9300BC Series is a durable, economically priced door closer designed for commercial exterior and interior doors such as storefront and industrial applications.



FEATURES

- » Spring size 3, 4
- » Separate and independent valve for sweep speed and latch speed
- » Adjustable backcheck standard
- » Regular and top jamb mounting

CERTIFICATIONS

- » ANSI/BHMA A156.4, Grade 3 **BHMA** QUALIFIED
- » UL / cUL listed for use on fire rated doors **UL**
- » UL10C listed for positive pressure fire test
- » This product is manufactured in an ISO 9001 facility

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Closer Bodies	9
Arm Assemblies	10-11
How to Order	12

EXPLANATION OF FEATURES

Aluminum Alloy Housing

Closer bodies are constructed of a special aluminum alloy, carefully selected to accommodate interactive steel components and operating conditions.

Rack & Pinion Operation

Provides a smooth constant control of the door through its full opening and closing cycle. 180° door swing can be achieved when door, frame, hardware and arm function do not interfere.

Non-Handed

Pinion shaft extends vertically through the closer body in both directions. This permits the closer to be positioned on either right or left-hand doors for most applications.

Non-Critical Control Valves

All control valves for sweep speed, latch speed and backcheck cushioning are noncritical and are adjusted by a standard 1/8" (3mm) hex wrench.

Adjustable Backcheck Cushion Valve

Provides control of the door in the opening cycle, beginning at approximately 75° of door opening. It slows/cushions the door opening, when the door is forcibly opened beyond its pre-adjusted speed limitation.

Finishes

All door closers are painted in waterborne acrylics. All steel parts, mounting plates and brackets are powder coated. The closers will withstand 120 hours of salt spray. ANSI requires 25 hours.

Adjust Power Shoe

Supplied as standard for a 15% (±7-1/2%) power adjustment by relocating the forearm at the shoe, for regular arm and top jamb non-hold open installations.

OPTIONAL FEATURES

Hold Open Arm

Closer arm has adjustable hold open feature (90° to 180°). This arm is non-handed. Order by suffixing "H" to the catalog number.

- » Parallel mount (prefix P to model number)
- » Friction hold open arm

Fasteners

Type	Description	Applications		
		RA	PA	TJ
DOOR				
SDST	Self-Drilling Self-Tapping Screws	S	S	S
MS	Machine Screws	S	S	S
SN	Sex Nuts	O	O	O
TBGN	Through-Bolts & Grommet Nuts	O	O	O
FRAME				
SDST	Self-Drilling Self-Tapping Screws	S	S	S
MS	Machine Screws	S	S	S

S = standard; O = optional

SN are for use on unreinforced hollow metal doors or to prevent any hollow metal door from collapse/dimpling. They can also be used for thru bolting on wood doors. **When selected as an add-on option**, SN are supplied for 1-3/4" (44mm) thick doors unless specified for 2-1/4" (57mm) thick doors.

TBGN are an alternative to SN for wood doors. **When selected as an add-on option**, TBGN are supplied standard for 1-3/4" (44mm) thick doors. They can be specified for 1-3/8" (35mm) thick doors.

APPLICATIONS



REGULAR ARM

This is the only pull-side application for the 9300BC series door closer. It is the most power-efficient application for a door closer. Sufficient frame, door and/or ceiling clearance must be considered. Since the arm assembly projects directly out from the frame, this application may present an aesthetics issue or be prone to vandalism.



PARALLEL ARM

This application provides the most appealing design appearance for the 9300BC series door closer. It is on the push side of the door and the arm assembly extends almost parallel to the door. In the closed position, there is very little or no hardware projecting beyond the frame face in most situations.

Due to the geometry of the arm it is approximately 25% less power efficient than a regular arm application.

The entire closer and arm assembly are mounted below the frame stop, requiring a top rail clearance on the door of 5" (127mm), without using a drop plate. A 9388 drop plate requires a top rail clearance of just 2-5/8" (67mm).

9300BC SERIES

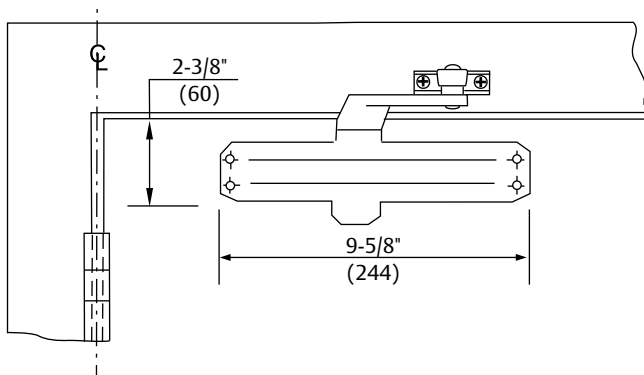
LIGHT COMMERCIAL DOOR CLOSER



TOP JAMB

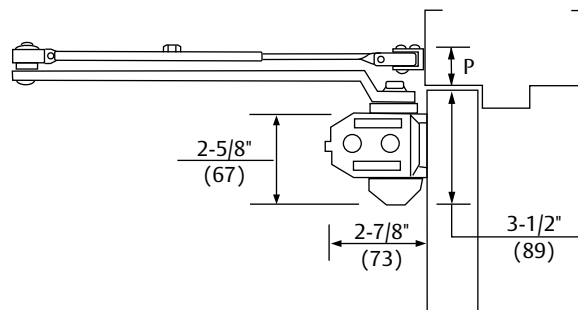
For efficiency reasons this application provides the best alternative to the regular arm application. There must be sufficient frame face and/ or ceiling clearance for this application. It requires a top rail on the door of just 1-7/8" (48mm). This application provides the best door control for doors in exterior walls that swing out of a building. It will accommodate frame reveals to a maximum of 2-7/8" (73mm). The entire door closer and arm assembly project from the frame, similar to the regular arm application, where matters of appearance can be of concern.

REGULAR ARM



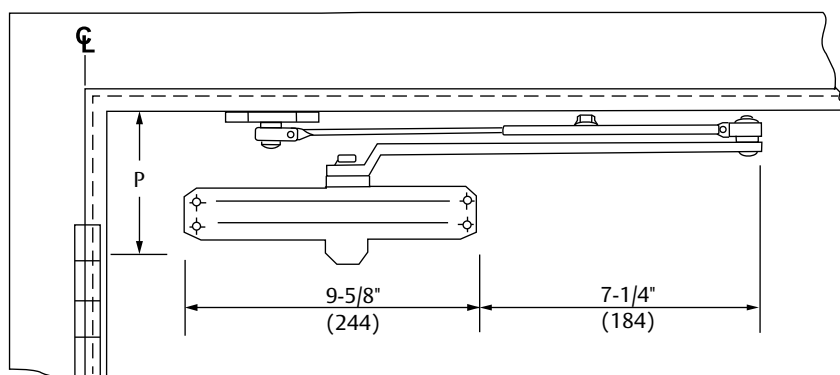
Door openings to 180° can be obtained if conditions permit. For selection of door closer sizing, see charts on page 7.

Mounting holes on body are spaced centerline to centerline: 9-1/16" (230mm) horizontally x 3/4" (19mm) vertically.

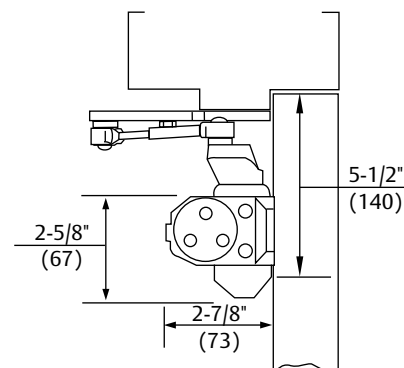


P Minimum Ceiling Clearance Inches (mm)	
Non-Hold Open	Hold Open
1-1/2" (38)	1-5/8" (41)

PARALLEL ARM



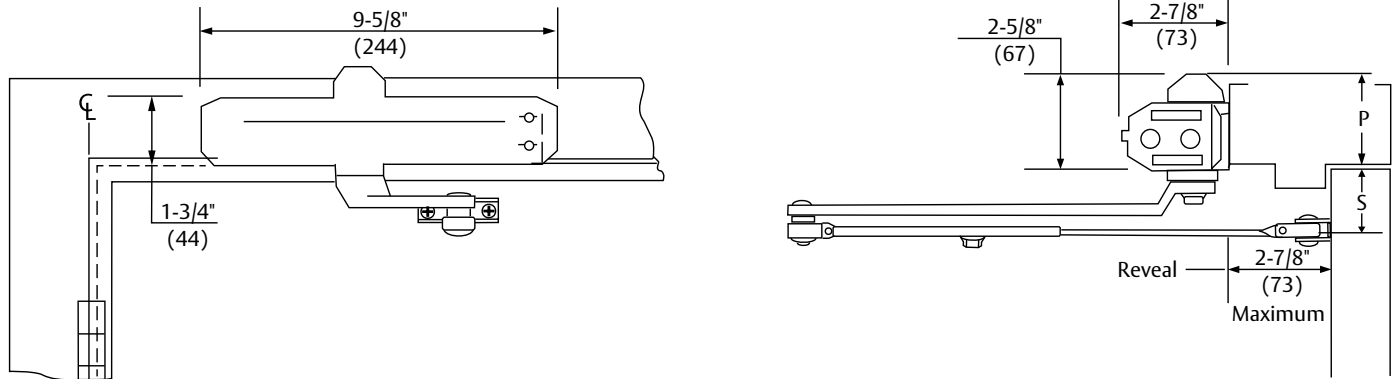
Mounting holes on body are spaced centerline to centerline: 9-1/16" (230mm) horizontally x 3/4" (19mm) vertically.



R Minimum Top Rail 5/8" (16mm) Frame Stop Inches (mm)	
Without Drop Plate	With 9388 Drop Plate
5" (127)	2-5/8" (67)

9300BC SERIES LIGHT COMMERCIAL DOOR CLOSER

TOP JAMB



For selection of door closer sizing, see charts on page 7.

Mounting holes on body are spaced centerline to centerline: 9-1/16" (230mm) horizontally x 3/4" (19mm) vertically.

P Minimum Ceiling Clearance Inches (mm)		S Minimum Top Rail Clearance Inches (mm)	
Without Drop Plate	With 9388 Drop Plate	Without Drop Plate	With 9388 Drop Plate
2-5/8" (67)	1-3/4" (44)	1-7/8" (48)	3-3/8" (86)

DOOR CLOSER SIZE

Note: Door closing force is not adjustable. Correct size must be selected.

Interior Doors

Door Closer Size	Recommended Max. Door Width Inches (mm)		
	Regular Arm	Top Jamb	Parallel Arm
9303BC	40" (102)	40" (117)	38" (97)
9304BC	48" (122)	48" (122)	46" (117)

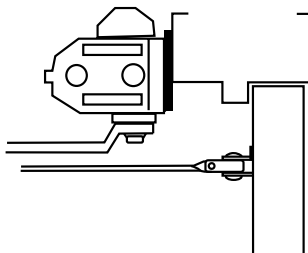
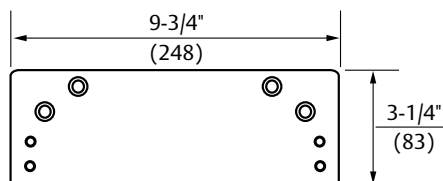
Exterior Doors

Door Closer Size	Recommended Max. Door Width Inches (mm)		
	Regular Arm	Top Jamb	Parallel Arm
9303BC	34" (86)	34" (86)	32" (81)
9304BC	40" (102)	40" (102)	36" (91)

All dimensions are for reference only and are in inches (mm) unless otherwise noted. Door sizing information is based on installation on standard weight doors, 7'0" (213cm) high x 1-3/4" (44mm) thick; hung on anti-friction hinges and operating under normal conditions. Doors in excess of 7'8" (234cm) high or 1-3/4" (44mm) thick, templated openings beyond 150° or doors subject to wind or draft conditions will generally require the next larger size closer.

TOP JAMB

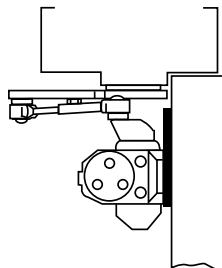
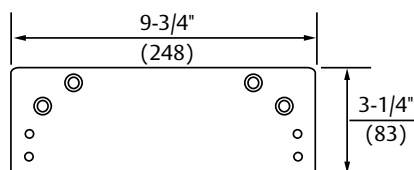
Closer Mounting Plate



Top Jamb - #9388 Drop Plate: For use when the door closer interferes with the ceiling or the frame face is too narrow to mount a closer body. This drop plate can be used to mount a closer on a frame face as narrow as 1-1/2" (38mm).

PARALLEL ARM

Closer Mounting Plate

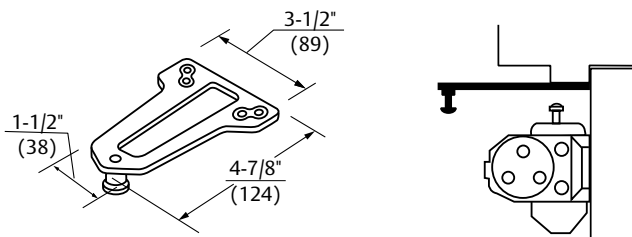


Parallel Arm - #9388 Drop Plate: For use where a narrow top rail prevents the closer from being mounted directly to the door surface. This drop plate can be used to mount a closer on a top rail as narrow as 2-5/8" (57mm).

9300BC SERIES LIGHT COMMERCIAL DOOR CLOSER

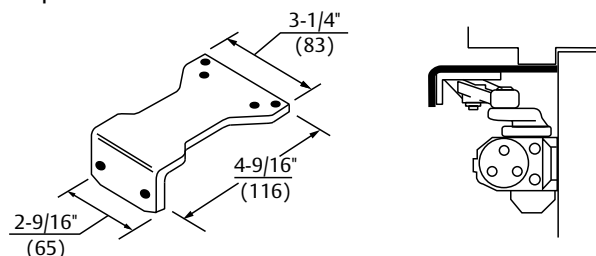
BRACKETS

Non-Hold Open Arms



#9318A Soffit Plate: This soffit plate is supplied to permit parallel arm mounting. It can be mounted where the frame soffit is as narrow as 1" (25mm).

Hold Open Arms

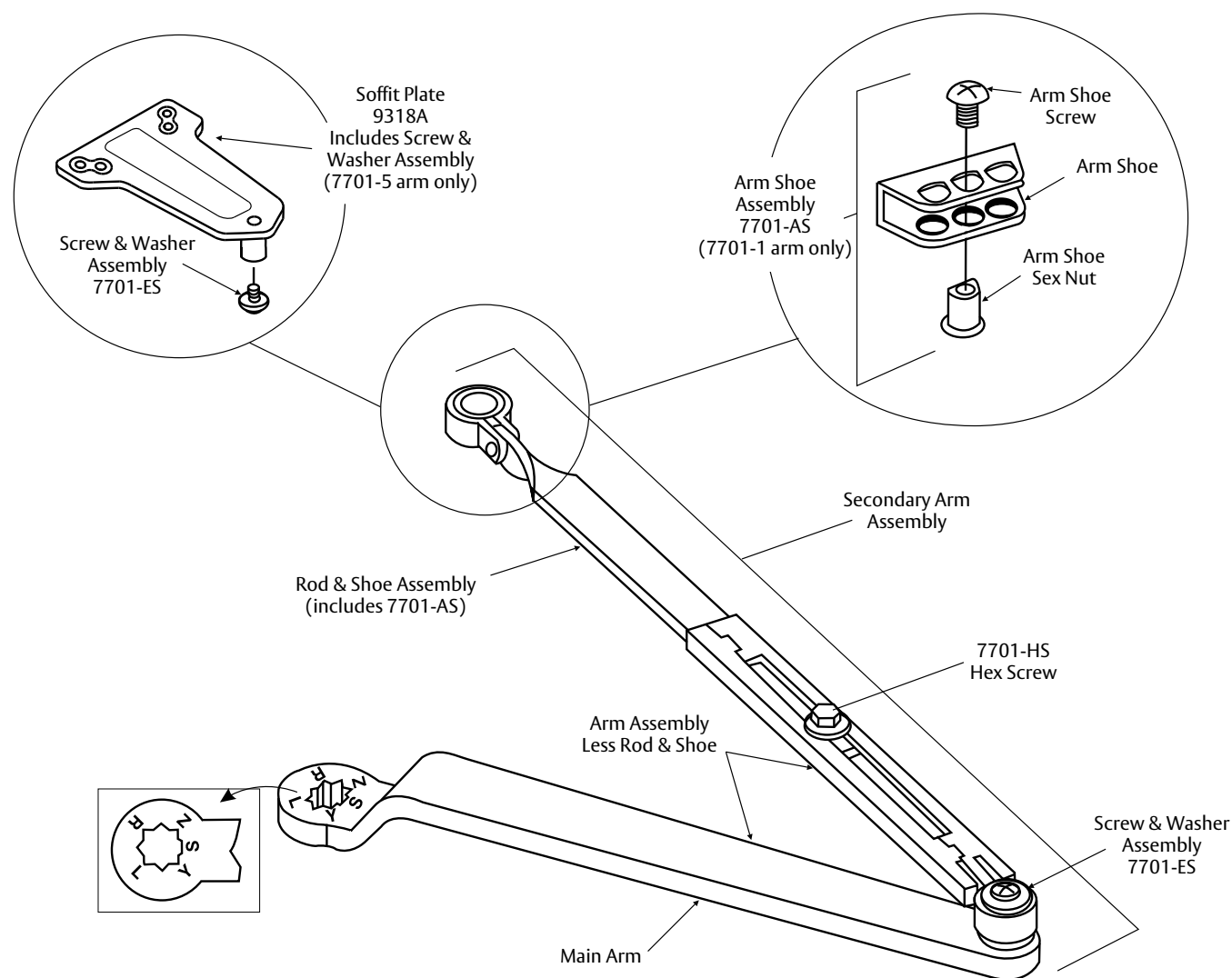


#9328H Adapter Plate: This adapter plate is supplied standard with parallel arm hold open closer. It can also be used to convert hold open arms for parallel arm installation. It can be mounted where the frame soffit is as narrow as 1" (25mm).

CLOSER BODIES

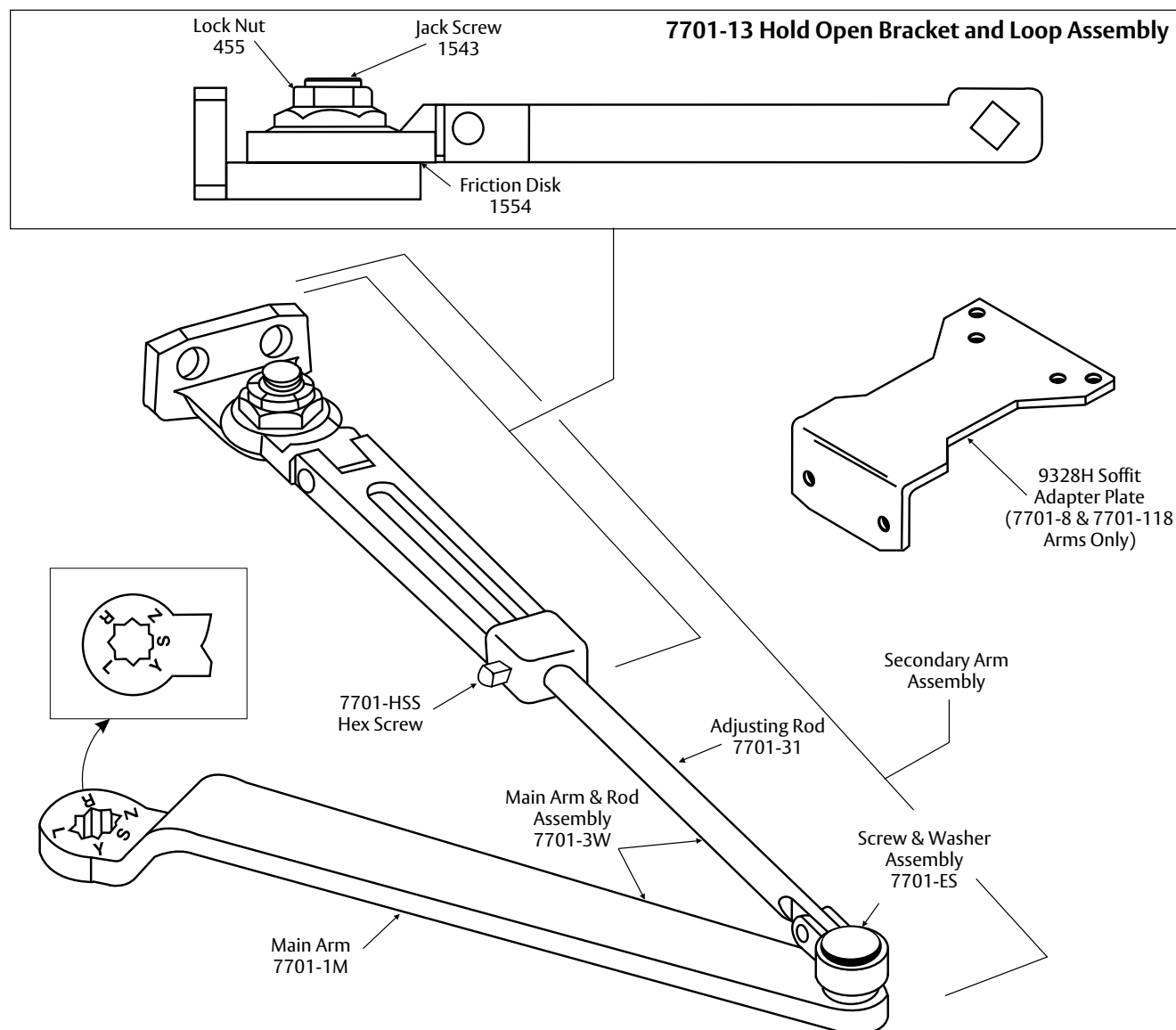
Model Number
9302BCLAP
9303BCLAP
9304BCLAP
9305BCLAP

NON -HOLD OPEN ARM ASSEMBLIES



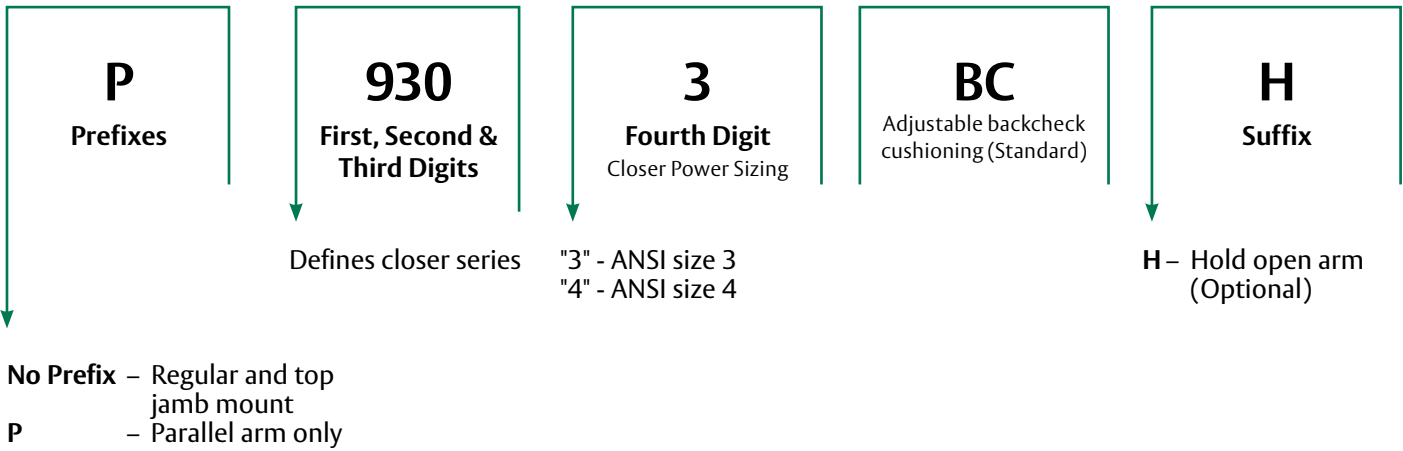
Closer Series	Complete Arm	Main Arm	Arm Assembly Less Rod and Shoe	Secondary Arm Assembly	Rod & Shoe Assembly
9300BC	7701-1	7701-1M	7701-1W	7701-111	7701-11
P9300BC	7701-5			7701-115	7701-15

HOLD OPEN ARM ASSEMBLIES



Closer Series	Complete Arm	Secondary Arm Assembly
9300BCH	7701-3	7701-113
P9300BCH	7701-8	7701-118

HOW TO ORDER



Note: Contact factory if door weight exceeds 250 lbs.

SPRAYED FINISHES

Description	ANSI/BHMA	Complements the Following Finishes	Old Designation
Aluminum	689	628, 625, 629, 630, 651, 652	AL
Statuary Bronze	690	640, 613	STAT
Dull Bronze	691	612, 637, 639	DB
Black	693	315	315
Medium Amber	694	312	312
Gold	696	605, 606, 632, 633	GB
Prime Coat	600*	—	SRI

*600 is a special rust inhibiting prime coat. Closers can be ordered prime coat only (specify closer x 600). An additional charge applies if finish coat is required over prime coat (ex: 9303BC x 600 x 690).

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Multi-sized cast iron closer
for high use applications

9500
S E R I E S

DOOR CLOSER

CATALOG

INTRODUCTION

Ideal for high use openings, the Norton 9500 Series Cast Iron door closer offers the durability, flexibility and strength required to meet the needs of your facility. For interior or exterior doors, this ANSI/ BHMA Grade 1 closer features a clean, modern cover aesthetic and durable cast iron body that can be used in a variety of institutional environments requiring ADA compliance.

FEATURES

- » Cast iron closer body
- » Clean, modern cover design featuring Norton branding
- » Non-handed
- » Rack-and-pinion design
- » Staked valves
- » 2-1/4" (57mm) projection
- » 1-1/2" (38mm) diameter piston
- » 5/8" (16mm) diameter pinion journals
- » Closer mounting plate for easy installation
- » Tri-style® packaging: packed for regular, top jamb or parallel arm mounting
- » Adjustable spring sizes 1-6
- » Molded ABS plastic cover
- » All standard arm applications allow doors to swing 180°, conditions permitting
- » Heavy-duty arms: Regular Rigid, Parallel Rigid, CloserPlus®, Parallel Rigid Offset and Unitrol®
- » Slide Tracks: push or pull side mounting
- » Metal covers (optional)
- » 25 year limited warranty
- » Exceeds 25 million cycles



FUNCTIONS

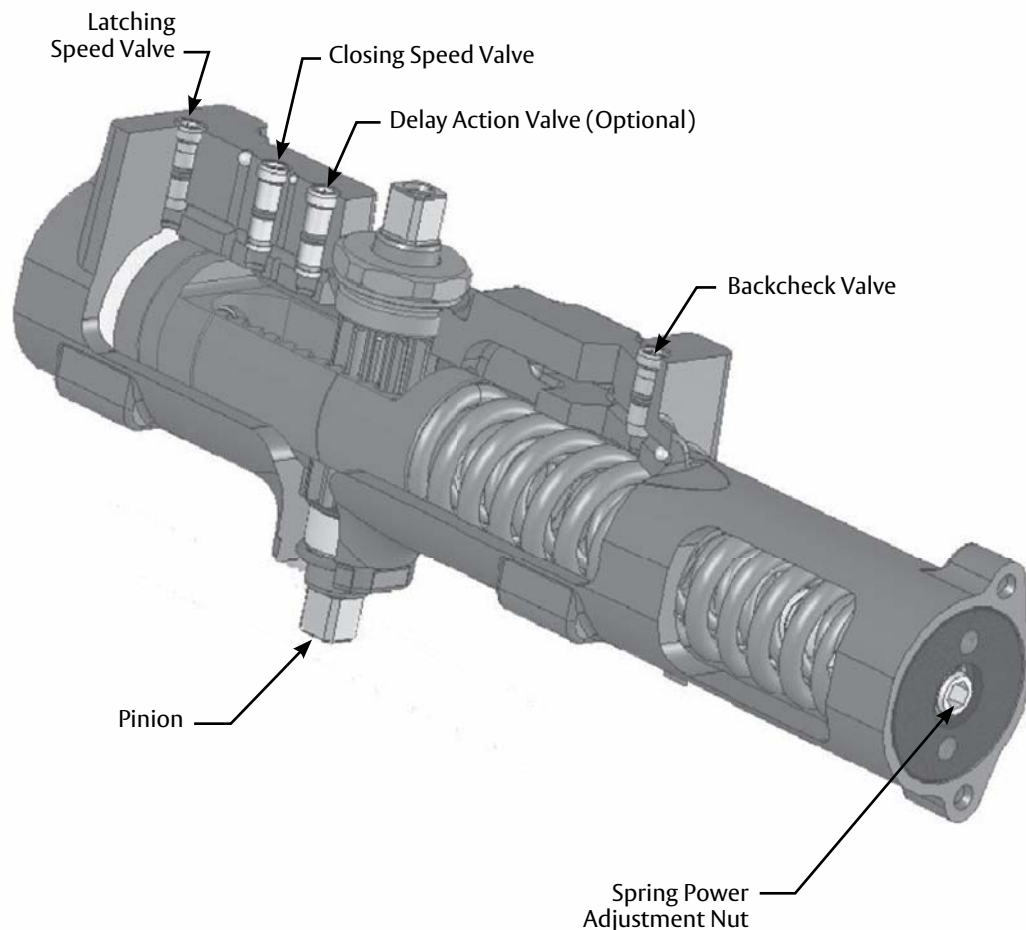
- » Standard, separate and independent, latch, sweep and backcheck intensity valves
- » Pressure relief valves for both opening and closing cycles protect the door and frame from damage and reduces maintenance costs
- » Delayed Action (optional)

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Brackets	18
Fasteners, Finishes, Parts List	19
How to Order	20

9500 SERIES CAST IRON DOOR CLOSER

FUNCTIONS



CERTIFICATIONS

- » ANSI/BHMA A156.4, Grade 1 certified 
- » UL / cUL listed for use on fire rated doors 
- » UL10C listed for positive pressure fire test
- » Comply with requirements for the Americans with Disabilities Act (A.D.A) and ANSI standard A117.1 
- » This product is manufactured in an ISO 9001 facility

CAUTION: Door Closers for Low Opening Force Applications:

Door closers installed in openings required to meet the requirements of the Americans with Disabilities Act or ANSI/BHMA Standard A117.1, when adjusted to meet those requirements, may not provide adequate closing power to dependably close and latch the door.

SPECIFICATIONS

Door closers shall be of full rack and pinion construction with a cold headed heat-treated steel spindle and a forged steel piston precision machined and heat treated. The case shall be of cast iron. All closers for both interior and exterior doors shall be the product of one manufacturer.

Surface closers shall be adjustable to provide sizes 1 through 6 and comply with ADA. All sizes shall be accommodated in one closer body.

Closing shall be controlled by two valves — one to control closing speed and one to control latching speed. Valves shall be concealed against unauthorized adjustment and be non-critical with “O” ring seals. Delayed action shall be available and shall be accomplished with a separate valve.

All arms shall be finely finished with heavy duty forged steel main arm. All closers shall be suitable for regular arm, top jamb, and parallel arm mounting and track type applications when provided with proper brackets and arms. Hold open and heavy duty arms are available. Closers mounted regular arm, top jamb and parallel arm shall allow for full 180° door opening, trim permitting.

Closers shall be available with an adjustable backcheck intensity valve with a safety feature that automatically relieves internal pressure when backcheck has reached the desired adjustment level. Valves shall be accessible without removing the closer from the door.

Closers shall be available with a backcheck intensity valve. Backcheck begins at approximately 70° of door opening for all applications. This valve shall be operative on regular, top jamb, parallel arm, and track type mountings.

Closer covers shall be non-handed to meet a variety of door conditions and design requirements. Closer covers shall be of high impact plastic material of flame retardant grade, secured by machine screws. Projection of the closer body from the door shall not exceed 2-1/4". Closers shall be capable of mounting on 1-3/4" top rail or inverted mounting on 1-3/4" top jamb. Metal covers shall be available. All closers with metal covers shall be available in architectural finishes to match corresponding door hardware.

Closers without hold open shall be regularly furnished with power adjustment arm bracket capable of providing a 15% power adjustment.

A mounting bracket to attach the closer shall be regularly furnished.

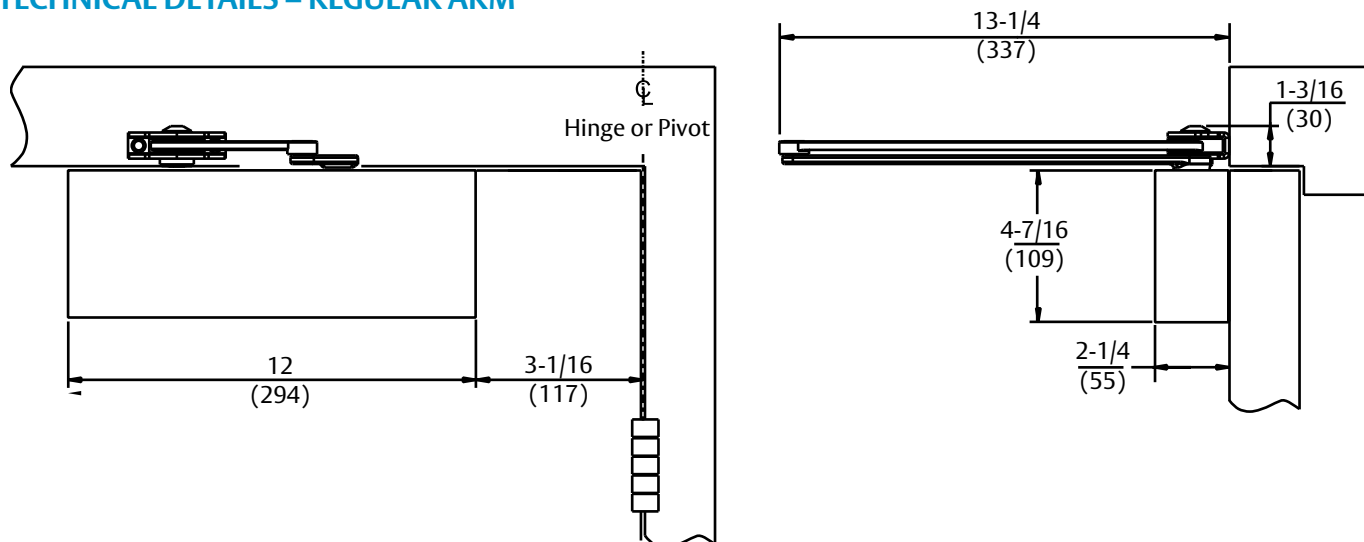
Hydraulic fluid shall be of a type requiring no seasonal valve readjustment due to extreme temperature variations.

Closer shall have a 25-year limited warranty.

Closers with non-hold open arms shall be listed by Underwriters Laboratories.

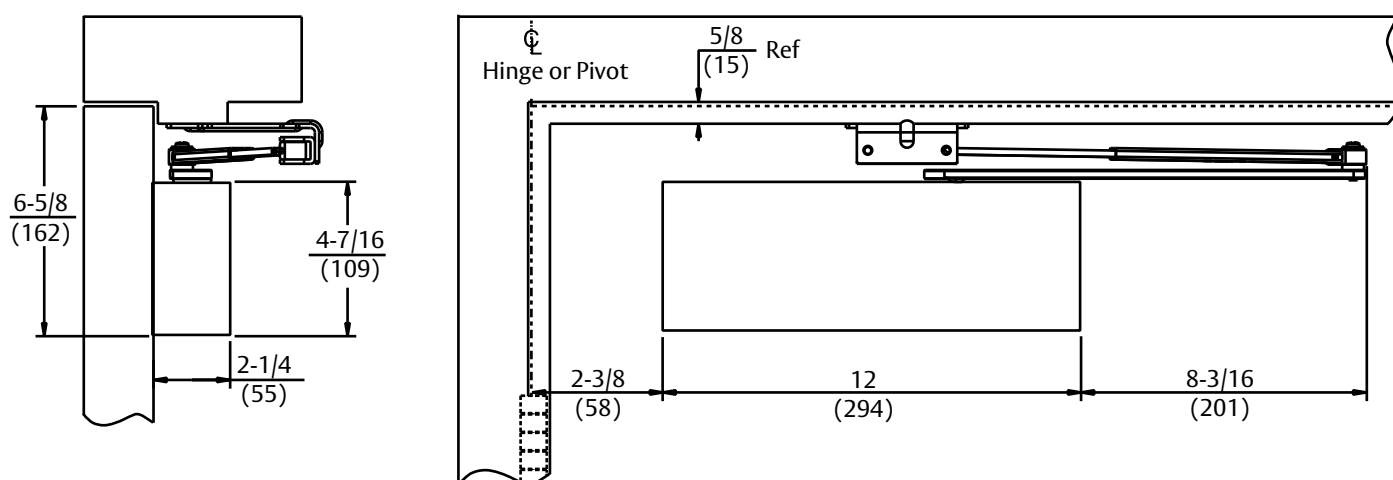
9500 SERIES CAST IRON DOOR CLOSER

TECHNICAL DETAILS – REGULAR ARM



Arm Function	Minimum Header	Minimum Top Rail	Maximum Door Swing
Non-Hold Open	1-1/2" (38)	3" (76)	180° (trim permitting)
Hold Open	1-11/16 (43)		90°-180°

TECHNICAL DETAILS – PARALLEL ARM

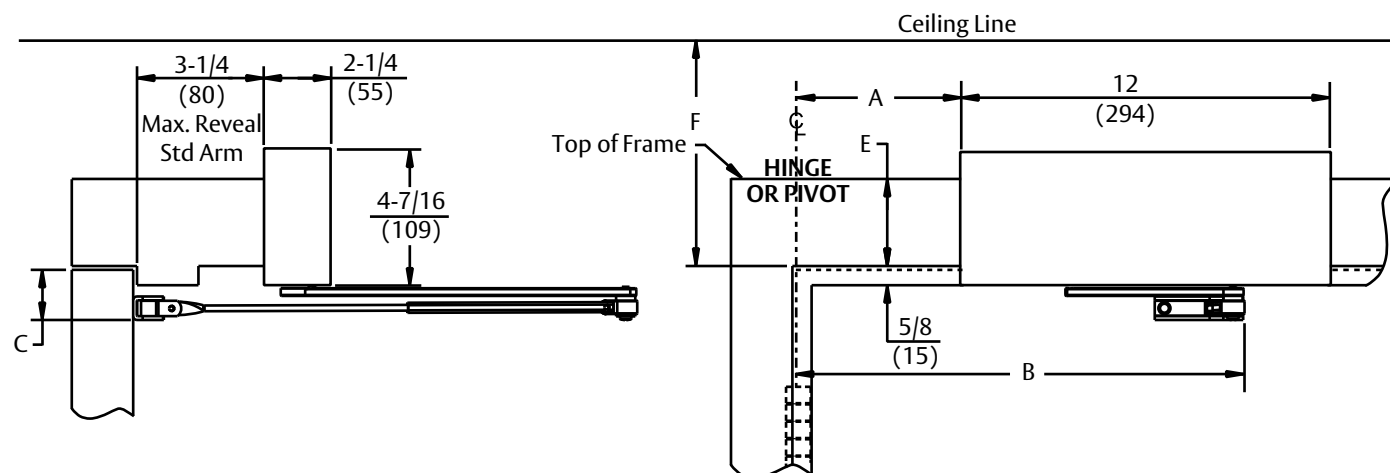


Arm Function	Minimum Top Rail
Non-Hold Open	5-1/4" (133)
Hold Open	

NOTES:

- » Mounting holes for mounting bracket are spaced 1" (25mm) x 10" (254mm).
- » Closers are tri-packed for regular arm, parallel arm and top jamb mounting. Parallel arm bracket is included.
- » Consult factory if door weight exceeds 250lbs.

TECHNICAL DETAILS – TOP JAMB



Maximum Opening	A	B	Hinge Condition
110°	7" (172)	16-1/16" (394)	Butts, Offset Pivots, and Swing Clear Hinges
140°	5-1/2" (135)	14-5/16" (351)	
180°	4" (98)	13-1/16" (320)	
140°	5-1/2" (135)	14-7/16" (354)	^Center Hung

Header Width	C Minimum Top Rail	E Header	F Ceiling Clearance
Standard	1-7/8" (48)	2-1/8" (54)	4" (102)
Narrow	2-1/4" (57)	2" (49)	3-5/8" (92)

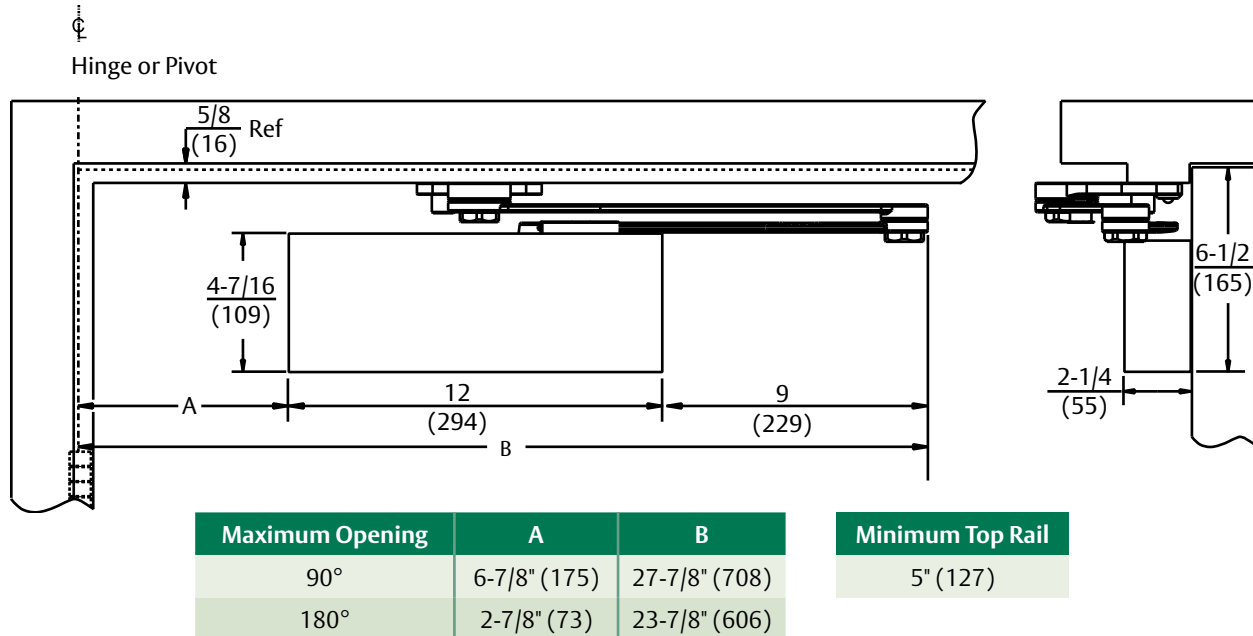
Dimensions "A" and "B" are taken from centerline of hinge as shown and apply to pivot point of swing clear hinges. Offset and center hung pivots.

^Must be single-acting door.

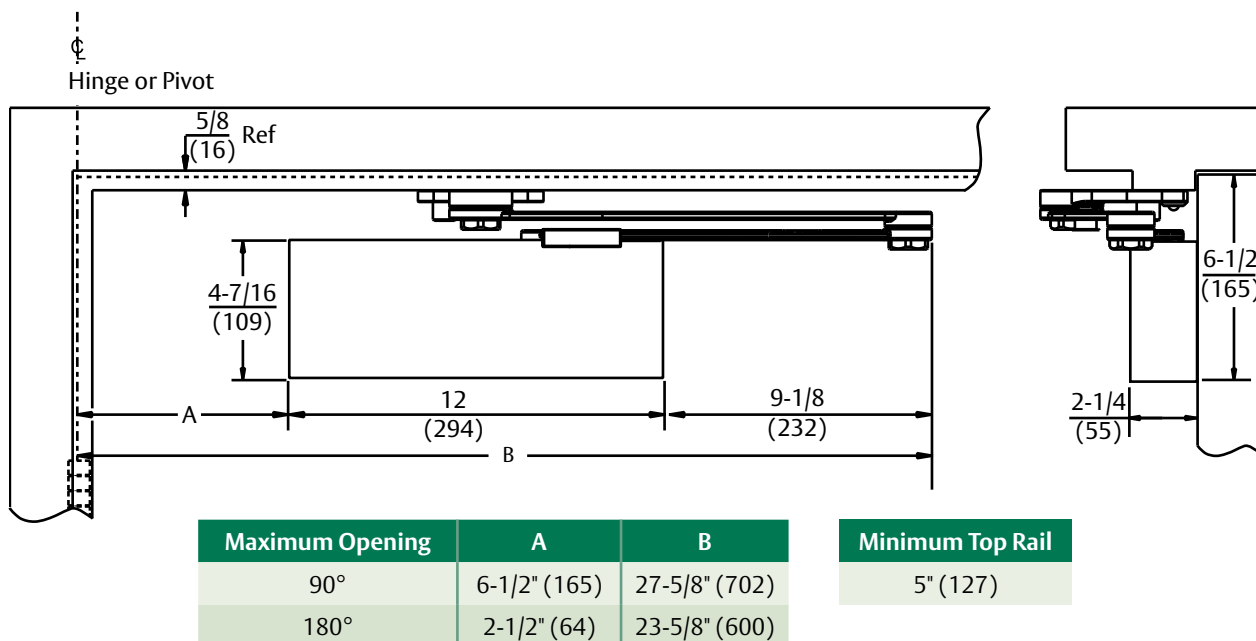
NOTES:

- » Mounting holes for mounting bracket are spaced 1" (25mm) x 10" (254mm).
- » Closers are tri-packed for regular arm, parallel arm and top jamb mounting. Parallel arm bracket is included.
- » Consult factory if door weight exceeds 250lbs.

TECHNICAL DETAILS – PARALLEL RIGID ARM



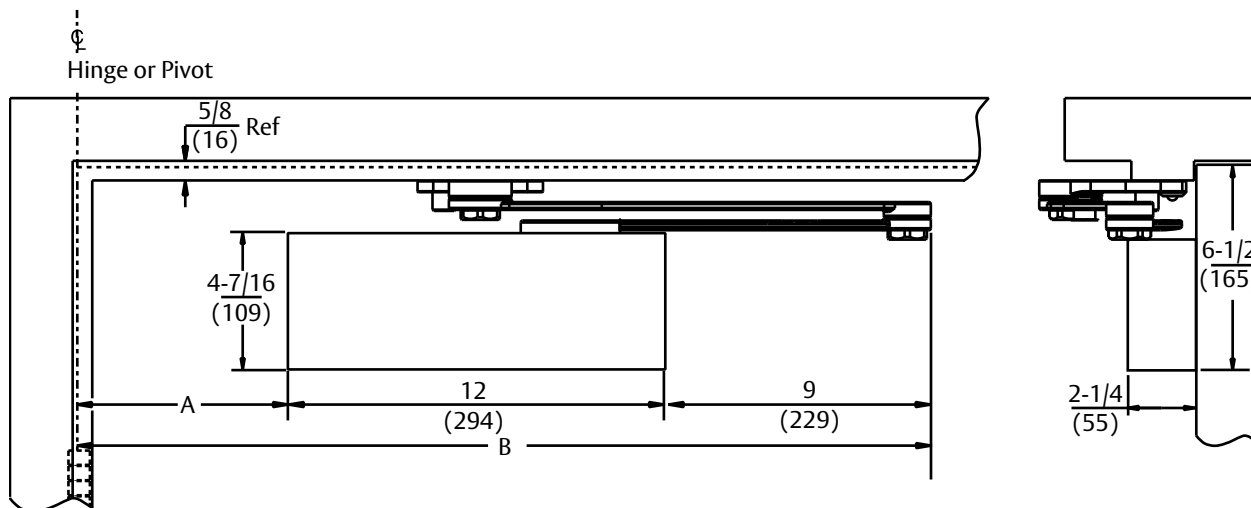
TECHNICAL DETAILS – PARALLEL RIGID, FRICTION HOLD OPEN ARM



NOTES:

- » Mounting holes for mounting bracket are spaced 1" (25mm) x 10" (254mm).
- » Consult factory if door weight exceeds 250lbs.

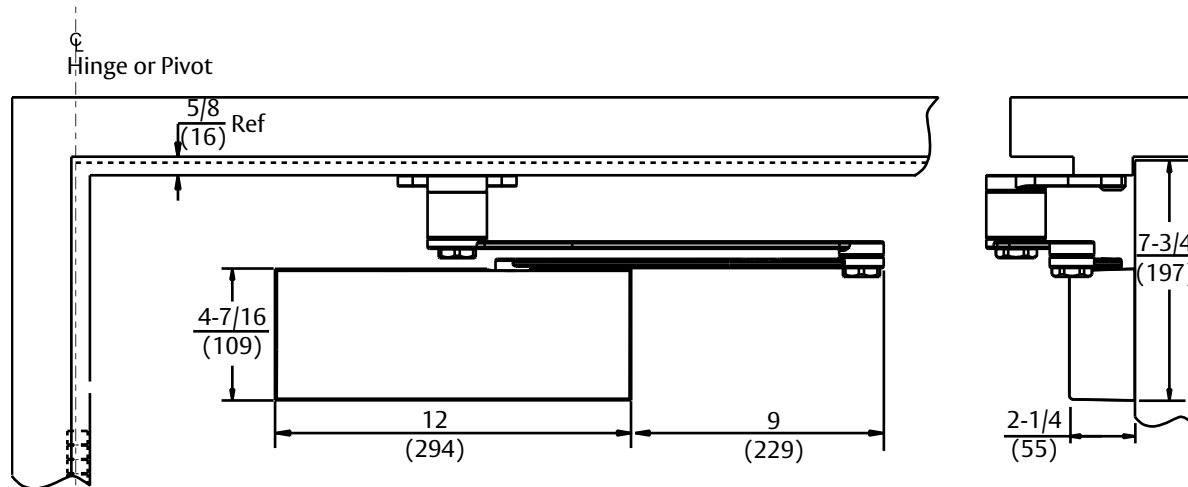
TECHNICAL DETAILS – CLOSER PLUS® ARM



Maximum Opening	A	B
85°	7-3/4" (197)	28-3/4" (730)
90°	6-3/4" (171)	127-7/8" (708)
180°	5-1/4" (133)	26-1/4" (667)
110°	3-7/8" (98)	25" (635)

Minimum Top Rail
5" (127)

TECHNICAL DETAILS – PARALLEL RIGID, FRICTION HOLD OPEN ARM



Minimum Top Rail of Door with 5/8" (16mm) Frame Stop

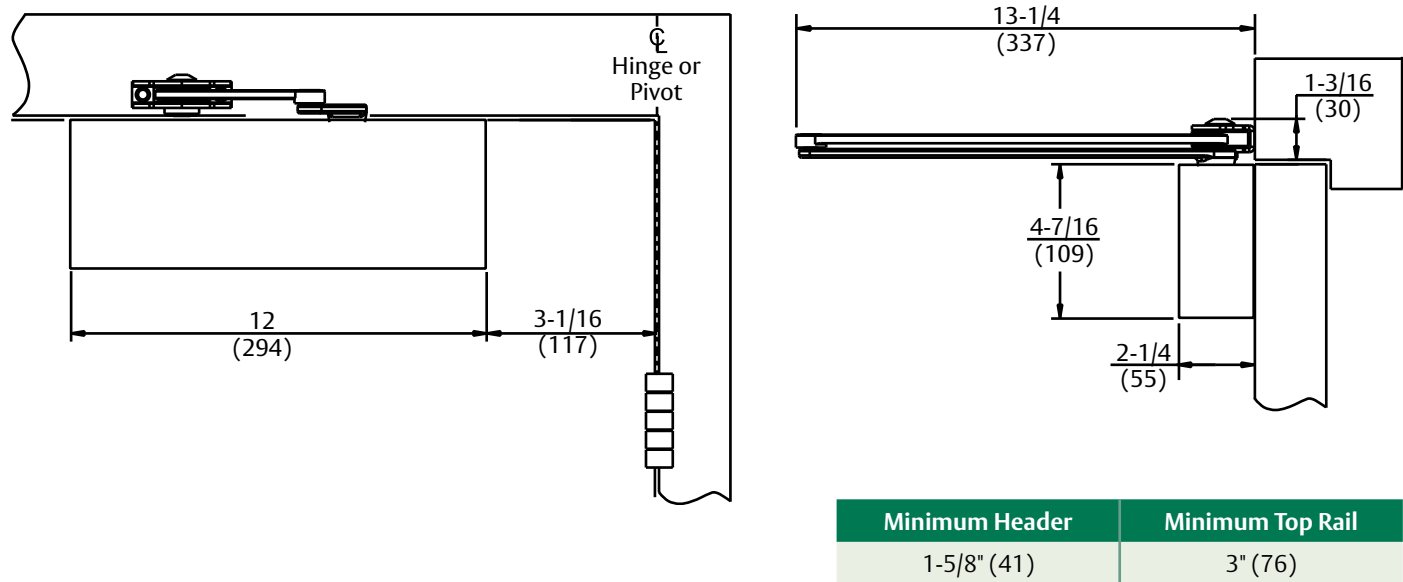
Without 9500-1/2SP Spacer	With 9500-1/2SP Spacer
6-7/8" (175)	7-3/8" (187)

NOTES:

- » Mounting holes for mounting bracket are spaced 1" (25mm) x 10" (254mm).
- » Consult factory if door weight exceeds 250lbs.

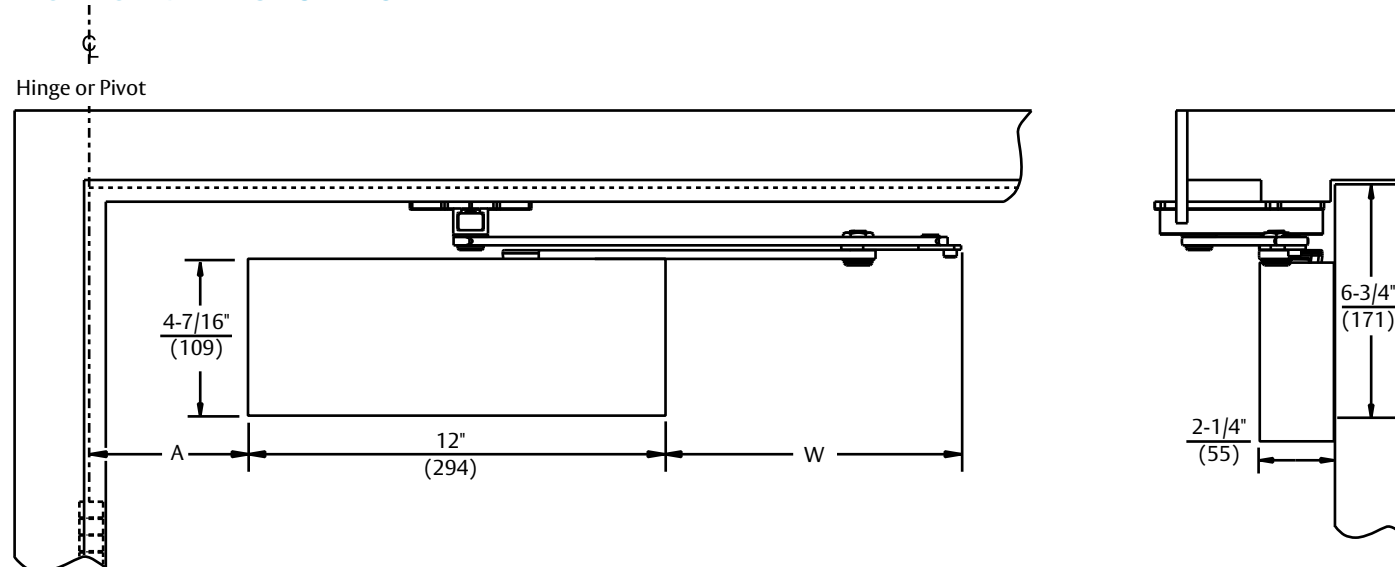
9500 SERIES CAST IRON DOOR CLOSER

TECHNICAL DETAILS – REGULAR RIGID ARM



- NOTES:**
- » Mounting holes for mounting bracket are spaced 1" (25mm) x 10" (254mm).
 - » Consult factory if door weight exceeds 250lbs.

TECHNICAL DETAILS – UNITROL® PARALLEL ARM



Opening		Doors 28" - 32"		Doors 33" - 41"		Doors 42" - 48"	
Hold Open	Dead Stop	A	W	A	W	A	W
85°	90°	4-3/4" (121)	8-1/2" (216)	5-3/8" (137)	10" (254)	5-7/8" (149)	11-3/8" (289)
90°	95°	4-1/4" (108)		4-7/8" (124)		5-3/8" (137)	
95°	100°	3-3/4" (95)		4-3/8" (111)		4-7/8" (124)	
100°	105°	3-3/8" (86)		3-7/8" (98)		4-3/8" (111)	
105°	110°	3" (76)		3-1/2" (89)		4" (102)	
110°	115°	2-3/4" (70)		3-1/4" (82)		3-5/8" (92)	

Minimum Top Rail

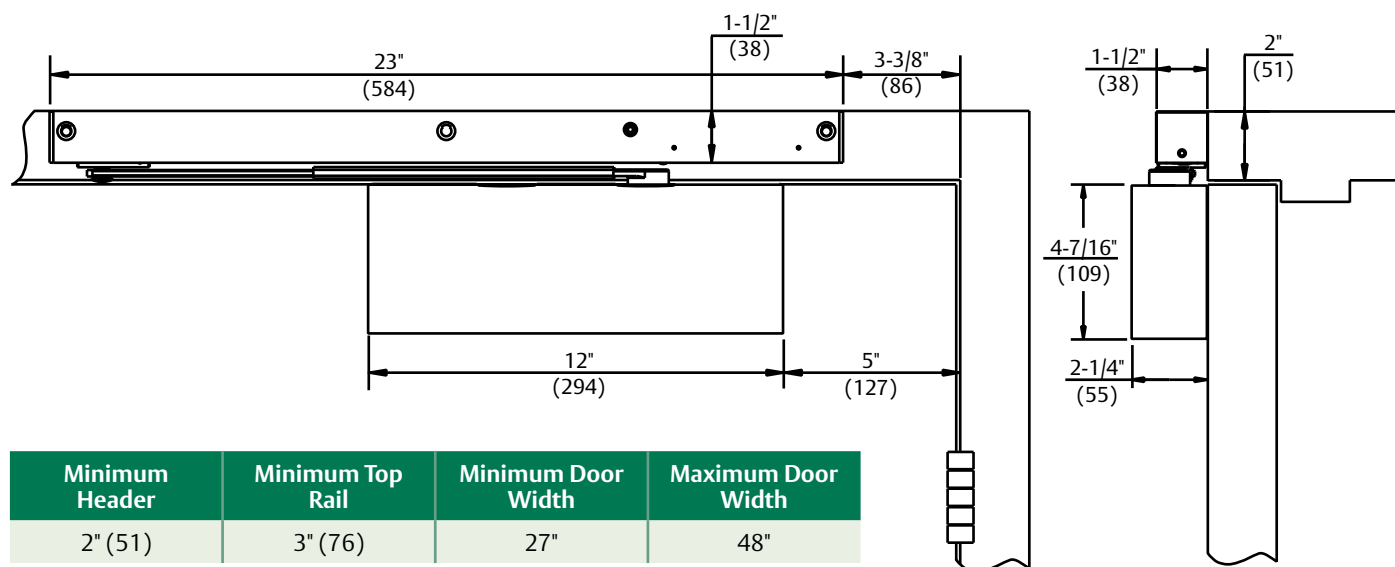
5" (127)

NOTES:

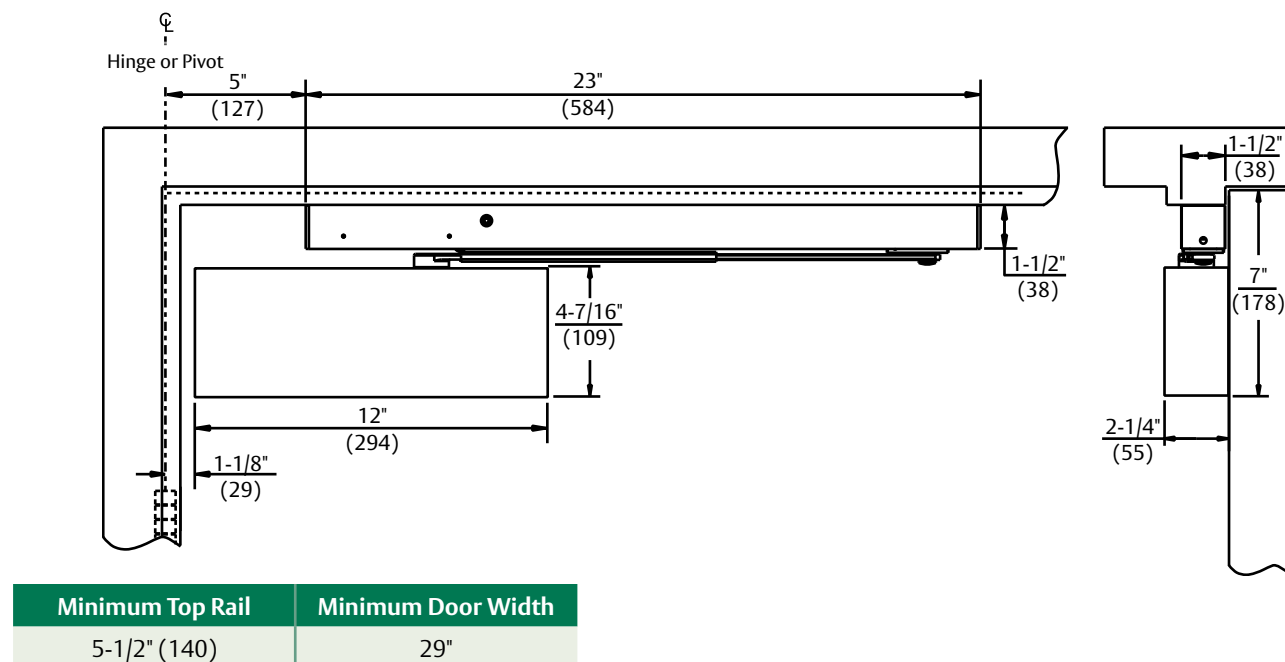
- » Mounting holes for mounting bracket are spaced 1" (25mm) x 10" (254mm).
- » Consult factory if door weight exceeds 250lbs.

9500 SERIES CAST IRON DOOR CLOSER

TECHNICAL DETAILS – PULL SIDE MOUNTING



TECHNICAL DETAILS – PUSH SIDE MOUNTING



NOTES:

- » Mounting holes for mounting bracket are spaced 1" (25mm) x 10" (254mm).
- » Consult factory if door weight exceeds 250lbs.

ARM OPTIONS

Regular Arm

9501-1
(Non-Hold Open)



9501-3
(Hold Open*)



- » Used with Regular Arm mounting (pull side) and Top Jamb mounting (push side)
- » Available in painted or plated finishes

	Part Number	Description
Non-Hold Open	9501-1W	Main arm & tube assembly
	9501-11	Rod & shoe assembly
	9500-HS	Hex screw package
Hold Open	9501-3W	Main arm & rod assembly
	9501-13	Hold open bracket assembly

Parallel Arm

9501-5
(Non-Hold Open)



9501-8
(Hold Open*)



- » Mounted on push side
- » Non-hold open arm – combines regular arm with parallel arm mounting bracket
- » Hold open arm – combines regular hold open arm with parallel arm mounting bracket
- » Available in painted or plated finishes

Top Jamb (Deep Reveal)



- » Accommodates top jamb mounting for reveals from 3-3/8" (86mm) up to 7-1/4" (184mm), depending on door and frame conditions
- » Mounted on push side
- » Available in painted or plated finishes

	Part Number	Description
Non-Hold Open	9501-1B	Arm Assembly
	9501-2W	Main arm & arm tube assy
	9501-11B	Rod & shoe assembly
Hold Open	9501-3B	Arm Assembly
	9501-3WB	Main arm & rod assy
	9501-13	Hold open bracket assy

Specify finish when ordering arms. *Not allowed by code on fire doors.

9500 SERIES CAST IRON DOOR CLOSER

ARM OPTIONS

Parallel Rigid Arm

PR9501-5
(Non-Hold Open)



- » Recommended for high-use, high-abuse environments
- » Tamper-resistant, solid forged steel riveted arm
- » Mounted on push side
- » Not available in plated finishes

Parallel Rigid - Friction Hold Open Arm*



- » Recommended for high-use, high-abuse environment
- » Requires auxiliary stop
- » Allows door to swing 180°, conditions permitting
- » Handed
- » Mounted on push side
- » Not available in plated finishes

Arm Assemblies	Handing
PR9501-8R	Right Hand
PR9501-8L	Left Hand

CloserPlus® Arm

9770-5
(Non-Hold Open)



- » Recommended for high-use, high-abuse environments
- » Tamper-resistant, solid forged steel riveted arm (mounted on push side)
- » Field-reversible steel lug restricts degree of opening to protect door, wall and hardware
- » Requires both backcheck valves on closer
- » Shipped standard as left hand. Handing can be reversed in the field
- » Not available in plated finishes

9870T-8
(Hold Open)*



Specify finish when ordering arms. *Not allowed by code on fire doors.

ARM OPTIONS

Parallel Rigid Offset Arm



- » Recommended for high-use, high-abuse environments
- » Provides additional vertical clearance
- » Mounted on push side
- » Not available in plated finishes

Arm Assemblies	Arm Function
PRO9501-5	Non-Hold Open

Standard Clearance	Blade Spacer Part Number	Total Clearance
1-3/4"	9500-1/2SP	2-1/4"
	9500-5/8SP	2-3/8"

Regular Rigid Arm

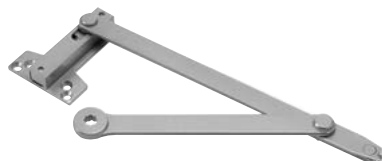
R9501-1 (Non-Hold Open)



- » Recommended for high-use, high-abuse environments
- » Tamper-resistant, solid forged steel riveted arm
- » Mounted on pull side
- » Not available in plated finishes

Unitrol® Parallel Arm

(Non-Hold Open)



(Hold Open)*



- » Recommended for high-use, high-abuse environments
- » Integrates a door closer, shock absorber and auxiliary heavyduty overhead stop
- » Requires both backcheck valves on the closer
- » Hold open*
 - » Holder mechanism tension adjustable
 - » Hold open can be engaged/disengaged with a 1/4 turn of the mechanism with a standard blade type screwdriver
- » Not available in plated finishes

Door Width	Arm Assemblies	
	Non-Hold Open	Hold Open*
28" - 32" (71cm - 81cm)	9100-11	9100-1
33" - 41" (84cm - 104cm)	9100-13	9100-3
42" - 48" (107cm - 122cm)	9100-14	9100-4

Specify finish when ordering arms. *Not allowed by code on fire doors.

9500 SERIES CAST IRON DOOR CLOSER

TRACK OPTIONS

Pull Side Track



- » Provides a clean aesthetic look with maximum 100° door swing and a minimum door width of 28" (71cm)
- » Mounted on pull side
- » Hold open can be set for 85°, 90°, 95°, or 100°
- » Not available in plated finishes

Arm/Track Function	Part Number	
	Track Only	Arm Only
Non-Hold Open	9501ST-1T	9501ST-1A
Hold Open	9501ST-3T	

Push Side Track



- » Clean aesthetic look for doors opening a maximum of 100° and a minimum door width of 32" (81cm)
- » Backcheck option recommended
- » Mounted on push side
- » Hold open*
 - › From 85° to 100°
 - › Turn knob offers the use the option of turning hold open on or off
- » Not available in plated finishes

Arm/Track Function	Part Number	
	Track Only	Arm Only
Non-Hold Open	9501ST-5T	9501ST-1A
Hold Open	9501ST-8T	

Specify finish when ordering arms. *Not allowed by code on fire doors.

COVERS AND PLATES

Full Plastic Cover



9500P

- » Molded ABS plastic cover
- » Completely covers closer body
- » Non-handed
- » Dimensions: 12" (294) x 4-7/16" (109) x 2-1/4" (55)
- » Available in painted finishes only

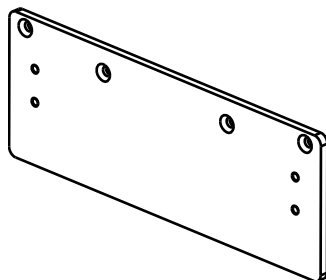
Full Metal Cover



- » For use in high-abuse applications
- » Specify hand; not field reversible
- » Dimensions: 12" (294) x 4-7/16" (109) x 2-1/4" (55)
- » Available in painted and plated finishes

Part Numbers	Handing
9500COVM-R	Right Hand Metal Cover
9500COVM-L	Left Hand Metal Cover

Drop Plate



- » Permits parallel arm or top jamb mounting on door when top rail is too narrow to install closer in the regular manner
- » Minimum 2" (51mm) top rail required
- » To order separately, specify Part No. x Finish

Drop Plate	Used with:
9586	Regular Arm or Pull Side Track
9587	Top Jamb
9588	Parallel Arm or Push Side Track

BRACKETS

Mounting Bracket



9500-CMB

- » Standard on all closers
- » Reduces installation time
- » Ensures correct mounting
- » Bracket is first mounted to door or frame, then closer is attached
- » Bracket size: 3-5/8" (92mm) x 11-1/2" (292mm)
- » Hole spacing: 1" (25mm) x 10" (254mm)

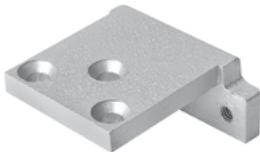
Parallel Arm Hold Open Bracket



9528H

- » Converts regular arm hold open to parallel arm hold open closer
- » Standard with parallel arm hold open mounting

Mortise Arm Bracket for Regular Arm Mounting



9500-MAB

- » For regular arm mounting where frame requires reinforcement, i.e., on frames with bull nose trim
- » Not available in plated finishes

Parallel Arm Offset Bracket



9500-OB

- » Required when parallel arm is used in conjunction with an overhead door holder

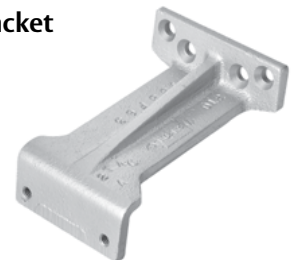
Parallel Arm Non-Hold Open Bracket



9518

- » Converts regular arm to parallel arm closer
- » Standard with parallel arm mounting

Parallel Arm Flush Transom Bracket



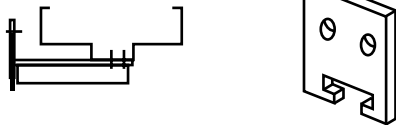
9500-PFTB

- » Required when parallel arm mounting is used on a flush transom application
- » Not available in plated finishes

Specify finish when ordering parts.

BRACKETS

Reinforcing Bracket



9500-RB

- » Supplied as standard for use with Unitrol® arms
- » Provides additional support to the soffit plate on installations with door frame reveals from 1-7/8" to 4-5/8" (48 to 117mm)
- » Not available in plated finishes

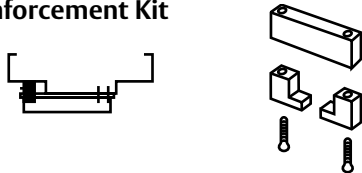
Flush Transom Bracket



9500-FTB

- » Available separately for mounting Parallel Rigid and CloserPlus® arms rabbeted or flush transom conditions
- » Not available in plated finishes

Deep Reveal Reinforcement Kit



9500-DRK

- » For use with Unitrol® arms
- » Used to support the soffit plate on installations with wide frames.
- » Clamps may be used with or without the spacer block, depending on frame conditions
- » Not available in plated finishes
- » For frames deeper than 4-5/8" (117mm), specify closer x 9500-DRK

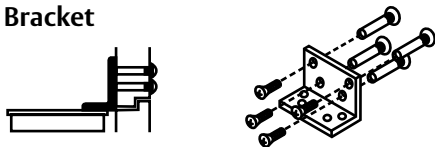
Blade Stop Spacer*



Spacer Size	Part Number
1/2"	9500-1/2SP
5/8"	9500-5/8SP

*Not for use with Unitrol arms

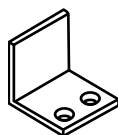
Flush Partition Bracket



9500-FPB

- » For use with Unitrol® arms where rabbeted or flush transom conditions prevent installation of the soffit plate assembly
- » Bracket fastens to the overhead transom to provide a mounting surface for the soffit plate assembly
- » Specify closer x 9500-FP

Angle Support Bracket



9500-AB

- » Available separately for mounting Parallel Rigid and CloserPlus® arms heavy-duty arms on narrow frame or soffit conditions
- » Specify closer x 9500-AB

Power Adjustment Arm Bracket

Maximum Power



Normal Power



- » Standard on all closers without hold open, except heavy-duty and track type
- » In regular arm or top jamb mounting, bracket may be reversed to increase closing power 15%

*Specify finish when ordering parts.

9500 SERIES

CAST IRON DOOR CLOSER

FASTENERS

Self drilling screws (for properly reinforced wood and metal doors) are supplied standard.

Sleeve nuts and bolts (SNB) are supplied standard with Parallel Rigid, CloserPlus® and Unitrol® arms and Slide Track (push and pull) closers. SNB's are optional for Tri-Style® packed closers (Regular, Top Jamb and Parallel arms). Torx® machine screws are optional for all 9500 series.

SCREW PACKS

SP9500	Standard screw package
SP9500SN	Standard screw pack (includes sex nuts)
SP9500SNB	Sex Nuts and Bolts (SNB) for 1-3/4" door
95ASW	Main arm screw & washer
SP9500COV	Cover screw pack

TORX® SCREW PACKS

Arm Type	Part Number
Regular, Top Jamb & Parallel	TX95
Parallel Rigid, CloserPlus®	PRTX95
Regular Rigid Heavy-Duty	RTX95
Unitrol® Arm	UNITX95
Slide Track	TXTK95
70TK	Torx® tool kit

FINISHES

Norton offers waterborne acrylic, polyester powder coat and plated finishes. Custom finishes are available on special order. A sample and approval is required.

Waterborne acrylic and polyester powder coat will withstand 100 hours of salt spray (ANSI requires 25 hours).

PARTS LIST

DOOR CLOSER BODY ASSEMBLIES

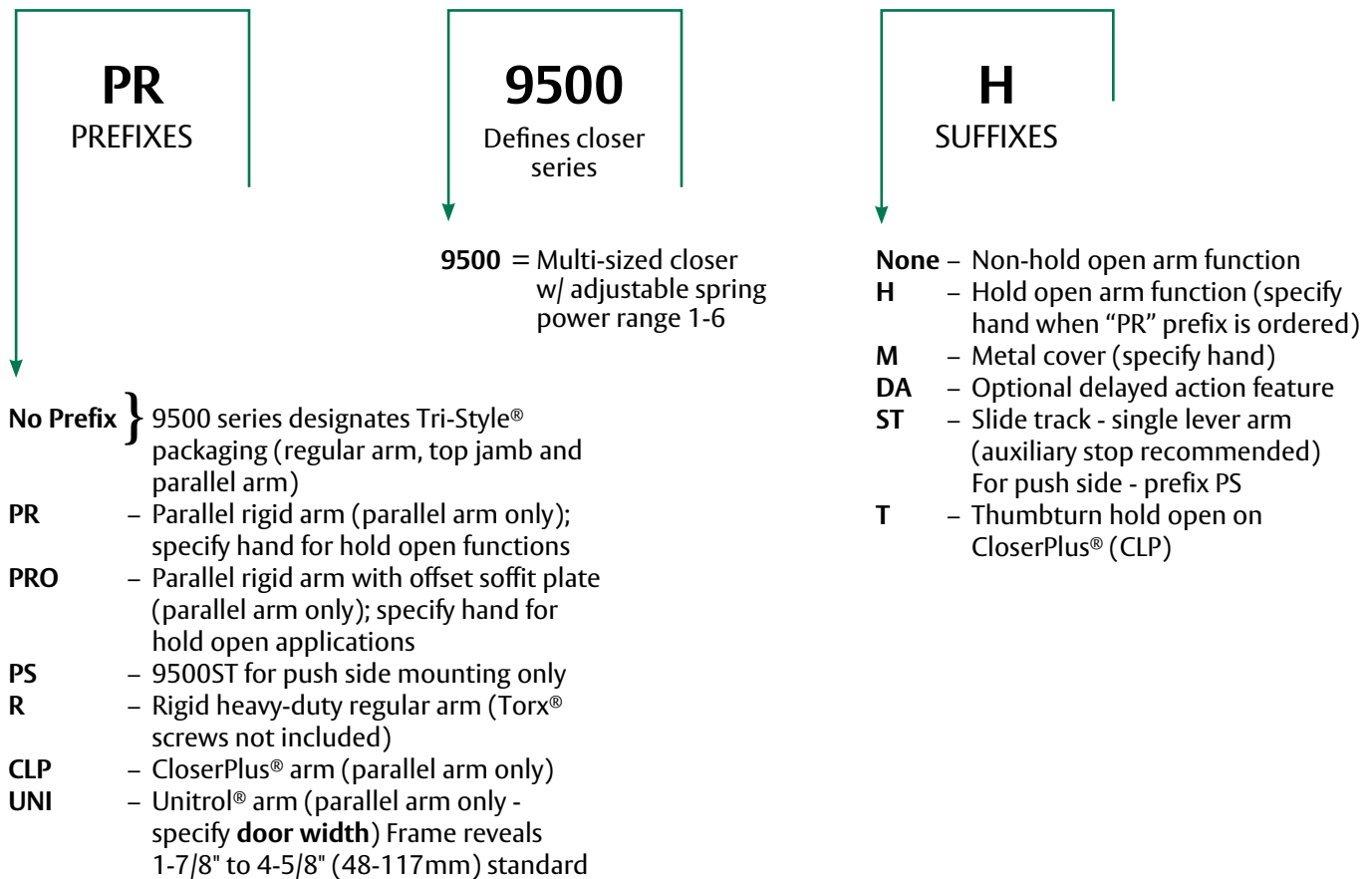
Part Number	Description
9500LAP	Multi-Size Closer Body

ANSI/BHMA	Description
600*	Prime Coat
605^	Bright Brass
606^	Satin Brass
611^	Bright Bronze
612^	Satin Bronze
613E	Dark Oxidized Satin Bronze – Equivalent
619^	Satin Nickel
625^	Bright Chrome
626^	Satin Chrome
689	Aluminum
690	Statuary Bronze
691	Dull Bronze
693	Black
694	Medium Amber
696	Gold
N/A	556 White

^ – Plated finish

HOW TO ORDER

NOTE: For optimum protection of door and frame assemblies, always use auxiliary wall, floor, or overhead door stop.



Notes:

- » Door closer warranty becomes void if it is installed on the exterior side of a door in the exterior wall of a building
- » It is strongly recommended, and it is required on fire door assemblies, that doors having a door closer be hung on ball-bearing or anti-friction hinges or pivots
- » Failure to use the provided type and size fasteners may void factory warranty
- » Fasteners for fire/smoke door assemblies must conform to NFPA 80. In some applications additional fasteners may be mandated by NFPA 80 that are not shipped with Norton's standard product.

Norton®
ASSA ABLOY

ASSA ABLOY is the global leader in door opening solutions, dedicated to satisfying end-user needs for security, safety and convenience

Since 1880, Norton door controls have been an integral part of schools, hospitals and businesses around the globe. When you need products and people that perform at the highest level, rely on Norton – From Open to Close.

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160 Four Valley Drive | Vaughan, Ontario, L4K 4T9 Canada | Tel: 800-461-3007 | Fax: 1-800-461-8989

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Premium retrofit solution for
moderate-to-high traffic applications

Norton®

ASSA ABLOY

ASSA ABLOY, the global leader
in door opening solutions

9540
S E R I E S

DOOR CLOSER

CATALOG

INTRODUCTION

The Norton 9540 Series are premium, cast iron door closers for moderate-to-high traffic applications with ANSI/BHMA Grade 1 certification for a long-life of reliability. A direct replacement for LCN 4040XP door closers, the 9540 Series is an ideal retrofit solution for retail, office, government and other commercial facilities.



FEATURES

- » Cast iron closer body
- » Retrofits LCN 4040XP
- » Non-hold open
- » Non-handed
- » Rack-and-pinion design
- » Staked valves
- » 2-1/4" (57mm) projection
- » 1-1/2" (38mm) diameter piston
- » 5/8" (16mm) diameter pinion journals
- » Mounting bracket
- » Tri-style® packaging: packed for regular, top jamb or parallel arm mounting
- » Adjustable spring sizes 1-6
- » Molded ABS plastic cover
- » Metal covers (optional)
- » 25 year limited warranty

FUNCTIONS

- » Standard, separate and independent, latch, sweep and backcheck intensity valves
- » Pressure relief valves for both opening and closing cycles, protect the door and frame from damage, and reduces maintenance costs
- » Delayed Action (optional)

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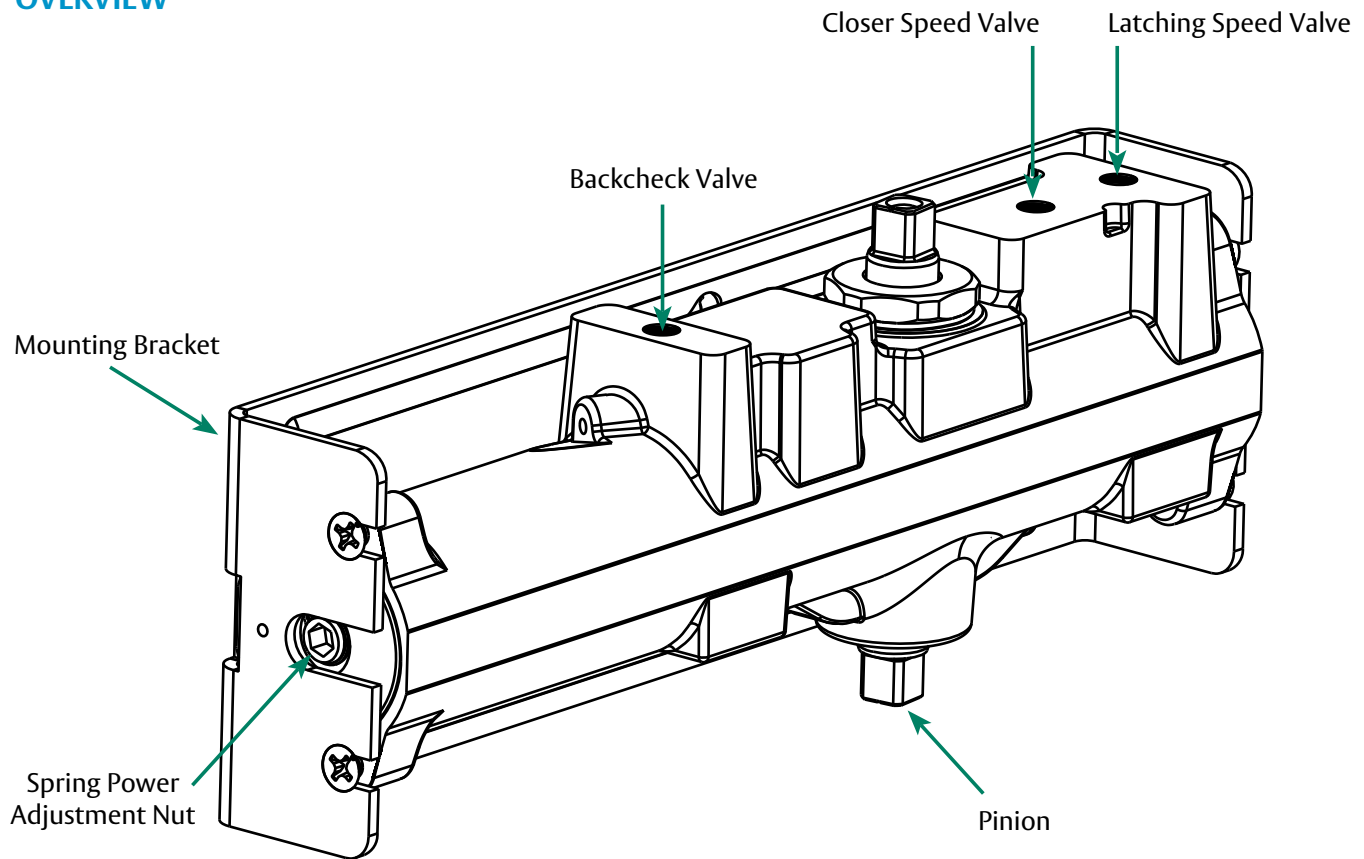
Technical Details4-5

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9540 SERIES CAST IRON DOOR CLOSER

OVERVIEW



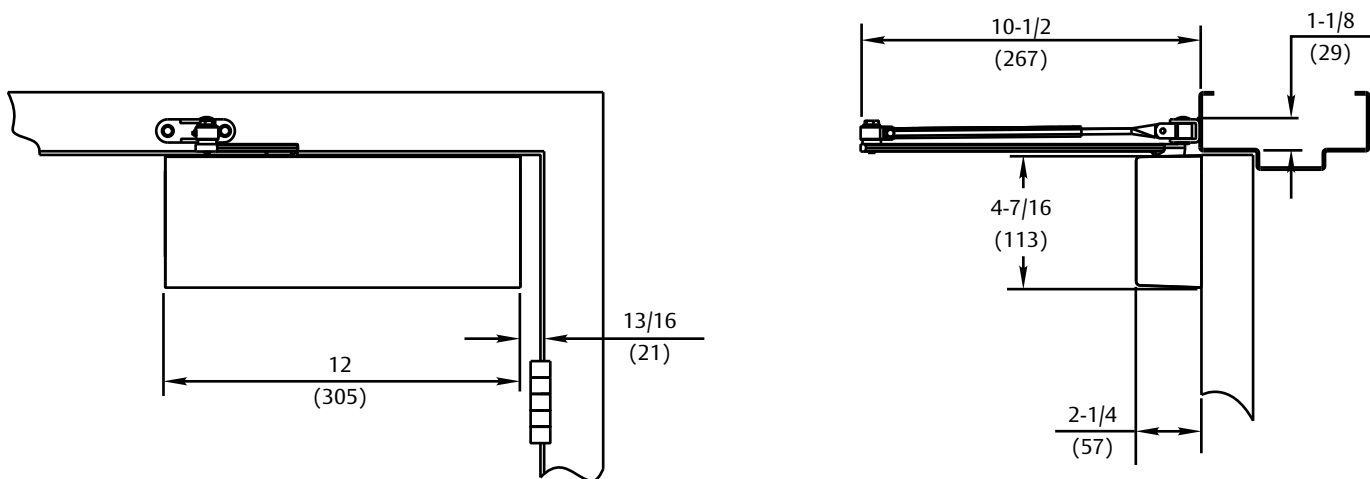
CERTIFICATIONS

- » ANSI/BHMA A156.4, Grade 1 certified 
- » UL / cUL listed for use on fire rated doors 
- » UL10C listed for positive pressure fire test
- » Complies with requirements for the Americans with Disabilities Act (A.D.A) and ANSI standard A117.1 
- » This product is manufactured in an ISO 9001 facility

CAUTION: Door Closers for Low Opening Force Applications:

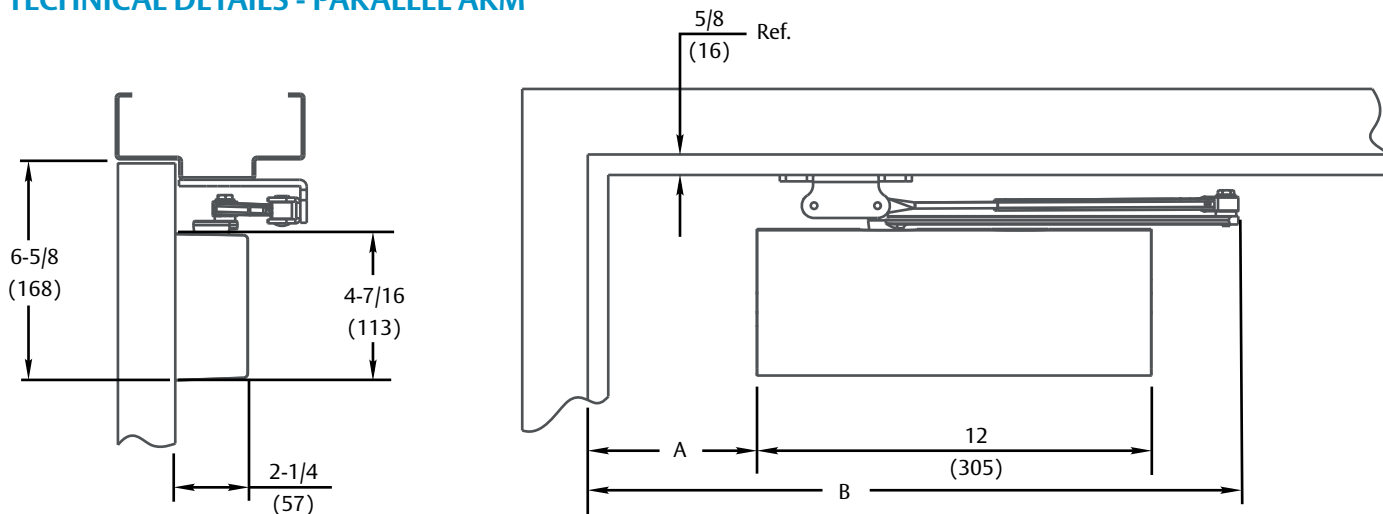
Door closers installed in openings required to meet the requirements of the Americans with Disabilities Act or ANSI/BHMA Standard A117.1, when adjusted to meet those requirements, may not provide adequate closing power to dependably close and latch the door.

TECHNICAL DETAILS-REGULAR ARM



Maximum Door Swing: 120°

TECHNICAL DETAILS - PARALLEL ARM

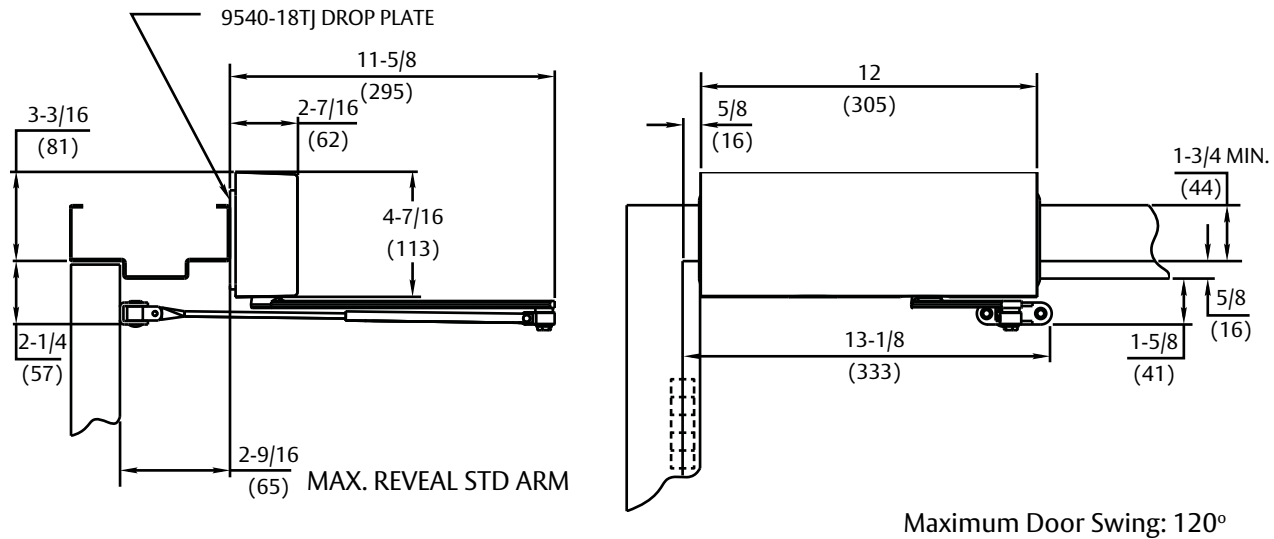


Door Swing	Dimension "A"	Dimension "B"
90°	8-3/16 (208)	22-7/8 (581)
120°	6-5/8 (168)	21-3/8 (543)
180°	5-3/16 (132)	19-7/8 (505)

Minimum Top Rail: 5-5/8" (143)

9540 SERIES CAST IRON DOOR CLOSER

TECHNICAL DETAILS - TOP JAMB



Notes:

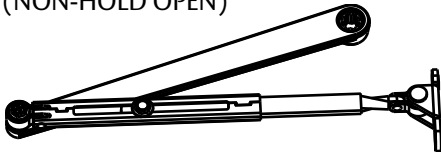
- » Closers are tri-packed for regular arm, parallel arm and top jamb mounting. Parallel arm bracket is included.
- » Consult factory if door weight exceeds 250lbs.

ARM OPTIONS

REGULAR & TOP JAMB ARMS

9541-1

(NON-HOLD OPEN)

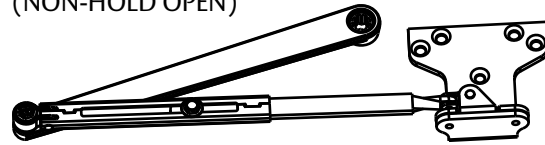


- » Used with Regular Arm mounting (pull side) and Top Jamb mounting (push side)
- » Top Jamb arm will accommodate reveals up to 2-9/16" (65mm)
- » Available in painted or plated finishes

PARALLEL ARM

9541-5

(NON-HOLD OPEN)

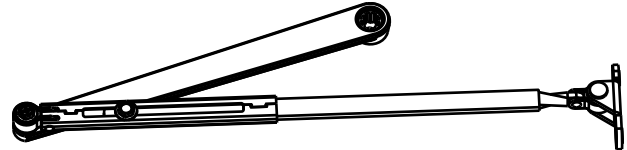


- » Mounted on push side
- » Non-hold open arm – combines regular arm with parallel arm mounting bracket
- » Hold open arm – combines regular hold open arm with parallel arm mounting bracket
- » Available in painted or plated finishes

TOP JAMB (DEEP REVEAL)

(NON-HOLD OPEN)

Arm Assembly	Reveal
9541-1A	2-9/16" – 4-13/16" (65-122mm)
9541-1B	4-13/16" – 8" (122-203mm)

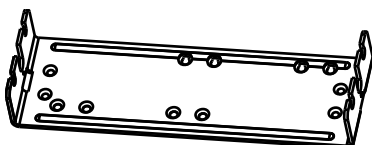


- » Mounted on push side
- » Available in painted or plated finishes

MOUNTING BRACKET

9540-CMB

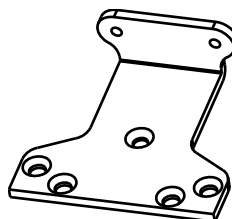
- » Standard on all closers
- » Reduces installation time
- » Ensures correct mounting
- » Bracket is first mounted to door or frame, then closer is attached
- » Bracket size: 3-5/8" (92mm) x 11-1/2" (292mm)
- » Hole spacing: 1" (25mm) x 10" (254mm)



PARALLEL ARM NON-HOLD OPEN BRACKET

9548

- » Converts regular arm to parallel arm closer
- » Standard with parallel arm mounting



9540 SERIES CAST IRON DOOR CLOSER

COVERS AND PLATES

ABS PLASTIC COVER 9500P

- » Completely covers closer body
- » Non-handed
- » Dimensions: 12" (294) x 4-7/16" (109) x 2-1/4" (55)
- » Available in painted finishes only



METAL COVER

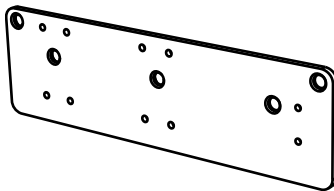
- » For use in high-abuse applications
- » Specify hand; not field reversible
- » Dimensions: 12" (294) x 4-7/16" (109) x 2-1/4" (55)
- » Available in painted and plated finishes



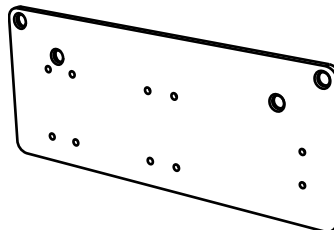
Part Numbers	Handing
9540M-1	Right Hand Application
9540M-2	Left Hand Application

DROP PLATES

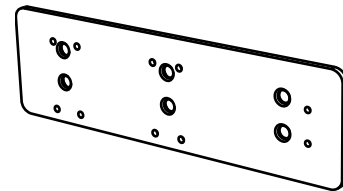
9540-18 REGULAR ARM



9540-18PA PARALLEL ARM



9540-18TJ TOP JAMB



For top jamb mounting with low ceiling clearance, contact Technical Product Support Dept. at 800-438-1951 x 6030.

PARTS LIST

DOOR CLOSER BODY ASSEMBLIES

Part Number	Description
9500LAP	Multi-Size Closer Body

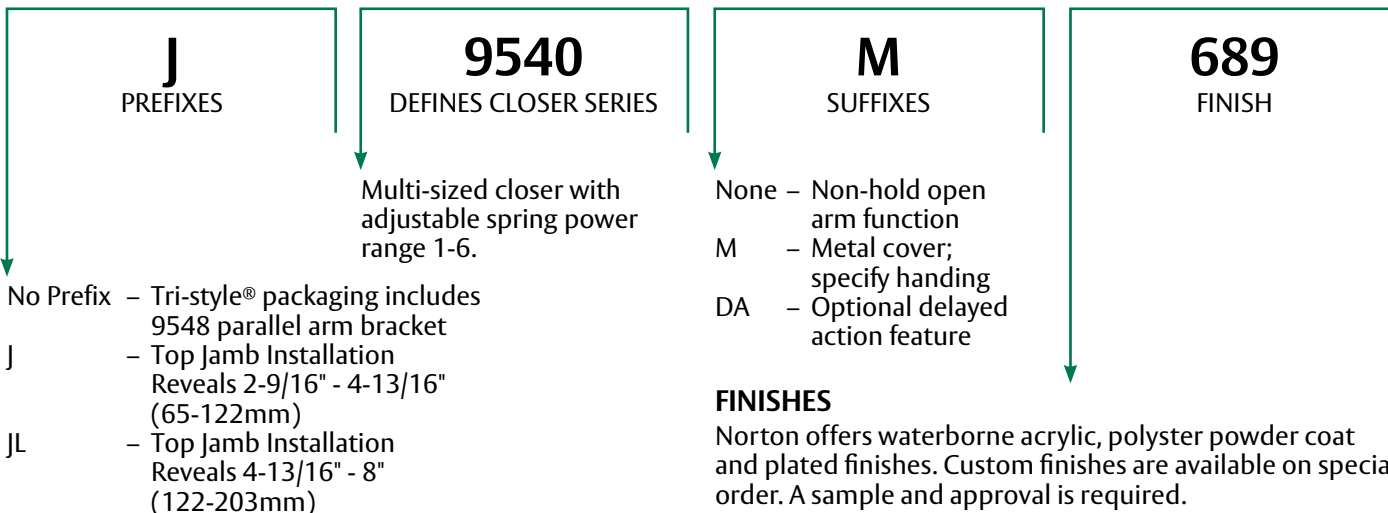
LAP = LESS ALL PARTS

SCREW PACKS

Part Number	Description
SP9540	Standard screw package
SP9540SNB	Sex Nuts and Bolts (SNB) for 1-3/4" door
95ASW	Main arm screw & washer
SP9500COV	Cover screw pack

HOW TO ORDER

NOTE: For optimum protection of door and frame assemblies, always use auxiliary wall, floor, or overhead door stop.



FASTENERS

Self drilling screws (for properly reinforced wood and metal doors) are supplied standard.
Sex Nuts & Bolts (SNB's) are optional for Tri-Style® packed closers (Regular, Top Jamb and Parallel arms).

FINISHES

Norton offers waterborne acrylic, polyester powder coat and plated finishes. Custom finishes are available on special order. A sample and approval is required.
Waterborne acrylic and polyester powder coat will withstand 100 hours of salt spray (ANSI requires 25 hours).

ANSI/BHMA	Description
600*	Prime Coat
605^	Bright Brass
606^	Satin Brass
611^	Bright Bronze
612^	Satin Bronze
613E	Dark Oxidized Satin Bronze - Equivalent
619^	Satin Nickel
625^	Bright Chrome
626^	Satin Chrome
689	Aluminum
690	Statuary Bronze
691	Dull Bronze
693	Black
694	Medium Amber
696	Gold
N/A	556 White

Notes:

- » Door closer warranty becomes void if it is installed on the exterior side of a door in the exterior wall of a building.
- » It is strongly recommended, and it is required on fire door assemblies, that doors having a door closer be hung on ball-bearing or anti-friction hinges or pivots.
- » Failure to use the provided type and size fasteners may void factory warranty.
- » Fasteners for fire/smoke door assemblies must conform to NFPA 80. In some applications additional fasteners may be mandated by NFPA 80 that are not shipped with Norton's standard product.

*600 is a special rust inhibiting prime coat. Closers can be ordered prime coat only (specify closer x 600). An additional charge applies if finish coat is required over prime coat (ex: 5610 x 600 x 689).

^Plated finishes.

- » Norton closer bodies and plastic covers are available in waterborne acrylic finishes. Arms and metal covers are available in powder coat or plated finishes.
- » When a plated finish is ordered, arm and cover will be plated unless "cover only" is specified.

Norton®

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ASSA ABLOY is the global leader in door opening solutions, dedicated to satisfying end-user needs for security, safety and convenience

Since 1880, Norton door controls have been an integral part of schools, hospitals and businesses around the globe. When you need products and people that perform at the highest level, rely on Norton – From Open to Close.

Norton Door Controls | www.nortondoorcontrols.com

3000 Highway 74 East | Monroe, NC 28112 | Tel: 1-877-974-2255 | Fax: 1-800-338-0965

ASSA ABLOY Door Security Solutions Canada | www.assaabloy.ca

160 Four Valley Drive | Vaughan, Ontario, L4K 4T9 Canada | Tel: 800-461-3007 | Fax: 1-905-738-2478

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For interior, non-fire rated doors that need to be automated to offer ADA-compliant accessibility

Norton®

ASSA ABLOY

ASSA ABLOY, the global leader
in door opening solutions

5600
S E R I E S

LOW ENERGY POWER OPERATOR

CATALOG

INTRODUCTION

The 5600 Series, a member of the POWERMATIC® Family of Operators, offers functionality and control at an affordable price. Ideal for retrofit applications, the 5600 Series converts interior, non-fire rated doors for ADA compliance easily and affordably and provides a simple way to achieve touchless environments in public restrooms. Available for push or pull mounting, this unit can be operated manually or activated by wall switches, or radio frequency devices. Easy to install, set-up and adjust, the 5600 Series is perfect for ADA-compliant offices, classrooms and dorm rooms, and touch free applications like public restrooms, labs and examination rooms.



FEATURES

- » Push or pull side mounting
- » Non-handed
- » Quiet operation
- » Electrically controlled backcheck, sweep and latch
- » Activation options: wall switches, radio frequency devices
- » Ease of installation and set-up
- » On/Off Switch
- » Hold open options: 0-30 seconds (5 seconds minimum required for ADA and ANSI/BHMA A156.19)
- » Onboard 24VDC (1.1A) power supply for accessories
- » Door closer mode for manual usage
- » Electronic motor dampening - provides feel of high performance, manual door closer
- » Electric hardware and access control interface

PATENT

- » Pending

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Parts List, Arm Assemblies	5
Accessories, Kits.....	6-7
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FUNCTIONS

- » Push & Go
 - › As the door is manually opened, the operator "senses" movement and opens door to the full-open position
- » Obstruction Detection
 - › Motor stops if door is obstructed during opening
- » Motor Start Delay
 - › 0-5 second delay allows locking hardware to release first
- » Overload Safety Shut-Off
 - › After two minutes of receiving a door activation signal, the unit will time out
 - › Prevents motor/inverter damage
- » Executive™ Kit
 - › Operator is shipped with a transmitter and RF receiver
 - › Press the transmitter once and the door opens; press the transmitter a second time and the door closes
- » Hands-Free Kits
 - › Operator shipped with wave-to-open wall switch
 - › Option of electric strike for mortise or cylindrical lock

ELECTRICAL DATA

- » Power Input; 120 VAC, 60Hz
- » Current Draw: 0.6A
- » Relay Output: SPDT
 - › Normally open/normally closed (jumper)
 - › For electric strike function

CERTIFICATIONS

- » ANSI / BHMA A156.19 certified
- » ETL certified; conforms to ANSI/UL standard 325 for automatic closing doors
- » Comply with requirements for the Americans with Disabilities Act (A.D.A.)
- » This product is manufactured in an ISO 9001, ISO 14001 facility

SPECIFICATIONS

General Specifications

Operators for interior doors shall be products of one manufacturer and be matched in style. Operator (non-fire rated doors) closing force shall be adjustable to ensure adequate closing control and shall simulate conventional door closer opening and closing forces unless the power operator motor is activated or in the event of a power outage to the operator. Operators shall be non-handed and have electrically controlled backcheck, sweep, and latch with manual adjustment to set both the full open and full closed door positions. Maximum door open shall be adjustable up to 95°, pull side mounting, conditions permitting. Operators can be SELECTIVELY ACTIVATED (i.e. external wall switches, radio frequency devices). Operators shall have input line rating of 120VAC, 0.6A, and include on board relay contact for interfacing with products having a rating of 24VDC at 1A. Door operators shall include an external On/Off Switch to defeat powered opening cycle and an internal circuit breaker switch to interrupt input power for servicing. Operators shall be ETL certified and conform to ANSI/U.L. standard 325 for automatic closing doors. Door operators shall be in compliance with the requirements of the Americans with Disabilities Act (A.D.A.) and ANSI/BHMA standard A117.1.

Additional Detailed Specifications

When activated, the door operator shall, by means of an integral motor, power open the door at both a speed and force adjustable to meet accessibility codes. The door shall be powered from a door closed position to a full door open position and remain in momentary hold open for 0 to 30 seconds (adjustable 0 to 30 seconds); (A.D.A. requires 5 seconds minimum hold open). Operators shall be capable of allowing the door to be opened manually from 0 to 95°, conditions permitting. Once door operator reaches full hold open position, if reinitiated, the momentary hold open time shall restart from the initially set hold open time. If door operator is initiated during the closing cycle, the operator shall revert to opening cycle beginning at that door position. Obstruction detection during opening shall neutralize and reverse motor action reverting motor to closed position allowing door to close by means of the integral motor. The obstruction detection feature shall be integral to the door operator. During closing cycle, the door operator shall close door by means of integral motor power not to exceed a closing force of 15 lbf. In the event of power loss, the door will remain in the position at the time of the power loss during the opening or the closing cycles.

STANDARD APPLICATIONS



5610

HINGE (PULL) SIDE OF DOOR

» 95° swing (trim permitting)

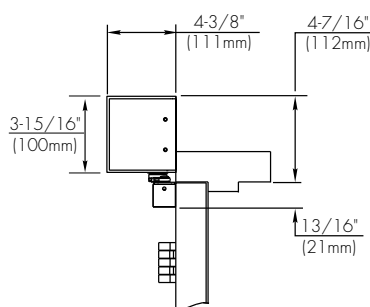
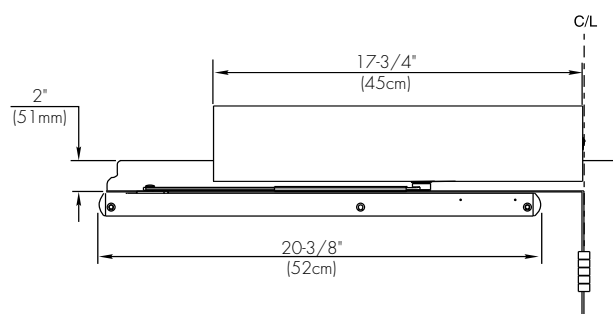
Door width:

Minimum = 32"

Maximum = 36"

An auxiliary stop is recommended.

NOTE: Contact factory if door weight exceeds 150 lbs.



5630

HINGE (PUSH) SIDE OF DOOR

» 110° swing (trim permitting)

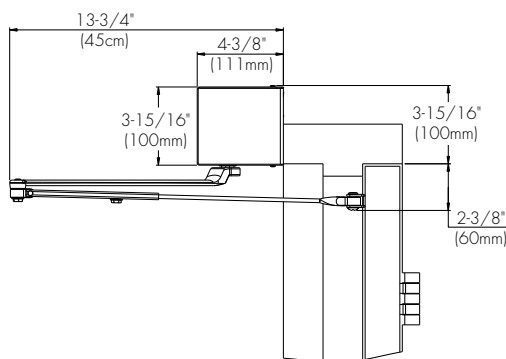
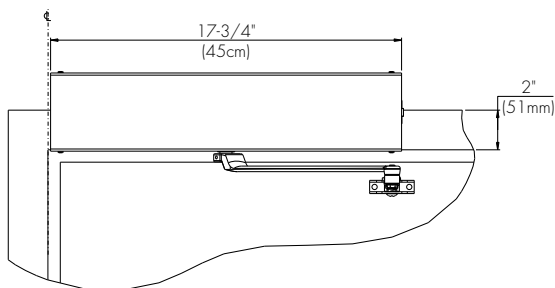
Door width:

Minimum = 32"

Maximum = 36"

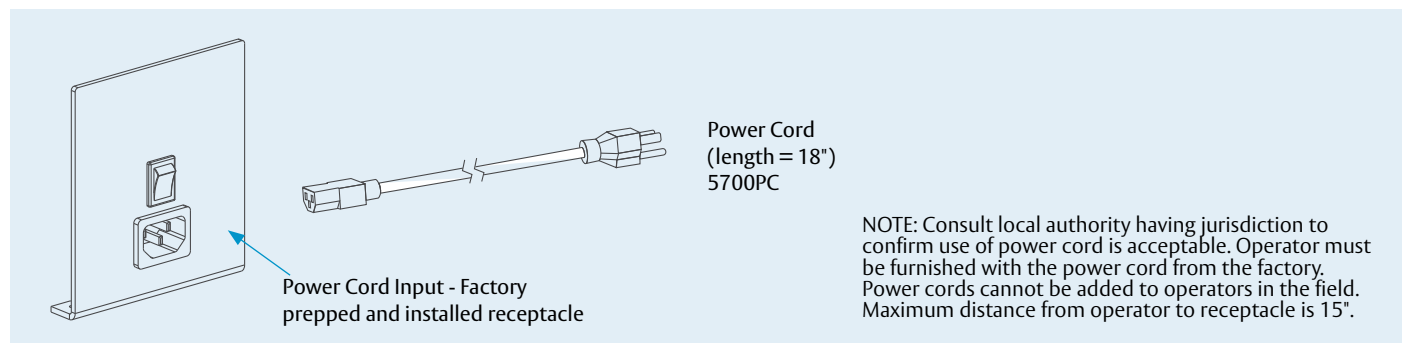
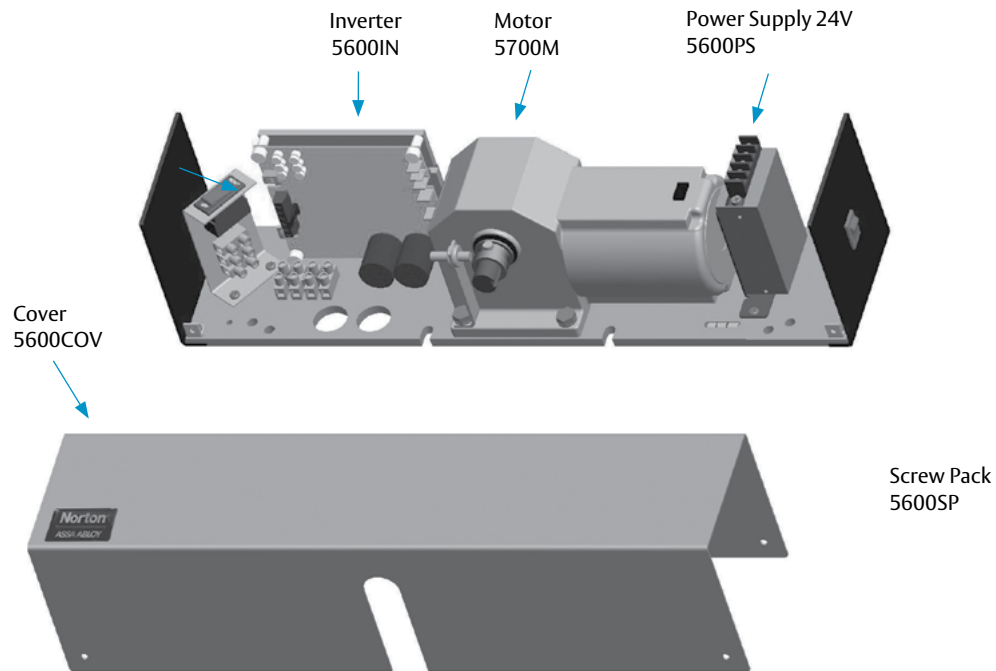
An auxiliary stop is recommended.

NOTE: Contact factory if door weight exceeds 150 lbs.



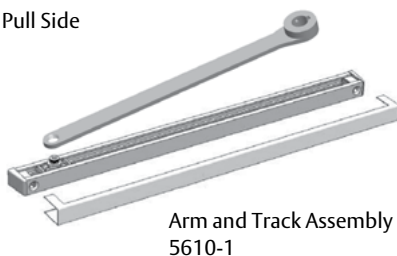
5600 SERIES LOW ENERGY POWER OPERATOR

PARTS LIST



ARM ASSEMBLIES

Pull Side



Push Side



ACCESSORIES



501

502

Activating Door Switches

- » 4-1/2" W. x 4-1/2" H.
- » 15 amp @ 125 VAC
- » Flush mounted – hard wired
- » Fits single or 2 gang electrical box
- » **501** – Stainless steel with black letters
- » **502** – Blue powder coat with white letters
- » Specify #542 to order surface mount box for 501 or 502 switch



505, 531

507, 532



506, 533

534, 535

Activating Door Switches

- » 6" W. x 6" H.
- » 9 volt battery
- » 15 amp @ 125 VAC
- » Flush mounted
- » Stainless steel with blue letters
- » **531, 532, 533** and **535** radio frequency (433MHz) – used with RF option and 539. Supplied with surface mount boxes
- » **507, 505, 506** and **534** hard wired*
- » Surface mounted boxes are not supplied if required, specify:
555 - 6" square surface mount box
557 - 6" round surface mount box

* Switches may also be installed with single or double gang electrical box using fasteners included.



503

Vestibule Switch

- » 1-1/2" x 4-3/4" face plate
- » SPDT UL listed switch-mom
- » 15 amp @ 125 VAC
- » Fits 1-3/4" frame
- » Stainless steel with blue letters



504

Vestibule Switches

- » 5" W. x 4-3/4" H.
- » 2 – SPDT UL listed switches-mom
- » 15 amp @ 125 VAC
- » Fits 2-gang electrical box
- » Stainless steel with blue letters



700

Wave-to-Open Wall Switch

- » Single gang and double gang packaged together
- » Sensor requires movement for activation
- » Variable relay – hold time from 0 – 35 seconds
- » Range 0" to 4"
- » 3" W x 4-3/4" H (single);
- » 4-1/2" W x 4-1/2" H (double)

5600 SERIES LOW ENERGY POWER OPERATOR

ACCESSORIES



539

Radio Frequency Receiver

- » 433 MHz



536

Transmitter

- » 2-3/8" w x 4-3/16" h x 15/16" d
- » Single channel



538

Transmitter

- » 2-3/8" w x 4-3/16" h x 15-16" d
- » Two channel



548

Transmitter

- » Converts existing hard wired push plates to work with RF receivers offered after June 2013
- » Single channel
- » 9 volt

KITS

There are several kits available to convert restrooms to a completely touchless environment.

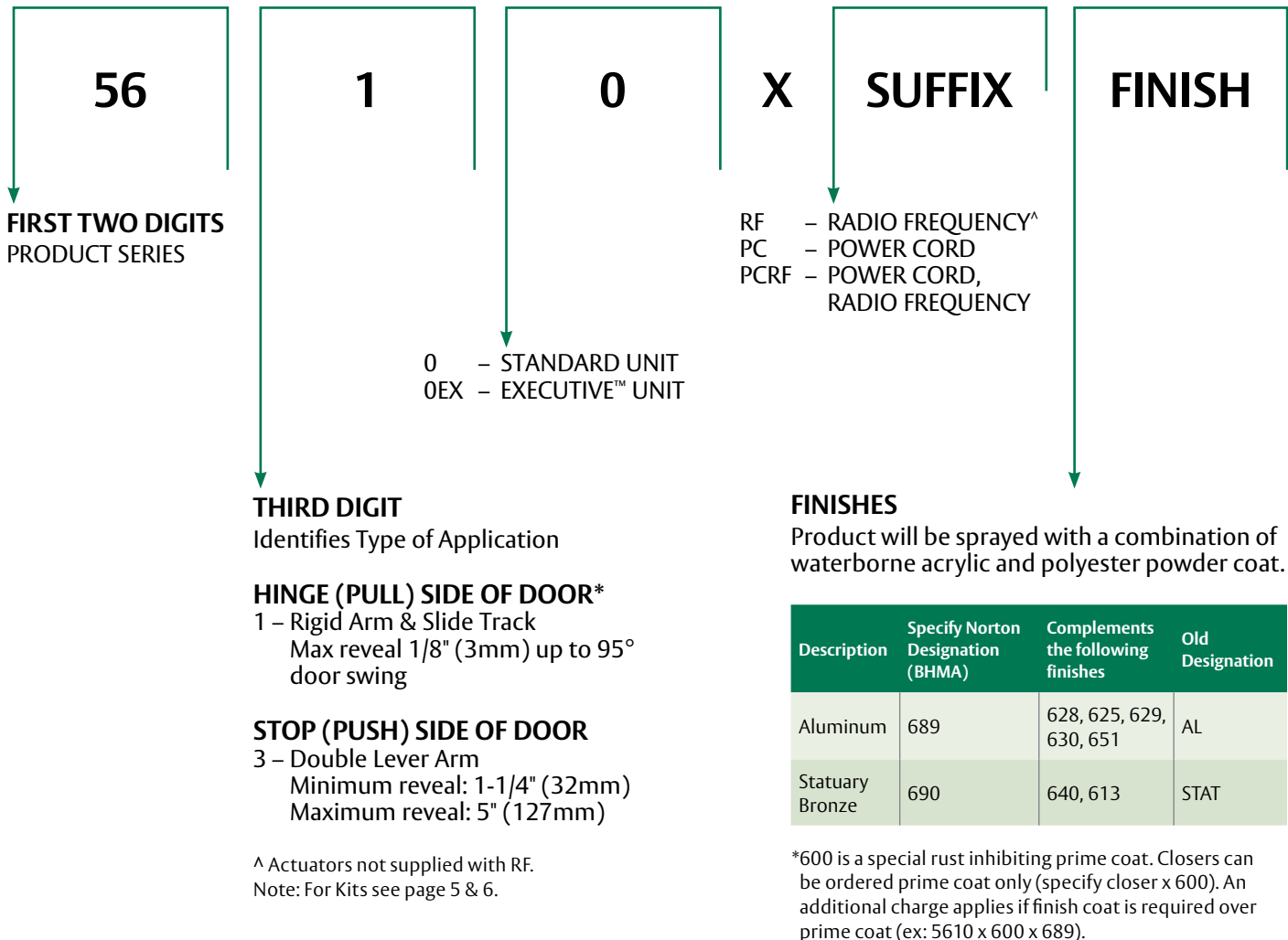
Model Number	Description	Kit Includes				
		Operator		Switches (1 Single & 1 Double Gang)	(1) Strike	
		5610	5630	700	5000C	1006CLB
5610K1	Hands-free kit	✓		✓		
5630K1			✓	✓		
5610K1-SC	Hands-free kit with HES electric strike for cylindrical locks	✓		✓	✓	
5630K1-SC			✓	✓	✓	
5610K1-SM	Hands-free kit with HES electric strike for mortise locks	✓		✓		✓
5630K1-SM			✓	✓		✓

The Executive Function Kits provide wireless door control for offices. Simply press a button and a signal is sent to the door to open; press the button a second time and the door closes.

Model Number	Description	Kit Includes		
		Operator		Transmitter
		5610RF	5630RF	536
5610EX	Executive function	✓		✓
5630EX			✓	✓

HOW TO ORDER

Note: All transmitters (door switches or key fob) must be ordered separately.



Norton® ASSA ABLOY

ASSA ABLOY is the global leader in door opening solutions, dedicated to satisfying end-user needs for security, safety and convenience

Since 1880, Norton door controls have been an integral part of schools, hospitals and businesses around the globe. When you need products and people that perform at the highest level, rely on Norton – From Open to Close.

Norton Door Controls | www.nortondoorcontrols.com

3000 Highway 74 East | Monroe, NC 28112 | Tel: 1-877-974-2255 | Fax: 1-800-338-0965

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Simple ADA solution for
moderate traffic applications

5700 S E R I E S

LOW ENERGY OPERATOR

CATALOG

Norton®

ASSA ABLOY

ASSA ABLOY, the global leader
in door opening solutions

INTRODUCTION

A reliable ADA solution for **moderate traffic applications**, the 5700 Low Energy Operator comprises Norton's heavy-duty 1601 door closer. The use of a hydraulic closer ensures quiet and consistently smooth operation, even when used manually if power is lost. The 5700 offers basic automated door functions and is designed to setup quickly, making it easy to specify and install.

FEATURES

- » Non-handed
- » Push or pull side mounting
- » Comprises heavy-duty Norton 1601 door closer
- » Operates as mechanical surface close during close cycles, when door is opened manually or if power is off
- » Spring force provides the feel of a manual door closer
- » Door can be opened manually if desired
- » Adjustable spring power
- » Backcheck valve
- » Sweep valve & latch valve
- » Unit activation options:
 - › Wall switches
 - › Radio frequency device
- » End-user on/off switch
- » Adjustable door sensitivity
- » Onboard power supply for accessories: 24VDC (1.1A)



BENEFITS

- » Basic features simplify product choice
- » Designed for quick installation, setup and adjustments
- » Hydraulic closer offers quiet and smooth operation

PATENTS

- » United States: 5,881,497, 7,316,096 and 7,484,333
- » Canada: 2,568,877

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FUNCTIONS

- » Hold open options
 - › 0-30 seconds (5 seconds minimum required for ADA and ANSI/BHMA A156.19)
- » Obstruction detection
 - › Motor stops if door is obstructed during an opening
 - › Door closes under manual spring force (not to exceed 15 lbs.)
- » "Push and close"
 - › Allows the operator to skip the hold open time when it is not necessary or required
- » Overload safety shut-off
- » After two minutes of receiving a door activation signal, the inverter will time out and close the door
 - › Prevents motor/inverter damage
 - › Motor start delay for locking hardware
 - › 0-5 second delay to allow locking hardware to release first

ELECTRICAL DATA

- » Power input; 120 VAC, 60Hz
- » Relay output: SPDT
 - › Normally open/normally closed (jumper)
 - › For electric strike function

CERTIFICATIONS

- » ANSI/BHMA A156.19 certified 
- » Meets ANSI/BHMA A156.4 requirements
- » UL / cUL listed for use on fire rated doors 
- » UL10C listed for positive pressure fire test
- » Manufactured in an ISO 9001 and ISO 14001 certified facility
- » Complies with requirements for the Americans with Disabilities Act (A.D.A)

SPECIFICATIONS

Door Controls_____ (interior) (exterior) swinging door(s) shall be of rack and pinion design contained within a precision cast aluminum housing. Door closing force shall be adjustable to ensure adequate closing control. Door closing speed shall be controlled by independent hydraulic adjustment valves in the sweep and latch range of the closing cycle. Door Operator shall provide conventional door closer opening forces unless the power operator motor is activated. Door Operator shall provide conventional door closing forces at all times except in the event of power outage during powered door open cycle. Door Operator opening force and speed shall be adjustable by independent electronic adjustment to ensure adequate opening control per accessibility codes. Door Operator shall have an adjustable hydraulic backcheck valve to cushion the door speed if door is opened violently. Door Operator shall have a manual adjustment to locate both full open and full closed door positions. Maximum door open shall be adjustable and capable to a maximum 180° conditions permitting. [(Door Operator shall be AUTOMATICALLY ACTIVATED, i.e., motion sensor.) (Door Operator shall be SELECTIVELY ACTIVATED by external initiating device, i.e., wall switch, etc.) (Door Operator shall be both AUTOMATICALLY ACTIVATED and SELECTIVELY ACTIVATED.)] Door operator shall have adjustable hold open time capability in range from 5 to 30 seconds. Door operator shall have input line rating of 120VAC, .6A or 240VAC, .3A. Units shall have relay contact for interfacing products having a contact rating of 30VDC at 1A or 125VAC at .5A. Unit shall have an external On/Off Switch to defeat powered opening when desired. Unit shall have an internal circuit breaker switch to interrupt input power for servicing. Unit shall be U.L. Listed for automatic closing door. Unit shall be in compliance with the requirements of the Americans With Disabilities Act (ADA), ANSI standards A117.1 and A156.19. Unit shall meet C-UL US.

ADDITIONAL DETAILED SPECIFICATIONS:

When activated, the unit shall, by means of an integral motor and chain drive, power open the door at both a speed and force that are adjustable to meet accessibility codes. The door shall be powered from a door closed position to a full door open position and remain in momentary hold open for ____ seconds (adjustable 0 to 30 seconds) [(Unit shall power open door to full open position up to 180° (5710); 170° (5730), conditions permitting.) (Unit shall be capable of allowing the door to be opened manually from 0 to 180°, conditions permitting.)] Once unit reaches full hold open position, if reinitiated, unit's momentary hold open time shall restart from the initially set hold open time. If unit is initiated during the closing cycle, unit shall revert to opening cycle beginning at that door position. Obstruction detection on open shall neutralize and reverse motor action reverting motor to closed position thus allowing door to close under closer spring force only. This obstruction detection feature shall be integral to unit. During closing cycle, the unit shall close door under spring power not to exceed a closing force of 15 lbf.

APPLICATIONS

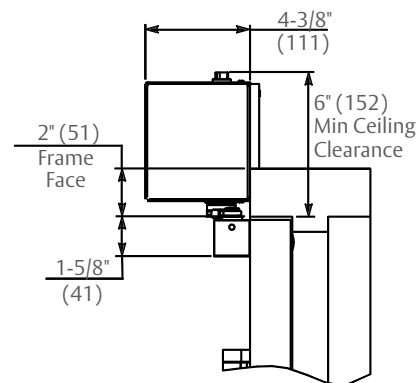
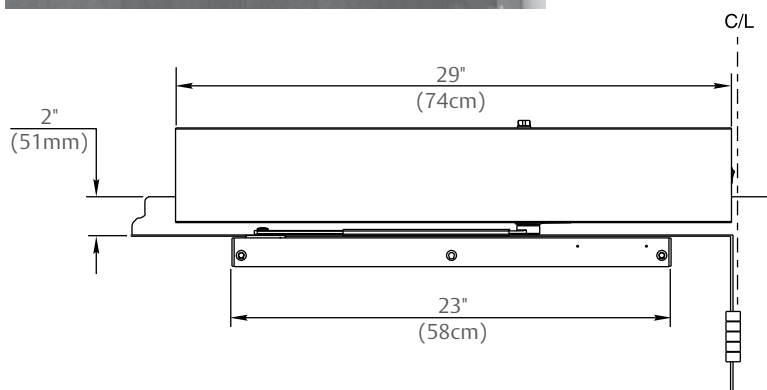


5710 HINGE (PULL) SIDE OF DOOR

- » Adjustable Stop
- » 110° swing (trim permitting)

Minimum Door width
Single Door – 29" (74cm)
Double Door – 30" (76cm)

An auxiliary stop is suggested
where severe conditions exist.

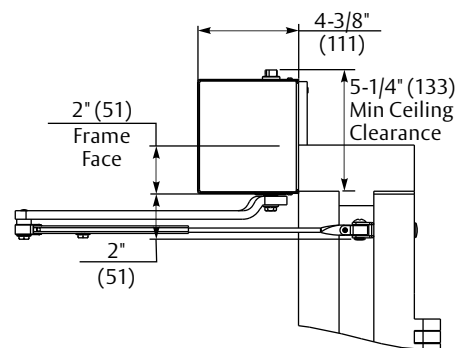
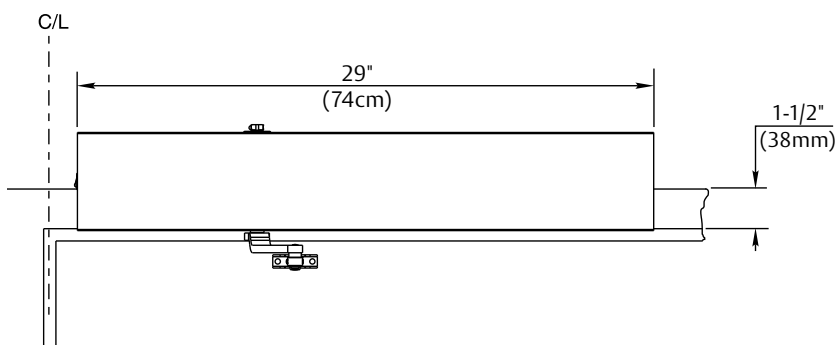


NOTE: Contact factory if door weight exceeds 250 lbs.



5730 STOP (PUSH) SIDE OF DOOR Standard Duty Double Lever Arm

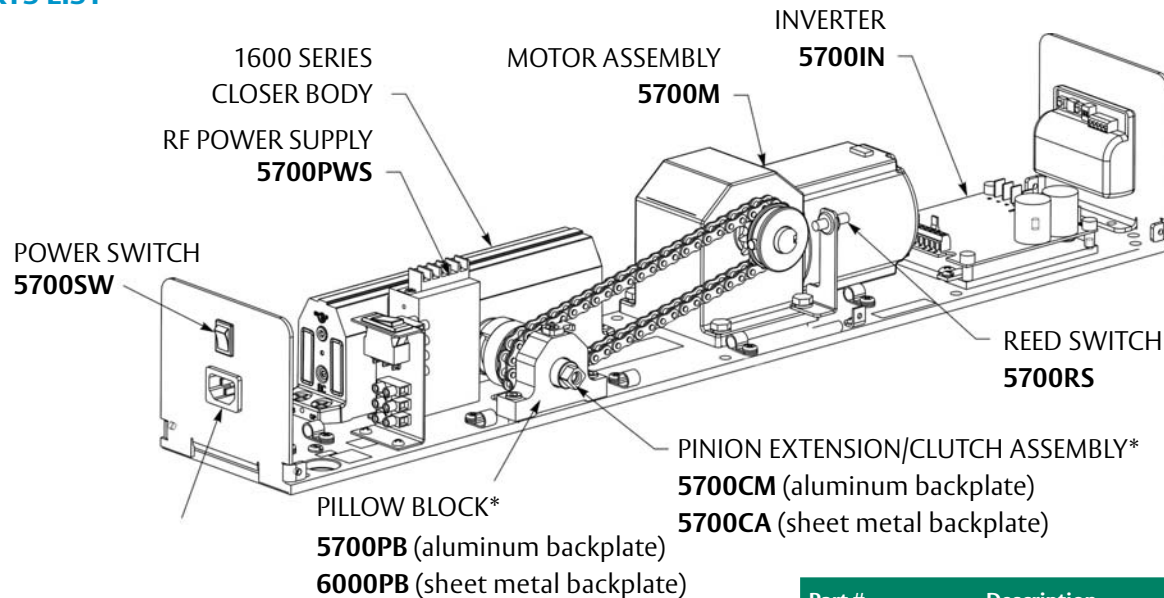
- » Frame reveals 2-5/8" to 6-3/4" (67-171mm)
- » An auxiliary door stop is required for these applications.
- » 170° swing (trim permitting)



NOTE: Contact factory if door weight exceeds 250 lbs.

5700 SERIES LOW ENERGY OPERATOR

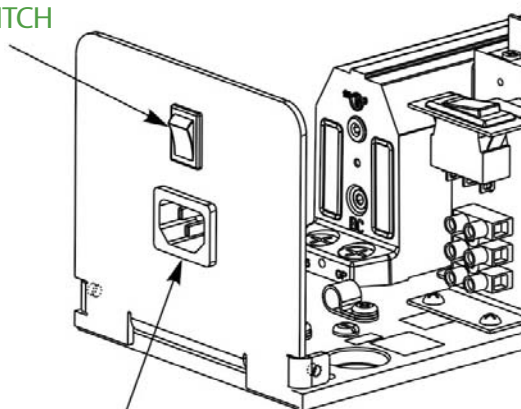
PARTS LIST



* NOTE: Pinion Extension/Clutch Assembly and Pillow Block part numbers depend on the backplate shipped with your unit.

Part #	Description
5700CVR	Cover
5700C	Chain
5700DPA	Door Position Adjustment Assembly

POWER SWITCH 5700SW



POWER CORD INPUT
Factory prepped and installed receptacle

POWER CORD 5700PC



(125V / 10A RATED 18AWG 18 INCHES MAX.,
NEMA 5-15P AND IEC320-C13 CONNECTORS
CORD MUST BE UL LISTED.)

NOTE: Consult local authority having jurisdiction to confirm use of power cord is acceptable. Operator must be furnished with the power cord from the factory. Power cords cannot be added to operators in the field. Maximum distance from operator to receptacle is 15".

ARM AND TRACK ASSEMBLIES



#5710-1 - Arm and Track Assembly
#7701ST-1A - Arm Assembly
#7200-1T - Track Assembly



#7701-1A - Arm Assembly
#7701-1W - Main Arm & Rod
#7701-11A - Adjusting Tube & Shoe

ACCESSORIES



663*

Motion Sensor

- » 4-3/4" x 3-3/16" x 2" projection
- » Unidirectional
- » Black cover
- » SPDT relay
- » Adjustable angle pattern
- » 24 VDC input
- » Must not be placed where motion of door can be sensed



501



502

Activating Door Switches

- » 4-1/2" W. x 4-1/2" H.
- » 15 amp @ 125 VAC
- » Flush mounted – hard wired
- » Fits single or 2 gang electrical box
- » **501** – Stainless steel with black letters
- » **502** – Blue powder coat with white letters
- » Specify #542 to order surface mount box for 501 or 502 switch

Switch Post

- » 4" x 6" x 40" x 3/16" wall thickness
- » 9 volt battery
- » RF temperature range: -4° F to 122° F
- » 689 (aluminum) or 690 (dark bronze) finishes; specify when ordering
- » Standard formed plastic cap
- » Surface mounted (above ground)
- » **530** – radio frequency transmitter
- » **500** – hard wired switch
- » **530POST** – post only; switch not included



500 & 530



505, 531



507, 532



506, 533



534, 535

- » 6" W. x 6" H.
- » 9 volt battery
- » 15 amp @ 125 VAC
- » Flush mounted
- » Stainless steel with blue letters
- » **531, 532, 533** and **535** radio frequency (433MHz). Used with RF option and 539. Supplied with surface mount boxes.
- » **507, 505, 506** and **534** hard wired[^]. Surface mounted boxes are not supplied. If required, specify:
555 - 6" square surface mount box
557 - 6" round surface mount box

* Use of motion sensor must be approved by local authority having jurisdiction.

[^] Switches may also be installed with single or double gang electrical box using fasteners included.

5700 SERIES LOW ENERGY OPERATOR

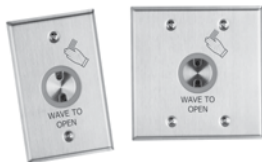
ACCESSORIES



503



504



700



638, 639

Vestibule Switches

- » 1-1/2" x 4-3/4" face plate
- » SPDT UL listed switch-mom.
- » 15 amp @ 125 VAC
- » Fits 1-3/4" frame
- » Stainless steel with blue letters

- » 5" W. x 4-3/4" H.
- » 2 – SPDT UL listed switches-mom.
- » 15 amp @ 125 VAC
- » Fits 2-gang electrical box
- » Stainless steel with blue letters

Wave-to-Open Wall Switch

- » Single gang and double gang packaged together
- » Sensor requires movement for activation
- » Variable relay – hold time from 0 – 35 seconds
- » Range 0" to 4"
- » Dimensions:
3" W x 4-3/4" H (single);
4-1/2" W x 4-1/2" H (double)

Low Profile Push Plate

- » 36" x 6" activation zone
- » 1" low profile depth
- » Stainless steel face plate
- » Adapts to either wireless or hardwired installations
- » 638 - Wireless
- » 639 - Hardwired

EXECUTIVE PACKAGE



539



539



536



538



548

5900EXPG

(includes receiver 539 and transmitter 536)

Radio Frequency Receiver 539

- » 433 MHz

Transmitters

- » 2-3/8" w x 4-3/16" h x 15/16" d
- » Single channel

- » 2-3/8" w x 4-3/16" h x 15/16" d
- » Two channel

- » Converts existing hard wired push plates to work with RF receivers offered after June 2013
- » Single channel
- » 9 volt

OPERATIONAL SIGNAGE

679 Signage Kit (supplied standard)



(1 per switch)



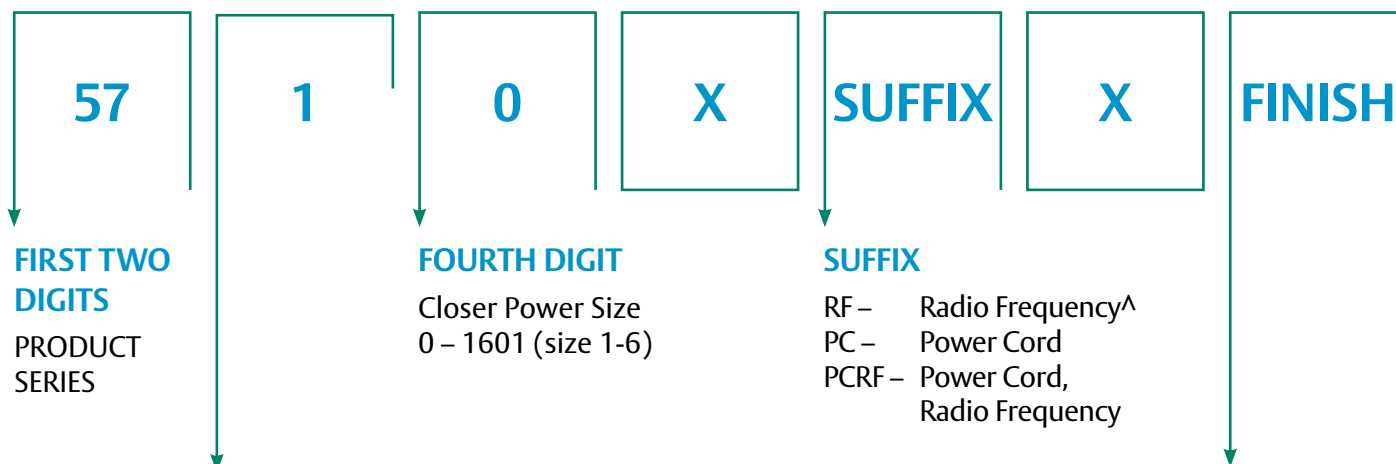
(1 per switch)



(2 per operator)

All hard wired switches are Momentary Contact SPDT, UL Listed. Optional DPDT switches are available; suffix "D" to model number.

HOW TO ORDER



THIRD DIGIT

Identifies Type of Application

HINGE (PULL) SIDE OF DOOR

1 – Rigid Arm & Slide Track
Max reveal 1/8" (3mm)

STOP (PUSH) SIDE OF DOOR

3 – Double Lever Arm
Minimum reveal: 2-5/8" (67)
Maximum reveal: 6-3/4" (171)

UNIVERSAL UNIT – PUSH OR PULL SIDE MOUNTING

4 – Includes push and pull arms. Units shipped as a Rigid Arm/Slide rack; can be converted to a Double Lever Arm in field

Description	Specify Designation (BHMA)	Complements the following finishes	Old Designation
Aluminum	689	628, 625, 629, 630, 651	AL
Statuary Bronze	690	640, 613	STAT
Dull Bronze	691	612, 637, 639	DB
Black	693	315	315
Medium Amber	694	312	312
Gold	695	605, 606, 632, 633	GB
Prime Coat	600*		SRI

*600 is a special rust inhibiting prime coat. Closers can be ordered prime coat only (specify closer x 600). An additional charge applies if finish coat is required over prime coat (ex: 5710 x 600 x 689).

[^] Actuators not supplied w/ RF

NOTE: Door switches and sensors are not included with the 5700 Series Door Operators. These items must be ordered separately.

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Since 1880, Norton door controls have been an integral part of schools, hospitals and businesses around the globe. When you need products and people that perform at the highest level, rely on Norton – From Open to Close.

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Regenerative power door operator
for moderate to high traffic applications

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ASSA ABLOY, the global leader
in door opening solutions

5800
SERIES ADAEZ®

LOW ENERGY OPERATOR

CATALOG

INTRODUCTION

As one of the world’s only regenerative power door operators, Norton’s 5800 Series ADAEZ is certified by GreenCircle® to reduce energy consumption by as much as 100 percent versus other comparable operators. Available in wireless and plug-in versions and able to fit in the tightest of spaces, the 5800 ADAEZ is simple to install and use.



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ADAEZ PRO: MODELS 5831 (PUSH), 5811 (PULL)

- » No electrical power required
- » Moderate to high traffic, manual opening applications that occasionally require automatic operation
- » Regenerative Drive System charges an onboard battery pack
- » The PRO model excels in applications where the traffic pattern allows for 80 door cycles per day, 25% of which are automatic and 75% of which are manual. The PRO requires no electrical connection, no permit, no inspection, no wiring, and no low voltage license. It installs like a manual door closer in less than 1 hour.

ADAEZ PRO PLUS: MODELS 5833 (PUSH), 5813 (PULL)

- » 24VDC powered - continuous automatic use
- » Connects to ANY 24VDC power supply
- » Commercial applications requiring push-and-go, power close and electric lock interface
- » Ideal for openings requiring continuous automatic use or automatic use more than 25% of the time

ADAEZ PRO COMPLETE: MODEL 5845 (PUSH AND PULL)

- » Bundles all the configurations of the ADAEZ PRO and ADAEZ PRO PLUS models into one easy to stock package
- » Right or left hand doors
- » Push and pull side mounting hardware
- » Black and aluminum finish covers
- » Mounting hardware for virtually any door and frame
- » 24VDC plug-in transformer kit for continuous automatic use applications

FEATURES

- » Regenerative drive or continuous duty operation
- » Non-handed
- » 5° door opening
- » Push and pull side mounting
- » Push-and-Go (ADA1015P Kit must be connected)
- » Power Close (ADA1015P Kit must be connected)
- » Radio Frequency stainless steel push buttons
- » Integral RF receiver
- » Shock absorbing arm
- » 693T (black) and 689 (aluminum) covers
- » 24VDC input port
- » ADA1015P hardware kit
- » Built-in ON/OFF Switch
- » Auxiliary activation input port
- » Maximum door width - 48"
- » Maximum door weight - 250 lbs
- » Patented Auto-Tune feature ensures safety and compliance with A156.19 code
- » 2 year limited warranty

CERTIFICATIONS

- » ANSI/BHMA A156.19 certified
- » ETL tested to UL/cUL standard for automatic doors on fire & smoke barrier doors
- » Complies with requirements for Americans with Disabilities Act (ADA)
- » UL10c 90-minute positive pressure fire rating
- » Manufactured in an ISO 9001 and ISO 14001 certified facility
- » Verified by GreenCircle to offer these energy savings as compared to similar products:
 - » 5800 Series ADAEZ® (plug-in) – 91% efficiency
 - » 5800 Series ADAEZ® (wireless) – 100% efficiency



HOW IT WORKS

How does the 5800 Series ADAEZ PRO work without electrical power?

The 5800 Series ADAEZ PRO is an extreme duty, low energy door opener designed for moderate to high traffic manual opening applications that occasionally requires powered operation. A regenerative drive system charges an onboard battery pack eliminating the need for electrical power.

The 5800 Series ADAEZ PRO should be applied to doors using our 80/25 guideline. Apply 5800 Series ADAEZ PRO to a door that gets approximately 80 manual cycles or more per day and is used 25% or less automatically.

When applied using the 80/25 guideline the this operator will self generate all the power it needs to keep its field

replaceable, onboard, battery pack charged for up to 12 years and in some cases longer.

A fully charged battery has the capability to open a door up to 2000 times in a row, generously allowing for periodic fluctuations from 80/25 guidelines with little impact on the product's overall usability. Example: 30% automatic use for one day is not a problem, as long as that level of automatic use is not sustained.

The 5800 ADAEZ PRO can be used outside of the 80/25 parameters. Simply plug the unit into a common 110 VAC electrical outlet using our ADA1015P Hardwire Kit option. The Hardwire Kit is a low voltage plug in transformer and can be added to existing installed field units.

APPLICATIONS



PUSH SIDE MOUNTING WITHOUT ELECTRICAL POWER



PUSH SIDE MOUNTING WITH ADA1015P HARDWIRE KIT



PULL SIDE MOUNTING WITHOUT ELECTRICAL POWER



PULL SIDE MOUNTING WITH ADA1015P HARDWIRE KIT

SPECIFICATIONS

AUTOMATIC DOOR OPENER

- » Provide low energy automatic door operator complying with requirements of ANSI A156.19.
- » Provide an operator with adjustable opening and closing forces that meet the provisions of ANSI A117.1 and the Americans with Disabilities Act.
- » Provide an operator with a regenerative drive system which charges the on-board battery pack when unit is operated manually and which requires no external electrical power.
- » Provide an operator that can connect to ANY 24VDC power supply to keep an on-board battery pack fully charged eliminating the need for manual traffic charging. When used with 24VDC input the operator shall supply up to 2000 automatic operations upon loss of building power.
- » Provide an operator which has been verified by GreenCircle to offer these energy savings as compared to similar products:
 - » 5800 Series ADAEZ (plug-in) – 91% efficiency
 - » 5800 Series ADAEZ (wireless) – 100% efficiency
- » Provide an operator which, upon installation, will determine door size and weight and automatically tune controller to operate within ANSI A156.19 and A117.1 standards. Operator shall also have the following adjustable functions:
 - › Opening/closing speed
 - › Hold-open time
 - › Close check
 - › Opening/closing force
- » Provide operator with on-board diagnostics which will continually maintain control of door speed in wind or abusive environment conditions.
- » Provide operator that will continue closing door within ANSI A156.19 and 117.1 requirements without any external power supplied. Upon meeting an obstruction during the opening cycle the door shall remain under power for one second and then close under spring force; if the door meets an obstruction during closing, the door will maintain a closing force of 8 lbs or less.
- » Provide unit capable of operating doors up to 48" wide, weighing up to 250 lbs.
- » Provide unit that will operate in climates with temperatures above -40° F and has a two year warranty.
- » Provide operator with two stainless steel, jamb mounted, push button transmitters in choice of 1-3/4" x 4-3/4" narrow, 4-1/2" x 4-1/2" square styles, or 5 1/4" x 5 1/4" wave-to-open switch style, with required signage. Locate push buttons as directed by architect and within ANSI A156.19 and 117.1 guidelines.
- » Provide operator which utilizes a triangular hardened steel output shaft to connect arm with a two piece tapered coupling for superior slip resistance.
- » Provide operator and push button transmitter with circuit boards that have been specially coated to resist moisture and humidity making the electronics weather resistant.
- » Provide operator with integral heavy duty cast aluminum shock absorbing arm, which when fully extended is in full tension eliminating the need for an auxiliary door stop.
- » Provide operator with two architecturally finished covers and black powder coated frame, arms and mounting brackets.
 - › Black (BHMA 693T)
 - › Aluminum (BHMA 689)
- » Provide an operator incorporating "Push and Go" feature to allow door movement to activate door open cycle or recycle door (PRO PLUS only).
- » Provide an operator incorporating "Power Close" feature to utilize the motor to close a door help open by wind, stack pressure or latchbolt (PRO PLUS only).

KITS

ADAEZ PRO – MODELS 5831 x NPB (Push), 5811 x NPB (Pull)



OR



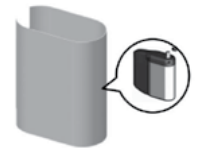
Narrow Style Push Buttons With Wireless (RF) Transmitters

Square Style Push Buttons With Wireless (RF) Transmitters

Operator

Non-Handed Shown Push
Side Mounting Parallel Arm

OPTION:



Aluminum Dress Cover

Replaces Standard Black
Cover Operator Frame/Arm
Always Black Finish

ADAEZ PRO PLUS – MODELS 5833 x SQPB (Push), 5813 x SQPB (Pull)

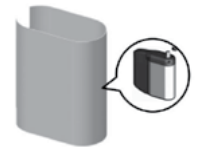


OR

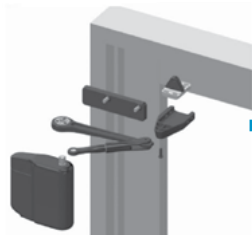


**1015P Hardwire Kit:
24VDC
Transformer**

OPTION:



ADAEZ PRO COMPLETE – MODELS 5845 x NPB (Push & Pull), 5845 x SQPB (Push & Pull), 5845 x WTO (Push & Pull)



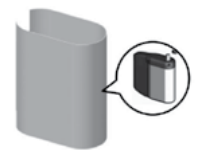
OR



OR



Wave-to-Open Switch



**PULL Mounting Hardware
Pull Side Mounting –
Regular Arm**

5800 SERIES ADAEZ® LOW ENERGY OPERATOR

SPECIFICATIONS

WIRELESS INTERFACE MODULE (ADA1028W)

System Description:

The Wireless Interface Module allows the 5800 door operator to interface to 5800 wired or wireless push buttons, wireless remote, an electric lock, fire panel, access control, and an outside push button disable contact. The ADAEZ WIM can be used with any 5800 ADAEZ model PRO, PLUS, PRO COMPLETE.



Mounting:

The WIM (4.25"W x 5.75" H) is designed to fit inside a power supply cabinet, using a supplied plastic mounting plate with double sided tape and fasteners.

Inputs:

- » Power input: 24VDC
- » Hardwire push buttons input: separate INSIDE and an OUTSIDE activation input
- » Wireless push button input: separate INSIDE and an OUTSIDE RF activation input
- » Handheld transmitter input: (p/n ADA1031 HAND-HELD-TX) interface
- » Operator connection cable: Plug in ADAEZ swing door cable connector interface
- » Lock power: Dry contact SPDT to power an electric lock
- » Outside push button disable: privacy feature

Outputs:

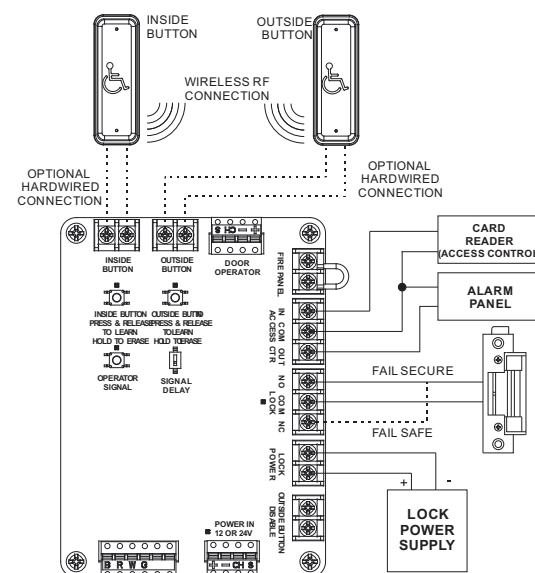
- » Wireless Output: RF signal to activate ADAEZ door opener
- » Output Contacts: SPDT dry contact output for AUX signal
- » Lock Contacts: SPDT dry contact output for LOCK
- » Access Control Contacts: indicates valid Unlock signal
- » Signal Delay Timer: 1.5 second lock release delay
- » Emergency Interface Relay (EIR): disables signal inputs

Codes/Listings:

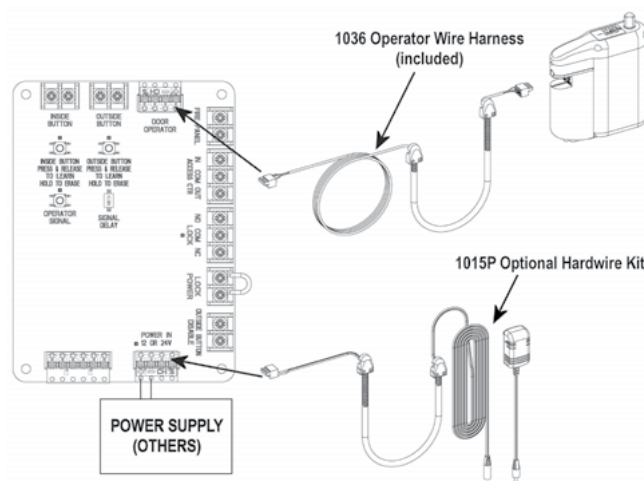
- » UL
- » FCC 47CFR 15C and RSS 210

TECHNICAL INFORMATION: WIRING DIAGRAMS

Electric Strike with RF or Wired Push Buttons and Card Reader (or other Access Control)

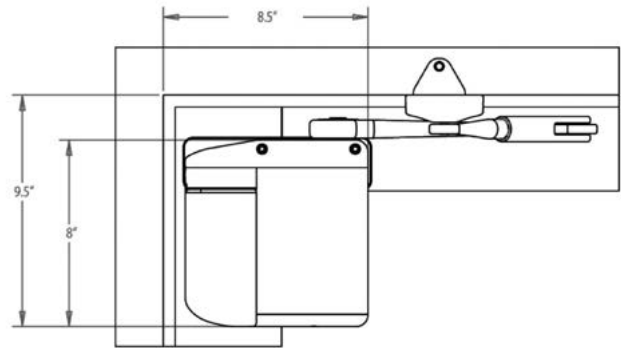
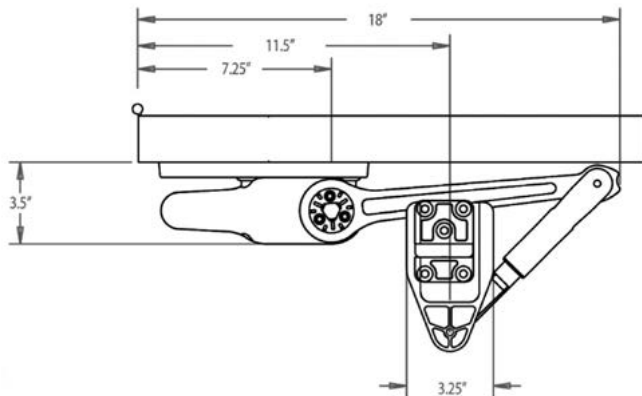


Wiring the WIM and Operator

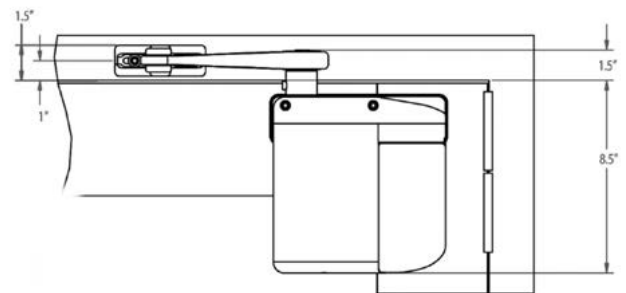
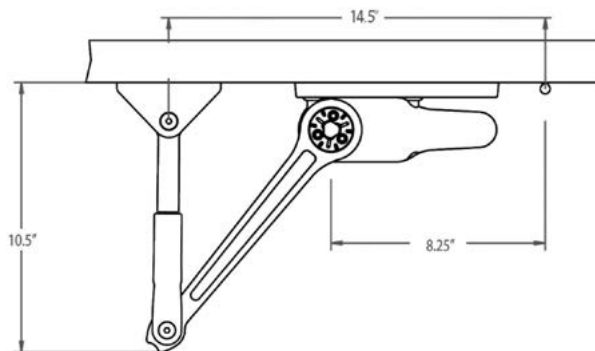


PRODUCT DIMENSIONS

Push Side



Pull Side



All dimensions are approximate

5800 SERIES ADAEZ® LOW ENERGY OPERATOR

REPLACEMENT PARTS / ACCESSORIES / KITS



ADA1015P

(direct replc. of former 1015) transformer, armored dr cord, end links 50' of low voltage cable, power port cnt.



ADA1001

Door Arm Assembly



ADA1009

Mounting Hardware
Includes rivetnut
installation toolkit



ADA1010NY

ADAEZ Operator Body –
NYC TRD without battery

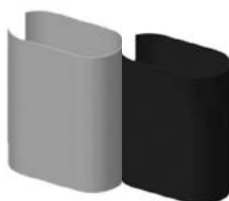
ADA1010E

ADAEZ Operator Body –
Europe without battery



ADA1007P

(direct replc. of former
1007) battery assembly –
new part has on/off switch,
LED indicator, power port

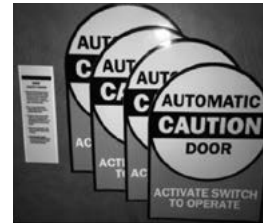


ADA1004

Operator Cover – Aluminum

ADA1002

Operator Cover – Black



ADA1014

Decal Pack



ADA1006

Operator Mounting Bracket
with covers



ADA1010P

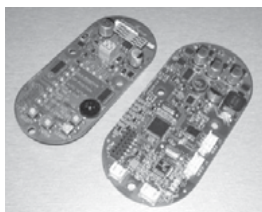
(direct replacement of
former 1010L/R) ADAEZ
Operator Body for ADAEZ
and ADAEZ PRO. Battery
not included.



ADA1023

External battery charger kit

REPLACEMENT PARTS / ACCESSORIES / KITS

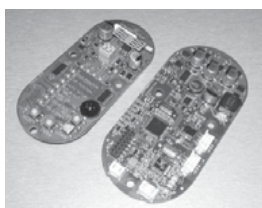


ADA1005

Electronic Control Kit for ADAEZ
 (older) Setup and PC Board

ADA1005E

Electronic Control Kit for ADAEZ
 Europe Setup and PC Board

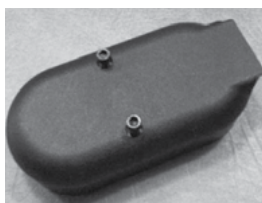


ADA1005P

Electronic Control Kit for ADAEZ
 PRO Setup and PC Board

ADA1005NY

Electronic Control Kit for ADAEZ
 NYCTRD Setup and PC Board



ADA1026

Bottom Cover with Two Screws



ADA1025

Multi-Purpose Timer



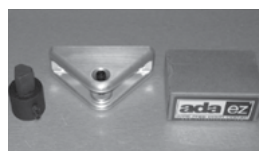
ADA1022

Kit to Convert SPDT Switch
 to DPDT Switch



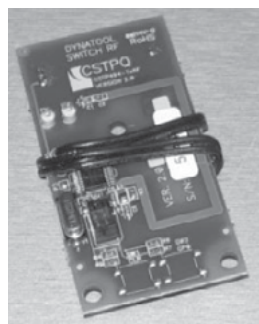
A1031

A1031 (order 1031E
 for Europe) Hand Held
 Remote Control



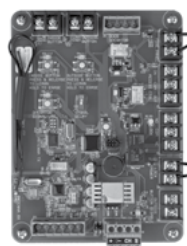
ADA1021

Kit to Convert to a PULL
 Side Mount



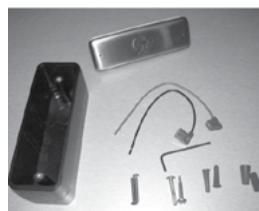
ADA1008

Wireless Push Button
 Transmitter (Circuit
 Board Only)



ADA1028W

Wireless Interface Module



ADA1012-1

1 3/4" (4.5 cm) Push
 Button Assembly without
 RF Transmitter

REPLACEMENT PARTS / ACCESSORIES / KITS



ADA1019-1

4 1/2" (11.4 cm) Sq Push
Button Assembly without
RF Transmitter



ADA1019-3

4 1/2" Sq Push Button
Assembly with DPDT Switch
without RF Transmitter



ADA1024

Kit to Convert to a PUSH
Side Mount



700

Wave-to-Open Switch
Single gang and double
gang packaged together
without RF transmitter
Dimensions:
3" W x 4-3/4" H (single);
4-1/2" W x 4-1/2" H (double)
(may require ADA1015P)



ADA1012-2

1 3/4" Push Button
Assembly with RF
Transmitter



DA1019-2

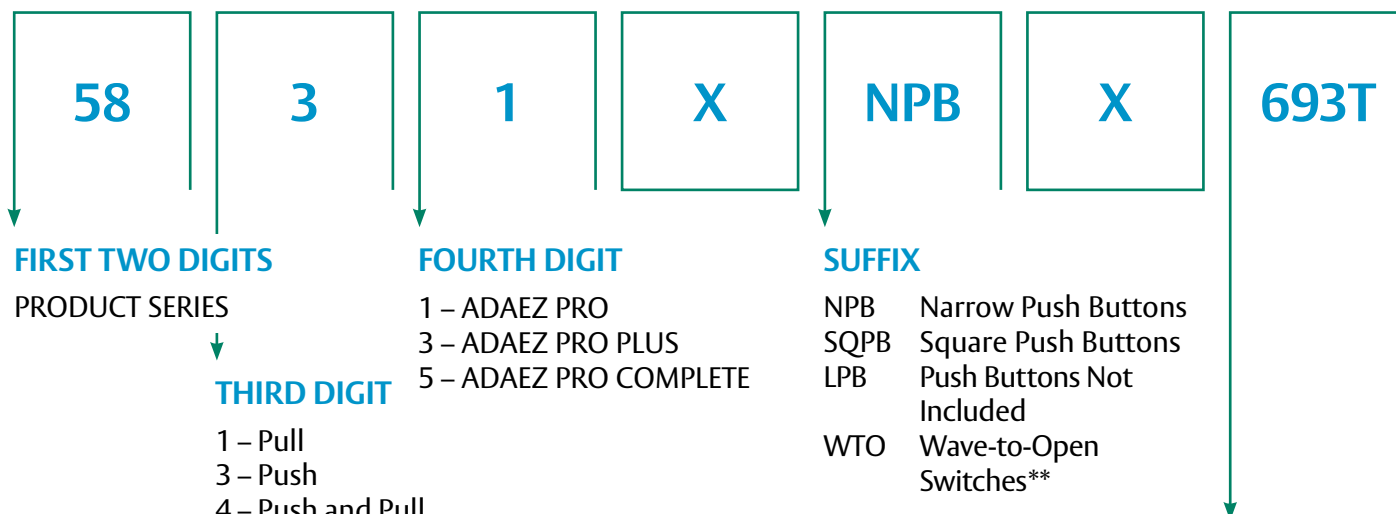
4 1/2" Sq Push Button
Assembly with RF
Transmitter



ADA1019-4

4 1/2" Sq Push Button
Assembly with DPDT Switch
with RF Transmitter

HOW TO ORDER



Description	Specify Designation
Black Textured	693T
Aluminum	689

ADAEZ KITS	Model Number	Function		Description				
		PUSH	PULL	Narrow Style Buttons	Square Style Buttons	Wave-to-Open Switch	1015 Hardwire Kit: 24VDC	Aluminum Dress Cover
PRO	5831 x NPB	●		●				○
	5811 x NPB		●	●				○
PRO	5833 x SQPB	●			●			○
	5813 x SQPB		●		●			○
PRO PLUS	5833 x NPB	●		●			●	○
	5813 x NPB		●	●			●	○
PRO PLUS	5833 x SQPB	●			●		●	○
	5813 x SQPB		●		●		●	○
PRO COMPLETE	5845 x NPB*	●	●	●			●	●
	5845 x SQPB*	●	●		●		●	●
	5845 x WTO*	●	●			●	●	●

Note: *5845 is shipped 693T x 689 finish
**Only available for ADAEZ PRO COMPLETE

○ – Optional parts
● – Standard parts

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43340 – 7/17R



Superior door control
for rigorous, high-use applications

Norton®

ASSA ABLOY

ASSA ABLOY, the global leader
in door opening solutions

6000
S E R I E S

LOW ENERGY OPERATOR

CATALOG

INTRODUCTION

The 6000 Series low energy operator is a heavy-duty unit designed for rigorous, high-use applications. Built-in intelligence enables the operator to safeguard users while providing better door control. Simple installation and adjustment features combined with the unit’s high level of versatility allows for seamless integration with a multitude of facilities and systems.



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FUNCTIONS

- » Push and Go selector
 - » As the door is manually opened, the operator "senses" movement and opens door to the full-open position
- » Open/Close obstruction detection
 - » Open
 - » Door closes if it hits an obstruction while opening
 - » Close
 - » Door re-opens (once) if it hits an obstruction while closing – if the door hits the obstruction again, the door will rest against the obstruction until it is removed
- » Motor startup delay adjustment
 - » Delays operator opening
- » Vestibule delay adjustment
- » Hold open delay adjustment
- » Single Pole Double Throw (SPDT) relay output
 - » SPDT relay output time adjustment
 - » SPDT alarm output
- » Blow open for smoke ventilation
- » Presence detector input
- » Selector mode switch
 - » Off – Disables signal inputs except blow open
 - » On – Activates signal inputs
 - » Infinite Hold Open - Door will hold open at set position until power is turned off


FEATURES

- » Push or pull side mounting
- » Non-handed
- » 1.3A onboard power supply
- » Activated by push button, hands-free, and RF devices
- » Infinite hold open
- » Maximum door size 4'0" x 8'0", 250 lbs
- » Push and Go opens door to full-open position upon manual activation
- » Obstruction Detection on both open and close cycle
- » Operates as a mechanical surface closer when power is off
- » On board electronics collect usage and cycle count data to facilitate preventative maintenance/diagnostics
- » 2 year limited warranty

ELECTRICAL DATA

- » Power input 120 VAC, 60 Hz (+10%, -15%)
- » Current draw 0.9A
- » Auxiliary output 24 VDC @ 1.3A
- » SPDT relay output for controlling electric strikes or electric locks not to exceed 1 amp @ 30 VDC

CERTIFICATIONS

- » ANSI/BHMA A156.19 certified 
- » ETL tested to UL / cUL standards for automatic doors used on fire and smoke barrier doors and CSA C22.2 No. 247 for operators and systems of doors
- » UL10C listed for positive pressure fire test
- » Comply with requirements for the Americans with Disabilities Act (A.D.A)
- » California State Fire Marshall Listing 3266-0944:0110
- » This product is manufactured in an ISO 9001 facility

ARCHITECTURAL SPECIFICATIONS

General Specifications

Door Controls (interior)(exterior) swinging door(s) shall be of rack and pinion design contained within a precision cast aluminum housing. Door closing force shall be adjustable to ensure adequate closing control. Door closing speed shall be controlled by independent hydraulic adjustment valves in the sweep and latch range of the closing cycle. Door Operator shall provide conventional door closer opening and closing forces unless the power operator motor is activated. Door Operator opening force and speed shall be adjustable in the inverter/interface module's LCD screen to ensure adequate opening control per accessibility codes. Door Operator shall have an adjustable hydraulic back-check valve to cushion the door speed if opened violently. Door Operator shall utilize the inverter/interface module's LCD screen and joystick to establish door closes and open positions. [(Door Operator shall be AUTOMATICALLY ACTIVATED by either a slight push or pull in the direction of opening swing – Push and Go.) (Door Operator shall be SELECTIVELY ACTIVATED by external initiating device, i.e. wall switch, etc.) (Door Operator shall be both AUTOMATICALLY ACTIVATED and SELECTIVELY ACTIVATED.)] Unit shall include "E-saver" feature to automatically recognize abled body traffic and immediately trigger door to close after sensing no forces on door. Unit shall have delay for motor activation, electric lock interfacing, and hold open time. Units shall have SPDT relay for interfacing latch retraction exit devices or similar products and have 24VDC @ 1.3A output for connection of electric strike, lock, radio frequency receiver, etc. Units shall have Vestibule sequencing input for operation of two or more units. Unit shall have smoke ventilation inputs to power open doors when activated by fire or smoke alarm. Unit shall have a three-position Selector Mode Switch that will permit the unit to be switched "ON" to monitor for function inputs, switched to "H/O" for indefinite hold open function or switched "OFF" which will disable function inputs allowing unit to be used as a manual door closer. Unit shall be ETL tested to UL standards for automatic closing door. The Unit shall be adjustable to provide compliance with the requirements of the Americans With Disabilities Act (ADA). Unit shall be certified by BHMA to meet ANSI A117.1 and A156.19 requirements. Unit shall meet UL, cUL, UL10C and UL10B standards. 2 year limited warranty.

Additional Specifications for Functions

For Power Operator Function:

When activated, the unit shall, by means of a motor, chain and closer, power open the door at both a speed and force that are adjustable to accessibility codes. The door shall be powered from a door closed position to a full door open position and remain in momentary hold open for 5 seconds minimum (adjustable 0 to 30 seconds in 1 second increments). [(Unit shall power open door to full open position up to 110°.) (Unit shall be capable of opening door manually from 110° – 180°.)] Once unit reaches full hold open position, if reinitiated, unit's momentary hold open time shall restart from the maximum set time. If unit is initiated during the closing cycle, unit shall revert to opening cycle beginning at that door position. Unit shall have a toggled hold open input that upon first initiation will power door to a maintained hold open position; a second initiation will allow door to close. Unit shall have obstruction detection on closing, which will reverse the closing door to the full open position then re-attempt to close door after momentary hold open time has elapsed. Obstruction detection on opening shall shut motor off, allowing door to close under spring force. These obstruction detection features shall be integral to unit. During closing cycle, the unit shall close door under full spring power not to exceed a closing force of 15 lbf.

SUSTAINABILITY CONTRIBUTIONS

This product has been documented to help facilities meet sustainable building certification programs, including LEED, WELL, Living Building Challenge & Net Zero Energy.

- » Environmental Product Declaration
- » Health Product Declaration
- » Declare Label
- » GreenCircle Certification
- » Verified to offer 24% energy savings as compared to similar operators



STANDARD APPLICATIONS



6010/6050

HINGE (PULL) SIDE OF DOOR

- » Buffered stop assembly in slide track

6010 RIGID ARM AND SLIDE TRACK

- » 85° to 110° templated door openings in 5° increments
- » 1/8" (3mm) maximum frame reveal

6050 DOUBLE EGRESS ARM AND SLIDE TRACK

- » From 1/8" to 3" (3 to 76mm) frame reveal
- » Specify hand when ordering

An auxiliary stop is suggested where severe conditions exist.



6020/6030

STOP (PUSH) SIDE OF DOOR

STANDARD-DUTY DOUBLE LEVER ARM

- » Frame reveals 2-3/4" to 6-7/8" (70 to 175mm)
- » An auxiliary door stop is required for these applications

Series	Door Opening
6020	Up to 110°
6030	From 110° to 180°

Note: Drop applications are needed if the ceiling clearance is less than 5".
Specify 6020-D (minimum door width = 33" (84cm))
or 6030-D (minimum door width = 31" (79cm))



6060/6070

STOP (PUSH) SIDE OF DOOR

HEAVY-DUTY DOUBLE LEVER ARM

- » Maximum frame reveals (see chart)
- » 85° to 110° templated door openings in 5° increments
- » Spring buffered stop in arm shoe assembly

Series	Reveal Range
6060	2-1/4" to 4-3/4"* (57 to 121mm)
6070	4-13/16" to 7-3/8" (122 to 187mm)

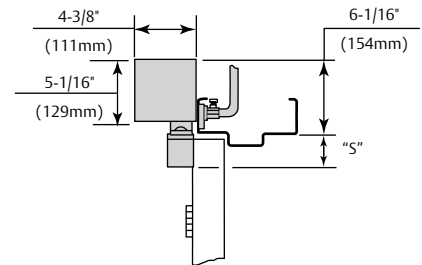
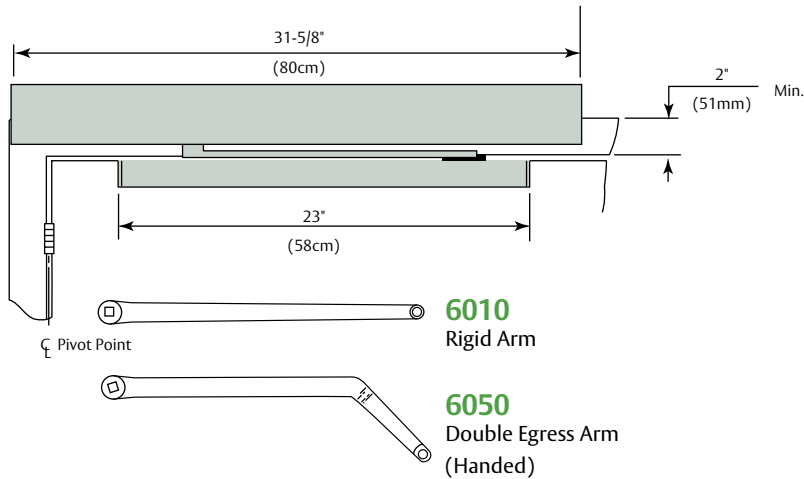
* Reveals less than 2-1/4" (57mm) may be achieved by field cutting the adjusting rod

Note: Drop applications are needed if the ceiling clearance is less than 5".
Specify 6060-D or 6070-D

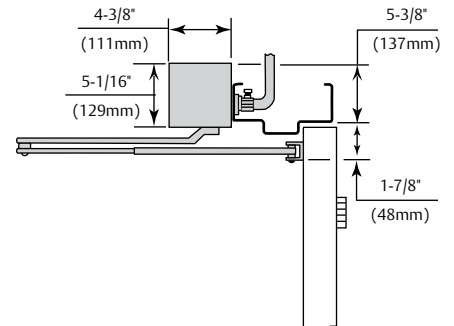
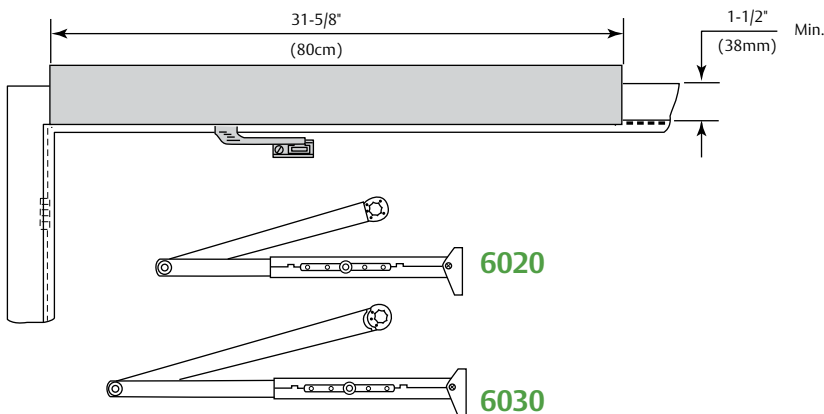
NOTE: Contact factory if door weight exceeds 250 lbs.

6000 SERIES LOW ENERGY POWER OPERATOR

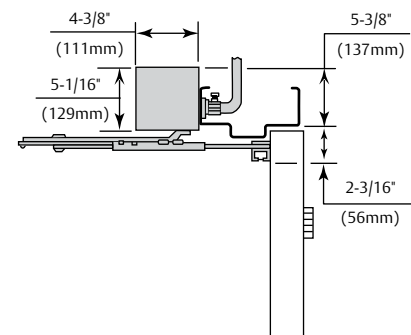
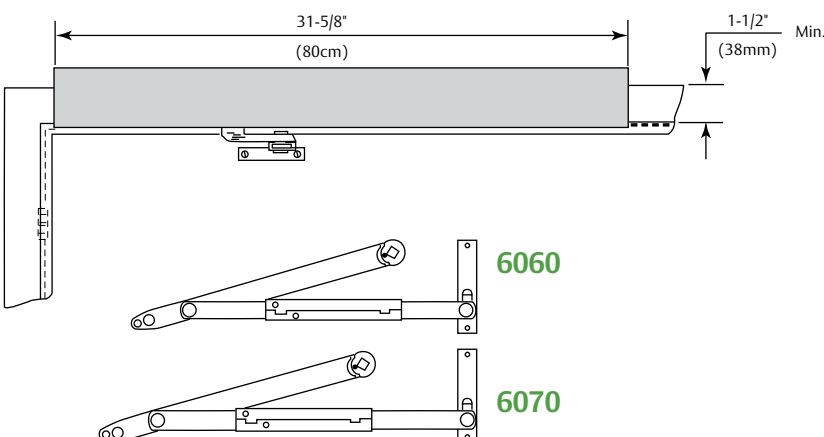
STANDARD APPLICATIONS



Series	Dim "S" Min. Top Rail of Door
6010	1-3/4" (44mm)
6050	2-3/8" (60mm)



Door Swing	90°	180°
Min. Door Width	32" (81cm)	29" (74cm)



ACCESSORIES



501



502

Activating Door Switches

- » 4-1/2" W. x 4-1/2" H.
- » 15 amp @ 125 VAC
- » Flush mounted – hard wired
- » Fits single or 2 gang electrical box
- » 501 – Stainless steel with black letters
- » 502 – Blue powder coat with white letters
- » Specify #542 to order surface mount box for 501 or 502 switch



505, 531



507, 532



506, 533



534, 535

- » 6" W. x 6" H.
- » 9 volt battery
- » 15 amp @ 125 VAC
- » Flush mounted
- » Stainless steel with blue letters
- » 531, 532, 533 and 535 radio frequency (433MHz). Used with RF option and 539. Supplied with surface mount boxes.
- » 507, 505, 506 and 534 hard wired*. Surface mounted boxes are not supplied. If required, specify:
555 - 6" square surface mount box
557 - 6" round surface mount box

* Switches may also be installed with single or double gang electrical box using fasteners included.



503

- » 1-1/2" x 4-3/4" face plate
- » SPDT UL listed switch-mom.
- » 15 amp @ 125 VAC
- » Fits 1-3/4" frame
- » Stainless steel with blue letters



504

Vestibule Switches

- » 5" W. x 4-3/4" H.
- » 2 – SPDT UL listed switches-mom.
- » 15 amp @ 125 VAC
- » Fits 2-gang electrical box
- » Stainless steel with blue letters

Wave-to-Open Wall Switch

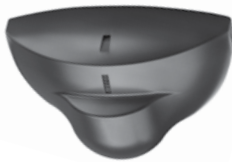


700

- » Single gang and double gang
- » packaged together
- » Sensor requires movement for activation
- » Variable relay – hold time from 0 – 35 seconds
- » Range 0" to 4"
- » Dimensions:
- » 3" W x 4-3/4" H (single);
- » 4-1/2" W x 4-1/2" H (double)

6000 SERIES LOW ENERGY POWER OPERATOR

ACCESSORIES



663*

Motion Sensor

- » 4-3/4" x 3-3/16" x 2" projection
- » Unidirectional
- » Black cover
- » SPDT relay
- » Adjustable angle pattern
- » 24 VDC input
- » Must not be placed where motion of door can be sensed



500 & 530

Switch Post

- » 4" x 6" x 40" x 3/16" wall thickness
- » 9 volt battery
- » RF temperature range: -4° F to 122° F
- » 689 (aluminum) or 690 (dark bronze) finishes; specify when ordering
- » Standard formed plastic cap
- » Surface mounted (above ground)
- » 530 - radio frequency transmitter
- » 500 - hard wired switch
- » 530POST - post only; switch not included



6000SEC

Security Plate Package

- » Conceals the ON/OFF/HOLD OPEN (ON/OFF) switch to deter tampering. Packed standard with the operator.



585

Presence Detector

- » Diffused active infrared technology
- » 11.8" l x 1.9" h x 1.9" w
- » Black anodized aluminum
- » 9'x0" maximum mounting height
- » Supply voltage: 24VAC/DC

*Use of motion sensor must be approved by local authority having jurisdiction.

Transmitters



536

- » 2-3/8" w x 4-3/16" h x 15/16" d
- » Single channel



538

- » 2-3/8" w x 4-3/16" h x 15-16" d
- » Two channel



548

- » Converts existing hard wired push plates to work with RF receivers offered after June 2013
- » Single channel
- » 9 volt

Radio Frequency Receiver

- » 433 MHz



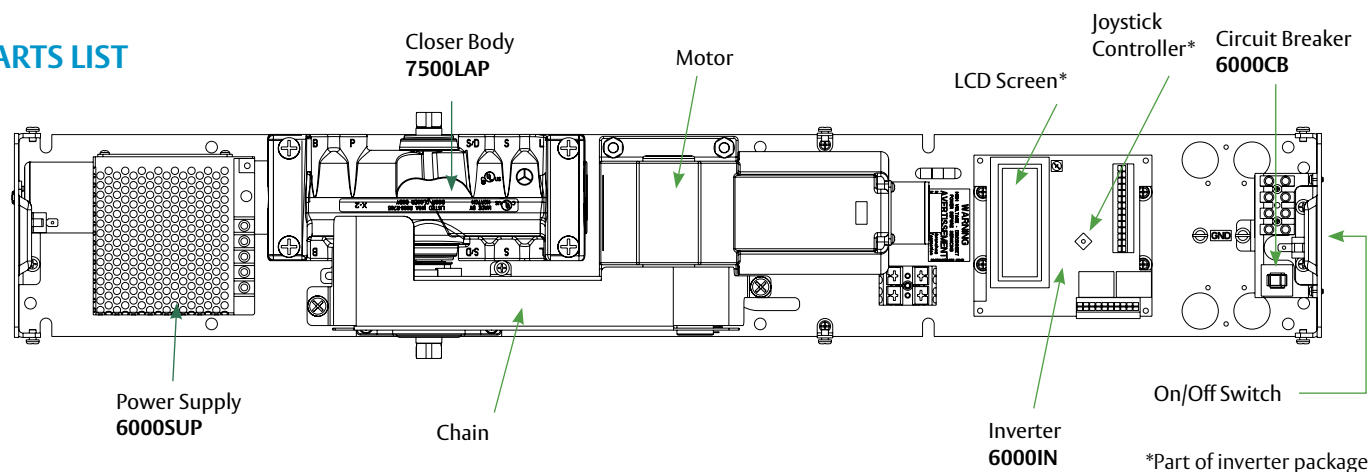
539

Low Profile Push Plate

- » 36" x 6" activation zone
- » 1" low profile depth
- » Stainless steel face plate
- » Adapts to either wireless or hardwired installations
- » 638 - Wireless
- » 639 - Hardwired



PARTS LIST



UNIT SUB-ASSEMBLY

Part Number	Description
6010LAP**	6010, 6050 Unit Sub-Assembly (NHO)
6020LAP**	6020, 6030, 6060, 6070 Unit Sub-Assembly (NHO)

DUMMY UNITS

Part Number	Description
6010-DMY	6010 Dummy Unit
6020-DMY	6020 Dummy Unit
6030-DMY	6030 Dummy Unit
6050-DMY	6050 Dummy Unit (Handed)
6060-DMY	6060 Dummy Unit
6070-DMY	6070 Dummy Unit

DROP ANGLE BRACKETS

Part Number	Description
6000DAB	Drop Angle Bracket†
6000DAB180	Drop Angle Bracket – 180° Swing†

MISCELLANEOUS PARTS

Part Number	Description
6000COV	Standard Cover
6000SFB	Aluminum Storefront Bracket
SP6000	Screw Pack



OPERATIONAL SIGNAGE

#679 Signage Kit (supplied standard)



(1 per switch)



(1 per switch)



(2 per operator)

** Part Numbers may differ based on legacy models. Contact Norton Technical Product Support to verify for accuracy based on unit on hand.

† Push side only.

PARTS LIST

Arm and Track Assemblies



- #6610-1** Arm and Track Assembly
- #7210-1A** Arm Assembly
- #7200-1T** Track Assembly



Left hand shown

- #6050-1L** Arm and Track Assembly (LH)
- #6050-1R** Arm and Track Assembly (RH)
- #7250-1L** Arm Assembly (LH)
- #7250-1R** Arm Assembly (RH)
- #7200-1T** Track Assembly



- #6020-1** Arm Assembly
- #6020-1W** Main Arm & Rod
- #6620-12** Adjusting Tube & Shoe



- #6660-1** Arm Assembly
- #6660-11** Rod & Snubber Assembly

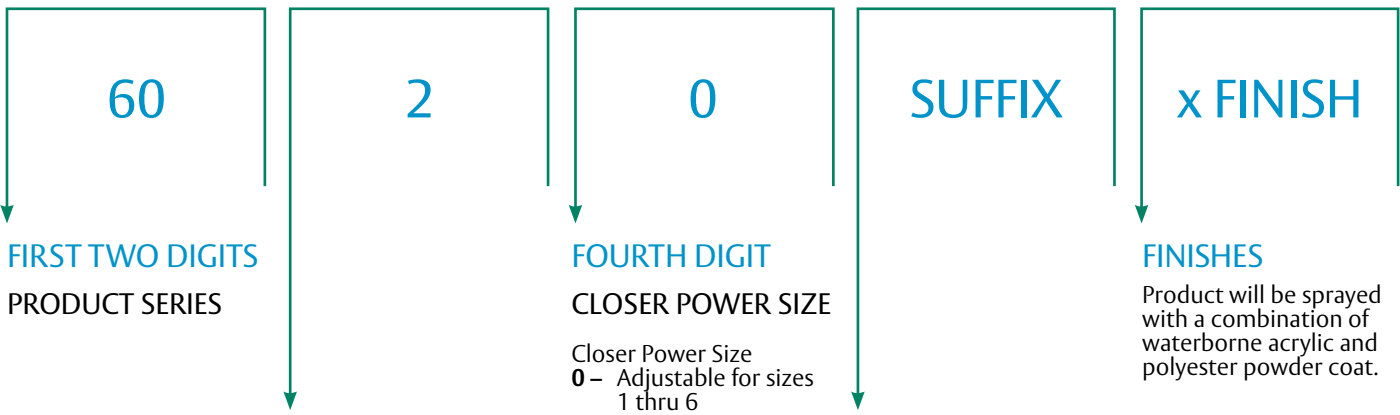


- #6030-1** Arm Assembly
- #6030-1W** Main Arm & Rod
- #6620-12** Adjusting Tube & Shoe



- #6670-1** Arm Assembly
- #6670-11** Rod & Snubber Assembly

HOW TO ORDER



THIRD DIGIT

IDENTIFIES TYPE OF APPLICATION

HINGE (PULL) SIDE OF DOOR*

- 1** – Rigid Arm & Slide Track 110° maximum door swing maximum reveal 1/8" (3mm)
- 5** – Double Egress Arm & Slide Track 110° maximum door swing for reveals 1/8" to 3" (3 to 76mm) (specify hand when ordering)

STOP (PUSH) SIDE OF DOOR

- 2** – Standard-Duty Double Lever Arm 110° maximum door swing Reveals 2-3/4" to 6-7/8" (70 to 175mm)
- 3▲** – Standard-Duty Double Lever Arm 180° maximum door swing Reveals 2-3/4" to 6-7/8" (70 to 175mm)
- 6♦** – Heavy-Duty Double Lever Arm 110° maximum door swing Reveals 2-1/4" to 4-3/4" (57 to 121mm)
- 7** – Heavy-Duty Double Lever Arm 110° maximum door swing Reveals 4-13/16" to 7-3/8" (122 to 187mm)
- ▲** Models will be power operated to 110° but can be manually opened to 180°
- ♦** Reveals less than 2-1/4" (57mm) may be achieved by field cutting the adjusting rod

*Consult Technical Support Department when door is hung on offset pivots

SUFFIXES (OPTIONS)

- RF** – Radio Frequency Control
 - » Factory Wired
 - » Requires 531, 532 door switch or 500 switch post (433MHz) (Maximum codes: 100)
- D** – Drop application for less than 5" minimum ceiling clearance. Refer to page 10 for bracket only.

Description	Specify Norton Designation (BHMA)	Complements the following finishes	Old Designation
Aluminum	689	628, 625, 629, 630, 651	AL
Statuary Bronze	690	640, 613	STAT
Dull Bronze	691	612, 637, 639	DB
Black	693	315	315
Medium Amber	694	312	312
Gold	696	605, 606, 632, 633	GB
Prime Coat*	600	—	SRI

*600 IS A SPECIAL RUST INHIBITING PRIME COAT. CLOSERS CAN BE ORDERED PRIME COAT ONLY (SPECIFY CLOSER X 600). AN ADDITIONAL CHARGE APPLIES IF FINISH COAT IS REQUIRED OVER PRIME COAT (EX: 6010 X 600 X 689).

For application assistance, Norton offers complete services from specifying product to engineering a door system which includes riser and wiring diagrams. Consult Norton Technical Product Support for additional information.

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43221B - 12/17



Full-featured operator with slim profile
for moderate to high traffic applications

Norton®

ASSA ABLOY

ASSA ABLOY, the global leader
in door opening solutions

6300
S E R I E S

LOW ENERGY OPERATOR

CATALOG

INTRODUCTION

The Norton 6300 Series Low Energy Operator offers a broad set of intelligent functions, such as latch boost, latch retraction and obstruction detection to safely secure a variety of **moderate to high traffic openings**. A unique design with one of the slimmest profiles available allows the 6300 to blend more seamlessly with the frame while fitting challenging applications with minimal header space. A modular design and simple controls also make for easy installation and setup.

FEATURES

- » Push and pull side mounting
- » Non-handed
- » Activated by push button, hands-free and RF devices
- » Door size: min width 36", max width 48", max weight 200 lbs.
- » Power assist
- » Push and go (selectable)
- » Obstruction detection (open and close)
- » Aesthetically pleasing, slim profile
- » Modular design
- » Lock release feature for enhanced security
- » Latch boost
- » Selectable mode switch (off, on, hold open)
- » Adjustable opening force
- » Adjustable closing power
- » Blow open and blow close for smoke ventilation
- » 2 year limited warranty

SMART

- » Latch boost ensures door closes to secure facility
- » Occupant safety enhanced by obstruction detection, power assist, and push and go functions
- » Inputs available for security override and fire safety

SIMPLE

- » Modular, four-piece design allows for one-person installation
- » Heavy-duty back plate serves as template simplifying and speeding installation
- » Unit learns door properties (approximate weight) during installation for easy programming and set-up
- » Easy to use controls simplify setup
- » USB port allows for quick software updates
- » Tools such as BILT interactive installation instructions and installation video offer step-by-step visuals for operator installation, setup and programming

GOOD LOOKING

- » Unique design with slim profile blends seamlessly with frame
- » Cover spans full frame for 36" doors; accommodates doors up to 48"
- » Low profile easily fits applications with minimal header space



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FUNCTIONS

- » Power Assist
 - › Senses the door is being opened manually and applies small amount of power to assist user in opening the door with force less than 5 lbs.
 - › Door opens only as far as it is moved manually, then closes once released
- » Push and Go (selectable)
 - › As the door is manually opened, the operator “senses” movement and opens door to the full-open position
- » Obstruction Detection
 - › Open
 - › Door closes if it hits an obstruction while opening
 - › Close
 - › Door will reverse to open position if it hits an obstruction while closing
 - › Close (Selectable - Stop on Stall)
 - › Door will stop once it hits an obstruction and will rest against the obstruction until removed
- » Motor Startup Delay
 - › Delays operator opening for locking hardware
- » Infinite Hold Open
 - › Door will hold open at set position until power is turned off
- » Latch Boost (Selectable)
 - › Additional closing force to overcome conditions that might otherwise prevent the door from latching (ex: weather stripping, stack pressure)
- » Selector mode switch (3 position)
 - › Off - door functions as a standard door closer
 - › On - door functions as an automatic low energy operator
 - › Hold Open - activates the unit to the hold open position

ELECTRICAL DATA

- » Power input 120 VAC, 3A, 60Hz
- » Current draw 1.5A
- » Power output 24VDC @ 1.3A max draw (less accessories)

CERTIFICATIONS

- » ANSI/BHMA A156.19 certified **BHMA**
CERTIFIED
- » UL325/991 certified
- » UL10C listed for positive pressure fire test
- » Complies with requirements for the Americans with Disabilities Act (A.D.A)
- » Manufactured in an ISO 9001 and ISO 14001 certified facility

SPECIFICATIONS

Door Control (interior) (exterior) closing force shall be adjustable to ensure adequate closing control. Door Operator shall simulate conventional door closer opening and closing forces unless the power operator motor is activated. Door Operator shall have electronic backcheck to cushion the door speed if door is opened violently. [(Door Operator shall be AUTOMATICALLY ACTIVATED by either a slight push or pull in the direction of opening swing - Push and Go.) (Door Operator shall be SELECTIVELY ACTIVATED by external initiating device, i.e. wall switch, etc.) (Door Operator shall be both AUTOMATICALLY ACTIVATED and SELECTIVELY ACTIVATED.)] Operator shall have selectable latch boost to provide additional closing force to overcome conditions that may prevent door from latching. Unit shall have delay switches for motor activation, electric lock interfacing, and hold open time. Units shall interface with latch retraction exit devices or similar products and have 24VDC @ 1.3A maximum (less accessories) output for connection of electric strike, lock, radio frequency receiver, etc. Unit shall have a three-position Selector Mode Switch that will permit the unit to be switched "ON" to monitor for function inputs, switch to "H/O" for infinite hold open function or switched "OFF" which will disable function inputs allowing unit to be used as a manual door closer. Unit shall be U.L. Listed for automatic closing door. The Unit shall be adjustable to provide compliance with the requirements of the Americans with Disabilities Act (ADA). Unit shall be certified by BHMA to meet A156.19 requirements. Unit shall meet UL325/991, UL10C standards.

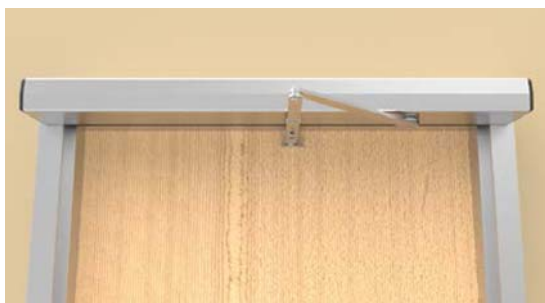
APPLICATIONS



6310

HINGE (PULL) SIDE OF DOOR
RIGID ARM AND SLIDE TRACK

Right hand shown



6330

STOP (PUSH) SIDE OF DOOR
STANDARD-DUTY DOUBLE LEVER ARM

Right hand shown



6350

DOUBLE EGRESS ARM (PULL) SIDE OF DOOR

Series	Door Opening	Reveal Range	Frame Width	Door Width	Door Weight
6310	Up to 180°	1/8" maximum	Minimum 2"	Minimum 36"; maximum 48"	Maximum 200 lbs.
6330	110° to 135° degrees (depending on reveal)	1/8" to 6-3/4" reveals	Minimum 2"	Minimum 36"; maximum 48"	Maximum 200 lbs.
6350	Up to 130°	1/8" to 2 3/4" reveals	Minimum 2"	Minimum 36"; maximum 48"	Maximum 200 lbs.

6300 SERIES

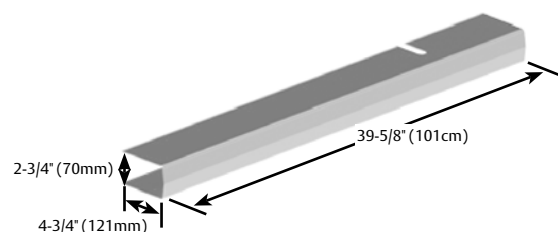
LOW ENERGY POWER OPERATOR

Dimensional Information:

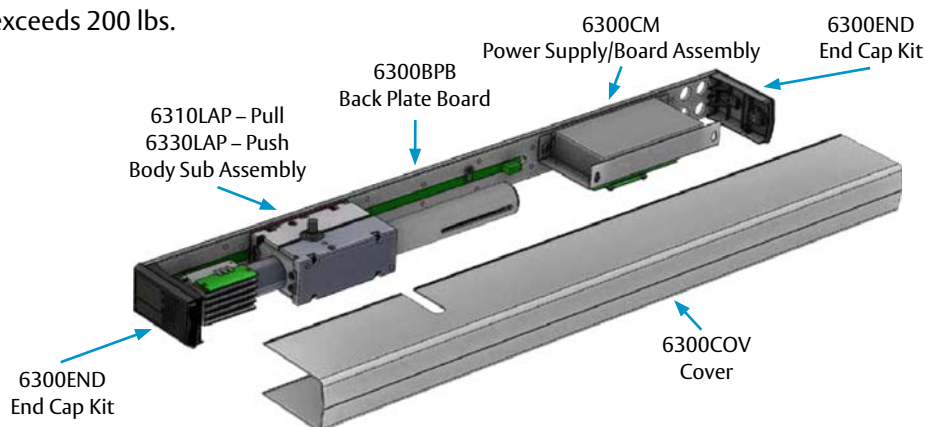
- » Minimum Top Rail:
 - › 6310 (pull): 1-1/8"
 - › 6330 (push): 2-1/4"
 - › 6350 (pull): 1-1/2"
- » Minimum Ceiling Clearance (based on units mounted on 2" frame):
 - › 6310 (pull): 2-1/4" standard; 1-1/2" with field modification (consult factory)
 - › 6330 (push): 5/8" standard; 0" with field modification (consult factory)
 - › 6350 (pull): 2-1/4" standard; 1-1/2" with field modification (consult factory)

Notes:

- › For additional information, the 6300 Series Instruction Manual is available online.
- › Contact factory if door weight exceeds 200 lbs.



PARTS LIST



Unit Sub-Assembly

Part Number	Description
6310LAP	Pull Body Sub Assembly
6330LAP	Push Body Sub Assembly
6300CM	Power Supply / Board Assembly
6300BPB	Back Plate Board
6300CAB	Cable Kit

Miscellaneous Parts

Part Number	Description
6300END	End Cap Kit (includes both end caps)
6300SP	Screw Pack
6300COV	Cover

ARM AND TRACK ASSEMBLIES



- 6310-1** Arm and Track Assembly
6310-1W Arm Assembly
7100-1T Track Assembly



- 6330-1** Arm Assembly
6330-1W Main Arm & Rod
6620-12 Adjusting Tube & Shoe



- 6350-1L** Arm and Track Assembly (LH)
6350-1R Arm and Track Assembly (RH)
6350-1LW Arm Assembly (LH)
6350-1RW Arm Assembly (RH)
7100-1T Track Assembly

OPERATIONAL SIGNAGE

679 Signage Kit (supplied standard)



(1 per switch)

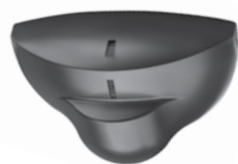


(1 per switch)



(2 per operator)

ACCESSORIES



663*

Motion Sensor

- » 4-3/4" x 3-3/16" x 2" projection
- » Unidirectional
- » Black cover
- » SPDT relay
- » Adjustable angle pattern
- » 24 VDC input
- » Must not be placed where motion of door can be sensed



500 & 530

Switch Post

- » 4" x 6" x 40" x 3/16" wall thickness
- » 9 volt battery
- » RF temperature range: -4° F to 122° F
- » 689 (aluminum) or 690 (dark bronze) finishes; specify when ordering
- » Standard formed plastic cap
- » Surface mounted (above ground)
- » **530** – radio frequency transmitter
- » **500** – hard wired switch
- » **530POST** – post only; switch not included

EXECUTIVE PACKAGE



5900EXPG

(includes receiver 539 and transmitter 536)



Radio Frequency Receiver 539

- » 433 MHz

539



536



538



548

Transmitters

- » 2-3/8"w x 4-3/16"h x 15/16"d
- » Single channel

- » 2-3/8"w x 4-3/16"h x 15-16"d
- » Two channel

- » Converts existing hard wired push plates to work with RF receivers offered after June 2013
- » Single channel
- » 9 volt

* Use of motion sensor must be approved by local authority having jurisdiction.

^ Provides auxilliary contacts for latch retraction (exit devices). Consult Norton Technical Product Support.

6300 SERIES LOW ENERGY POWER OPERATOR

ACCESSORIES



501

502

Activating Door Switches

- » 4-1/2" W. x 4-1/2" H.
- » 15 amp @ 125 VAC
- » Flush mounted – hard wired
- » Fits single or 2 gang electrical box
- » **501** – Stainless steel with black letters
- » **502** – Blue powder coat with white letters
- » Specify #542 to order surface mount box for 501 or 502 switch



505, 531

507, 532



506, 533

534, 535

Activating Door Switches

- » 6" W. x 6" H.
- » 9 volt battery
- » 15 amp @ 125 VAC
- » Flush mounted
- » Stainless steel with blue letters
- » **531, 532, 533 and 535** radio frequency (433MHz). Used with RF option and 539. Supplied with surface mount boxes.
- » **507, 505, 506 and 534** hard wired*. Surface mounted boxes are not supplied. If required, specify:
 - 555** - 6" square surface mount box
 - 557** - 6" round surface mount box

* Switches may also be installed with single or double gang electrical box using fasteners included.



503

Vestibule Switches

- » 1-1/2" x 4-3/4" face plate
- » SPDT UL listed switch-mom.
- » 15 amp @ 125 VAC
- » Fits 1-3/4" frame
- » Stainless steel with blue letters



504

Vestibule Switches

- » 5" W. x 4-3/4" H.
- » 2 – SPDT UL listed switches-mom.
- » 15 amp @ 125 VAC
- » Fits 2-gang electrical box
- » Stainless steel with blue letters



700

Wave-to-Open Wall Switch

- » Single gang and double gang packaged together
- » Sensor requires movement for activation
- » Variable relay – hold time from 0 – 35 seconds
- » Range 0" to 4"
- » 3" W x 4-3/4" H (single);
- » 4-1/2" W x 4-1/2" H (double)



638, 639

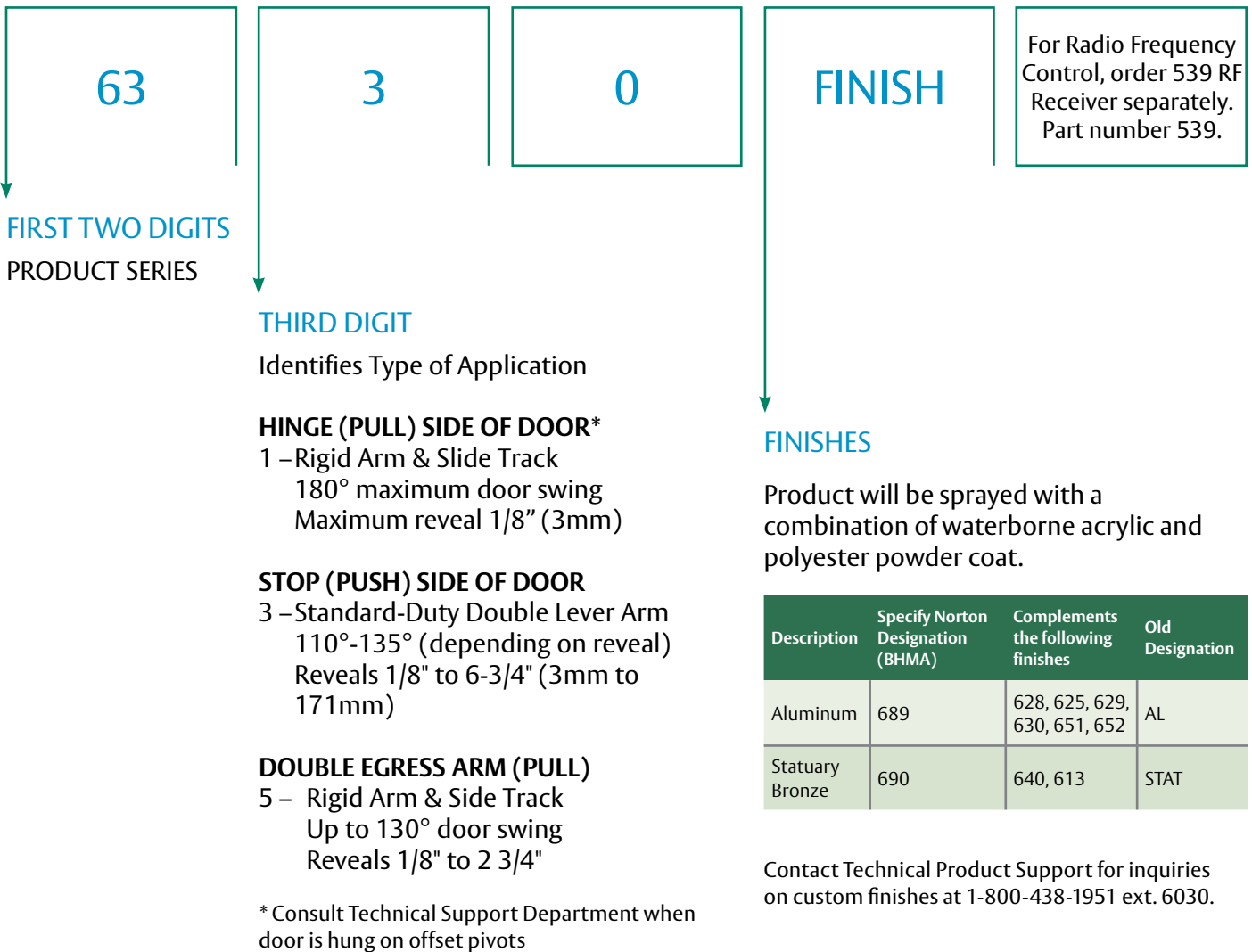
Low Profile Push Plate

- » 36" x 6" activation zone
- » 1" low profile depth
- » Stainless steel face plate
- » Adapts to either wireless or hardwired installations
- » **638** - Wireless
- » **639** - Hardwired

All hard wired switches are Momentary Contact SPDT, UL Listed. Optional DPDT switches are available; suffix "D" to model number.

HOW TO ORDER

Note: All transmitters (door switches or key fob) must be ordered separately.



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QUICK
SHIP

Norton®

ASSA ABLOY

ASSA ABLOY, the global leader
in door opening solutions

QUICK SHIP POLICY

Quick Ship Order Form

Please use the form on page 9 when placing orders for Norton® products.

Quick Ship Numbers

Quick Ship Numbers must be included on the order form. Orders listing model numbers only will be processed as factory orders.

Quick Ship/Factory Orders

Quick Ship Product Orders and Factory Orders must be submitted on separate order forms. Any order received having both factory and quick ship products will be processed as a factory order and shipped from the factory at normal lead times.

Quotes

CPQ's must be included with the purchase order. Orders without this information will be processed at standard buying programs.

Minimum Order

Minimum invoice is \$250 net product value.

Delivery

Lead time is 5 delivery days (from date order is entered). (Consult the current Norton® Price Book for a complete list of Terms & Conditions regarding delivery.) We reserve the right to limit quantities.

Freight

Standard freight terms (prepaid for shipments of net product value of \$3,000) will apply if Norton's choice of carrier is utilized.

Changes/Cancellations

Due to the promptness of delivery, no changes or cancellations can be accepted. The only exception is when we are out of stock.

Prices

All shipments will be made at prices prevailing at time of shipment.

Terms

Invoices dated the 1st through the 15th will be due for 2% discount on the 10th of the following month. Invoices dated the 16th through the 31st will be due for 2% discount on the 25th of the following month. Net immediately thereafter.

Consult the current Norton® Price Book for a complete list of Terms & Conditions, Tools & Rules and Warranty Information.

For Customer Service and Order Entry Contact:

ASSA ABLOY Door Security Solutions Customer Service - Monroe

1902 Airport Road
Monroe, NC 28110
Tel: 800-438-1951

All West Quick Ship orders must be faxed to 877-888-2772

Hours of Operation

8:00 am - 4:30 pm EST

Orders must be received before 2:30 pm EST for same day processing.

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7500 SERIES – INSTITUTIONAL DOOR CLOSERS

Tri-Style® Packaging, Sex Nuts not included

Model #	Description	Finish	Case Quantity	Quick Ship #	Approx. Weight (Each) lbs.
Non-Hold Open					
7500	Multi-Size 1-6	689	4	007730	9
7500	Multi-Size 1-6	690	4	007736	9
7500DA	Multi-Size 1-6, Delayed Action	689	4	007760	9
Hold Open					
7500H	Multi-Size 1-6	689	4	007733	11
Parallel Rigid (Supplied with Sex Nuts)					
Non-Hold Open					
PR7500	Multi-Size 1-6	689	4	007742	11
CloserPlus® (Supplied with Sex Nuts)					
Non-Hold Open					
CLP7500	Multi-Size 1-6	689	4	008574	14
Hold Open					
CLP7500T	Multi-Size 1-6 x Thumbturn	689	4	008576	14
Unitrol® (Supplied with Sex Nuts)					
Non-Hold Open					
UNI7500	Multi-Size 1-6, Door Width 33" - 41"	689	4	008530	11
Hold Open					
UNI7500H	Multi-Size 1-6, Door Width 33" - 41"	689	4	008532	11
Accessories					
7786	Back Plate	689	—	006996	3
7787	Top Jamb Drop Plate	689	—	006998	3
7788	Parallel Arm Drop Plate	689	—	007000	4
7701-8	HO Tri-Style® Arm	689	—	008542	0.2
SN-134	Sex Nut Pkg., 1-3/4" Door	690	—	002334	0.2
TBGN134-47	Through-Bolt and Grommet Nut Pkg., 1-3/4" Door	689	—	007240	0.2

Note: SN-134 - 4 per pack, TBGN134-47 - 4 sets per pack

PACKED WITH SEX NUTS

Model #	Description	Finish	Case Quantity	Quick Ship #	Approx. Weight (Each) lbs.
Non-Hold Open					
7500 x SN	Multi-Size 1-6	689	4	007729	9

8301/8501 SERIES

Tri-Style® Packaging, Sex Nuts not included

Model #	Description	Finish	Case Quantity	Quick Ship #	Approx. Weight (Each) lbs.
8301 - Slim Line Cover					
Non-Hold Open					
8301	Multi-Size 1-6	689	4	009246	7
8301	Multi-Size 1-6	690	4	009247	7
Hold Open					
8301H	Multi-Size 1-6	689	4	009249	9
8501 - Full Cover					
Non-Hold Open					
8501	Multi-Size 1-6	689	4	009251	8
8501	Multi-Size 1-6	690	4	009252	8
8501DA	Multi-Size 1-6, Delayed Action	689	4	009255	8
Hold Open					
8501H	Multi-Size 1-6	689	4	009256	10
Parallel Rigid (Supplied with Sex Nuts)					
Non-Hold Open					
PR8501	Multi-Size 1-6	689	4	009257	10
CloserPlus® (Supplied with Sex Nuts)					
Non-Hold Open					
CLP8501	Multi-Size 1-6	689	4	009258	9
Hold Open					
CLP8501T	Multi-Size 1-6 x Thumbturn	689	4	009260	10
8301 - Slim Line Cover					
Non-Hold Open					
8301 x SN	Multi-Size 1-6	689	4	009160	7
8501 - Full Cover					
Non-Hold Open					
8501 x SN	Multi-Size 1-6	689	4	008979	8
8501 x SN	Multi-Size 1-6	690	4	008977	8
Hold Open					
8501H x SN	Multi-Size 1-6	689	4	008978	10
Accessories					
8200P	Slim Line Cover	689	—	009090	0.5
8146	Drop Plate (Narrow Top Rail)	689	—	009096	2
8148	Drop Plate	689	—	009099	2
7701-8	HO Tri-Style® Arm	689	—	008542	4
SN-134	Sex Nut Pkg., 1-3/4" Door	690	—	002334	0.2
TBGN134-38	Through-Bolt and Grommet Nut Pkg., 1-3/4" Door	689	—	007228	0.2

Note: SN-134 - 4 per pack, TBGN134-38 - 4 sets per pack

1600BC/1601 SERIES

Tri-Style® Packaging, Sex Nuts not included
(BC Standard on 1601 Closers)

Model #	Description	Finish	Case Quantity	Quick Ship #	Approx. Weight (Each) lbs.
Non-Hold Open					
1601	Multi-Size 1-6	689	6	008384	7
1601	Multi-Size 1-6	690	6	008376	7
1603BC	Size 3	689	6	008417	7
1604BC	Size 4	689	6	008436	7
1604BC	Size 4	690	6	008477	7
Hold Open					
1601H	Multi-Size 1-6	689	6	008388	9
Accessories					
1688	Drop Plate	689	—	008557	2
7701-8	HO Tri-Style® Arm	689	—	008542	4
SN-134	Sex Nut Pkg., 1-3/4" Door	690	—	002334	0.2
TBGN134-38	Through-Bolt and Grommet Nut Pkg., 1-3/4" Door	689	—	007228	0.2

Note: SN-134 - 4 per pack, TBGN134-38 - 4 sets per pack

9300BC SERIES

Tri-Style® Packaging, Sex Nuts not included

Model #	Description	Finish	Case Quantity	Quick Ship #	Approx. Weight (Each) lbs.
Non-Hold Open					
9303BC x 9318A	Size 3	689	6	006785	7
9304BC x 9318A	Size 4	689	6	006789	7
Accessories					
TBGN134-38	Through-Bolt and Grommet Nut Pkg., 1-3/4" Door	689	—	007228	0.2

Note: SN-134 - 4 per pack, TBGN134-38 - 4 sets per pack

410 SERIES

Tri-Style® Packaging (TPN, TPH), Sex Nuts Not Included

Model #	Description	Finish	Case Quantity	Quick Ship #	Approx. Weight (Each) lbs.
Non-Hold Open					
410 x TPN	Multi-Size 1-6	689	3	015240	12
410 x TPN	Multi-Size 1-6	690	3	015241	12
Hold Open					
410 x TPH	Multi-Size 1-6	689	3	015242	12
410 x TPH	Multi-Size 1-6	690	3	015243	12
Heavy-Duty Arm, Non-Hold Open					
410 x HDN	Multi-Size 1-6, Arm has Removable Stop	689	4	015244	14
410 x HDN	Multi-Size 1-6, Arm has Removable Stop	690	4	015245	14
410 x CPS	Multi-Size 1-6, Arm has Removable Stop & Spring Buffer	689	4	015262	14
410 x CPS	Multi-Size 1-6, Arm has Removable Stop & Spring Buffer	690	4	015263	14
Heavy-Duty Arm, Hold Open					
410 x HDH	Multi-Size 1-6, Arm has Removable Stop	689	4	015246	14
410 x HDH	Multi-Size 1-6, Arm has Removable Stop	690	4	015247	14
410 x CPST	Multi-Size 1-6, Arm has Removable Stop & Spring Buffer	689	4	015264	14
410 x CPST	Multi-Size 1-6, Arm has Removable Stop & Spring Buffer	690	4	015265	14
Accessories					
SP410	Screw Pack	689	—	015254	0.2
SP410	Screw Pack	690	—	015255	0.2
SN-134	Sex Nut Pkg., 1-3/4" Door	690	—	002334	0.2
TBGN134-47	Through-Bolt and Grommet Nut Pkg., 1-3/4" Door	689	—	007240	0.2

210 SERIES

Tri-Style® Packaging (TPN, TPH), Sex Nuts not included

Model #	Description	Finish	Case Quantity	Quick Ship #	Approx. Weight (Each) lbs.
Non-Hold Open					
210 x TPN	Multi-size 1-6	689	6	015000	6.5
210 x TPN	Multi-size 1-6	690	6	015001	6.5
Hold Open					
210 x TPH	Multi-size 1-6	689	4	015002	6.5
210 x TPH	Multi-size 1-6	690	4	015003	6.5
Heavy-Duty Arm, Non-Hold Open					
210 x HDN	Multi-size 1-6	689	4	015006	7.75
210 x HDN	Multi-size 1-6	690	4	015007	7.75
Heavy-Duty Arm, Hold Open					
210 x HDH	Multi-size 1-6	689	4	015008	7.75
210 x HDH	Multi-size 1-6	690	4	015009	7.75
Accessories					
SN-134	Sex Nut Pkg., 1-3/4" Door	690	—	002334	0.2
TBGN134-38	Through-Bolt and Grommet Nut Pkg., 1-3/4" Door	689	—	007228	0.2

Note: SN-134 - 4 per pack, TBGN134-38 - 4 sets per pack

160 SERIES

Tri-Style® Packaging, Sex Nuts included

Model #	Description	Finish	Case Quantity	Quick Ship #	Approx. Weight (Each) lbs.
Non-Hold Open					
161BF x TPN	Multi-size 1-6	689	6	015044	6
161BF x TPN	Multi-size 1-6	690	6	015045	6
164 x TPN	Size 4	689	6	015046	6
164 x TPN	Size 4	690	6	015047	6
Hold Open					
161BF x TPH	Multi-size 3-6	689	6	015048	6
161BF x TPH	Multi-size 3-6	690	6	015049	6
Accessories					
SN-134	Sex Nut Pkg., 1-3/4" Door	690	—	002334	0.2
TBGN134-38	Through-Bolt and Grommet Nut Pkg., 1-3/4" Door	689	—	007228	0.2

Note: SN-134 - 4 per pack, TBGN134-38 - 4 sets per pack

CLOSER TOUCH-UP PAINT

Tri-Style® Packaging, Sex Nuts included

Model #	Description	Finish	Quick Ship #	Approx. Weight (Each) lbs.
1A	Aluminum	689	007781	1
5S	Dark Statuary Bronze	690	007786	1
2BZ*	Light Bronze	691	007787	1
6SB^	Satin Brass	696	007788	1

Spray paint to match closers manufactured:

*after February 2010

^after June 2010

OPTIONAL FASTENERS

Model #	Description	Finish	Quick Ship #	Approx. Weight (Each) lbs.
SNB134-38	Sex Nut w/ Screws (1600, 1700, 78-B/F, 8000 and 9300BC)	689	004900	1

Note: SNB134-38 - 4 sets per pack

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Since 1880, Norton door controls have been an integral part of schools, hospitals and businesses around the globe. When you need products and people that perform at the highest level, rely on Norton – From Open to Close.

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QUICK SHIP POLICY

Quick Ship Order Form

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7500 SERIES – INSTITUTIONAL DOOR CLOSERS

Tri-Style® Packaging, Case Qty. 4

Model #	Description	Finish	Quick Ship #	Approx. Weight (Each) lbs.
Non-Hold Open				
7500 x SN^	Multi-Size 1-6	689	007729	9
7500 x SN^	Multi-Size 1-6	690	007727	9
7500DA	Multi-Size 1-6, Delayed Action	689	007760	9
Hold Open				
7500H x SN^	Multi-Size 1-6	689	015706	11
CloserPlus®				
Non-Hold Open				
CLP7500^	Multi-Size 1-6	689	008574	14
Parallel Rigid				
Non-Hold Open				
PR7500^	Multi-Size 1-6	689	007742	14
Accessories				
7788	Parallel Arm Drop Plate	689	007000	4
7786	Regular Arm Drop Plate	689	006996	4

^ Sex nuts included.

8500 SERIES – ARCHITECTURAL DOOR CLOSERS

Tri-Style® Packaging, Case Qty. 4

Model #	Description	Finish	Quick Ship #	Approx. Weight (Each) lbs.
8501 - Full Cover				
Non-Hold Open				
8501 x SN^	Multi-Size 1-6	689	008979	8
8501 x SN^	Multi-Size 1-6	690	008977	8
8501DA x SN^	Multi-Size 1-6, Delayed Action	689	015708	8
Hold Open				
8501H x SN^	Multi-Size 1-6	690	015709	10
8501H x SN^	Multi-Size 1-6	689	008978	10
CloserPlus®				
Non-Hold Open				
CLP8501^	Multi-Size 1-6	689	009258	9
Accessories				
8146	Regular Arm Drop Plate	689	009096	4
8148	Parallel Arm Drop Plate	689	009099	4
8148	Parallel Arm Drop Plate	690	015707	4

^ Sex nuts included.

1601 SERIES – ALUMINUM STOREFRONT DOOR CLOSERS

Tri-Style® Packaging, Case Qty. 6

Model #	Description	Finish	Quick Ship #	Approx. Weight (Each) lbs.
Non-Hold Open				
1601 x SN^	Multi-Size 1-6	689	008147	7
1601 x SN^	Multi-Size 1-6	690	015700	7
Hold Open				
1601H x SN^	Multi-Size 1-6	689	015701	9

410 SERIES – CAST IRON DOOR CLOSERS

Tri-Style® Packaging, Case Qty. 3

Model #	Description	Finish	Quick Ship #	Approx. Weight (Each) lbs.
Non-Hold Open				
410 x TPN^	Multi-Size 1-6	689	015240	13
410 x TPN^	Multi-Size 1-6	690	015241	13

210 SERIES – ARCHITECTURAL DOOR CLOSERS

Tri-Style® Packaging, Case Qty. 4

Model #	Description	Finish	Quick Ship #	Approx. Weight (Each) lbs.
Non-Hold Open				
210 x TPN^	Multi-Size 1-6	689	015000	8.5
210 x TPN^	Multi-Size 1-6	690	015001	8.5

^ Sex nuts included.

160 SERIES – ALUMINUM STOREFRONT DOOR CLOSERS

Tri-Style® Packaging, Case Qty. 6

Model #	Description	Finish	Quick Ship #	Approx. Weight (Each) lbs.
Non-Hold Open				
161BF x TPN^	Multi-Size 1-4	689	015044	7
161BF x TPN^	Multi-Size 1-4	690	015045	7

SCREW PACKS

List #	Description	Finish	Quick Ship #	Approx. Weight (Each) lbs.
SN-134	Sex Nuts Package , 1-3/4" Door	689	007210	0.2

5700 SERIES - LOW ENERGY OPERATOR

List #	Description	Finish	Quick Ship #	Approx. Weight (Each) lbs.
Operator				
5740	Push & pull arms included	689	015391	30
Accessories				
505	Door Switch, 6", Hardwired	N/A	015702	1.1
539	Radio Frequency Receiver	N/A	015703	0.6
548	Radio Frequency Receiver - 9V	N/A	015704	0.3
555	6" Square Surface Mount Box (for 505, 507)	N/A	015705	1.8

^ Sex nuts included.

[illegible]



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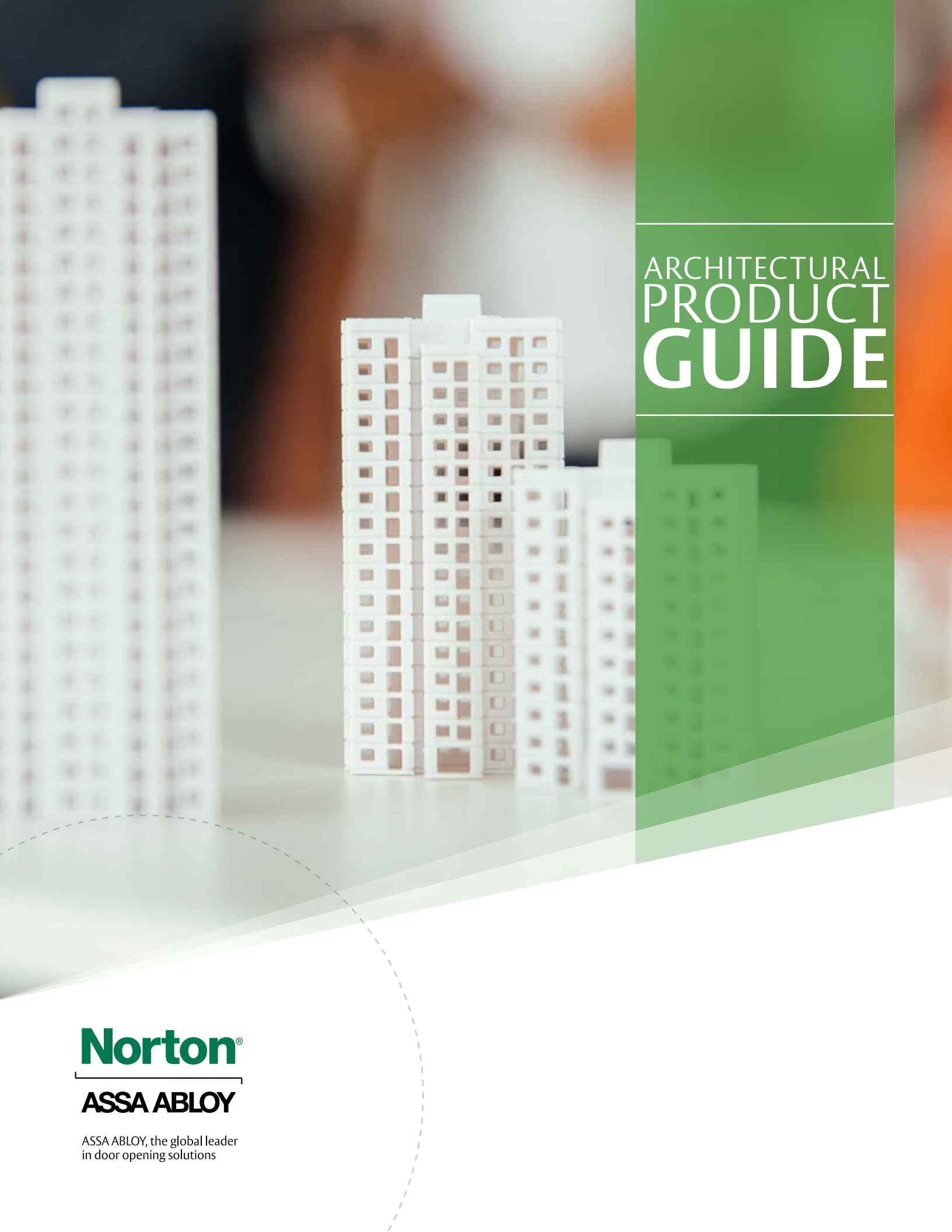
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The background of the cover features a blurred architectural model of a city skyline. In the foreground, a white model of a tall building with a grid of windows is visible. To the right, a green vertical bar contains the title text. A dashed line curves across the bottom left of the page.

ARCHITECTURAL PRODUCT GUIDE

Norton®

ASSA ABLOY

ASSA ABLOY, the global leader
in door opening solutions

INTRODUCTION

Norton Door Controls offers a comprehensive line of door controls designed and manufactured to ensure superior performance, reliability and application breadth.

Founded in 1880, Lewis C. Norton began Norton Door Check Company to manufacture and market the first practical commercial door closer. In later years, Norton refined the rack and pinion closer and the concept of valve-controlled backcheck for hydraulic closers. Along the way there have been a variety of other innovations, including the aluminum alloy body, narrow style, non-handed closers, adjustable backcheck, speed adjustments and special application arms.

Today Norton® offers traditional surface, industrial economy, overhead concealed, commercial and architectural grade closers. To complement the closers, Norton also offers a unique range of arms to help provide maximum door and frame protection.

For a complete copy of all Norton catalogs and additional technical information, contact your local sales representative or visit us at www.nortondoорcontrols.com.

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SUGGESTED APPLICATIONS

Series	Cam Action	Cast Iron	Institutional	Architectural	Aluminum Storefront	Medium Duty Commercial	Light Duty Commercial	Specialty
Sized Surface Closers					1600BC		1700BC 9300BC	78-B/F
Multi-Sized Surface Closers	2800ST	9500 9540	7500	8301 8501	1601	410	210 160	
Security			7570					
Overhead Concealed Closers			7900					

FINISHES

ANSI/BHMA	Description	ANSI/BHMA	Description
600	Prime Coat	689	Aluminum
605	Bright Brass	690	Statuary Bronze
606	Satin Brass	691	Dull Bronze
611	Bright Bronze	693	Black
612	Satin Bronze	694	Medium Amber
613E	Dark Oxidized Satin Bronze - Equivalent	696	Gold
619	Satin Nickel	N/A 556	White*
625	Bright Chrome		
626	Satin Chrome		

* White finish only available on 9500, 7500, 8000, 1600 and 1700BC Series closers.

Norton offers waterborne acrylic, polyester powder coat and plated finishes. Custom finishes are available on special order.

Waterborne acrylic and polyester powder coat will withstand 100 hours of salt spray (ANSI requires 25 hours).

Norton closer bodies and plastic covers are available in waterborne acrylic finishes. Arms and metal covers are available in powder coat or plated finishes.

2800ST SERIES



The 2800ST Series is a cam action door closer for slide arm and track applications. The door closer's wide range of adjustable closing power permits use in the most demanding situations and its unobtrusive design is a good choice for architects and designers.



Features

- » Cam action design for smooth operation: efficient, powerful, heavy-duty
- » Slide track application with regular arm operating efficiency
- » Adjustable spring size 1 through 6
- » Non-handed
- » Push or pull side mounting
- » Suitable for exterior and interior doors
- » Recommended maximum interior door width 54" (137cm)
- » Recommended maximum door weight 250 lbs.
- » Standard opening range:
 - › Push Side = 110°
 - › Pull Side = 110°
- » Hold open; specify "H" suffix
- » 10-year limited warranty

Functions

- » Adjustable closing force
- » Adjustable closing and latching speed
- » Backcheck

Certifications

- » Meets requirements for Americans with Disabilities Act (ADA) 
- » UL / cUL listed for use on fire rated doors 

9500 SERIES



Ideal for high use openings, the 9500 Series Cast Iron door closer offers the durability, flexibility and strength required to meet the needs of your facility. For interior or exterior doors, this ANSI/BHMA Grade 1 closer features a clean, modern cover aesthetic and durable cast iron body that can be used in a variety of institutional and educational environments requiring ADA compliance.




Features

- » Cast iron closer body
- » Clean, modern cover design featuring Norton branding
- » Non-handed
- » Rack and pinion design
- » Staked valves
- » 2-1/4" (57mm) projection
- » Closer mounting plate for easy installation
- » Tri-style® packaging: packed for regular, top jamb or parallel arm mounting
- » Adjustable spring sizes 1-6
- » Molded ABS plastic cover
- » Metal cover (optional)
- » All standard arm applications allow doors to swing 180°, conditions permitting
- » Heavy-duty arms available: Regular Rigid, Parallel Rigid, CloserPlus®, Parallel Rigid Offset and Unitrol®
- » Slide Track: push or pull side mounting
- » 25-year limited warranty

Functions

- » Standard, separate and independent, latch, sweep and backcheck intensity valves
- » Pressure relief valves for both opening and closing cycles protect the door and frame from damage and reduces maintenance costs
- » Delayed action; specify "DA" suffix

Certifications

- » Exceeds 25 million cycles (independently verified)
- » ANSI/BHMA A156.4 Grade 1 certified 
- » UL / cUL listed for use on fire rated doors 
- » UL10C listed for positive pressure fire test
- » 9500 door closers are designed to comply with requirements for the Americans with Disabilities Act (ADA) and ANSI standard A117.1 

9540 SERIES



The Norton 9540 Cast Iron door closers provide an ideal retrofit solution for retail, office, government and other commercial facilities. Certified to ANSI/BHMA Grade 1 requirements for long life and reliability, the 9540 is a direct replacement for LCN 4040 closers. Featuring a 25-year warranty, adjustable spring sizes 1-6, and Tri-Style® packaging, this heavy duty closer provides durability and strength for high traffic applications.




Features

- » Cast iron closer body
- » Retrofits LCN 4040
- » Non-hold open
- » Non-handed
- » Rack-and-pinion design
- » Staked valves
- » 2-1/4" (57mm) projection
- » 1-1/2" (38mm) diameter piston
- » 5/8" (16mm) diameter pinion journals
- » Mounting bracket
- » Tri-style® packaging: packed for regular, top jamb or parallel arm mounting
- » Adjustable spring sizes 1-6
- » Molded ABS plastic cover
- » Metal covers (optional)
- » 25 year limited warranty

Functions

- » Standard, separate and independent, latch, sweep and backcheck intensity valves
- » Pressure relief valves for both opening and closing cycles, protect the door and frame from damage, and reduces maintenance costs
- » Delayed Action (optional)

Certifications

- » ANSI/BHMA A156.4, Grade 1 certified 
- » UL / cUL listed for use on fire rated doors 
- » UL10C listed for positive pressure fire test
- » 9540 door closers are designed to comply with requirements for the Americans with Disabilities Act (A.D.A) and ANSI standard A117.1 

7500 SERIES



The 7500 Series Door Closer offers customers the ideal combination of superior performance, strength and quality. Ideal for interior or exterior doors in facilities that demand reliability.




Features

- » Tri-Style® packaging; tri-packed for regular, top jamb or parallel arm mounting
- » Non-handed
- » Rack and pinon design
- » Cast aluminum body
- » Adjustable spring sizes 1-6
- » 2-3/16" (56mm) projection
- » Staked valves
- » Corrosion resistant model (non-hold open only). Specify 7500SS
- » Retrofit plates
- » Molded plastic cover
- » All standard arm applications allow doors to swing 180°, conditions permitting
- » Self drilling screws
- » Full size template
- » Application specific mounting: Regular (S), Top Jamb (JS) or Parallel (P) mount
- » Heavy-duty arms: Regular Rigid, Parallel Rigid, CloserPlus®, CloserPlus Spring™ and Unitrol®
- » Slide Tracks: push or pull side mounting
- » 25-year limited warranty

Functions

- » Standard, separate and independent, latch, sweep and backcheck intensity valves
- » Backcheck positioning
- » Enhanced backcheck. Specify EBC suffix
- » Delayed action with pressure "EBC" valve

Certifications

- » Exceeds 25 million cycles (independently verified)
- » ANSI/BHMA A156.4, Grade 1 certified 
- » UL / cUL listed for use on fire rated doors 
- » UL10C listed for positive pressure fire test
- » 7500 door closers are designed to comply with requirements for the Americans with Disabilities Act (A.D.A) and ANSI standard A117.1 

7570 SECURITY



The Security Closer Line uses Norton's 7500 series door closers with a variety of regular rigid and parallel arms and track options. Designed for use in institutions where vandalism, abuse, escape, personal injury, or damage to doors, walls, and hardware are major concerns, the 7570 Series provides superior performance and reliability.




Features

- » Security arms - joints feature permanent, orbital riveted elbow and arm shoe/soffit plate joints which prevent disassembly
- » Heavy-duty arms available - Parallel Rigid, CloserPlus® and CloserPlus Spring™
- » Slide track - push or pull side mounting

Functions

- » Adjustable backcheck cushioning and positioning
- » Delayed action; specify "DA" suffix
- » Enhanced backcheck; specify "EBC" suffix

Certifications

- » ANSI/BHMA A156.4, Grade 1 certified 
- » UL / cUL listed for use on fire rated doors 
- » UL10C listed for positive pressure fire test
- » 7570 door closers are designed to comply with requirements for the Americans with Disabilities Act (A.D.A) and ANSI standard A117.1 

8000 SERIES



The 8000 Series Door Closers offer the ideal combination of appearance, reliability and durability in today's market. With features such as staked valves, precise valve adjustment and a complete range of arm and cover options, this closer can meet virtually any application challenge.




Features

- » Non-handed
- » Staked valves
- » 2-1/8" (54mm) projection (standard covers)
- » All standard arm applications (with slim, full or metal covers) allow doors to swing 180°, conditions permitting
- » Optional metal, architectural plastic or architectural metal covers (8501)
- » Heavy-duty arms available: Parallel Rigid, CloserPlus®, CloserPlus Spring™ and Unitrol®
- » 25-year limited warranty

Functions

- » Standard, separate and independent, latch, sweep and backcheck intensity valves
- » Delayed action; specify "DA" suffix

Certifications

- » Exceeds 25 million cycles (independently verified)
- » ANSI/BHMA A156.4, Grade 1 certified 
- » UL / cUL listed for use on fire rated doors 
- » UL10C listed for positive pressure fire test
- » 8301 and 8501 door closers are designed to comply with requirements for the Americans with Disabilities Act (A.D.A) and ANSI standard A117.1 

	8301	8501
Tri-Style® standard (regular arm, top jamb and parallel arm mounting)	X	X
Slim line cover	X	
Full cover		X

1600 SERIES



The 1600 Series Door Closers are designed to fit almost any application and are the choice of engineers worldwide. Ideal for use with aluminum storefront doors and frames, these closers have a history of proven quality and tradition.




Features

- » Non-handed
- » Rack-and-pinion design
- » Cast aluminum body
- » Adjustable sizes (1-6) and fixed sizes (3 or 4) available
- » 2-7/8" (73mm) projection
- » 1-3/8" (35mm) diameter piston
- » 5/8" (16mm) diameter pinion journals
- » Tri-Style® packaging (regular arm, top jamb and parallel arm mounting)
- » All standard arm applications allow doors to swing 180°, conditions permitting
- » Staked valves
- » Corrosion-resistant model (non-hold open only). Specify 1601SS. (Not tri-packed)
- » Molded plastic cover. Specify suffix P
- » Heavy-duty arms: Parallel Rigid, CloserPlus®, CloserPlus Spring™, Cushion Stop, and Unitrol®
- » 25-year limited warranty

Functions

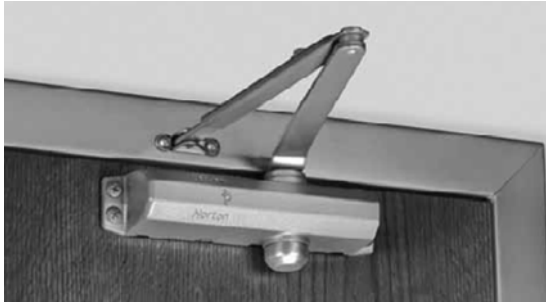
- » Standard, separate and independent, latch, sweep and backcheck cushioning valves

Certifications

- » Exceeds 25 million cycles
- » ANSI/BHMA A156.4, Grade 1 certified 
- » UL / cUL listed for use on fire rated doors 
- » UL10C listed for positive pressure fire test
- » 1601 door closers are designed to comply with requirements for the  Americans with Disabilities Act (A.D.A) and ANSI standard A117.1

Features	8301	8501
Sized springs 3 or 4 with no power adjustment	X	
Adjustable spring sizes 1 through 6		X

1700BC SERIES



The 1700BC Series Door Closers are multi-feature closers whose compact design is ideal for application on interior doors. This narrowstroke closer has distinctive lines that harmonize with most decors. Ideal for use on interior apartment doors, hotels and other light duty commercial buildings.


Features

- » Spring size 1, 2, 3, or 4
- » Installs regular arm, parallel arm or top jamb
- » Non-handed
- » Optional full cover
- » Hold open; specify "H" suffix
- » 5-year limited warranty

Functions

- » Independent adjustable sweep and latch speeds
- » Backcheck standard

Certifications

- » UL / cUL listed for use on fire rated doors 
- » UL10C listed for positive pressure fire test

9300BC SERIES



The 9300BC is a durable, economically priced door closer designed for commercial exterior and interior doors such as storefront and industrial applications.


Features

- » Spring size 3 or 4
- » Non-handed
- » Regular and top jamb mount standard - no prefix
- » Parallel mount; specify "P" prefix
- » Friction hold open arm; specify "H" suffix
- » 5-year limited warranty

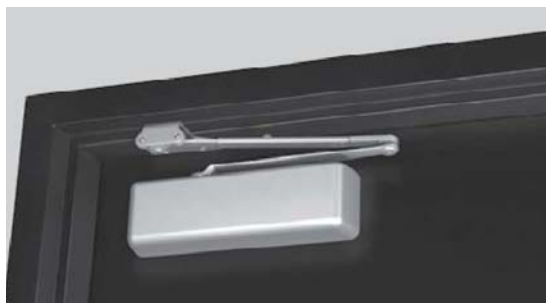
Functions

- » Separate and independent valve for sweep speed and latch speed
- » Adjustable backcheck standard

Certifications

- » ANSI/BHMA A156.4, Grade 3
- » UL / cUL listed for use on fire rated doors 
- » UL10C listed for positive pressure fire test

410 SERIES



The Norton 410 Series Cast Iron Door Closers provide an attractive retrofit solution for retail, office, government and other commercial facilities. Heavy-duty and hold open arms, along with adjustable spring size, backcheck, closing and latch speed, provide a flexible and economical closer that you can trust. The 410 Series is certified to ANSI/BHMA Grade 1 requirements for long life and reliability, and offers a 10 year warranty.




Features

- » Adjustable spring sizes 1 - 6
- » Cast iron closer body
- » Standard and heavy-duty arms available as hold open or non-hold open
- » Adjustments for backcheck, closing and latch speed
- » Tri-packed for regular, parallel or top jamb installation
- » Sleeve nuts and bolts provided with each closer
- » Retrofit for LCN 4040/4041
- » Non-handed
- » Plastic cover
- » 10 year warranty

Functions

- » Backcheck
- » Closing speed
- » Latching speed
- » Delayed Action (optional)

Certifications

- » Certified for ANSI/BHMA A156.4 Grade 1 
- » UL/cUL listed for use on fire rated doors 
- » UL10C listed for positive pressure fire test
- » Meets requirements for Americans with Disabilities Act (ADA)  and ANSI/BHMA A117.1

210 SERIES



Features

- » Adjustable spring size 1 through 6
- » Non-handed
- » Cast aluminum body
- » Rack and pinion design
- » Full plastic cover
- » Non-hold open, hold open and heavy-duty arms
- » Closer footprint: 3/4" x 12"
- » Cover dimensions: 2-15/16" high x 2-1/8" deep x 13-1/16" long
- » Available in 689 (aluminum) or 690 (dark bronze) finishes
- » 10-year limited warranty

Functions

- » Independent latch sweep and backcheck intensity valves

Certifications

- » ANSI/BHMA A156.4, Grade 1 
- » UL / cUL listed for use on fire rated doors 
- » UL10C listed for positive pressure fire test
- » Meets requirements for Americans with Disabilities Act (ADA)  and ANSI/BHMA A117.1

160 SERIES






Features

- » Two models:
 - » 161BF: adjustable spring size 1 through 4
 - » 164: size 4 spring
- » Non-handed
- » Cast aluminum body
- » Rack and pinion design
- » Non-hold open arms: 161BF, 164
- » Hold open arms: 161BF only
- » Closer footprint: 3/4" x 9-1/16"
- » Closer projection: 2-5/8"
- » Available in 689 (aluminum) or 690 (dark bronze) finishes
- » 5-year limited warranty

Functions

- » Independent latch sweep and backcheck intensity valves

Certifications

- » ANSI/BHMA A156.4, Grade 1 
- » UL / cUL listed for use on fire rated doors 
- » UL10C listed for positive pressure fire test
- » Meets requirements for Americans with Disabilities Act (ADA)  and ANSI/BHMA A117.1

78-B/F SERIES



The 78-B/F "Potbelly" Surface Closers represent a combination of traditional styling and modern closer features. In addition only two springs are needed to accommodate the complete range of door sizes.


Features

- » Choice of adjustable spring power
 - » B/D - Spring size 2, 3, or 4
 - » E/F - Spring size 5 and 6
- » Handed (closer spring can be reversed in the field)
- » Heavy-duty arms available: Parallel Rigid and Unitrol®
- » 10-year limited warranty

Functions

- » Delayed action (DA units are handed; not field reversible)
- » Adjustable sweep/latch speed
- » Adjustable backcheck cushioning

Certifications

- » ANSI/BHMA A156.4, Grade 3
- » UL / cUL listed for use on fire rated doors 

7900 SERIES



Overhead concealed closers provide an aesthetically appealing way to close a door. In situations where a closer is needed but concealment in the frame header is required or desired, the 7900 closer is the ideal solution for door control.



Features

- » Steel track and slider
- » Fully adjustable, multi-point hold open (7900)
- » Shock-absorbing door stop
- » Handed
- » Available as sized or multi-sized units
- » Sized closer (4, 5 or 6); specify 7904, 7905 or 7906
- » Multi-sized (1-6); specify 7900
- » Installs with butt hinges, offset or center hung pivots
- » Installs in hollow metal, aluminum or wood doors and frames
- » Torx® screws furnished standard (Order 7970DPS)
- » 790 Fire Block
- » Door Position Switch (7970DPS)
- » 10-year limited warranty

Functions

- » Adjustable sweep and latch speeds
- » Adjustable backcheck cushioning and positioning

Certifications

- » ANSI/BHMA A156.4, Grade 1 certified 
- » UL listed 

SAFE ZONE®



Designed with safety in mind, SafeZone® takes door closers to a higher level. SafeZone uses a multi-point, electromechanical closer and a programmable motion sensor. When the door is opened manually, SafeZone senses movement in the door opening and stops the door from closing. A physically disabled person in a wheelchair; an elderly person moving slowly; a child who stops to pick up a toy are all protected. When movement is no longer detected, the adjustable setting times out and the door closes. SafeZone detects movement in both directions, allowing one person or a stream of people to travel through an opening, making it ideal for theaters, hospitals, doctor's offices and elementary schools.

Features

- » Multi-point, electromechanical closer/holder
- » Sensor detects movement in both directions
- » Selectable hold open time and sensitivity
- » Push or pull side mounting
- » Handed units
- » Spring sizes 3, 4 or 5 (models 7110SZ and 7150SZ); spring sizes 2, 3, 4 or 5 (models 7120SZ and 7130SZ)
- » Fail safe operation
- » 2-year limited warranty




Benefits

- » Energy savings realized by power engaging only when motion is detected
- » Extends door life and minimizes wear and tear on hardware by limiting unnecessary cycles

Patents

- » Patent Pending

Certifications

- » Certified to meet ANSI/BHMA A156.15 Release Devices 
- » UL / cUL listed for use on fire rated doors 
- » UL10C listed for positive pressure fire test
- » The following models comply with requirements for the Americans with Disabilities Act (A.D.A) and ANSI standard A117.1 
 - Push Side: 7122SZ, 7132SZ
 - Pull Side: 7113SZ, 7153SZ

7200 SERIES



The 7200 Series is a multi-point electromechanical closer/holder that provides flexibility to installers and facility managers. Shipped standard with selective hold open, the 7200 Series is designed to hold the door open at any point up to 180°. Available for push or pull side mounting, these units can be ordered with integral smoke detectors or remote wireless door releases.

Features

- » Multi-point hold open
- » Push or pull side mounting
- » Handed
- » Closer size 3, 4 or 5
- » Selective Hold Open (standard) - door will hold open at any degree of opening beyond a pre-set hold open point, up to 175°
- » Infinite Hold Open (optional) - door will hold open at any degree of opening up to 175°. Infinite Hold Open can be set in the field by turning the cam
- » Voltage - 24VAC/DC or 120VAC
- » Detected or non-detected units available
- » 2-year limited warranty

Optional Features

- » Radio Frequency - RFS (selective) - RF units are not UL listed for fire doors
- » Free Swing arm (7240 pull side only)

Functions

- » Master Unit: Suffix MPDO
- » Slave/Support Unit: Suffix MPSO
- » Executive™ Unit: Suffix RFS

Certifications

- » ANSI/BHMA A156.15 certified **BHMA** certified
- » UL / cUL listed for use on fire rated door **UL**
- » UL10C listed for positive pressure fire test

7700 SERIES POWER TRACK®



The Power Track® Series combines the function of a single-point electromechanical door holder with the proven reliability of a 7500 Series door closer. The track assembly contains an arm slide and solenoid operated hold open mechanism and is available with or without an integral smoke detector.

Features

- » Selective single-point hold open
- » Spring cushioned dead stop
- » Spring size 5; order 7705
- » 24 VAC/DC or 120VAC, 60Hz
- » Push or pull side mounting. Prefix "P" for push side installation.
- » Fail-safe operation
- » Available with or without smoke detector
- » 2-year limited warranty

Functions

- » Master Unit – Suffix PTDO
- » Support Unit – Suffix PTO

Certifications

- » ANSI/BHMA A156.15 certified 
- » UL listed (All Support units are UL listed for application with any compatible UL listed fire/smoke detection equipment) 

6300 SERIES



The Norton 6300 Series Low Energy Operator offers a broad set of intelligent functions, such as latch boost, latch retraction and obstruction detection to safely secure a variety of moderate to high traffic openings. A unique design with one of the slimmest profiles available allows the 6300 to blend more seamlessly with the frame while fitting challenging applications with minimal header space. A modular design and simple controls also make for easy installation and setup.




Features

- » Push and pull side mounting
- » Non-handed
- » Activated by push button, hands-free and RF devices
- » Door size: min width 36", max width 48", max weight 200 lbs.
- » Power assist
- » Push and go (selectable)
- » Obstruction detection (open and close)
- » Aesthetically pleasing, slim profile
- » Modular design
- » Lock release feature for enhanced security
- » Latch boost
- » Selectable mode switch (off, on, hold open)
- » Adjustable opening force
- » Adjustable closing power
- » Blow open and blow close for smoke ventilation
- » 2 year limited warranty

Electrical Data

- » Power input 120 VAC, 3A, 60Hz
- » Current draw 1.5A
- » Power output 24VDC @ 1.3A max draw (less accessories)

Certifications

- » ANSI/BHMA A156.19 certified 
- » UL325/991 certified 
- » UL10C listed for positive pressure fire test
- » Complies with requirements for the Americans with Disabilities Act (A.D.A) 
- » Manufactured in an ISO 9001 and ISO 14001 certified facility

6000 SERIES



The 6000 Series combines intelligence, reliability and superior control in one package. Designed with the user in mind, this operator features simple to use electronics, an onboard power supply and easy integration into access control systems.

Features and Functions

- » Ease of installation and setup
 - › Simple instructions
 - › LCD screen and joystick controller
- » Application versatility and ease of adjustment
 - › Non-handed units
 - › Push or pull side mounting
- » Push and Go selector
 - › As the door is manually opened, the operator "senses" movement and opens door to the full-open position
- » Obstruction Detection
 - › Open - Door closes if it hits an obstruction while opening
 - › Close - Door re-opens (once) if it hits an obstruction while closing. If the door hits the obstruction again, the door will rest against the obstruction until it is removed.
- » Motor startup delay adjustment
 - › Delays operator opening
- » Vestibule delay adjustment
- » Selector mode switch
 - › Off - Disables signal inputs except blow open
 - › On - Activates signal inputs
 - › Infinite Hold Open - Door will hold open at set position until power is turned off
- » Operates as mechanical surface closer during close cycles or if power is turned off
- » 2-year limited warranty

Electrical Data

- » Power input 120 VAC, 60 Hz (+10%, -15%)
- » Current draw 0.9A
- » Auxiliary output 24 VDC @ 1.3A
- » SPDT relay output for controlling electric strikes or electric locks not to exceed 1 amp @ 30 VDC

Certifications

- » ANSI/BHMA A156.19 certified 
- » ETL tested to UL/ULC standards for automatic doors used on fire and smoke barrier doors and ETL tested to UL / cUL standard for automatic doors on fire & smoke barrier doors
- » UL10C listed for positive pressure fire test 
- » Complies with requirements for the Americans with Disabilities Act (A.D.A.) 
- » Verified by GreenCircle to offer 24% energy savings as  compared to similar operators

5800 SERIES ADAEZ®







As one of the world's only regenerative power door operators, Norton's 5800 Series ADAEZ is certified by GreenCircle® to reduce energy consumption by as much as 100 percent versus other comparable operators. Available in wireless and plug-in versions and able to fit in the tightest of spaces, the 5800 ADAEZ is simple to install and use.

Features and Functions

- » Regenerative drive or continuous duty operation
- » Non-handed
- » 95° max. door opening
- » Push and pull side mounting
- » Push-and-Go (ADA1015P Kit must be connected)
- » Power Close (ADA1015P Kit must be connected)
- » RF Radio Frequency stainless steel push buttons
- » Integral RF receiver
- » Shock absorbing arm
- » 693T (black) and 689 (aluminum) covers standard
- » 24 VDC input port
- » ADA1015P hardware kit
- » Built-in ON/OFF Switch
- » Auxiliary activation input port
- » Maximum door width - 48"
- » Maximum door weight - 250 lbs
- » Patented Auto-Tune feature ensures safety and compliance with A156.19 code

Certifications

- » ANSI/BHMA A156.19 certified 
- » ETL tested to UL/cUL standard for automatic doors on fire & smoke barrier doors 
- » Complies with requirements for Americans with Disabilities Act (ADA) 
- » UL10c 90-minute positive pressure fire rating
- » Manufactured in an ISO 9001 and ISO 14001 certified facility
- » Verified by GreenCircle to offer these energy savings as compared to similar products: 
 - › 5800 Series ADAEZ® (plug-in) – 91% efficiency
 - › 5800 Series ADAEZ® (wireless) – 100% efficiency

5700 SERIES



The 5700 Series design is based on ease and simplicity. This unit installs in minutes rather than hours and consists of three basic components: inverter, motor and Norton's 1601 closer body. Quiet and dependable, the 5700 meets the requirements of the Americans with Disability Act (A.D.A.) and ANSI/BHMA A156.4. Available push or pull side mounting, this unit is perfect for applications that don't require special features but demands reliability.




Features and Functions

- » Ease of installation and setup
 - › Simple instructions
- » Application versatility and ease of adjustment
 - › Push or pull side mounting available
- » Operates as mechanical surface closer during close cycles or when door is opened manually or if power is turned off
 - › Quiet operation
 - › Acceptable for fire rated doors
 - › Spring force provides the feel of a normal manual door closer
 - › Door can be opened manually if desired
- » Non-handed
- » End-User On/Off Switch
- » Norton® 1600 series door closer
- » Unit Activation Options
 - › Wall switches
 - › Motion sensor
 - › Radio frequency device
- » Hold Open options
 - › 0-30 seconds (5 seconds minimum required for ADA and ANSI/BHMA A156.19)
- » Obstruction Detection
 - › Motor stops if door is obstructed during an opening
 - › Door closes under manual spring force
- » "Push and Close"
 - › Allows the operator to skip the hold open time when it is not necessary or required
 - › Adjustable door sensitivity
- » Overload Safety Shut-Off
 - › After two minutes of receiving a door activation signal, the inverter will time out and close the door
 - › Prevents motor/inverter damage
- » Motor Start Delay for Locking Hardware
 - › 0-5 second delay to allow locking hardware to release first
- » 2-year limited warranty

Electrical Data

- » Power Input: 120 VAC, 60Hz
- » Current Draw: .6A or .3A
- » Relay Output: DPDT
 - › Normally Open/Normally Closed (jumper)

Certifications

- » ANSI/BHMA A156.19 (Low Energy Operators) certified 
- » Meets ANSI/BHMA A156.4 requirements
- » UL / cUL listed for use on fire rated doors 
- » UL10C listed for positive pressure fire test
- » Complies with requirements for the Americans with Disabilities Act (A.D.A.) 

5600 SERIES



The 5600 Series offers functionality and control at an affordable price. Ideal for retrofit applications, the 5600 Series converts interior, non-fire rated doors for ADA compliance easily and affordably and provides a simple way to achieve touchless environments in public restrooms.

Features

- » Push or pull side mounting
- » Non-handed
- » Quiet operation
- » Electrically controlled backcheck, sweep and latch
- » Activation options: wall switches, radio frequency devices
- » Ease of installation and set-up
- » On/Off Switch
- » Hold open options: 0-30 seconds (5 seconds minimum required for ADA and ANSI/BHMA A156.19)
- » Onboard 24VDC (1.1A) power supply for accessories
- » Door closer mode for manual usage
- » Electronic motor dampening - provides feel of normal, manual door closer
- » Electric hardware and access control interface
- » Optional AC power cord
- » 1-year limited warranty



Functions

- » Push & Go
 - › As the door is manually opened, the operator "senses" movement and opens door to the full-open position.
- » Obstruction Detection
 - › Motor stops if door is obstructed during opening
- » Motor Start Delay
 - › 0-5 second delay to allowing locking hardware to release first
- » Overload Safety Shut-Off
 - › After two minutes of receiving a door activation signal, the inverter will time out
 - › Prevents motor/inverter damage

Electrical Data

- » Power Input: 120 VAC, 60Hz
- » Current Draw: .6A
- » Relay Output: SPDT
 - › Normally Open/Normally Closed (jumper)
 - › For electric strike function

Certifications

- » ETL certified; conforms to ANSI/UL standard 325 
- » Complies with requirements for the Americans with Disabilities Act (A.D.A) 



ASSA ABLOY is the global leader in door opening solutions, dedicated to satisfying end-user needs for security, safety and convenience

Since 1880, Norton door controls have been an integral part of schools, hospitals and businesses around the globe. When you need products and people that perform at the highest level, rely on Norton – From Open to Close.

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3000 Highway 74 East | Monroe, NC 28112 | Tel: 1-877-974-2255 | Fax: 1-800-338-0965

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160 Four Valley Drive | Vaughan, Ontario, L4K 4T9 Canada | Tel: 800-461-3007 | Fax: 1-905-738-2478

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