A robust closer delivering superior performance and reliability



DOOR CLOSER

CATALOG



ASSA ABLOY, the global leader in door opening solutions



### **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<sup>®</sup> 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<sup>®</sup>, CloserPlus Spring<sup>™</sup> and Unitrol<sup>®</sup>
- » Slide Tracks: push or pull side mounting
- » Exceeds 25 million cycles

### **OPTIONAL FEATURES**

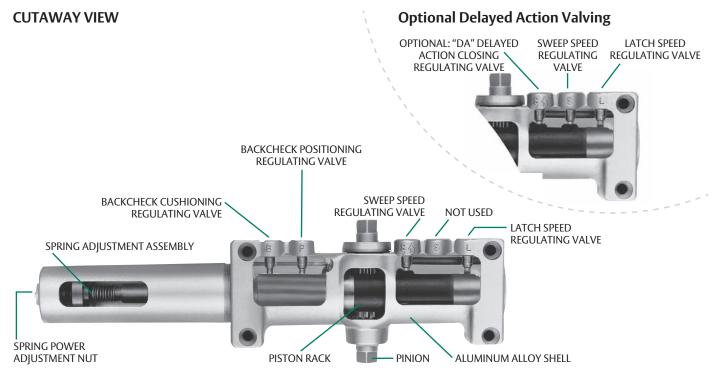
- » Standard, separate and independent, latch, sweep and backcheck intensity valves
- » Backcheck positioning
- » Enhanced backcheck. Specify EBC suffix
- » Delayed action with pressure relief valve
- » Corrosion resistant model (non-hold open only): specify 7500SS
- » Metal cover: specify M suffix
-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

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### **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
- 7500 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



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<sup>®</sup> 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.

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### **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<sup>®</sup> 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 nonhanded 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<sup>®</sup> 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 allaluminum 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.

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# Norton<sup>®</sup> ASSA ABLOY

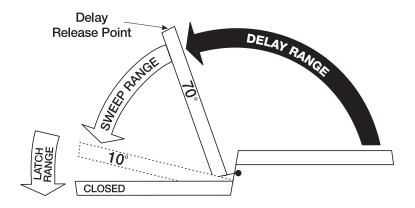
### **EXPLANATION OF FEATURES**

#### **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 slowmoving 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<sup>®</sup>, CloserPlus Spring<sup>™</sup> or Unitrol<sup>®</sup> 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	1	1	85° to 110°	85° to 110°	85° to 110°	85° to 110°	1	85° to 110°/180°
Hold Open	90° to 180°	85° to 180°	85° to 110°	85° to 110°	85° to 180°	85° to 180°	1	85° to 110°

✓=180° trim and template permitting



### SUGGESTED SPECIFICATIONS

#### 7500 Series

Closers for interior and exterior doors shall be full rackand-pinion type with cast aluminum alloy body. Closers shall be surface mounted and shall project no more that 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 nonhold 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.

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# **APPLICATIONS**



**Regular Arm** 

Non-hold open arm shown

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 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.



#### Top Jamb

Non-hold open arm shown

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.



### **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° 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<sup>®</sup> arm is recommended.

Hold open strength is adjustable.



Non-hold open arm shown

### **CloserPlus Spring**<sup>™</sup>

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<sup>™</sup>

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.

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# **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.



Parallel Rigid Offset Arm

Non-hold open arm shown

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<sup>®</sup> Arm

Unitrol<sup>®</sup> Parallel Arm



Unitrol® Top Jamb

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.



### **APPLICATIONS**







#### 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.



Low Profile Pull Side



Low Profile Push Side

#### 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.



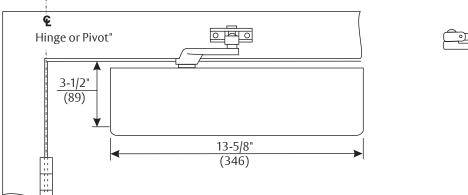
Parallel Arm - Parallel Arm allows closer to be installed 1/2" (13mm) higher up on door than standard parallel arm application.

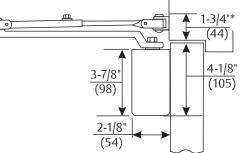
#### Low Profile Arm

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.



### **REGULAR ARM**





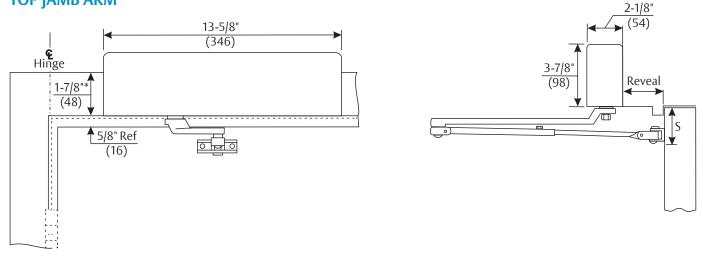
Mounting holes for closer body are spaced 2-3/8" (60mm) vertically x 6-3/4" (171mm) horizontally. \* This dimension will vary. Standard non-hold open arm illustrated.

Model Number				
Non-Hold Open Hold Open				
7500	7500H			

- » 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 Op	oen 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°	

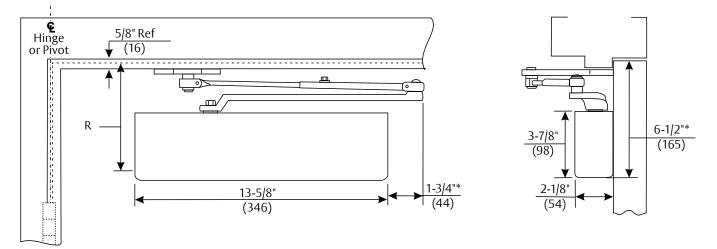
Model Number			
Non-Hold Open	Hold Open		
7500 J7500 JL7500	7500H J7500H JL7500H		

- » 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)			w	/ith 7787 Drop Plate (mn	n)
J7500/ J7530M J7500	J7500H/ J7530MH J7500H	J7580	J7500/ J7530M J7500	J7500H/ J7530МН J7500Н	J7580
2" (51mm)	2-1/2" (64mm)	N/A	4-1/8" (105mm)	4-5/8" (117mm)	3-5/8" (92mm)



### **PARALLEL ARM**



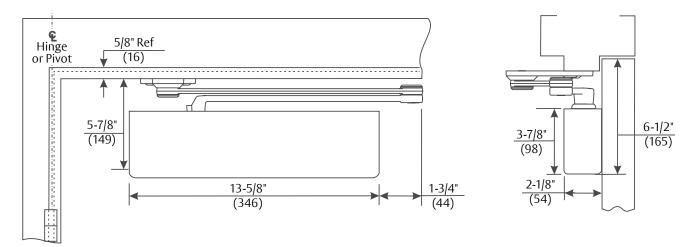
Mounting holes for closer body are spaced 2-3/8" (86mm) vertically x 6-3/4" (171mm) horizontally. \* This dimension will vary. Standard non-hold open arm illustrated.

Model Number			R (inches/mm with 5/8	ı) Minimum To 3" (16mm) Frai		
Non-Hold Open	Hold Open	Without Drop Plate With 7788 Dro			Drop Plate	
7500	7500H	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)

- » 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.

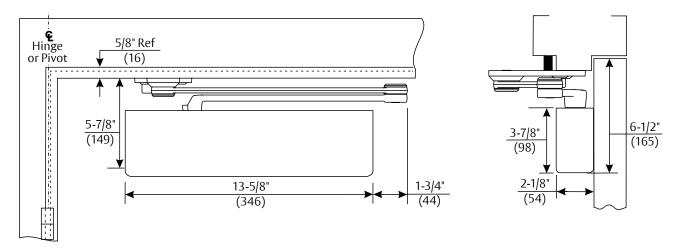
Model Number			
Non-Hold Open Hold Open*			
PR7500	PR7500H		

\*Specify hand when ordering.

- » 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® ARM**



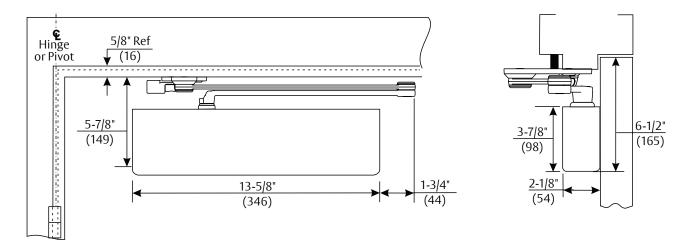
Mounting holes for closer body are spaced 2-3/8" (60mm) vertically x 6-3/4" (171mm) horizontally.

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

- » 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<sup>™</sup> ARM**



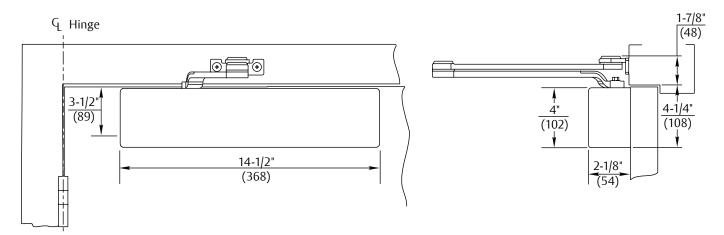
Mounting holes for closer body are spaced 2-3/8" (60mm) vertically x 6-3/4" (171mm) horizontally.

Model Number			
Non-Hold Open Thumbturn Hold Open			
CPS7500	CPS7500T		

- » 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.



# **REGULAR RIGID HEAVY-DUTY ARM**



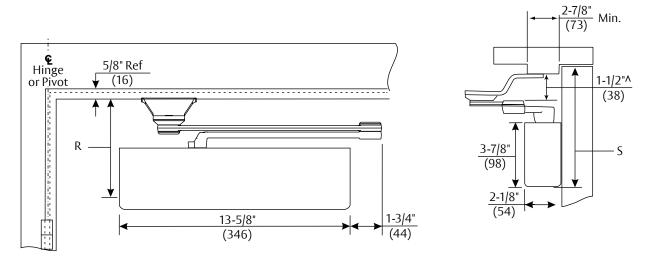
Mounting holes for closer body are spaced 2-3/8" (60mm) vertically x 6-3/4" (171mm) horizontally.



- » 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 Toj	; o 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.

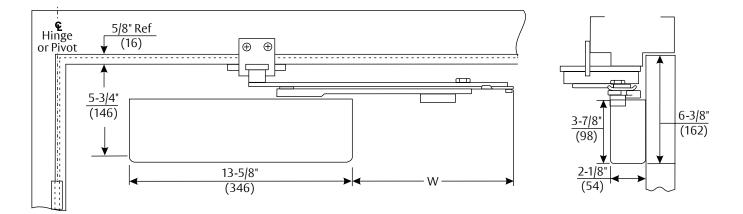
#### Notes:

- » 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.

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# 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.

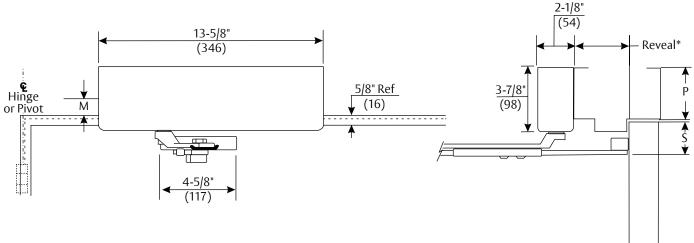
Door Width inches/cm	W Arm Extension Beyond Closer
28-32"	8-5/8"
(71-81)	(219)
33-41"	10-1/8"
(84-104)	(257)
42-48"	11-1/2"
(107-122)	(292)

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

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

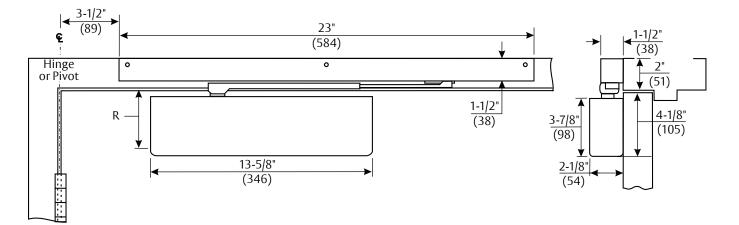
^ supplied standard with closer

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

- » 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.



# 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)

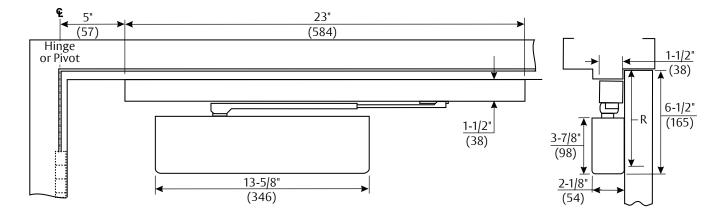
Model Number <sup>1, 2</sup>			
Non-Hold Open Hold Open			
85°-100°	85°-180°		85°-180°
7500ST	75005	ST-180	7500STH

- 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).

- » 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.

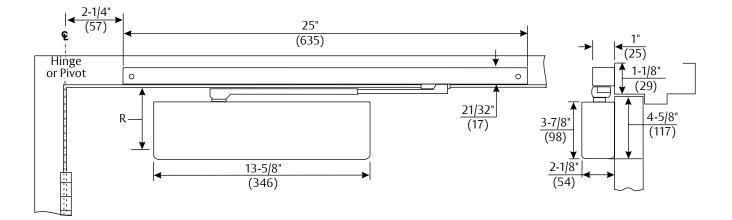
R (inches/mm) Minimum Top Rail of Door with Frame Stop	
Without Drop Plate With 7786 Drop Plate	
6" (152)	2-5/8" (67)

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

- » 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.

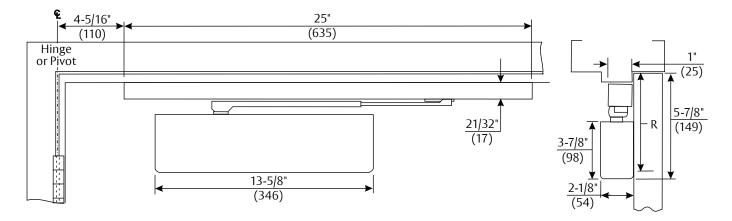
R (inches/mm) Minimum Top Rail of Door with Frame Stop	
Without Drop Plate With 7786 Drop Plate	
3-1/2" (89)	2" (51)

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

- » 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.

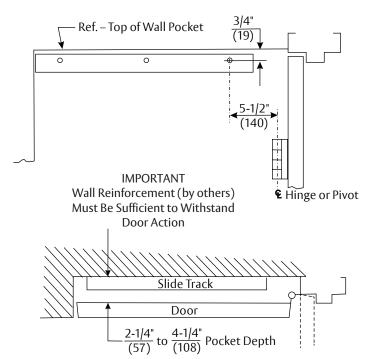
R (inches/mm) Minimum Top Rail of Door with Frame Stop	
Without Drop Plate With 7786 Drop Plate	
5-1/4" (133)	3-5/8" (92)

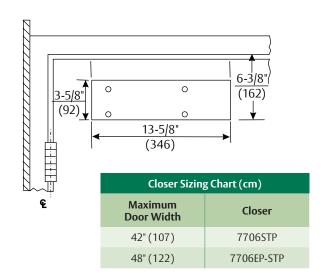
Model Number					
Non-Hold Open	Hold Open				
PS7540ST	PS7540STH				

- » 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.

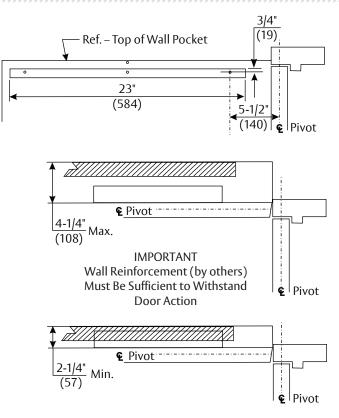


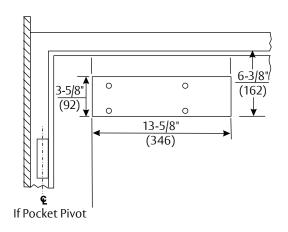
### POCKET DOOR 7706STP





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)





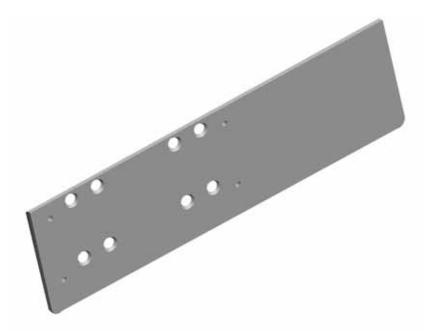
See chart (above) for closer sizing.

#### 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 <sup>®</sup> M2020		

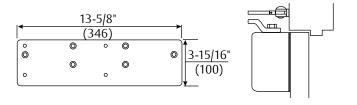
#### Notes:

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

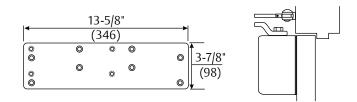


### **REGULAR ARM**

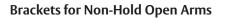


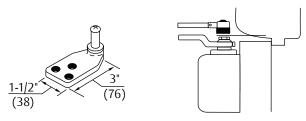


**Narrow Top Rail - 7786 Drop Plate:** For use where the narrow top rail of the door prevents the closer from being mounted directly to the door surface. This drop plate must be used for closer mounted on a top rail between 1-7/8" and 3-3/8" (48 and 86mm) in height.

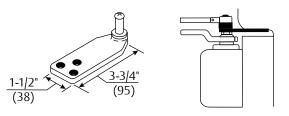


**Overhead Door Holder - 7786OH Drop Plate:** For use when the presence of a surface or concealed overhead door holder prevents normal mounting of closer body due to interference between closer's mounting screws and door holder track. This drop plate's mounting screws are located on the door surface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



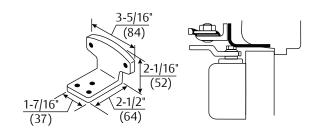


**Molded/Bull Nose Trim - 2403B Bracket:** For use where the door frame has molded or bull nose trim which will not accept a standard non-hold open shoe. The bracket is mortised into the frame rabbet, and projects beyond the face of the frame. It will accommodate a frame rabbet up to 2" (51mm) deep.



**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**

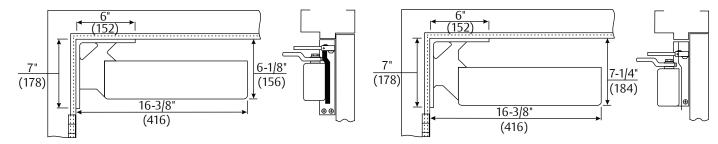


**Molded/Bull Nose Trim - 80 Bracket:** For use where the door frame has molded or bull nose trim which will not accept a standard hold open shoe. It is mortised into the frame rabbet, and projects beyond the face of the frame. It will accommodate a rabbet up to 2" (51mm) deep. This bracket is used in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



### **REGULAR ARM**

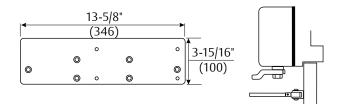
### **Corner Brackets for Closer Mounting**



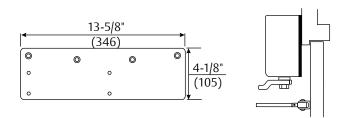
Mounting Opposite Hinge Side - 7798 Standard Drop Corner Bracket: For use where it is desired to mount a regular arm non-hold open closer. **Extra-Drop Mounting Opposite Hinge Side - 7797 Corner Bracket:** For use where it is desired to mount a regular arm hold open closer, or where it is necessary for 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.



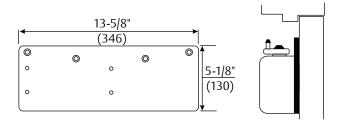
# Low Ceiling Clearance - Overhead Door Holder -

**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.



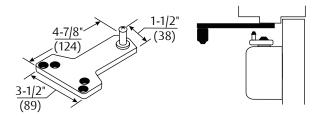
### **PARALLEL ARM**

**Closer Mounting Plate** 

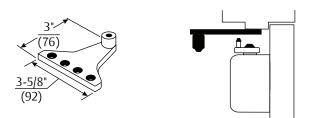


Narrow Top Rail - 7788 Drop Plate: For use where a narrow top rail prevents the closer from being mounted directly to the door surface. This drop plate can be used to mount a closer on a top rail as narrow as 2-1/2" (64mm) in height.

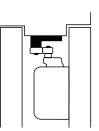
#### Brackets for Non-Hold Open Arms



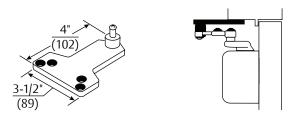
**Standard Installation - 1618 Soffit Plate:** Supplied standard with parallel arm closers. It can be mounted where the frame soffit is as narrow as 1" (25mm). Specify 1618A-SS for stainless steel soffit plate.



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 weatherstripping that is up to 1-3/8" (35mm) wide and 5/8" (16mm) in height. <u>2-3/16</u> (56) (51)



**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.

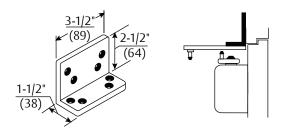


**Blade/Applied Stop - 2018D Soffit Plate:** For use where a blade or applied stop does not permit installation of the standard soffit plate. Mounts to either the frame soffit or rabbet. Since this soffit plate projects 7/8" (22mm) less than a standard soffit plate, it requires a minimum frame reveal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

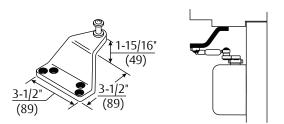


### **PARALLEL ARM**

Brackets for Non-Hold Open Arms (continued)

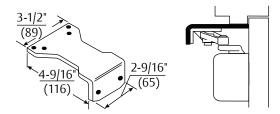


**Flush Transom - 2022 Angle Bracket:** For use where rabbeted or flush transom conditions prevent installation of a soffit plate. Used in combination with the 1618 soffit plate, or may be used in combination with the 2018S soffit plate when it is necessary for the closer arm to clear a separate overhead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

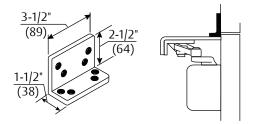


**Extra-Clearance - 2018S Offset Soffit Plate:** For use where the need for additional clearance prevents use of the standard soffit plate. This plate mounts to the frame soffit to provide up to 2" (51mm) of clearance when a separate overhead door holder is used. Standard mounting requires a 2-5/8" (67mm) 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).

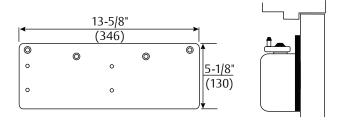


**Flush Transom Hold Open - 2022 Angle Bracket:** For use where rabbeted or flush transom conditions prevent installation of the standard 1628H hold open adapter plate. It is used in combination with the 1628H adapter plate.



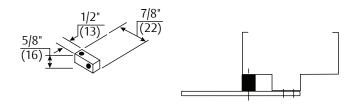
### PARALLEL RIGID ARM

#### **Closer Mounting Plate**

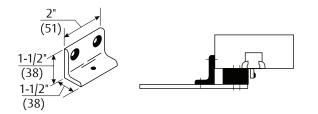


Narrow Top Rail - 7788 Drop Plate: For use where a narrow top rail prevents the closer from being mounted directly to the door surface. This drop plate can be used to mount a closer on a top rail as narrow as 2-1/2" (64mm) in height.

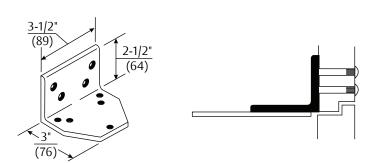
#### Brackets for Non-Hold Open Arms & Hold Open Arms



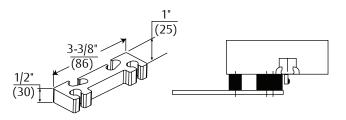
**Standard - 2019S Spacer Block:** For use where a narrow frame soffit does not provide adequate support for the soffit plate. Supplied as standard with all parallel rigid arm closers.



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.



**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.



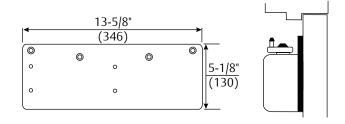
**Clearance/Support Blade Stop - 6891 Spacer Block:** For use where the door frame has a blade stop and the soffit plate must be mounted on the frame rabbet. This accessory is used in combination with the standard spacer block to provide clearance of the blade stop.



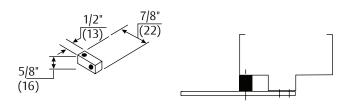
### **CLOSERPLUS® ARMS**

#### **Closer Mounting Plate**

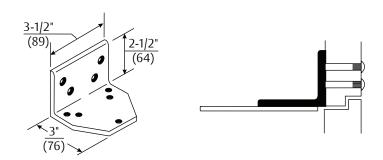
Narrow Top Rail - 7788 Drop Plate: For use where a narrow top rail prevents the closer from being mounted directly to the door surface. This drop plate can be used to mount a closer on a top rail as narrow as 2-1/2" (64mm) in height.



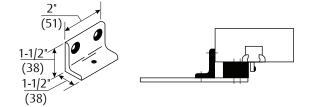
### Brackets for Non-Hold Open Arms & Hold Open Arms



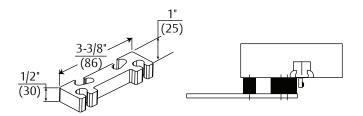
**Standard - 2019S Spacer Block:** For use where a narrow frame soffit does not provide adequate support for the soffit plate. Supplied as standard with all parallel rigid arm closers.



**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.

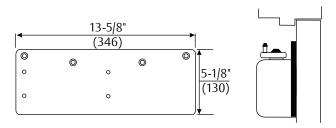


**Clearance/Support Blade Stop - 6891 Spacer Block:** For use where the door frame has a blade stop and the soffit plate must be mounted on the frame rabbet. This accessory is used in combination with the standard spacer block to provide clearance of the blade stop.

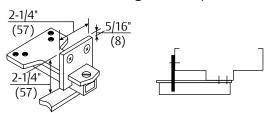


### **UNITROL® ARM**

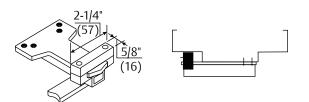
### Closer Mounting Plate (for Parallel Arm)



### Soffit Plate Reinforcing Brackets (for Parallel Arm)



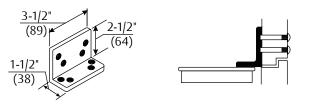
Additional Support - 6190 Reinforcing Bracket: Standard for use with all Parallel Arm Unitrol Door Controls. Provides additional support to the soffit plate on installations with door frame reveals from 1-7/8" to 4-5/8" (48 to 117mm).



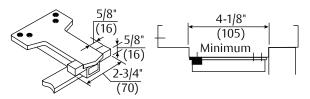
directly to the door surface. This drop plate can be used to mount a closer on a top rail as narrow as 2-3/8" (60mm) in height.

Narrow Top Rail - 7788 Drop Plate: For use where a

narrow top rail prevents the closer from being mounted

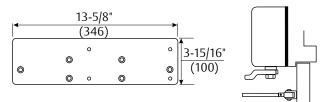


**Flush Rabbeted Transom - 2022 Angle Bracket:** Optional for use with all Parallel Arm Unitrol Door Controls. For use where rabbeted or flush transom conditions prevent installation of the soffit plate assembly. This bracket fastens to the overhead transom to provide a mounting surface for the soffit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

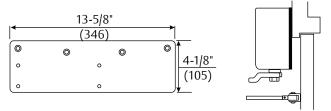


**Wide Frame - 6191 Reinforcing Kit:** Optional for use with all Parallel Arm Unitrol Door Controls. Used to support the soffit plate on installations with wide frames. Clamps may be used with or without the spacer block, depending on frame conditions.

#### Closer Mounting Plate (for Top Jamb)



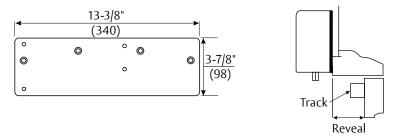
**Standard Installation - 7786 Back Plate:** Can be mounted where a frame face is as narrow as 1-5/8" (41mm) in height.



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



### **SLIDE TRACK**



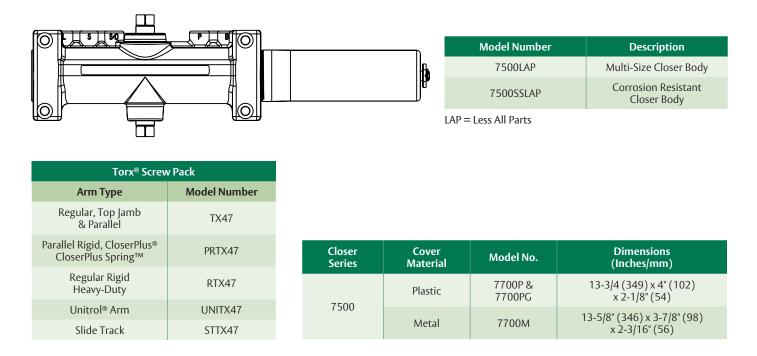
**Slide Track - 7786JP Back Plate:** Required for frames with standard 2" (51mm) profile face. Without plate, minimum 4" (102mm) face frame required.

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ASSA ABLOY, the global leader in door opening solutions

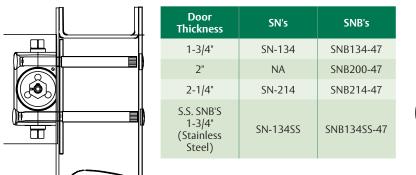


# DOOR CLOSER BODY ASSEMBLIES



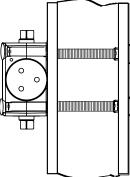
# STEEL DOOR APPLICATION

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



### ALUMINUM AND WOOD DOOR APPLICATION (ALUMINUM DOOR SHOWN)

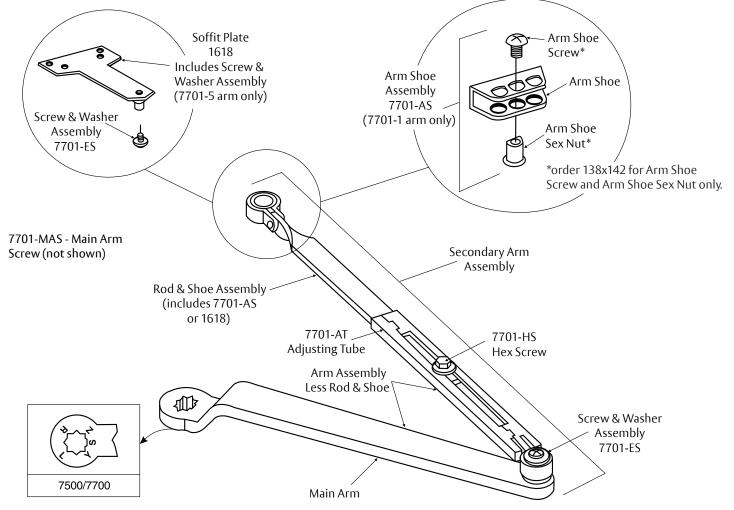
Through-Bolt & Grommet Nut: "TBGN" (4 per pack)



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



### NON-HOLD OPEN ARM ASSEMBLIES

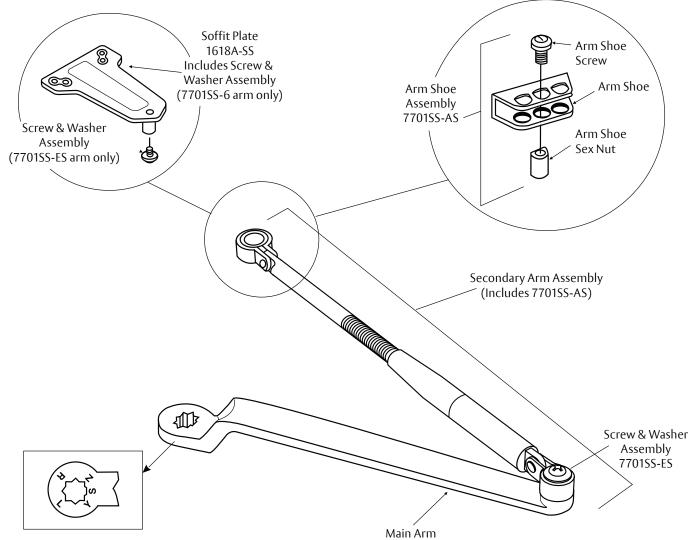


#### Note: Mounting hardware included with all parts orders.

Closer Series	Complete Arm Assembly	Main Arm Assembly <sup>1</sup> (length)(mm) (includes 7701-ES)	Secondary Arm Assembly (includes 7701-ES)	Arm Assembly Less Rod and Shoe	Rod & Shoe Assembly² (length)(mm)	
R7570	7701-1	7701-1M	7701-111	7701-1W	7701-11 (8-7/8)(225)	
J7500	7701-1A	(11)(279)	7701-121	7701-TVV	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	7701-115	7701 114	7701-15 (8-7/8)(225)	
P7500 <sup>3</sup>	7701-5A	(11)(279)	7701-115A	7701-1W	7701-15A (12-9/16)(319)	
7500	7701-25 (tri-packed includes 7701-1 plus 1618 plate)	<ol> <li>C to C length shown in parentheses.</li> <li>C of connecting link to end of rod shown in parentheses.</li> <li>For 180° door swing when using a special template for doors hung on 6" to 8" (152 to 203mm) wide throw hinges.</li> </ol>				



# **STAINLESS STEEL ARM ASSEMBLIES**



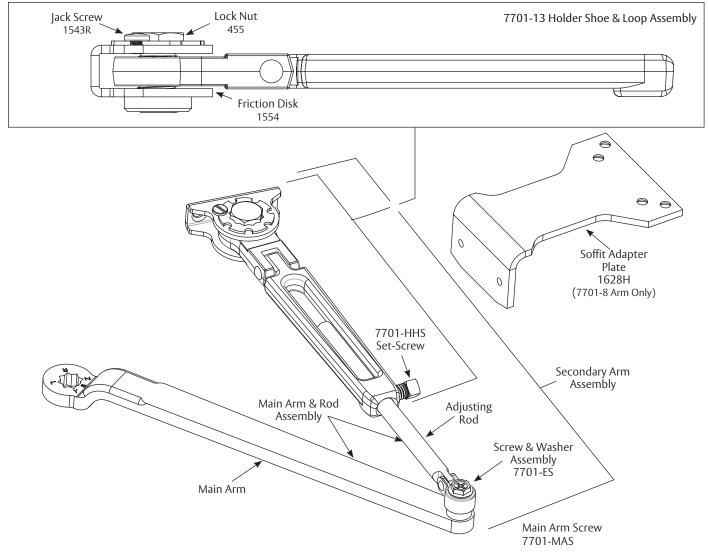
Note: Mounting hardware included with all parts orders.

Closer Series	Complete Arm Assembly	Main Arm Assembly¹ (length)(mm) (includes 7701SS-ES)	Secondary Arm Assembly (includes 7701SS-ES)
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 Arm¹ (length)(mm) (includes 7701-ES)	Secondary Arm Assembly (includes 7701-ES)	Main Arm & Rod Assembly	Holder Shoe & Loop Assembly	Adjusting Rod <sup>2</sup> (Length)(mm)
7500H	7701-3/7701-8 <sup>3</sup>	7701-1M	7701-113/7700- 118 (Reg.)/(Par.)	7701-3W		7701-31 (7-3/8)(187)
JL7500	7701-3A	(11)(279)	7701-123	7701-3WA	7701-13	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.



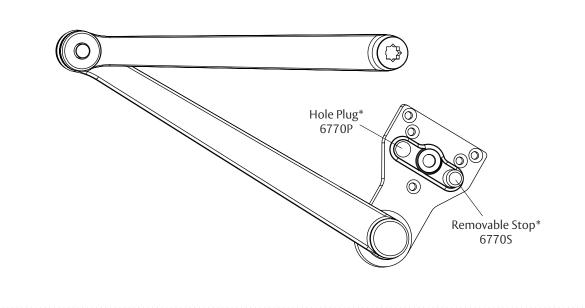
# PARALLEL RIGID ARM ASSEMBLIES Non-Hold Open Arm Shown a III Hold Open Arms Only Lock Nut 455 Jack Screw 1543 · Friction Disk (See Chart) (not visible) 1554

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

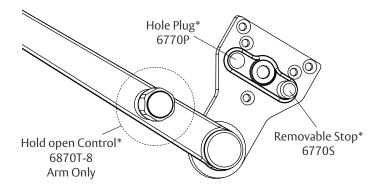


# **CLOSERPLUS® ARM ASSEMBLIES**

CLP Non-Hold Open



CLP-T Thumbturn Hold Open

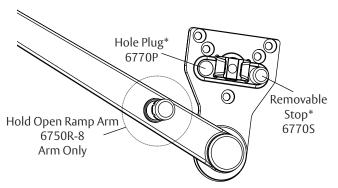


Note: Mounting hardware included with all parts orders.

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.

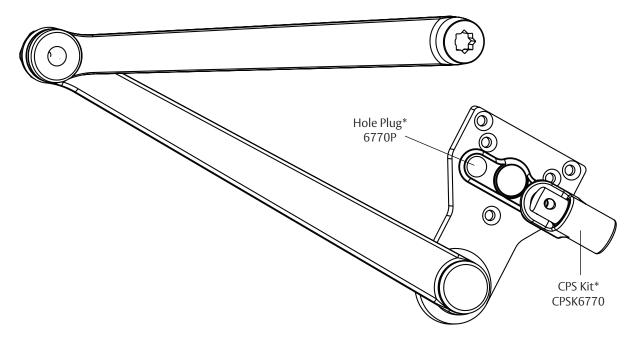
CLP-R Ramp Hold Open





# **CLOSERPLUS SPRING<sup>™</sup> ARM ASSEMBLIES**

## Non-Hold Open Arm Shown



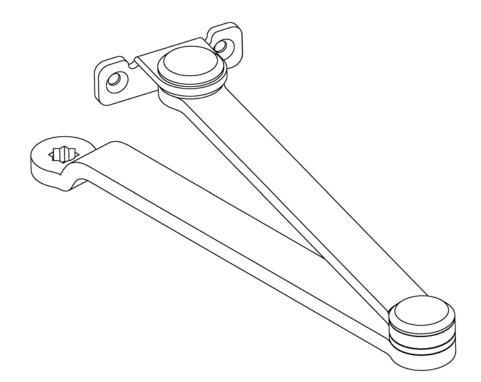
Note: Mounting hardware included with all parts orders.

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		R7701-1 Furnished with standard fasteners
7570*	Non-Hold Open	7771-1 Furnished with Torx fasteners

\* Refer to Norton's Security Closer Catalog.

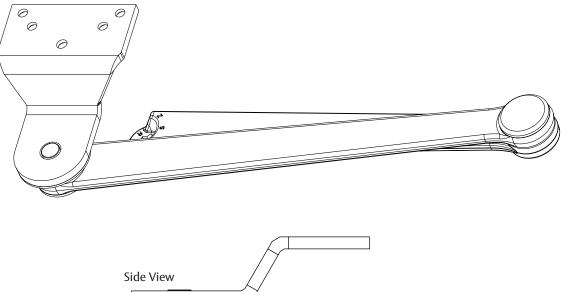
42 | Norton Door Controls

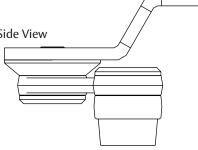
ASSA ABLOY, the global leader in door opening solutions



# PARALLEL RIGID OFFSET ARM ASSEMBLIES

## Non-Hold Open



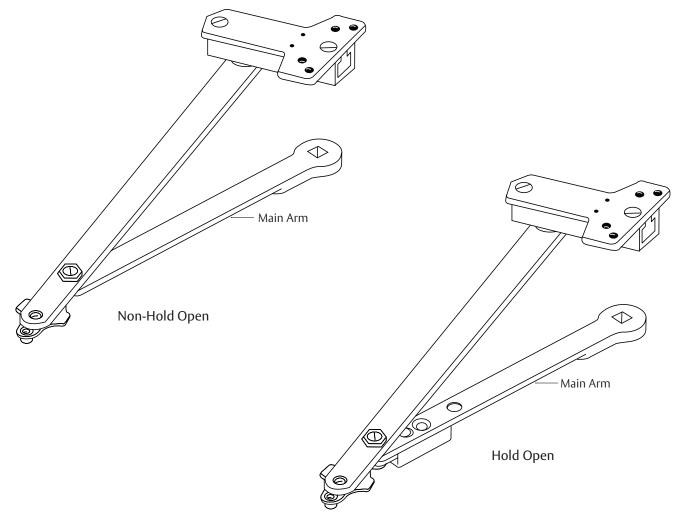


Complete Arm Assembly	Arm Function
PRO7701-5	Non-Hold Open
PRO7701-8R	Hold Open, Right Hand
PRO7701-8L	Hold Open, Left Hand



## **UNITROL® ARM ASSEMBLIES**

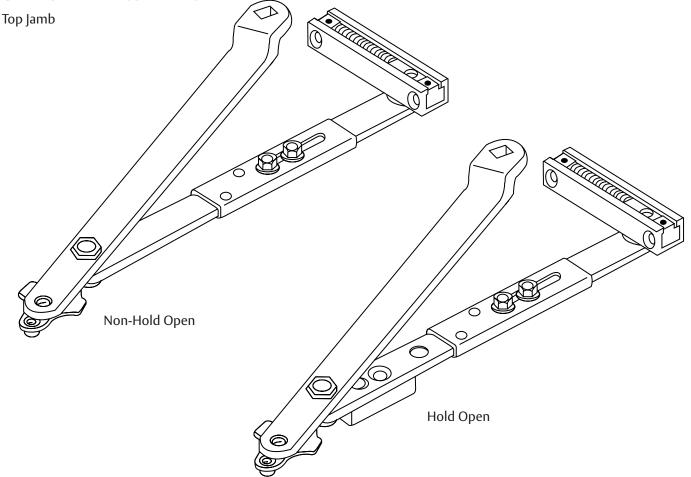
Parallel Arm



	Main Arm Length* (mm)	Complete Arm Assembly		
Door Width (cm)		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	



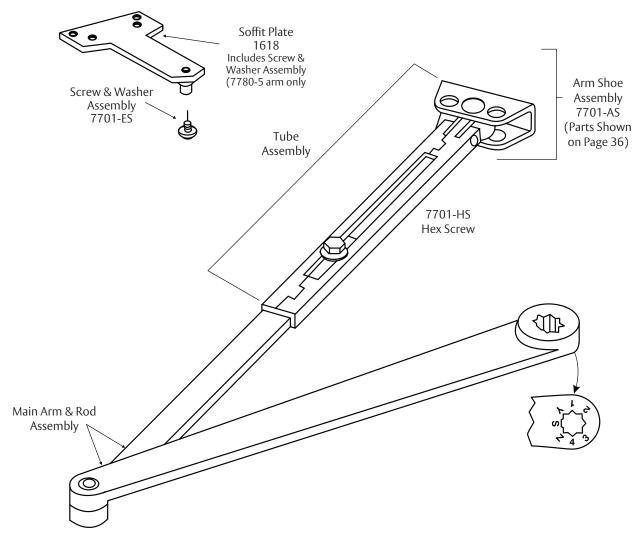
## **UNITROL® ARM ASSEMBLIES**



Complete Arm Assembly		For Frome Deveole (mm)
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)



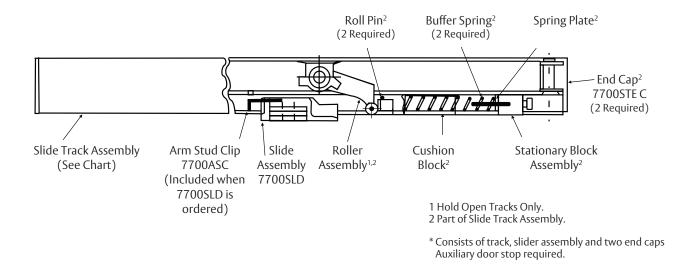
## LOW PROFILE ARM ASSEMBLIES



Arm Application	Complete Arm Assembly	Main Arm & Adjusting Rod Assembly	Tube & Shoe/Soffit Assembly
Regular Arm	7780-1		7780-1TS (With 7701-AS)
Parallel Arm	7780-5	7780-1MR	7700 ETC (W/:+b 1610)
Tri-pack	7780-25		7780-5TS (With 1618)



# **TRACK ASSEMBLIES**

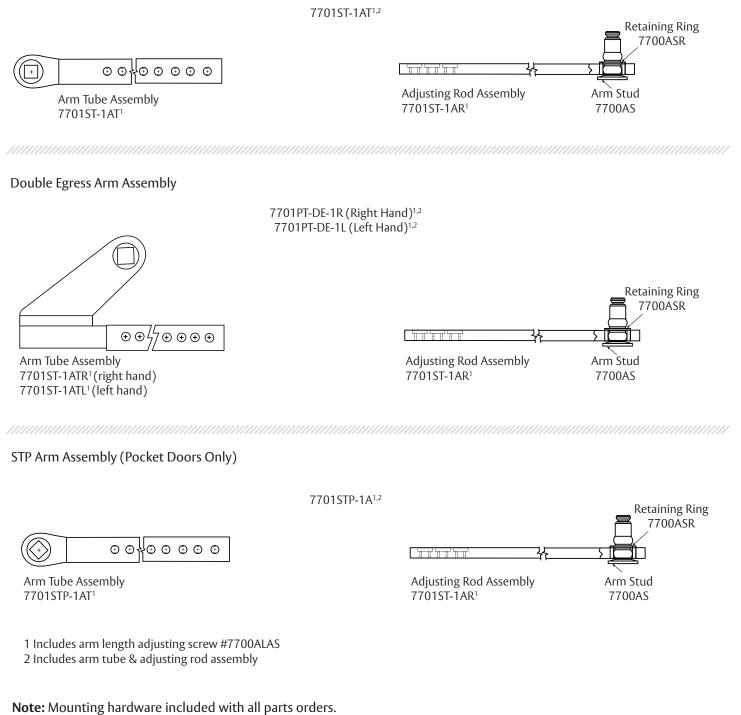


Track Assemblies	Part Number		
I FACK ASSEMDILES	Non-Hold Open	Hold Open	
Pull side mounted	7701ST-1T	7701ST-3T	
Push side mounted	7701ST-5T	7701ST-8T	
Pull side mounted (180°)	7701ST-1T180°*	N/A	



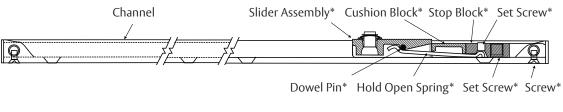
**TRACK ASSEMBLIES** 

Standard Arm Assembly





# **TRACK ASSEMBLIES - SHALLOW DEPTH**

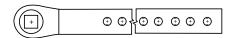


\*Part of an Assembly Pack NHO=7740SLD HO=7740HSLD

## Note: Mounting hardware included with all parts orders.

Track Assemblies	Part Number		
I FACK ASSEMDILES	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-1AT<sup>2</sup>

Adjusting Rod Assembly 7740ST-1AR<sup>2</sup>

Includes arm length adjusting screw.
 Includes arm tube & adjusting rod assembly.



# **FASTENERS**

		Arm								
Туре	Description	RA	РА	ТJ	Low Profile	PR	CLP/ CPS	UNI	UNI-J	Slide Track
DOOR										
SDST	Self Drilling Self Tapping	S	S	S	S	S	S	S	0	0
MS	Machine Screw	S	S	S	S	S	S	S	S	S
SN	Sleeve Nut/Sex Nut	0	0	0	0	S	S	S	S	S
TBGN	Thru Bolts & Grommet Nuts	0	0	0	0	0	0	0	0	0
SMS	Sheet Metal Screws	0	0	0	0	0	0	0	0	0
TORX®	Torx Drive Security Screw	0	0	0	0	0	0	0	0	0
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	0	0	0	0	0	0	0	0	0
TORX	Torx Drive Security Screw	0	0	0	0	0	0	0	0	0

## 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.



## **FINISHES**

Norton offers waterborne acrylic, polyster 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).

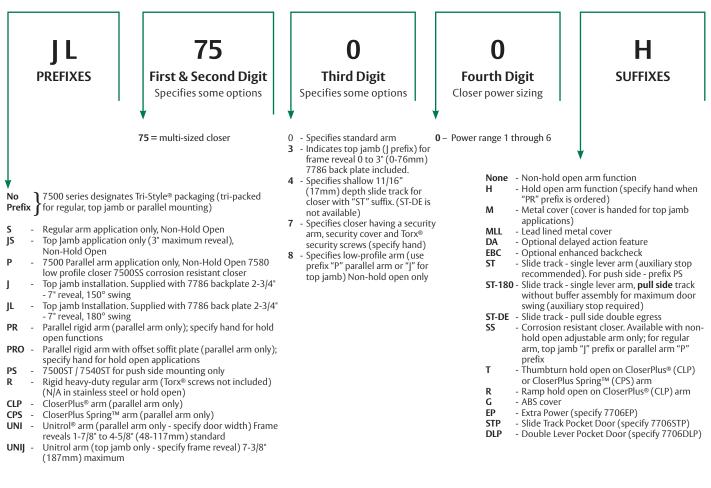
ANSI/BHMA	Description
600*	Prime Coat
605^	
	Bright Brass
606^	Satin Brass
611^	Bright Bronze
612^	Satin Bronze
613E	Dark Oxidized Satin Bronze - Equivalent
619^	Satin Nickel
625^	Bright Chrome
626^	Satin Chrome

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

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