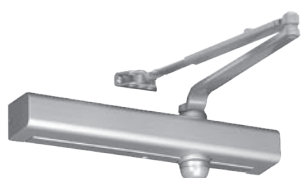




3000 Series

Architectural Door Closer



An ASSA ABLOY Group brand

ASSA ABLOY



Introduction

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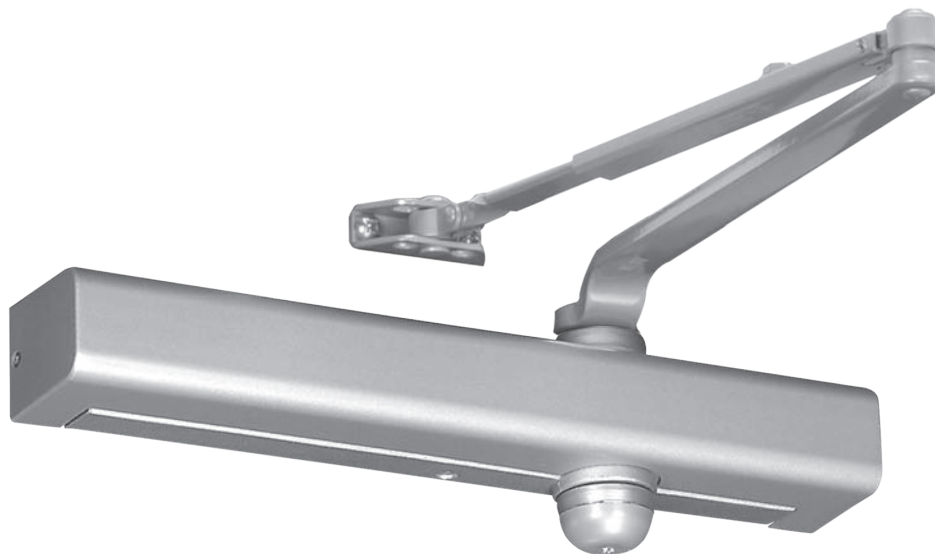
3000 SERIES DOOR CLOSER

Yale 3000 Series Architectural Door Closers offer the perfect combination of reliability, aesthetics and durability in today's market. With features such as staked valves, self-drilling/self-tapping screws, rack and pinion design and precise valve adjustment, and a complete range of arm and cover options, the Yale 3000 Series can meet virtually any application challenge.

Offering sophisticated door control for any upscale commercial application, Yale Works for YouSM.



Features & Benefits



STANDARD FEATURES

- Exceeds 25 million cycles
- Cast aluminum body
- Adjustable spring sizes 1 through 6
- Tri-packed (regular arm, top jamb and parallel arm mounting)
- Non-handed
- Staked valves
- Rack & pinion design
- 1-1/4" (32mm) diameter piston
- 5/8" (16mm) diameter pinion journals
- Separate and independent, latch, sweep and backcheck intensity valves
- 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

BENEFITS

- **Slim profile:** Seamless design blends into any building's aesthetic
- **Strong & durable:** ANSI/BHMA Grade 1 certified for long life and reliability

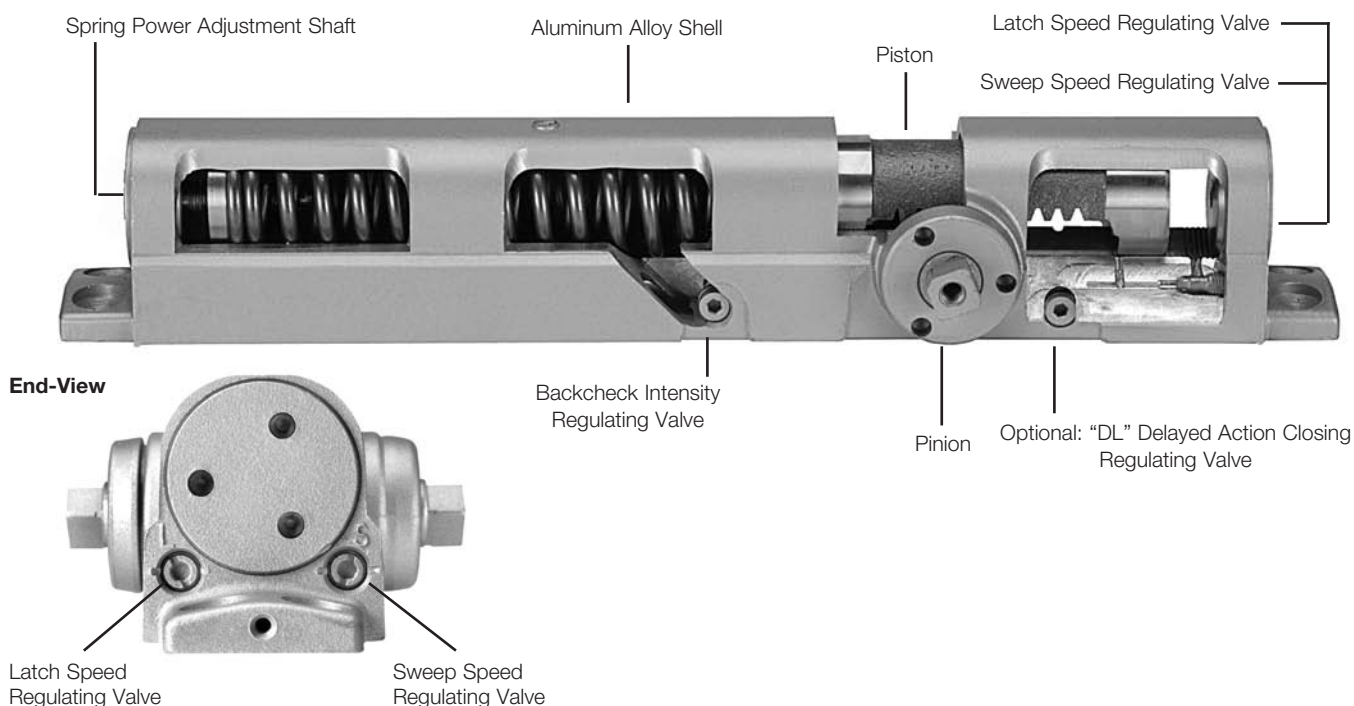
OPTIONAL FEATURES

- Metal and architectural covers (3500 or 3501 only)
- Heavy-duty arms: Parallel Rigid, Holder/Stop, Holder/Stop Spring, UNI Stop™
- Delayed action
- Lead-lined metal cover (suffix MLL)



Overview




CUTAWAY VIEW



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.

COMPLIANCE STANDARDS

 Series 3301 and 3501 door closers are designed to comply with requirements of the Americans with Disabilities Act (A.D.A.) and ANSI standard A117.1. All series 3301/3501 are ANSI/BHMA A156.4 Grade 1 certified.   All Yale® series 3301/3501 closers with non-hold open arms are listed by Underwriters Laboratories for labeled fire doors. This includes compliance to UL10C for 3-hour assemblies. The 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 Standard A117.1, when adjusted to meet those requirements, may not provide adequate closing power to dependably close and latch the door.



Fasteners

Type	Description	Arm							
		RA	PA	TJ	Low Profile	PR	Holder/Stop, Holder/Stop Spring	UNI	UNI-J
DOOR									
SDST	Self Drilling Self Tapping	S	S	S	S	S	S	S	S
MS	Machine Screw	S	S	S	S	S	S	S	S
SN	Sleeve Nut	O	O	O	O	S	S	S	S
TBGN	Through-Bolts & Grommet Nuts	O	O	O	O	O	O	O	O
SMS	Sheet Metal Screws	O	O	O	O	O	O	O	O
Torx®	Torx Drive Security Screw	O	O	O	O	O	O	O	O
FRAME									
SDST	Self Drilling Self Tapping	S	S	S	S	S	S	S	S
MS	Machine Screw	S	S	S	S	S	S	S	S
SMS	Sheet Metal Screws	O	O	O	O	O	O	O	O
Torx	Torx Drive Security Screw	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. 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. 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.

TORX screws with security pin 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: 3501 x 689 x TBGN)



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 and series 3301/3501 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, as noted on page 5, 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 Valve

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

Closer Fluid

All door closers are supplied with a temperature stable, multi-viscosity fluid. This fluid will permit the door closer to perform within a wide temperature range: from very high to as low as -40°F.

Tri-Packed

3301/3501 come with screws, brackets and soffit plates to allow for regular, top jamb, and parallel arm installations.

Adjustable Backcheck 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. Standard covers are non-handed for all applications. See page 5 for optional covers.

Warranty

Limited 25-year warranty for defects and life of the building on the aluminum housing.

DOOR CLOSER POWER OPTIONS

Series 3301/3501 Multi-Sized Door Closer

Adjustable through the power range of sizes 1 through 6, as outlined in ANSI/BHMA specification A156.4.

The series 3000 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 COVERS

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.

* For Parallel Arm Applications — Consult factory for doors swinging more than 120°

Optional ABS Cover

Consult factory for details.





Optional Features

DELAYED ACTION

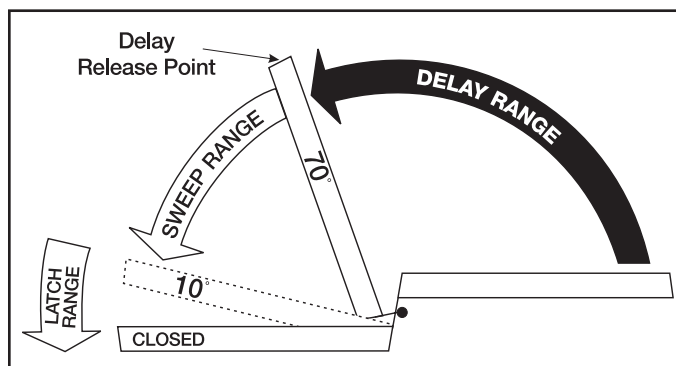
Adjustable Delayed Action Closing

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, kitchens and food processing areas.

ARMS

Non-Hold Open

Self-closes door every time door is opened. Auxiliary stop (by others) required except when using the Holder/Stop, Holder/Stop Spring or UNI Stop™ 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








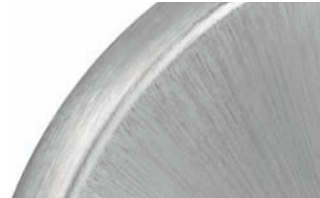
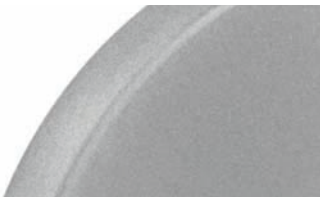







Arm Function	Regular Arm, Top Jamb, Parallel Arm	Parallel Rigid Arm	Holder/Stop Parallel Arm	Holder/Stop Spring Parallel Arm	UNI Stop™ Parallel Arm	UNI Stop™ Top Jamb	Low Profile
Non-Hold Open	✓	✓	85° to 110°	85° to 110°	85° to 110°	85° to 110°	✓
Hold Open	90° to 180°	85° to 180°	85° to 110°	85° to 110°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

✓=180° trim and template permitting



Finishes

Product will be painted with a combination of waterborne acrylic and polyester powder coat. Closers will withstand 100 hours of salt spray. (The ANSI requirement is 25 hours.)

ANSI/BHMA Code Finish Description			
600* Primed for Painting	605^ Bright Brass, Clear Coated	606^ Satin Brass, Clear Coated	611^ Bright Bronze, Clear Coated
			
612^ Satin Bronze, Clear Coated	613E^ Dark Oxidized Satin Bronze - equivalent	625^ Bright Chrome Plated	626^ Satin Chrome Plated
			
689 Aluminum Painted	690 Dark Bronze Painted	691 Light Bronze Painted	693 Black Painted
			
694 Medium Bronze Painted	696 Satin Brass Painted	BSP Black Suede Powder Coat	WSP White Suede 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: 3501 x 600 x 689).

^ Available on arms only.

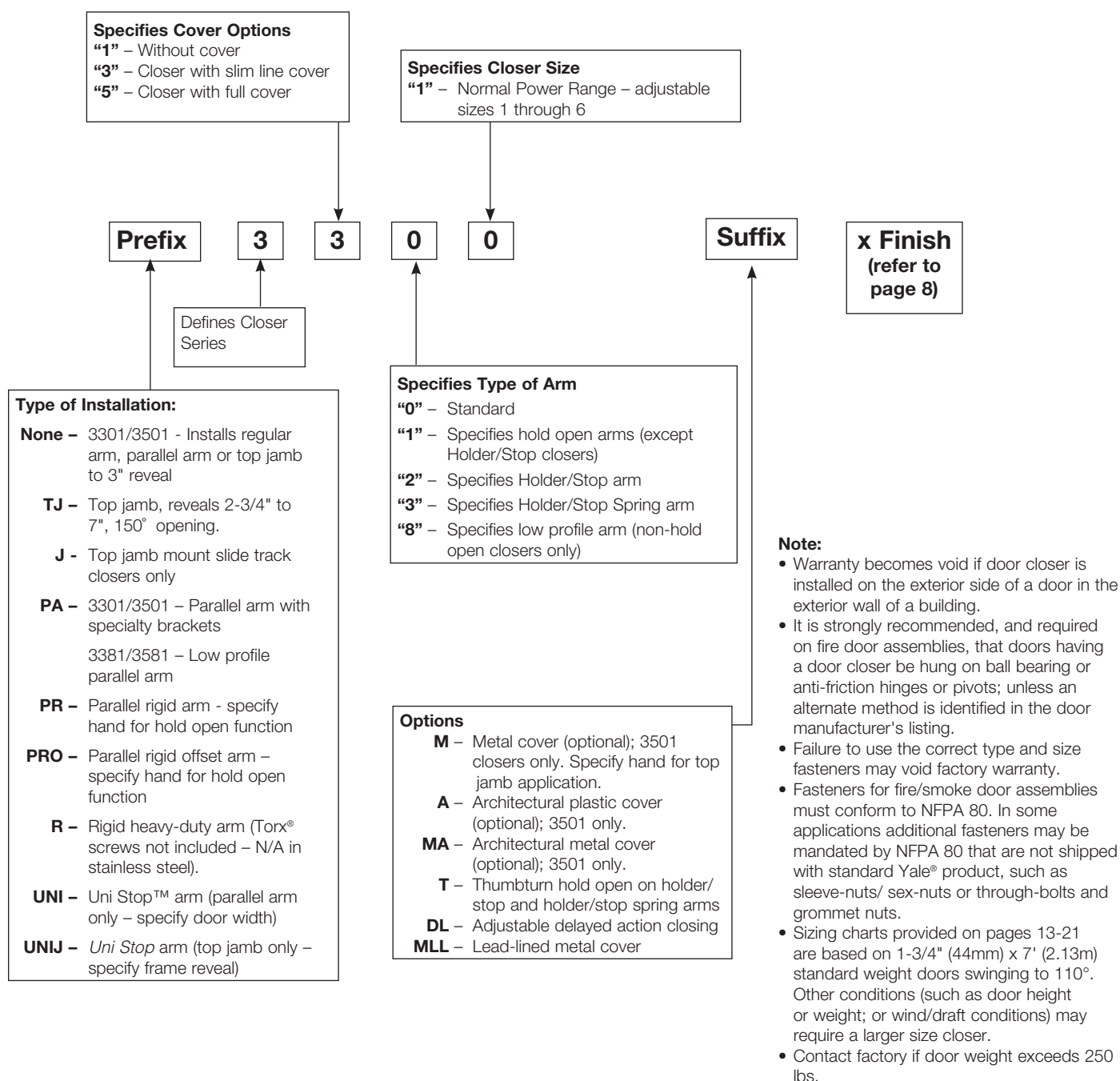
Plated Finishes*	Specify Designation (ANSI/BHMA)	Metal Covers Only	Old Designation
Bright Brass	605	Yes	US3
Satin Brass	606	Yes	US4
Bright Bronze	611	Yes	US9
Satin Bronze	612	Yes	US10
Bright Chrome	625	Yes	US26
Satin Chrome	626	Yes	US26D

When a plated finish is ordered, arm and cover will be plated unless "cover only" is specified. 3100/3300 - available with plated arm only.

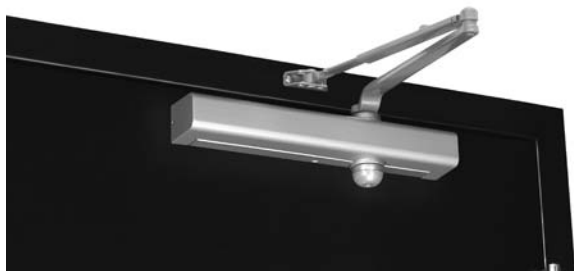


How To Order

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



Applications



Regular Arm

3301

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.



3501

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



Top Jamb

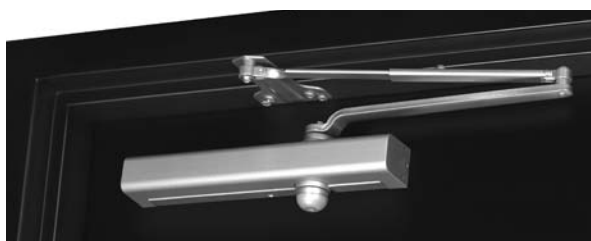
3301

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.



3501

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 reveal.



Parallel Arm

3301

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.



3501

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. (See page 13.)

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.



Hold open arm shown

Holder/Stop 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 Holder/Stop 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 UNI Stop™ arm is recommended. Available with or without hold open. (Hold open strength is adjustable.)



Holder/Stop Spring Arm

This arm has all the characteristics of the Holder/Stop 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 *UNI Stop* arm is recommended. Available with or without hold open.



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.



Applications



Parallel

UNI Stop™ Arm

Can be used for either parallel arm or top jamb applications. *UNI Stop* 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 absorbs 30 lbf. of force, 5° prior to the door's dead stop. The *UNI Stop* arm, coupled with the door closer's



Top Jamb

backcheck feature, proves 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.



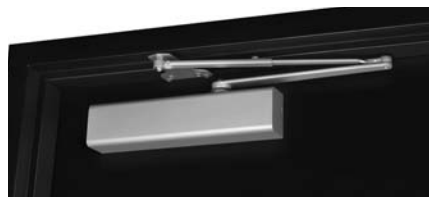
Regular Arm

Allows closer to be installed where there is as little as 1" (25mm) of frame face ceiling clearance

Low Profile Arm

Supplied with 3380/3580, 3381/3581 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 tri-packed.*

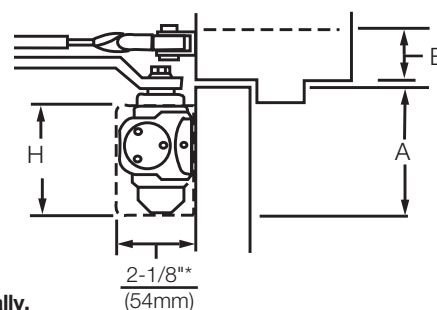
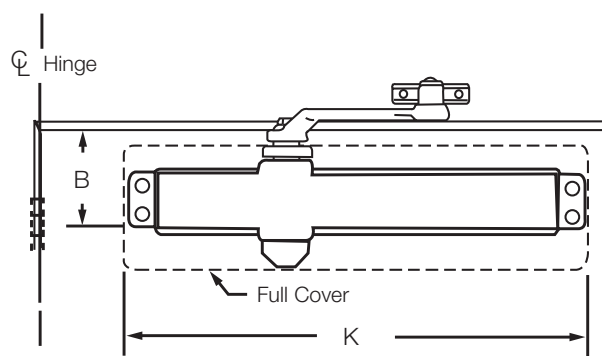


Parallel Arm

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

Technical Details

REGULAR ARM



Mounting holes for closer body are spaced 3/4" (19mm) vertically x 12" (305mm) horizontally.

Note: All measurements are Inches/mm.

Maximum 180° door swing, conditions permitting

Closer Series	Covers	E Minimum Ceiling Clearance			B Minimum Top Rail				A Minimum Top Rail Clearance		K Closer Length	H Closer Height
					W/O Drop Plate		W/3146 Drop Plate					
		NHO	Low Profile	HO	NHO/ HO	Low Profile	NHO/ HO	Low Profile	NHO/ HO	Low Profile		
3100	No Cover										<u>12-3/4"</u> (324)	
3300	Slim Line Plastic								<u>3-1/2"</u> (89)	<u>3-3/8"</u> (86)	<u>13"</u> (330)	<u>2-7/8"</u> (73)
3500	Full Plastic	<u>1-1/2"</u> (38)	<u>1"</u> (25)	<u>1-5/8"</u> (41)	<u>2-1/2"</u> (64)	<u>2-3/8"</u> (60)	<u>1-5/8"</u> (41)	<u>1-1/2"</u> (38)				
3500M	Metal								<u>4-1/4"</u> (108)	<u>4-1/8"</u> (105)	<u>13-5/8"</u> (346)	<u>3-3/4"</u> (95)
3500A	Arch. Plastic								<u>3-5/8"</u> (92)	<u>3-1/2"</u> (89)	<u>14"</u> (356)	<u>3-1/8"</u> (79)
3500MA	Arch. Metal								<u>3-1/2"</u> (89)	<u>3-3/8"</u> (86)		<u>3"</u> (76)

Door Widths Inches (cm)		Model Numbers	
Interior	Exterior	Non-Hold Open	Hold Open
30" (76)	N/A		
36" (91)	30" (76)		
48" (122)	36" (91)	3301 3501	3311 3511
N/A	48" (122)		
Unusual			

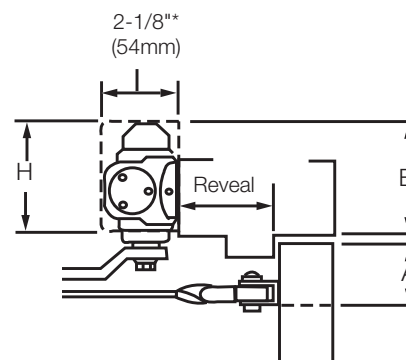
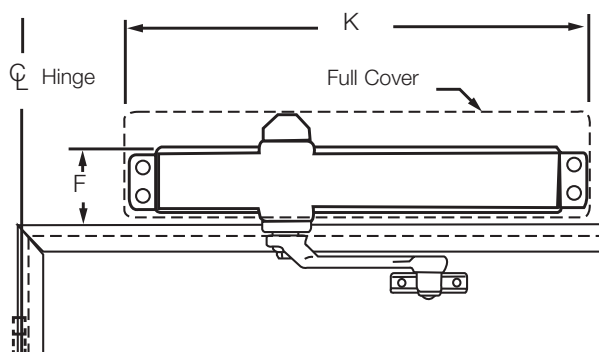
Note: 3301/3501 series door closers are set at midpower range from the factory and can be adjusted for door sizes noted above.

* 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).



Technical Details

TOP JAMB ARM



Mounting holes for closer body are spaced 3/4" (19mm) vertically x 12" (305mm) horizontally.
Note: All measurements are Inches/mm.

Closer Series	Covers	F Minimum Frame Face			E Minimum Ceiling Clearance			A Minimum Top Rail Clearance									K Closer Length	H Closer Height
								W/O Drop Plate			W/3146 Drop Plate			With 3148/3547 Drop Plate				
		W/O Drop Plate	With 3146 Drop Plate	With 3148, 3158, 3547 & 3547A Drop Plates	W/O Drop Plate	With 3146 Drop Plate	With 3148, 3158, 3547 & 3547A Drop Plates	NHO	Low Profile	HO	NHO	Low Profile	HO	NHO	Low Profile	HO		
3100	No Cover																12-3/4" (324)	
3300	Slim Line Plastic		1-1/8" (29)	1-1/2" (38)	2-3/4" (70)	1-5/8" (41)	1-1/2" (38)										13" (330)	2-7/8" (73)
3500	Full Plastic	1-3/4" (44)						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)		
3500M	Metal			1-5/8" (41)	3-3/4" (95)		1-5/8" (41)										13-5/8" (346)	3-3/4" (95)
3500A	Arch. Plastic		N/A	1-1/2" (38)	3" (76)	N/A	1-1/2" (38)										14" (356)	3-1/8" (79)
3500MA	Arch. Metal				2-7/8" (73)													3" (76)

Note: Reveal range information is based upon 1-3/4" (44mm) doors hung on 4-1/2" wide hinges.

* 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).



Technical Details

TOP JAMB ARM

Door Widths Inches (cm)		Model Number	
Interior	Exterior	Non-Hold Open	Hold Open
30" (76)	N/A		
36" (91)	30" (76)		
48" (122)	36" (91)	3301 3501	3311 3511
N/A	48" (122)		
Unusual			

Note: 3301/3501 series door closers are set at midpower range from the factory and can be adjusted for door sizes noted above.

Reveal Information		
Reveal Range Inches (mm)	Maximum Door Opening	
	NHO	Hold Open
2-3/4" (70) to 4-1/4" (108)	180°	—
4-1/4" (108) to 7" (178)	150°	—
2-1/8" (54) to 4-1/4" (108)	—	180°
4-1/4" (108) to 6-3/4" (171)	—	150°

Reveal Information (regular arm installed top jamb)		
Reveal Range Inches (mm)	Maximum Door Opening	
	NHO	Hold Open
0 to 2-7/8" (73)	180°	—
0 to 2-3/4" (70)	180°	—
0 to 2-3/4" (70)	—	180°

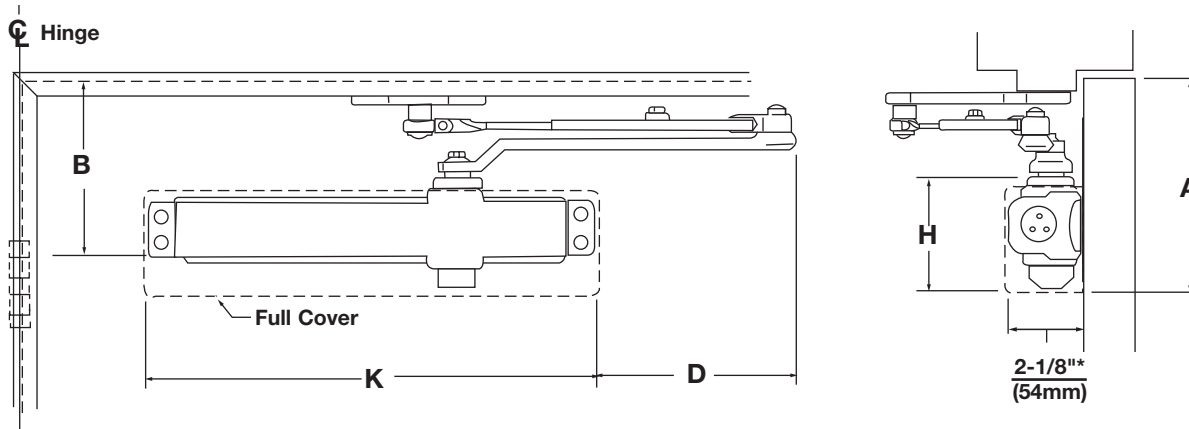
**** Drop Plate 3146, 3148, 3158, 3547 or 3547A**

Note: Reveal range information is based upon 1-3/4" (44mm) doors hung on 4-1/2" wide hinges.



Technical Details

PARALLEL ARM



Mounting holes for closer body are spaced 3/4" (19mm) vertically x 12" (305mm) horizontally.

Note: All measurements are Inches/mm.

Maximum 180° door swing, conditions permitting.

Closer Series	Covers	B Minimum Top Rail 5/8" (16mm) Frame Stop						A Top Rail Clearance			K Closer Length	H Closer Height	D Arm Extension
		W/O Drop Plate			With 3148/3548 Drop Plate								
		NHO	Low Profile	HO	NHO	Low Profile	HO	NHO	Low Profile	HO			
3100	No Cover										<u>12-3/4"</u> (324)		<u>8-1/8"</u> (206)
3300	Slim Line Plastic							<u>6-1/4"</u> (159)	<u>5-5/8"</u> (143)	<u>6-1/4"</u> (159)	<u>13"</u> (330)	<u>2-7/8"</u> (73)	<u>8"</u> (203)
3500	Full Plastic	<u>5-1/4"</u> (133)	<u>4-5/8"</u> (117)	<u>5-1/4"</u> (133)	<u>3"</u> (76)	<u>2-3/8"</u> (60)	<u>3"</u> (76)						
3500M	Metal							<u>6-7/8"</u> (175)	<u>6-1/4"</u> (159)	<u>6-7/8"</u> (175)	<u>13-5/8"</u> (346)	<u>3-3/4"</u> (95)	
3500A	Arch. Plastic							<u>6"</u> (152)	<u>5-3/8"</u> (137)	<u>6"</u> (152)	<u>14"</u> (356)	<u>3-1/8"</u> (79)	<u>7-5/8"</u> (194)
3500MA	Arch. Metal							<u>5-7/8"</u> (149)	<u>5-1/4"</u> (133)	<u>5-7/8"</u> (149)		<u>3"</u> (76)	

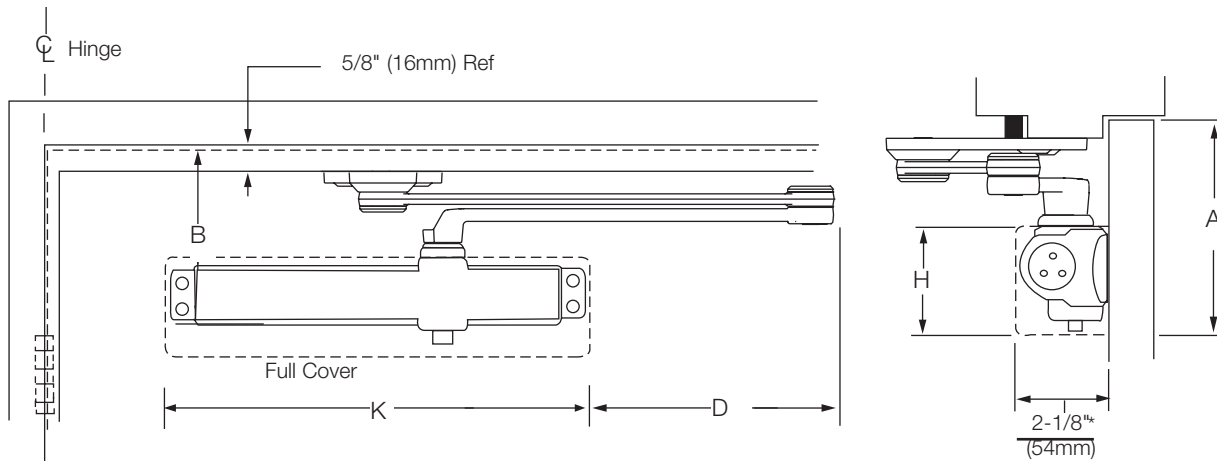
Door Widths Inches (cm)		Model Number	
Interior	Exterior	Non-Hold Open	Hold Open
30" (76)	N/A		
36" (91)	30" (76)		
42" (107)	36" (91)	3301 3501	3311 3511
48" (122)	42" (107)		
N/A	48" (122)		

Note: 3301/3501 series door closers are set at midpower range from the factory and can be adjusted for door sizes noted above.

* 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).

Technical Details

PARALLEL RIGID ARM



Mounting holes for closer body are spaced 3/4" (19mm) vertically x 12" (305mm) horizontally.
Note: All measurements are Inches/mm.

Closer Series	Covers	B Minimum Top Rail		A Minimum Top Rail Clearance	K Closer Length	H Closer Height	D Arm Extensions
		W/O Drop Plate	With Drop Plate				
3100	No Cover				12-3/4" (324)		
3300	Slim Line Plastic			5-7/8" (149)	13" (330)	2-7/8" (73)	8" (203)
3500	Full Plastic	4-5/8" (117)	2-3/8" (60)				
3500M	Metal			6-1/2" (165)	13-5/8" (346)	3-7/8" (98)	7-5/8" (194)
3500A	Arch. Plastic			6" (152)	14" (356)	3-1/8" (79)	7-1/2" (191)
3500MA	Arch. Metal			5-7/8" (149)		3" (76)	

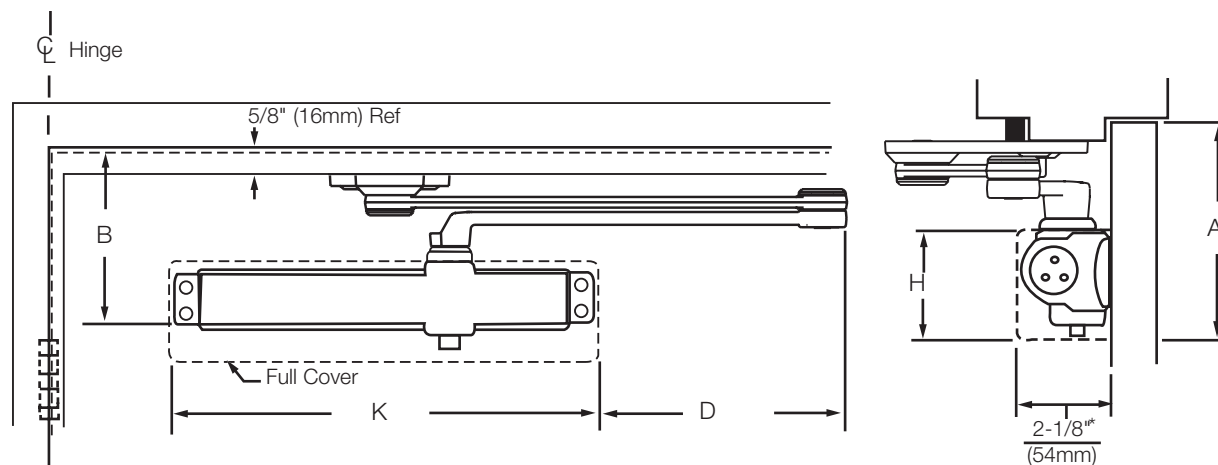
Door Size (Wood or Metal) Inches (cm)		Model Number	
Interior	Exterior	Stop Only	Hold Open
28" (71) - 32" (81)	N/A		
33" (84) - 36" (91)	28" (71) - 32" (81)		
37" (94) - 41" (104)	33" (84) - 36" (91)	PR3301 PR3501	PR3311 PR3511
42" (107) - 48" (122)	37" (94) - 41" (104)		
N/A	42" (107) - 48" (122)		

Note: 3301/3501 series door closers are set at midpower range from the factory and can be adjusted for door sizes noted above.
* 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).



Technical Details

HOLDER/STOP ARM



Mounting holes for closer body are spaced 3/4" (19mm) vertically x 12" (305mm) horizontally.
Note: All measurements are Inches/mm.

Closer Series	Covers	B Minimum Top Rail		A Minimum Top Rail Clearance	K Closer Length	H Closer Height	D Arm Extensions
		W/O Drop Plate	With Drop Plate				
3100	No Cover				12-3/4" (324)		
3300	Slim Line Plastic			5-7/8" (149)	13" (330)	2-7/8" (73)	8" (203)
3500	Full Plastic	4-5/8" (117)	2-3/8" (60)				
3500M	Metal			6-1/2" (165)	13-5/8" (346)	3-7/8" (98)	7-5/8" (194)
3500A	Arch. Plastic			6" (152)	14" (356)	3-1/8" (79)	7-1/2" (191)
3500MA	Arch. Metal			5-7/8" (149)		3" (76)	

Door Size (Wood or Metal) Inches (cm)		Model Number	
Interior	Exterior	Stop Only	Hold Open
28" (71) - 32" (81)	N/A		
33" (84) - 36" (91)	28" (71) - 32" (81)	3321	3321T 3521T
37" (94) - 41" (104)	33" (84) - 36" (91)		
42" (107) - 48" (122)	37" (94) - 41" (104)	3521	
N/A	42" (107) - 48" (122)		

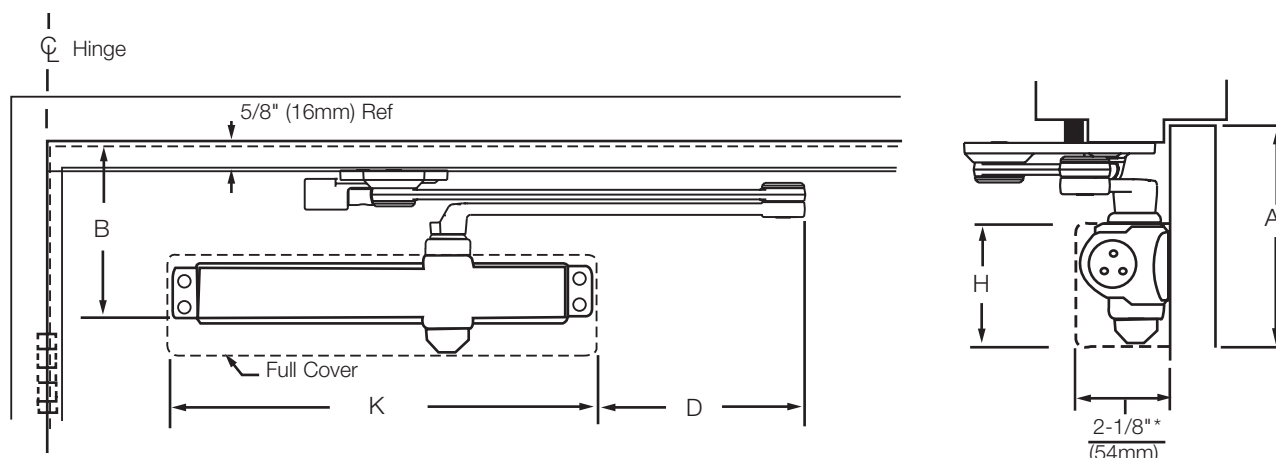
Note: 3301/3501 series door closers are set at midpower range from the factory and can be adjusted for door sizes noted above.

* 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).



Technical Details

HOLDER/STOP SPRING ARMS



Mounting holes for closer body are spaced 3/4" (19mm) vertically x 12" (305mm) horizontally.
Note: All measurements are Inches/mm.

Closer Series	Covers	B		A	K	H	D
		Minimum Top Rail	Minimum Top Rail				
		W/O Drop Plate	With Drop Plate	Clearance	Closer Length	Closer Height	Arm Extensions
3100	No Cover				12-3/4" (324)		
3300	Slim Line Plastic			5-7/8" (149)	13" (330)	2-7/8" (73)	8" (203)
3500	Full Plastic	4-5/8" (117)	2-3/8" (60)				
3500M	Metal			6-1/2" (165)	13-5/8" (346)	3-7/8" (98)	7-5/8" (194)
3500A	Arch. Plastic			6" (152)		3-1/8" (79)	
3500MA	Arch. Metal			5-7/8" (149)	14" (356)	3" (76)	7-1/2" (191)

Door Size (Wood or Metal)		Model Number	
Inches (cm)			
Interior	Exterior	Stop Only	Hold Open
28" (71) - 32" (81)	N/A		
33" (84) - 36" (91)	28" (71) - 32" (81)		
37" (94) - 41" (104)	33" (84) - 36" (91)	3331 3531	3331T 3531T
42" (107) - 48" (122)	37" (94) - 41" (104)		
N/A	42" (107) - 48" (122)		

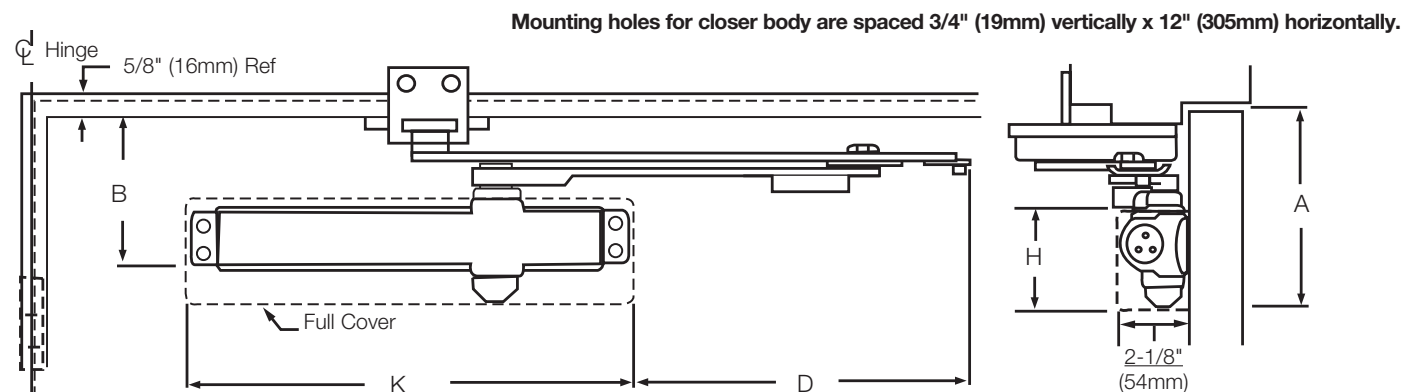
Note: 3301/3501 series door closers are set at midpower range from the factory and can be adjusted for door sizes noted above.

* 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).



Technical Details

UNI STOP™ - PARALLEL ARM

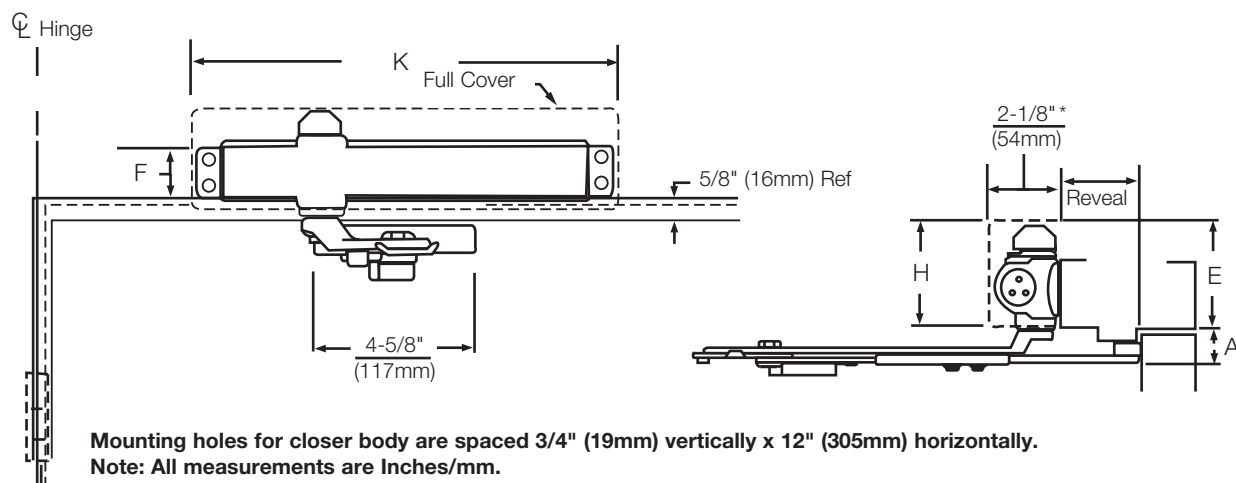


Closer Series	Door Width	Covers	B Minimum Top Rail		A Minimum Top Rail Clearance	K Closer Length	H Closer Height	D Arm Extensions
			W/O Drop Plate	With Drop Plate				
3300	28-32	Slim Line Plastic	4-3/4" (121)	2-1/2" (64)	5-3/4" (146)	13" (330)	2-7/8" (73)	8-3/8" (213)
	33-41							9-7/8" (251)
	42-48							11-1/4" (286)
3500	28-32	Full Plastic			6-3/8" (162)	13-5/8" (346)	3-7/8" (98)	8-3/8" (213)
3500M		Metal						8" (203)
3500A		Arch. Plastic						7-7/8" (200)
3500MA		Arch. Metal						7-1/2" (191)
3500		Full Plastic						9-7/8" (251)
3500M	33-41	Metal			6-3/8" (162)	13-5/8" (346)	3-7/8" (98)	9-1/2" (241)
3500A		Arch. Plastic						9-3/8" (238)
3500MA		Arch. Metal						9" (229)
3500		Full Plastic						11-1/4" (286)
3500M	42-48	Metal			6-3/8" (162)	13-5/8" (346)	3-7/8" (98)	10-7/8" (276)
3500A		Arch. Plastic						10-3/4" (273)
3500MA		Arch. Metal						10-3/8" (264)
3500		Full Plastic						11-1/4" (286)

Door Widths (Wood or Metal) Inches (cm)		Model Number		x Specify Door Width
Interior	Exterior	Stop Only	Hold Open	
28" (71) - 32" (81)	N/A	UNI3301 UNI3501	UNI3311 UNI3511	
33" (83) - 36" (91)	28" (71) - 32" (81)			
37" (94) - 41" (104)	33" (83) - 36" (91)			
42" (107) - 48" (122)	37" (94) - 41" (104)			
N/A	42" (107) - 48" (122)			

Technical Details

UNI STOP™ - TOP JAMB ARM



Closer Series	Covers	F Minimum Frame Face		E Minimum Ceiling Clearance		A Minimum Top Rail Clearance		K Closer Length	H Closer Height
		W/O Drop Plate	With 3148, 3158, 3547 & 3547A Drop Plates	W/O Drop Plate	With Drop Plate	W/O Drop Plate	With 3148, 3158, 3547 & 3547A Drop Plates		
3300	Slim Line Plastic		1-1/2" (38)	2-3/4" (70)	1-1/2" (38)			13" (330)	2-7/8" (73)
3500	Full Plastic								
3500M	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)
3500A	Arch. Plastic		1-1/2" (38)	3" (76)	1-1/2" (38)			14" (356)	3-1/8" (79)
3500MA	Arch. Metal			2-7/8" (73)					

Door Widths (Wood or Metal) Inches (cm)		Model Number		x Specify Frame Reveal
Interior	Exterior	Stop Only	Hold Open	
28" (71) - 30" (76)	N/A			
31" (79) - 36" (91)	28" (71) - 30" (76)			
37" (94) - 42" (107)	31" (79) - 36" (91)	UNI3301 UNI3501	UNI3311 UNI3511	
43" (109) - 48" (122)	37" (94) - 42" (107)			
N/A	43" (109) - 48" (122)			

Note: 3301/3501 series door closers are set at midpower range from the factory and can be adjusted for door sizes noted above.

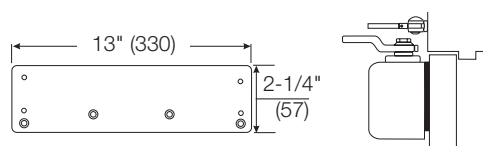
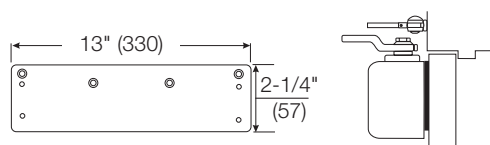
*** Projection is for Slim Line or Full Covers. Projection for Metal Covers = 2-3/16" (56mm). Projection for Architectural Plastic & Architectural Metal Covers = 2-1/4" (57mm).**



Accessories

REGULAR ARM

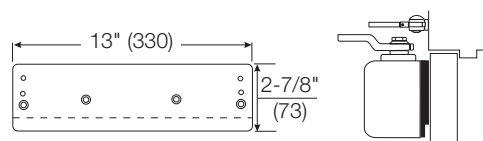
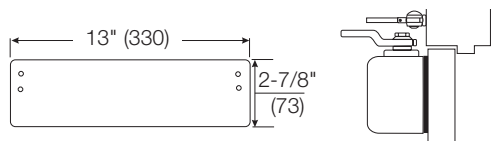
Closer Mounting Plates Slim Line Installations



Narrow Top Rail - #3146 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 3000 closer mounted on a top rail between 1-9/16" and 2-7/16" (40 and 62mm) in height, or any 3000 low profile closer mounted on a top rail between 1-7/16" and 2-5/16" (36 and 59mm) in height.

Concealed Door Holder - #3146 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.

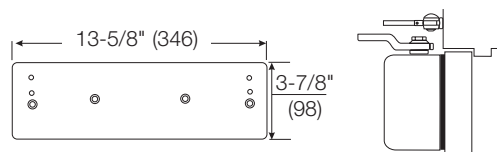
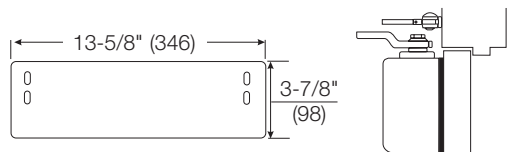
Full Cover Installations



Exposed Back - #3445 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.

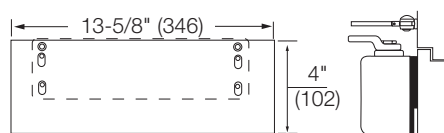
Exposed Back/Narrow Top Rail - Exposed Back Concealed Door Holder - #3446 Molded Full Cover Drop Plate Kit: For use with molded full cover installation when a 3146 Plate is needed as a drop plate on a narrow top rail, or as a clearance plate for a concealed door holder, and the closer back is exposed. Kit contains a 3146 Drop Plate and a 3445 Decorative Plate.

Metal Cover Installations



Exposed Back - #3545 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 - #3546 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.



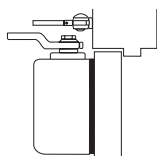
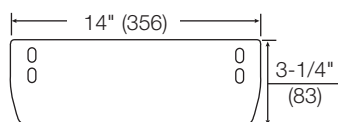
Exposed Back/Narrow Top Rail - #3549 Metal Cover Drop Plate Kit: For use with metal full cover installations, when a 3146 Plate is needed as a drop plate on a narrow top rail and the closer back is exposed. Kit contains a 3146 Drop Plate and a 3545 Decorative Plate.

Note: All measurements are Inches/mm.

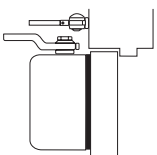
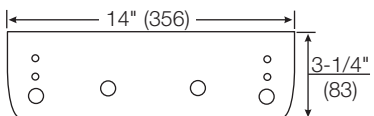
Accessories

REGULAR ARM

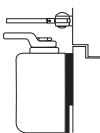
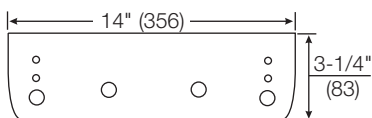
CLOSER MOUNTING PLATES ARCHITECTURAL PLASTIC OR METAL COVER INSTALLATIONS



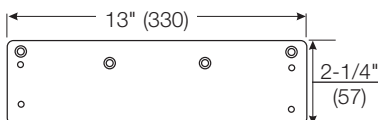
Exposed Back - #3545A Architectural Plastic or Architectural Metal Cover Decorative Back Plate: For use on doors with glass lights where a closer with an architectural plastic or metal cover is installed and the closer back is exposed. This plate covers the back of the installation to give a pleasing appearance from the reverse side.



Concealed Door Holder - #3546A 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 - #3549A Architectural Plastic or Architectural Metal Cover Drop Plate Kit: For use with architectural plastic or metal cover installations when a 3146 plate is needed as a drop plate on a narrow top rail and the closer back is exposed. Kit contains a 3146 Drop Plate and a 3545A Decorative Plate.

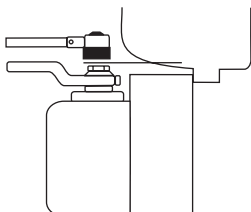
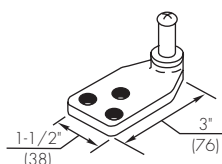


Note: All measurements are Inches/mm.

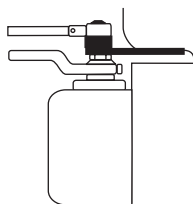
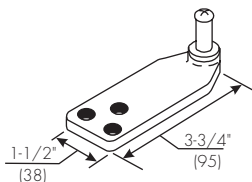
Accessories

REGULAR ARM

BRACKETS FOR NON-HOLD OPEN ARMS

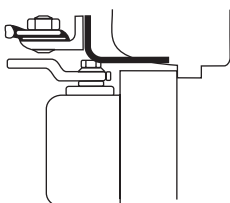
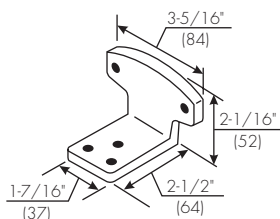


Molded / Bull Nose Trim - #291 Bracket: For use where the door frame has molded or bull nose trim which will not accept a standard non-hold open shoe. The bracket is mortised into the frame rabbet, and projects beyond the face of the frame. It will accommodate a frame rabbet up to 2" (51mm) deep.



Molded / Bull Nose Trim - #291A Bracket: This bracket is similar to, but longer than, the 291 bracket. It is designed to accommodate frame rabbets from 2" to 2-7/8" (51 to 73mm) deep.

BRACKETS FOR HOLD OPEN ARMS



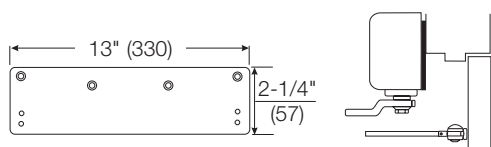
Molded / Bull Nose Trim - #292 Bracket: For use where the door frame has molded or bull nose trim which will not accept a standard hold open shoe. It is mortised into the frame rabbet, and projects beyond the face of the frame. It will accommodate a rabbet up to 2" (51mm) deep. This bracket is used in combination with the standard hold open mounting shoe.

Note: All measurements are Inches/mm.

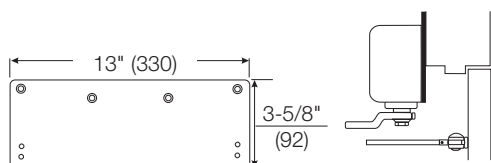
Accessories

TOP JAMB ARM

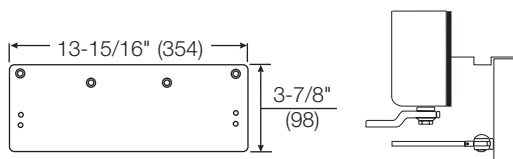
CLOSER MOUNTING PLATES SLIM LINE INSTALLATIONS



Low Ceiling Clearance - #3146 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" (48mm to 73mm). Where ceiling clearance is less than 1-7/8" (48mm) see #3148 Drop Plate below.

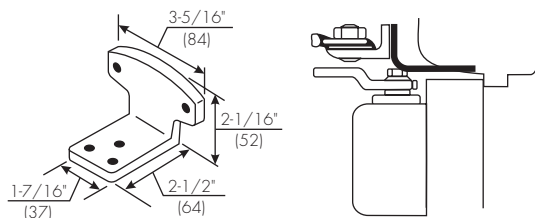


Overhead Door Holder - #3146 Drop Plate: For use where a surface or concealed overhead door holder prevents normal top jamb mounting. This plate drops the closer and allows arm mounting screws to clear the bottom of the door holder. This places the centerline of the arm mounting screws at 2-7/8" (73mm) from the top of the door.



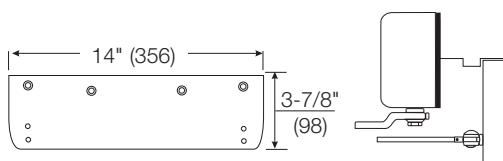
Low Ceiling Clearance - #3148 Drop Plate: For use where the ceiling clearance is between 1-1/2" and 1-3/4" (38 and 44mm).

METAL COVER INSTALLATIONS



Low Ceiling Clearance - Overhead Door Holder - #3547 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" (41mm 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 - #3547A 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" (41mm 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.

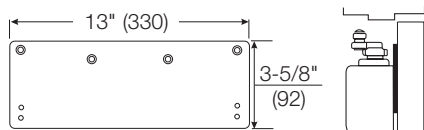
Note: All measurements are Inches/mm.



Accessories

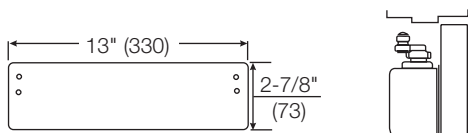
PARALLEL ARM

CLOSER MOUNTING PLATES SLIM LINE INSTALLATIONS

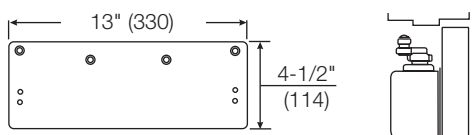


Narrow Top Rail - #3148 Drop Plate (3300 Series): For use where a narrow top rail prevents the closer from being mounted directly to the door surface. This drop plate can be used to mount a closer on a top rail as narrow as 2-7/8" (73mm) in height.

FULL COVER INSTALLATIONS

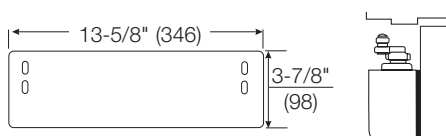


Exposed Back - #3445 Molded Full Cover Decorative Back Plate: For use on doors with glass lights where a closer with molded full cover is installed and the closer back is exposed. This plate covers the back of the installation to give a pleasing appearance from the reverse side.

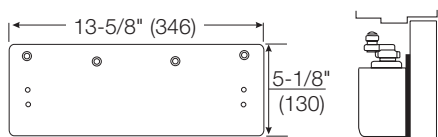


Exposed Back/Narrow Top Rail - #3158 Molded Full Cover Drop Plate: For use on doors with glass lights where a closer with molded full cover is installed and the back of the closer is exposed. This covers the back of the installation and gives a pleasing appearance from the reverse side.

METAL COVER INSTALLATIONS

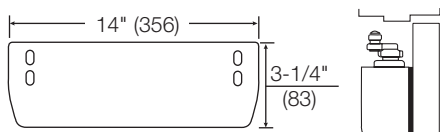


Exposed Back - #3545 Metal Full Cover Decorative Back Plate: For use on doors with glass lights where a closer with full metal cover is installed and the back of the closer is exposed. This plate covers the back of the installation and gives a pleasing appearance from the reverse side.

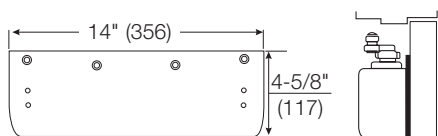


Exposed Back/Narrow Top Rail - #3548 Metal Full Cover Drop Plate: For use on doors with glass lights where a closer with metal full cover is installed on a narrow top rail, and the back of the cover is exposed. This drop plate can be used to mount a closer on a top rail as narrow as 2-7/8" (73mm) in 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 - #3545A 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.

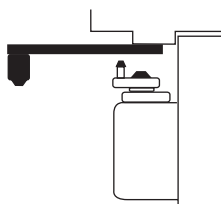
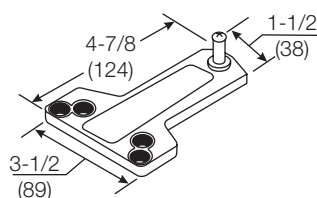


Exposed Back/Narrow Top Rail - #3548A Architectural Plastic or Architectural Metal Cover Drop Plate: For use on doors with glass lights where a closer with an architectural plastic or metal cover is installed on a narrow top rail, and the back of the cover is exposed. This drop plate can be used to mount 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.

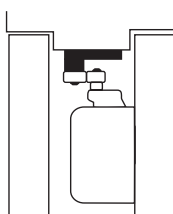
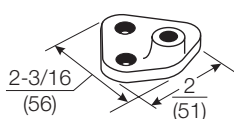
Note: All measurements are Inches/mm.

Accessories

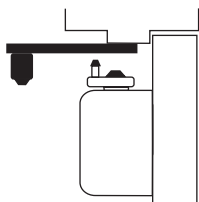
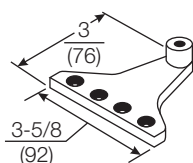
PARALLEL ARM - BRACKETS FOR NON-HOLD OPEN ARMS



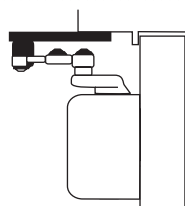
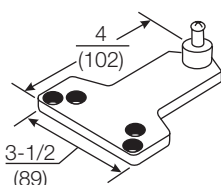
Standard Installation - #289A Soffit Plate: This soffit plate is supplied standard with parallel arm closers. It can be mounted where the frame soffit is as narrow as 1" (25 mm).



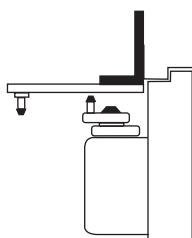
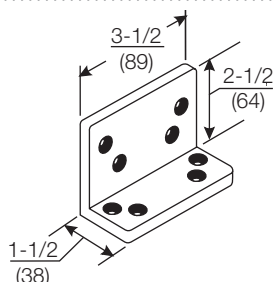
Mounting between Doors - #413A Soffit Bracket: For use where insufficient space between companion doors does not permit use of other soffit plates. This bracket permits mounting of the closer between doors with as little as 3" (76mm) of header space. Permits closer arm to clear up to 5/8" (16mm) high stop.



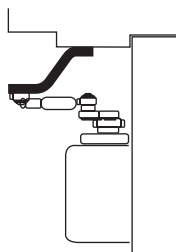
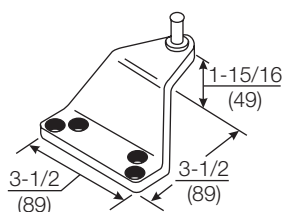
Narrow Frame/Removable Stop - #297 Soffit Plate: For use where a narrow frame or frame with removable stop does not permit use of the standard soffit plate. This soffit plate may be mounted on the frame soffit or the frame rabbet where the stop does not exceed 5/8" (16mm) in height. All of the screw 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 - #299 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.



Flush Transom - #589L Angle Bracket: For use where rabbeted or flush transom conditions prevent installation of a soffit plate. Used in combination with the 289 soffit plate, or may be used in combination with the 290 soffit plate when it is necessary for the closer arm to clear a separate overhead door holder.

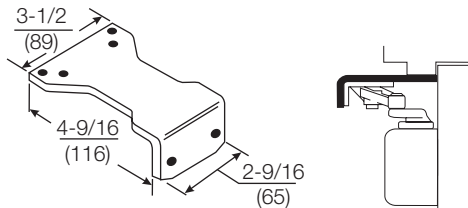


Extra-Clearance - #290 Offset Soffit Plate: For use where the need for additional clearance prevents use of the standard soffit plate. This plate mounts to the frame soffit to provide up to 2" (51mm) of clearance when a separate overhead door holder is used. Standard mounting requires a 2-5/8" (67mm) wide frame soffit. It may also be used where unusually high frame stops or weather-stripping prevent the use of other soffit plates.

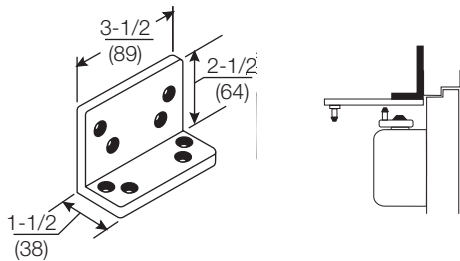
Note: All measurements are Inches/mm.

Accessories

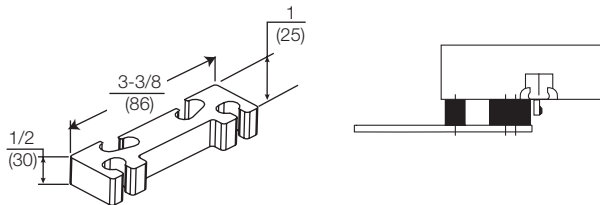
PARALLEL ARM - BRACKETS FOR NON-HOLD OPEN AND HOLD OPEN ARMS



Parallel Hold Open - #588 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 - #589L Angle Bracket: For use where rabbeted or flush transom conditions prevent installation of a soffit plate. Used in combination with the 588 adapter plate, this bracket fastens to the overhead transom to provide a mounting surface for the soffit plate assembly.



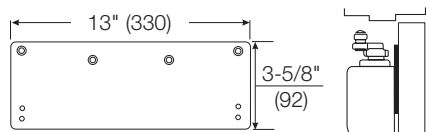
Clearance/Support Blade Stop - #891 Spacer Block: For use where the door frame has a blade stop and the soffit plate must be mounted on the frame rabbet. This accessory is used in combination with the standard spacer block to provide clearance of the blade stop. Also used with non-hold open arms.

Note: All measurements are Inches/mm.

Accessories

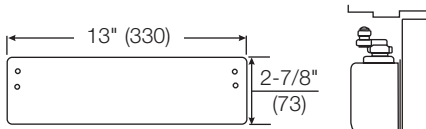
PARALLEL RIGID, HOLDER/STOP, HOLDER/STOP SPRING ARMS

CLOSER MOUNTING PLATES SLIM LINE INSTALLATIONS

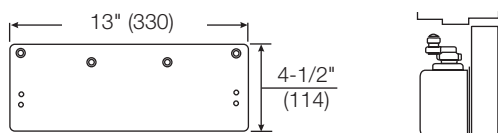


Narrow Top Rail - #3148 Drop Plate: For use where a narrow top rail prevents the closer from being mounted directly to the door surface. This drop plate can be used to mount a closer on a top rail as narrow as 2-9/16" (65mm) in height.

FULL COVER INSTALLATIONS

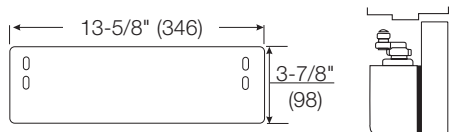


Exposed Back - #3445 Molded Full Cover Decorative Back Plate: For use on doors with glass lights where a closer with molded full cover is installed and the closer back is exposed. This plate covers the back of the installation to give a pleasing appearance from the reverse side.

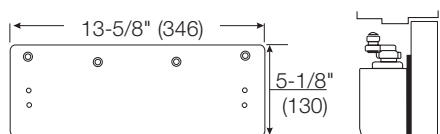


Exposed Back/Narrow Top Rail - #3158 Molded Full Cover Drop Plate: For use on doors with glass lights where a closer with molded full cover is installed and the back of the closer is exposed. This covers the back of the installation and gives a pleasing appearance from the reverse side.

METAL COVER INSTALLATIONS

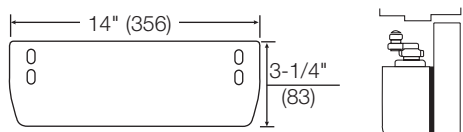


Exposed Back - #3545 Metal Full Cover Decorative Back Plate: For use on doors with glass lights where a closer with full metal cover is installed and the back of the closer is exposed. This plate covers the back of the installation and gives a pleasing appearance from the reverse side.

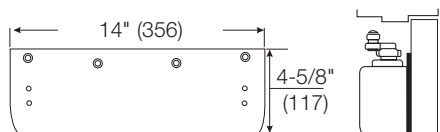


Exposed Back/Narrow Top Rail - #3548 Metal Full Cover Drop Plate: For use on doors with glass lights where a closer with metal full cover is installed on a narrow top rail, and the back of the cover is exposed. This drop plate can be used to mount a closer on a top rail as narrow as 2-9/16" (65mm) in 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 - #3545A 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.



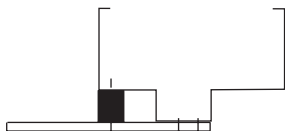
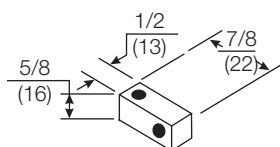
Exposed Back/Narrow Top Rail - #3548A Architectural Plastic or Architectural Metal Cover Drop Plate: For use on doors with glass lights where a closer with an architectural plastic or metal cover is installed on a narrow top rail, and the back of the cover is exposed. This drop plate can be used to mount 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.

Note: All measurements are Inches/mm.

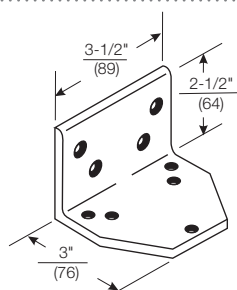
Accessories

PARALLEL RIGID, HOLDER/STOP, HOLDER/STOP SPRING ARMS

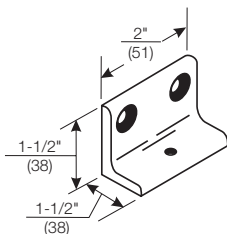
BRACKETS FOR NON-HOLD OPEN ARMS & HOLD OPEN ARMS



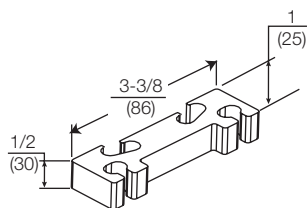
Standard - #293S Spacer Block: For use where a narrow frame soffit does not provide adequate support for the soffit plate. Supplied as standard with all parallel rigid arm closers.



Flush Rabbeted Transom - #293L 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 - #890 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 #891 Spacer Block on blade stop frames to provide extra support and needed clearance of the blade stop. Used on frame where the frame doesn't exceed 5/8 inch (16mm) in height.



Clearance/Support Blade Stop - #891 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.

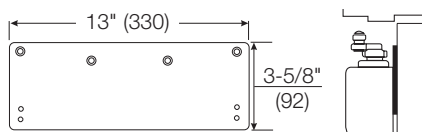
Note: All measurements are Inches/mm.



Accessories

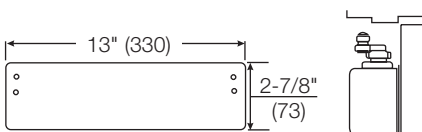
UNI STOP™ ARM

CLOSER MOUNTING PLATES PARALLEL ARM

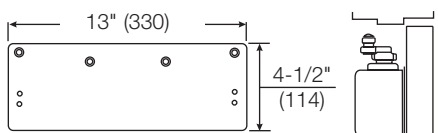


Narrow Top Rail - #3148 Drop Plate: For use where a narrow top rail prevents the closer from being mounted directly to the door surface. This drop plate can be used to mount a closer on a top rail as narrow as 2-7/16" (62mm) in height.

FULL COVER INSTALLATIONS

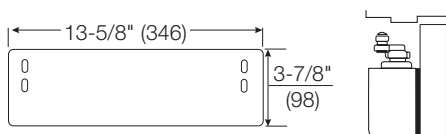


Exposed Back - #3445 Molded Full Cover Decorative Back Plate: For use on doors with glass lights where a closer with molded full cover is installed and the closer back is exposed. This plate covers the back of the installation to give a pleasing appearance from the reverse side.

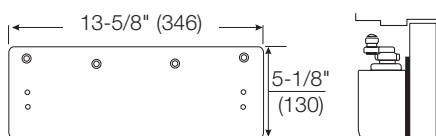


Exposed Back/Narrow Top Rail - #3158 Molded Full Cover Drop Plate: For use on doors with glass lights where a closer with molded full cover is installed and the back of the closer is exposed. This covers the back of the installation and gives a pleasing appearance from the reverse side.

METAL COVER INSTALLATIONS

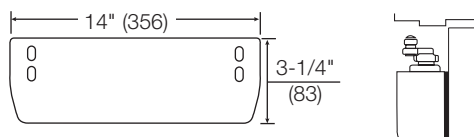


Exposed Back - #3545 Metal Full Cover Decorative Back Plate: For use on doors with glass lights where a closer with full metal cover is installed and the back of the closer is exposed. This plate covers the back of the installation and gives a pleasing appearance from the reverse side.

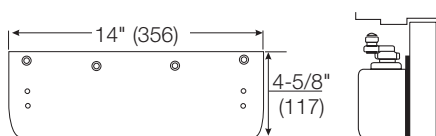


Exposed Back/Narrow Top Rail - #3548 Metal Full Cover Drop Plate: For use on doors with glass lights where a closer with metal full cover is installed on a narrow top rail, and the back of the cover is exposed. This drop plate can be used to mount a closer on a top rail as narrow as 2-9/16" (65mm) in 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 - #3545A 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 - #3548A 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.

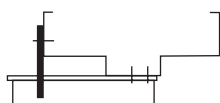
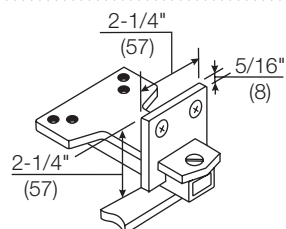
Note: All measurements are Inches/mm.

Accessories

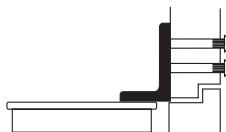
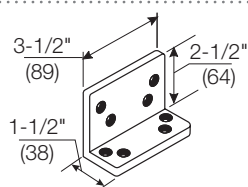
UNI STOP™ ARM

CLOSER MOUNTING PLATE

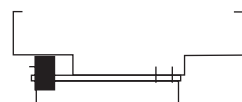
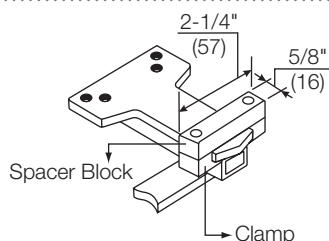
SOFFIT PLATE REINFORCING BRACKETS (FOR PARALLEL ARM)



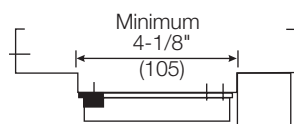
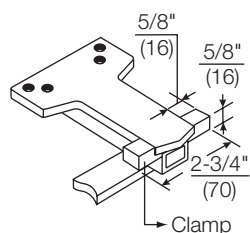
Additional Support - #6190 Reinforcing Bracket: Standard for use with all parallel arm *UNI Stop* door controls. Provides additional support to the soffit plate on installations with door frame reveals from 1-7/8" to 4-5/8" (48 to 117mm).



Flush Rabbeted Transom - #589L Angle Bracket: Optional for use with all parallel arm *UNI Stop* 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 *UNI Stop* 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.

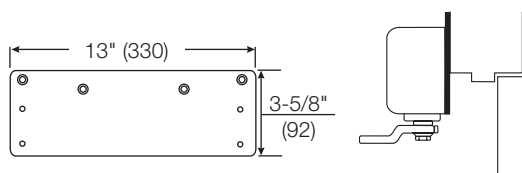


Note: All measurements are Inches/mm.

Accessories

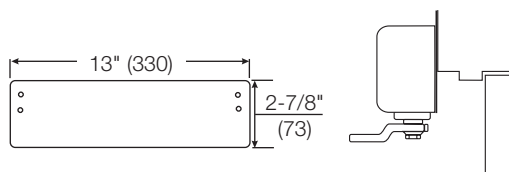
UNI STOP™ ARM

CLOSER MOUNTING PLATES TOP JAMB

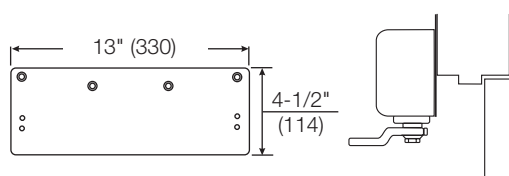


Narrow Top Rail - #3148 Drop Plate: For use where a narrow top rail prevents the closer from being mounted directly to the door surface. This drop plate can be used to mount a closer on a top rail as narrow as 2-7/16" (62mm) in height.

FULL COVER INSTALLATIONS

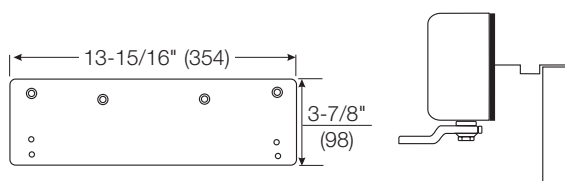


Exposed Back - #3445 Molded Full Cover Decorative Back Plate: For use on doors with glass lights where a closer with molded full cover is installed and the closer back is exposed. This plate covers the back of the installation to give a pleasing appearance from the reverse side.



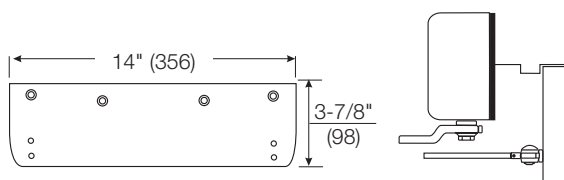
Exposed Back/Narrow Top Rail - #3158 Molded Full Cover Drop Plate: For use on doors with glass lights where a closer with molded full cover is installed and the back of the closer is exposed. This covers the back of the installation and gives a pleasing appearance from the reverse side.

METAL COVER INSTALLATIONS



Low Ceiling Clearance - Overhead Door Holder - #3547 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" (41mm 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



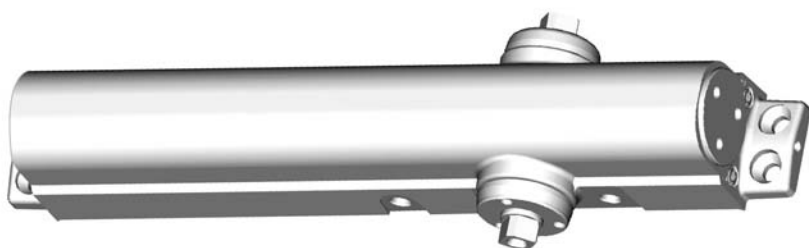
Low Ceiling Clearance - Overhead Door Holder - #3547A Architectural Plastic or Architectural Metal Cover Drop Plate: For use where low ceiling clearance prevents normal top jamb mounting. This plate is used when the clearance is between 1-5/8" and 3-3/4" (41mm and 95mm). Or for use where a surface or 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.

Note: All measurements are Inches/mm.



Parts

DOOR CLOSER BODY ASSEMBLIES

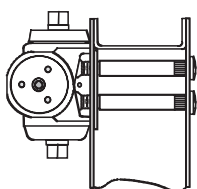


Model	Description
3101LAP	Multi-sized closer bodies 3101, 3301, 3501

LAP = Less All Parts

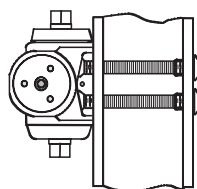
Covers	Type of Material			
Closer Series	Plastic	Metal	Arch. Plastic	Arch. Metal
3301	3200P*	N/A	N/A	N/A
3501	3400P	3400M	3400A	3400MA

FASTENERS



(Side view)

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



(Side view)

Aluminum and Wooden Door Application (Aluminum Door Shown)	
Through-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

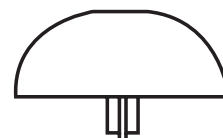
Note: All measurements are Inches/mm.

COVERS

Cover Model	Cover Drawing
Slim Line* 3200P 1-3/4" high x 2-1/8" deep x 13" long (44 x 54 x 330)	
Full Plastic 3400P 2-7/8" high x 2-1/8" deep x 13" long (73 x 54 x 330)	
Full Metal 3400M 3-7/8" high x 2-3/16" deep x 13-5/8" long (98 x 56 x 346)	
Architectural Plastic 3400A 3-3/32" high x 2-1/4" deep x 13-7/8" long (79 x 57 x 352)	
Architectural Metal 3400MA 3" high x 2-3/16" deep x 13-15/16" long (76 x 56 x 354)	

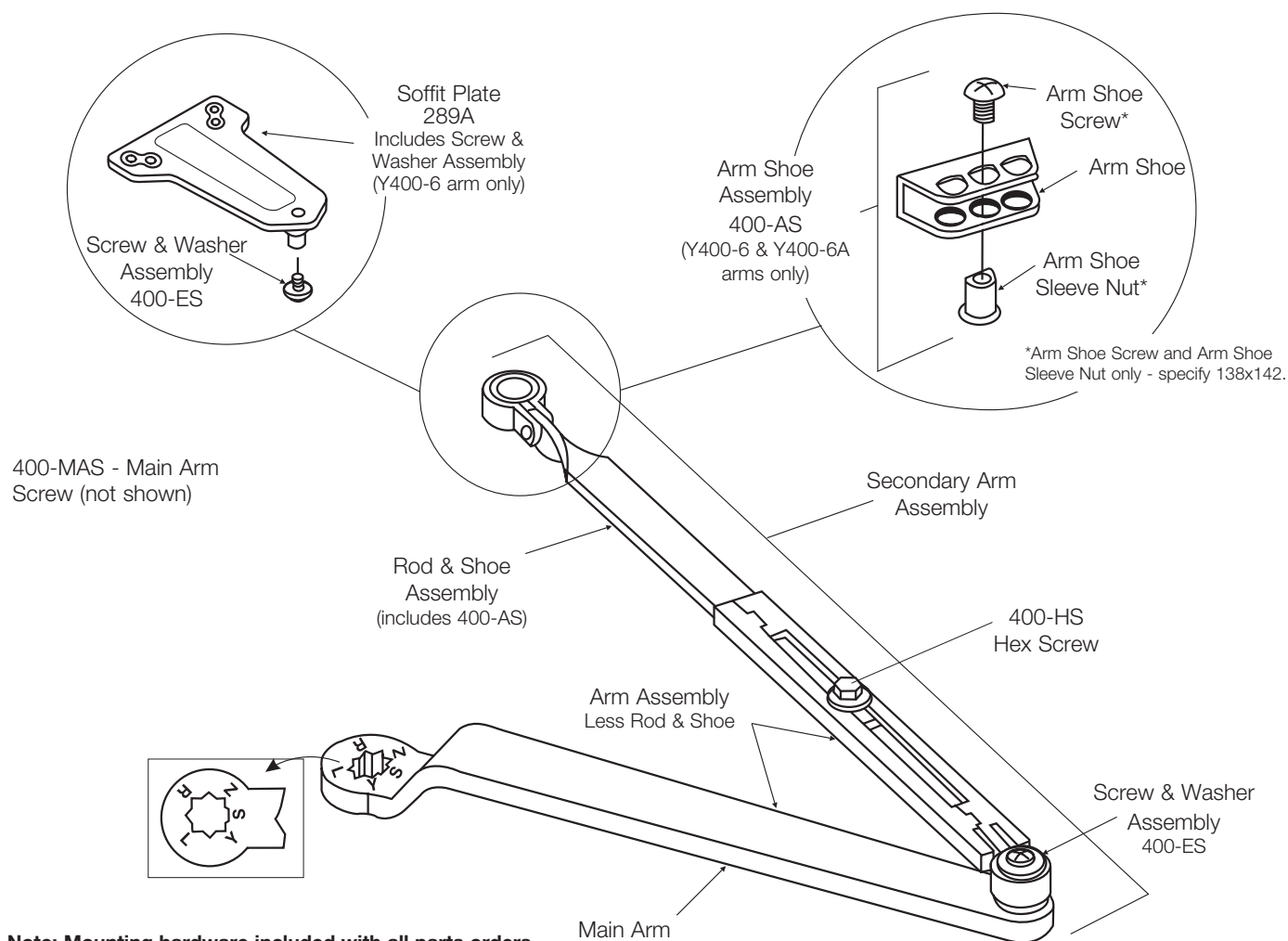
Arm Type	Torx® Screw Packs
Reg., Par. & Top Jamb	TX38
Parallel Rigid, Holder/Stop	PRTX38
Regular Rigid Heavy-Duty Arm	RTX38
Uni Stop™ Arm	UNITX38

The 1639 pinion cap is NOT included with the 3200P cover. The cap is included with the complete closer package (3300, 3301).



Parts

NON-HOLD OPEN ARM ASSEMBLIES



Note: Mounting hardware included with all parts orders.

Closer Series	Complete Arm Assembly	Main ¹ Arm Assembly (length)(mm) (includes 400-ES)	Secondary Arm Assembly (includes 400-ES)	Arm Assembly Less Rod and Shoe	Rod & Shoe ² Assembly (length)(mm)
3000	Y400-1	400-1M (11")(279)	Y400-111	Y400-1W	Y400-11 (8-7/8")(225)
TJ3000	Y400-1A		Y400-121		Y400-11A (12-9/16")(319)
P3000	Y400-6		Y400-116		Y400-16 (8-7/8")(225)
P3000 ³	Y400-6A		Y400-116A		Y400-16A (12-9/16")(319)
3000	Y400-26 (Tri-Packed® packaging includes Y400-1 plus 289A plate)				

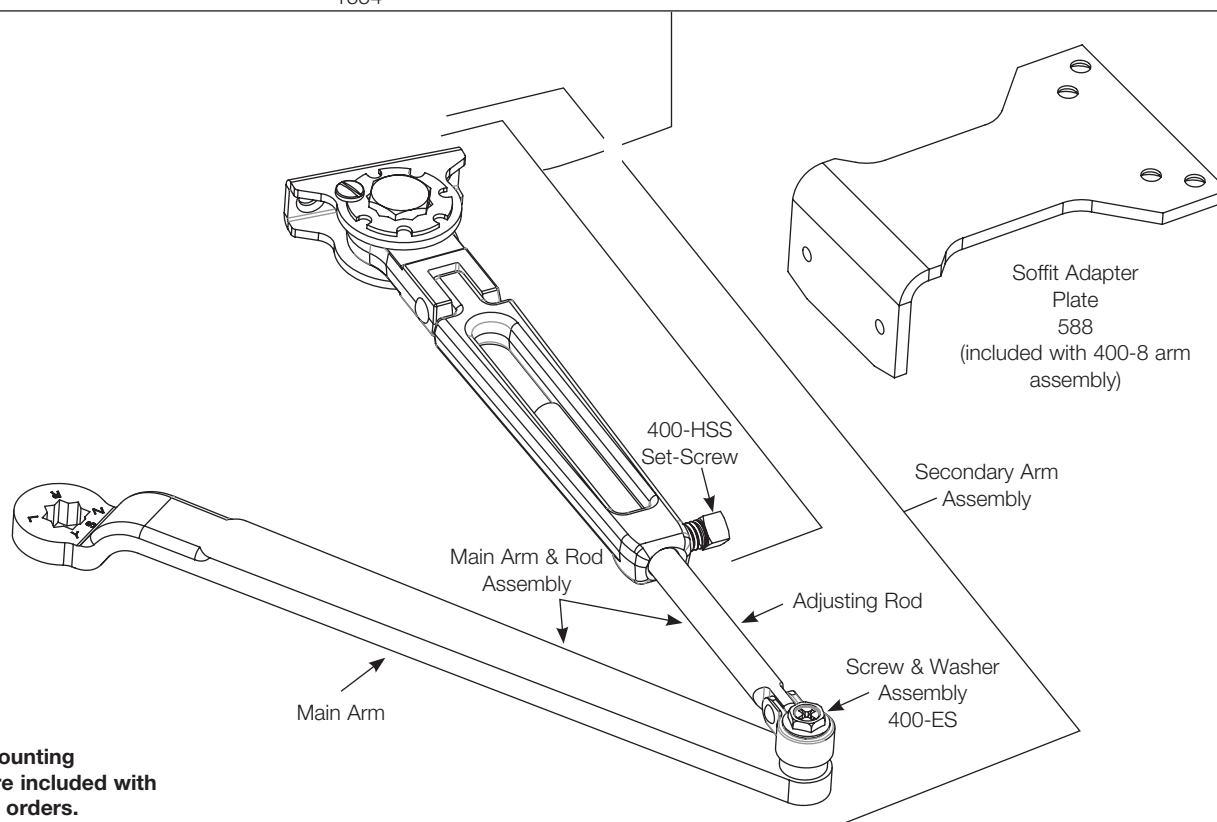
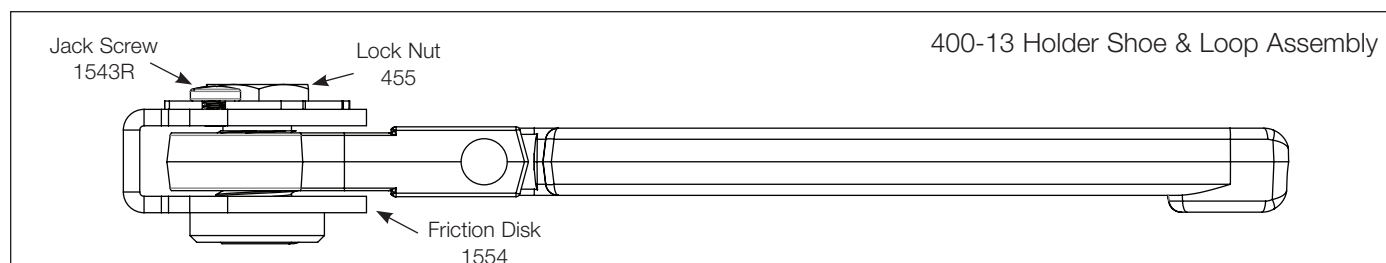
1. C/L to C/L length shown in parentheses.

2. C/L 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" (162mm to 203mm) wide throw hinges.

Parts

HOLD OPEN ARM ASSEMBLIES



Note: Mounting hardware included with all parts orders.

Closer Series	Complete Arm Assembly	Main Arm ¹ (Length) (mm) (includes 400-ES)	Secondary Arm (includes 400-ES)	Main Arm & Rod Assembly	Holder Shoe & Loop Assembly	Adjusting Rod ² (length)(mm)
3010	400-3/ 400-8 ³	400-1M (11")(279)	400-113/400-118 (Reg.) / (Par.)	400-3W	400-13/400-18 ⁴ (Reg.)/(Par.)	400-31 (7-3/8")(187)
TJ3010	400-3A		400-123	400-3WA	400-13	400-31A (10-13/16")(275)

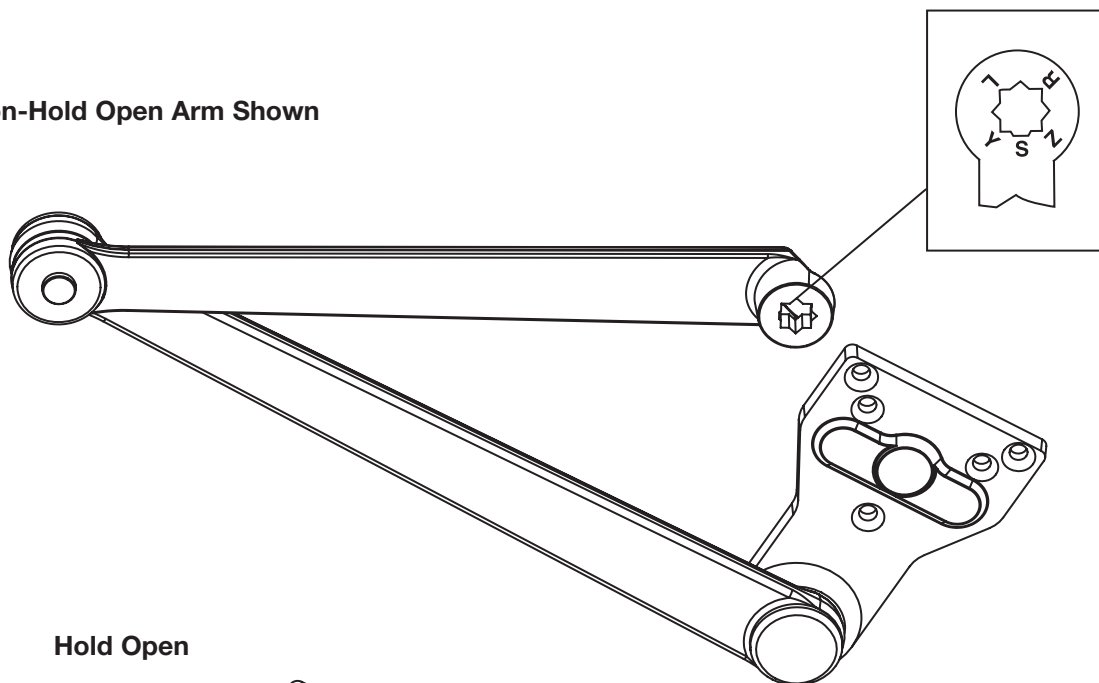
400-18- Holder Shoe & Loop Assembly (400-13) with Soffit Adapter Plate (588)

1. C/L to C/L length shown in parentheses.
2. C/L of connecting link to end of rod shown in parentheses.
3. Same as 400-3 but includes #588H soffit adapter plate.
4. Same as 400-13 but includes #588H soffit adapter plate

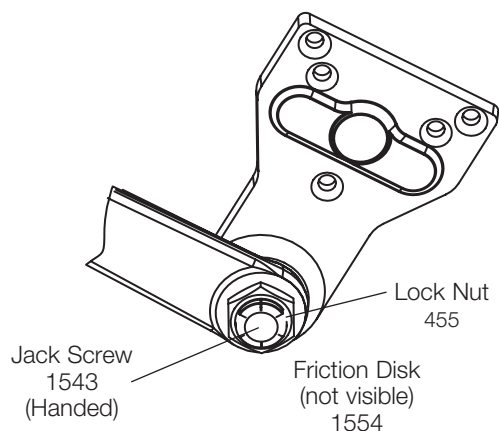
Parts

PARALLEL RIGID ARM ASSEMBLIES

Non-Hold Open Arm Shown



Hold Open



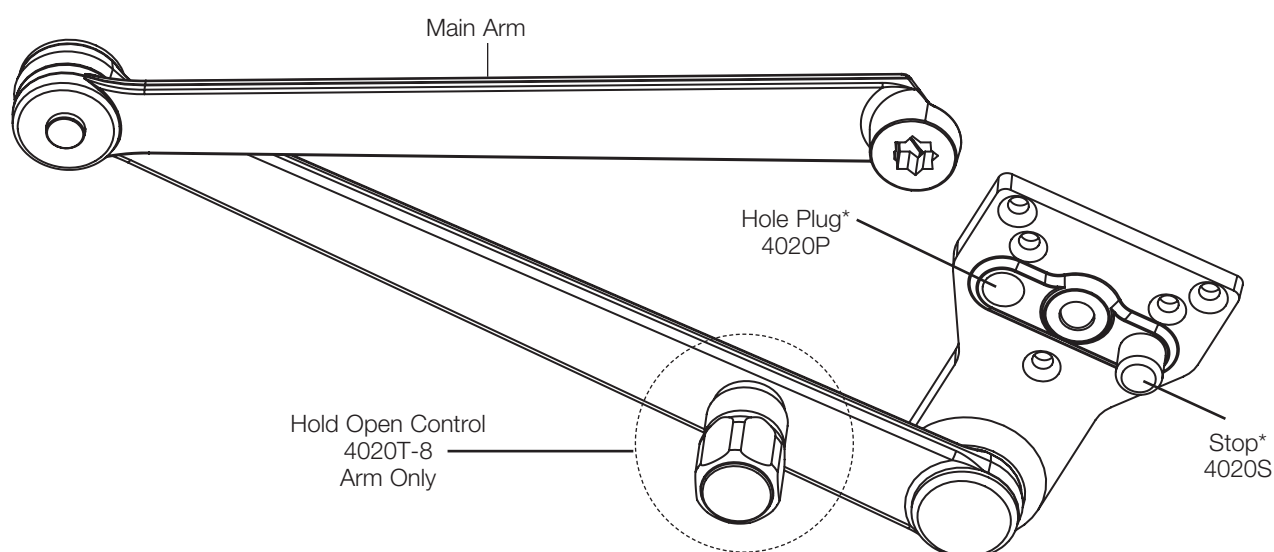
Note: Mounting hardware included with all parts orders.

Arm Function	Complete Arm Assembly
Non-Hold Open	PR400-5
Hold Open	PR400-8R (Right Hand)
	PR400-8L (Left Hand)

Parts

HOLDER/STOP ARM ASSEMBLIES

Hold Open Arm Shown



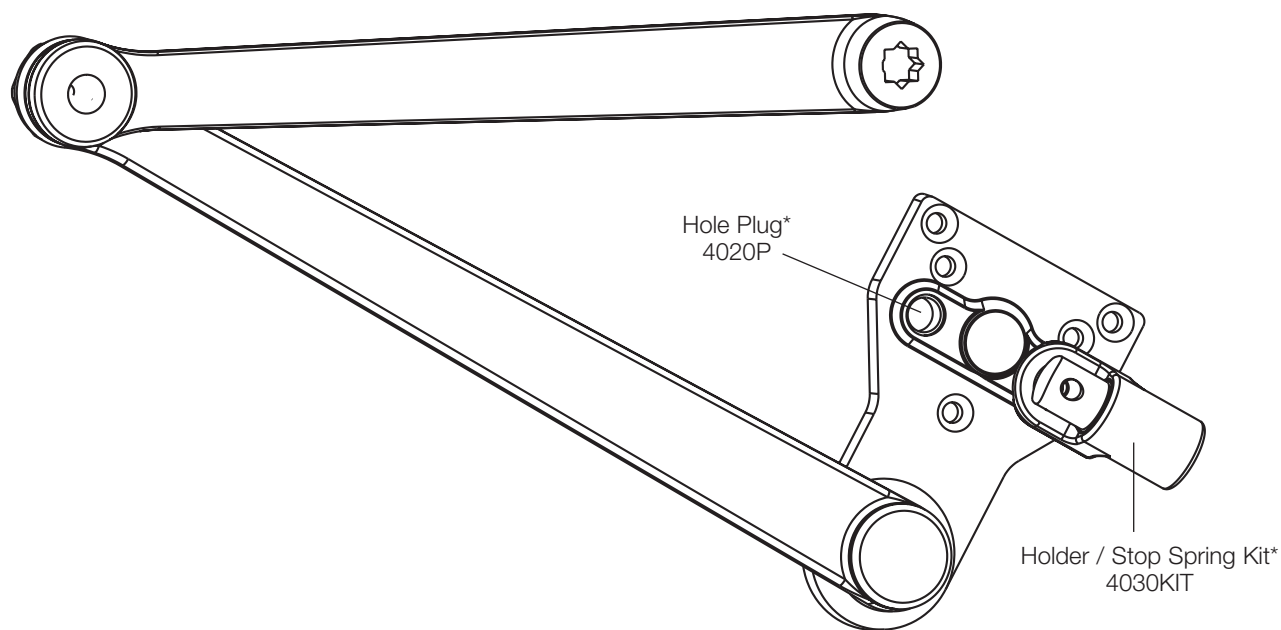
Note: Mounting hardware included with all parts orders.

Arm Function	Complete Arm Package
Non-Hold Open	4020-5
Thumbturn Hold Open	4020T-8

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

Parts

HOLDER/STOP SPRING ARM ASSEMBLIES



Note: Mounting hardware included with all parts orders.

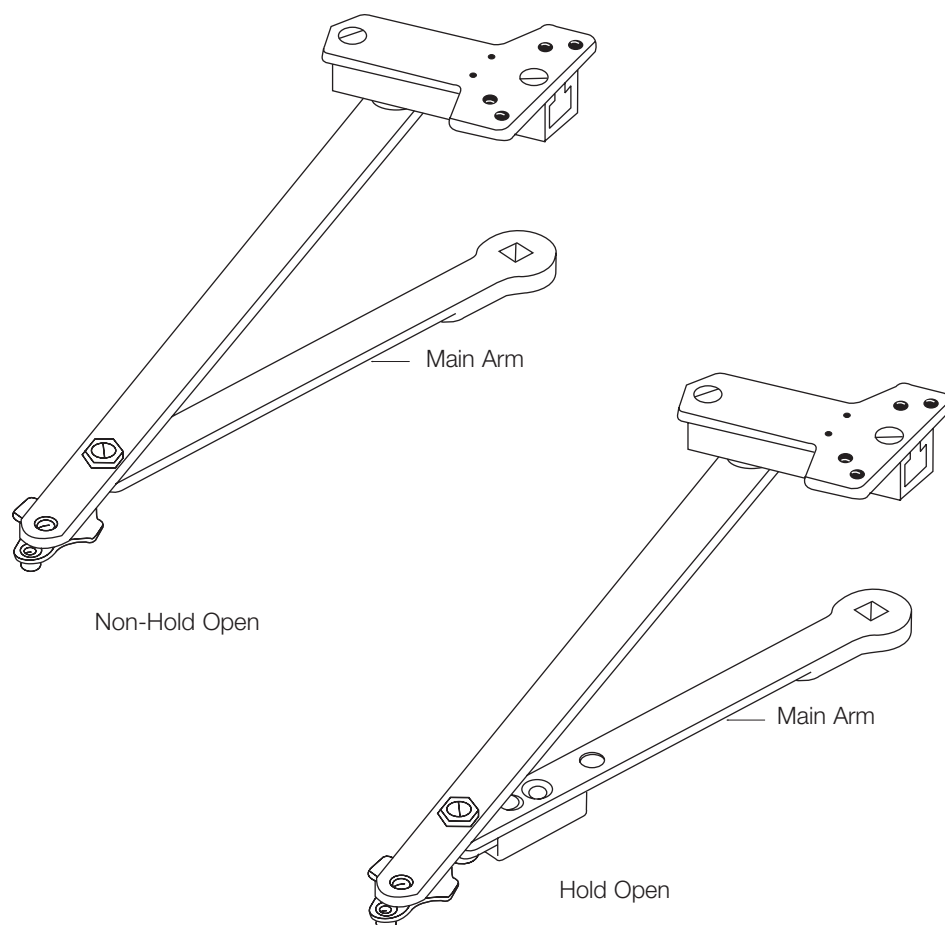
Arm Function	Complete Arm Package
Non-Hold Open	4030-5
Thumbturn Hold Open	4030T-8

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

Parts

UNI STOP™ ARM ASSEMBLIES

Parallel Arm



Note: Mounting hardware included with all parts orders.

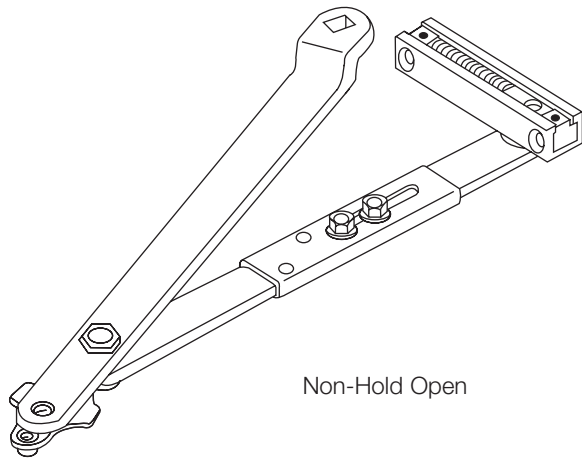
Complete Arm Assembly

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

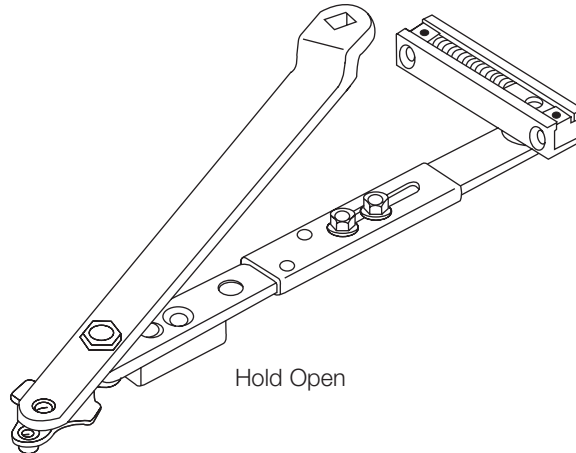
Parts

UNI STOP™ ARM ASSEMBLIES

Top Jamb



Non-Hold Open



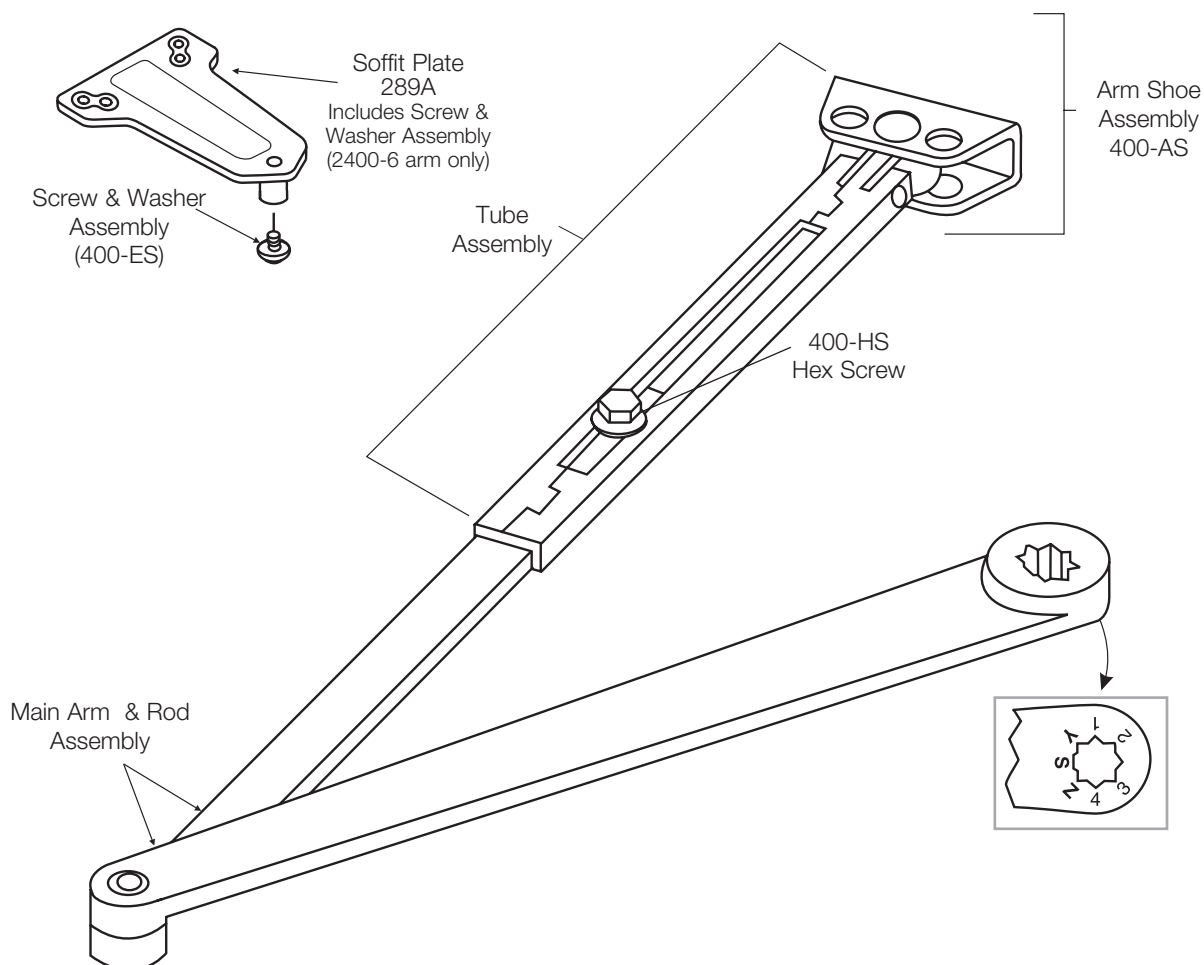
Hold Open

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)

Parts

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	2400-1	2400-1MR	2400-1TS (With 400-AS)
Parallel Arm	2400-6		2400-6TS (With 289A)
Tri-Packed® Packaging	2400-26		



Suggested Specification

3301/3501 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 Yale® [3301/3501] [3501M] [3501MA] [3501A].

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

****UNI Stop™ 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.]

****Holder/Stop 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.

****Holder/Stop 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.

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Yale Locks & Hardware

Address: 225 Episcopal Road
Berlin, CT 06037-4004
Tel: 1-800-438-1951
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yalelocks.com

Canada:

ASSA ABLOY Door Security Solutions Canada

Address: 160 Four Valley Drive
Vaughan, Ontario L4K 4T9
Tel: 1-800-461-3007
Fax: 1-800-461-8989
assaabloydss.ca

International:

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Tel: 1-905-821-7775
Fax: 1-905-821-1429
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