

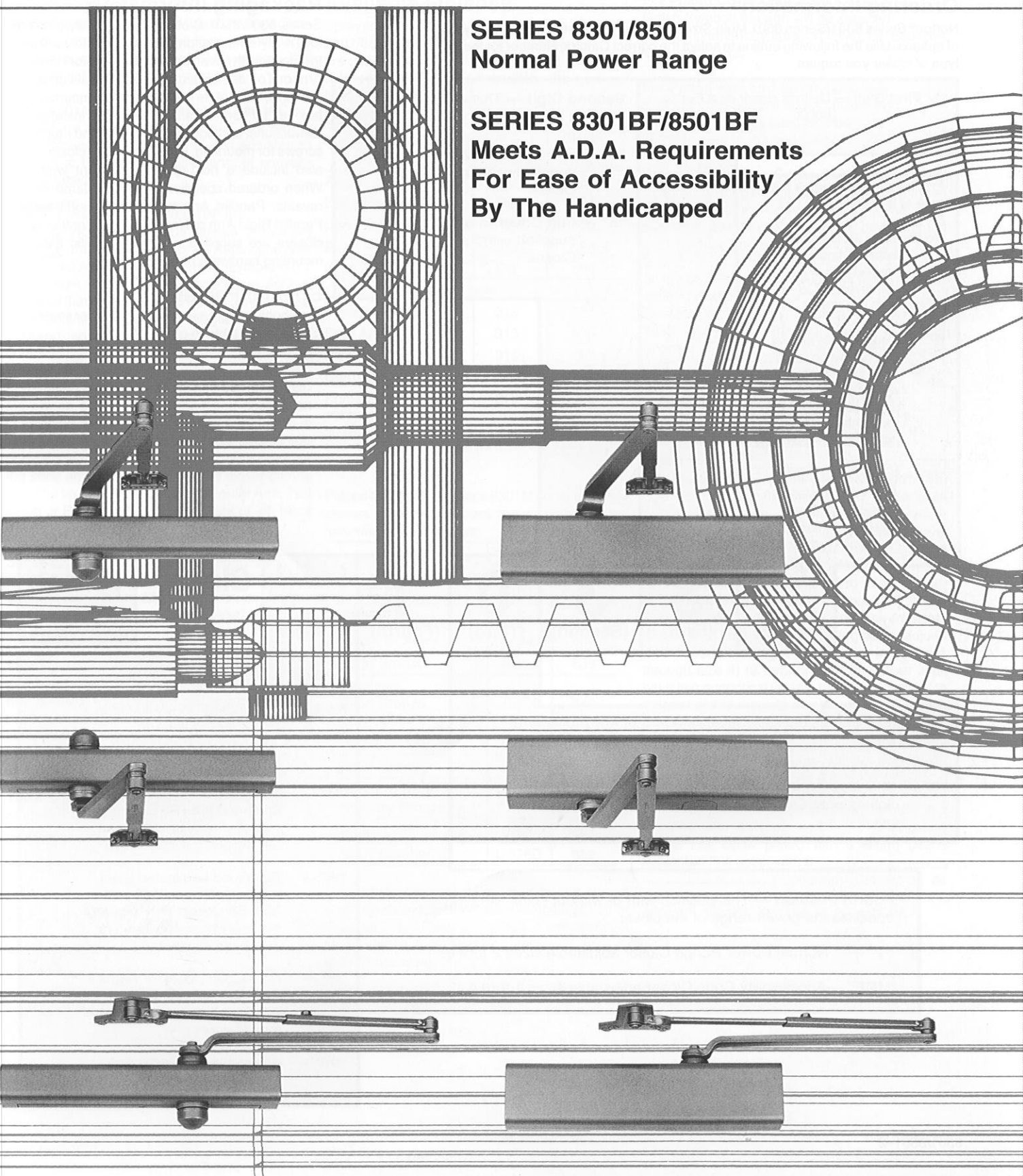
# Norton®

Yale Security Inc.

## SERIES 8301/8501 MULTI-SIZE DOOR CLOSER

**SERIES 8301/8501**  
**Normal Power Range**

**SERIES 8301BF/8501BF**  
**Meets A.D.A. Requirements**  
**For Ease of Accessibility**  
**By The Handicapped**



### SERIES 8301/8501

### ORDERING INFORMATION

#### Ordering Information

Norton® Series 8301/8501 Multi-Size Closers are available with a variety of options. Use the following outline to select the correct Catalog Number for the type of closer you require.

**"8" First Digit** — Defines closer as a Series 8000.

#### Prefixes — Designates the type of installation.

**No Prefix** — Closer can be installed regular arm, parallel arm or top jamb reveals 0" to 3" (0 to 178mm).

**"P"** — Closer installs parallel arm only when using other than standard soffit plate or with low profile arm P8318, P8381BF, P8581 or P8581BF closers.

**"PR"** — Parallel Rigid Arm with one-piece forearm, installs parallel arm only. (Specify hand for Hold-Open function.)

**Second Digit** — This digit specifies the type of cover.

**"3"** — **Slim Style Cover** (molded) supplied with full Feature Closer.

**"5"** — **Full Cover** (molded or metal) supplied with full Feature Closer.

#### Packaging Information

Series 8301/8501 Closers are normally packed for Tri-Style installation one to a box. Included are the closer with cover, appropriate arm for Regular Arm or Top Jamb mounting, for reveals up to 3" (76 mm), soffit plate for Parallel Arm mounting, a hex-key for control valve adjustment, installation instructions, and both wood screws and machine screws for mounting. Hold-Open Arm closers will also include a hold-open adjustment wrench. When ordered specifically for Top Jamb deep reveals, Parallel Arm with special soffit plate, Parallel Rigid Arm or Narrow Profile Parallel Arm closers are supplied with that specific type of mounting hardware only.

#### Special Fasteners

Thru-bolts and grommet nuts (TBGN) or sex-nuts (SN) are available to order.

Prefixes	8 (First)	3 (Second)	0 (Third)	1 (Fourth)	Suffixes	Closer	Finish (See facing page)
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**Third Digit** — This digit specifies Standard or low profile arm.

**"0"** — Specifies Standard main arm for non-hold-open or hold-open closers.

**"8"** — Specifies a low profile main arm for non-hold-open closers only. Order drop plate for Top Jamb installations.

**Fourth Position** — This position with or without suffix "BF" specifies the power range of the closer.

**"1"** — Normal Power Range Closer adjustable sizes 2 thru 6.

**"1BF"** — Accessibility Code Closer adjustable sizes 1 thru 4

**Suffixes** — Order a variety of options.

**No Suffix** — Standard Non-Hold-Open closer for regular Arm, Top Jamb or Parallel Arm installation.

**"M"** — Full metal cover optional for 8501 and 8501BF closers. (specify finish; specify hand for Top Jamb installation.)

**"W"** — Full Wood Laminated Steel Cover for Series 8501 and 8501BF closers only. (specify wood grain; specify hand for Top Jamb installation.)

**"H"** — Hold-Open closer for Regular Arm, Top Jamb or Parallel Arm installation. (specify hand for PR closer.)

**"DA"** — Adjustable Delayed Action Closing.

### SERIES 8301/8501

## APPLICATIONS/FINISHES

### Application

Norton® Series 8301/8501 Multi-Size Door Closers feature springs that permit power adjustments through a range of sizes. These closers are available in two distinct power ranges.

Series 8301/8501 are Normal Power Range Closers and are adjustable in a 2 thru 6 size range. These closers can be installed and adjusted to conform to the power requirements of conventionally sized closers.



Series 8301BF/8501BF are Accessibility Code Closers. They meet the requirements of the Americans With Disabilities Act (A.D.A.) and are adjustable in a 1 thru 4 size range. These closers are lighter-powered than the Series 8301/8501 to reduce the door opening resistance to manageable levels for the handicapped and still provide acceptable door control.

Both series feature individual controls for adjusting sweep speed, latch speed and backcheck cushioning. Adjustable delayed action closing is also available as an option. These closers are non-handed and are packaged with both a mounting shoe and a soffit plate. As the closer comes from the box, it can be installed Regular Arm, Top Jamb or Parallel Arm on either right or left hand doors.

Series 8301/8301BF closers are supplied with a molded Slim Style cover. Series 8501/8501BF are supplied with a molded Full cover; an optional metal Full cover or a wood laminated Full cover are available to order.

These closers are available with a non-hold-open arm, hold-open arm, low profile arm or parallel rigid arm and a full complement of arm mounting brackets and auxiliary plates to meet specific installation requirements.

### ANSI/BHMA/Federal Specs

The 8301/8501 is designated as a Grade 1 Modern Type Surface Door Closer (CO2000 W/O PT 4A, 4C, 4D, 4F, 4H) under FF-H-121D federal specifications and ANSI A156.4 specification.

### U.L. Listing

All Norton Series 8301/8501 Door Closers with non-hold-open arms are listed by Underwriters' Laboratories, Inc. for use on labeled fire doors.

### Available Finishes

Sprayed Finishes — All Norton Series 8301/8501 Door Closers and Accessories are available in the following sprayed finishes. Order sprayed finishes by the Norton Symbol.

Finish Description	Norton Symbol	BHMA Symbol
Aluminum	AL	689
Dull Bronze	DB	691
Dark Statuary Bronze	STAT	690
Black	315	693
Gold	GB	696

#### To Complement Duranodic

Medium Amber	312	694
Dark Amber	313	695
Black	315	693

#### Corrosion Inhibitor

Prime Coat*	SRI	600
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\*Available at extra cost. Yellow-green in color. Closers may be ordered prime coated only or prime coated with a finish coat, i.e. SRI x AL.

**Plated Finishes** — Series 8501M and 8501BF-M closers with steel covers are available in the following plated finishes:

Finish Description	Norton Symbol	BHMA Symbol
Bright Brass	US3	632
Satin Brass	US4	633
Bright Bronze	US9	637
Satin Bronze	US10	639
Oxidized		
Satin Bronze, Oil Rubbed	US10B	640
Bright Nickel	US14	645
Satin Nickel	US15	646
Dark Oxidized Statuary Bronze	US20A	650
Bright Chrome	US26	651
Satin Chrome	US26D	652

Plated finishes must be ordered by the Norton finish symbols listed. Where a matching of other door hardware finish is required, a sample finish chip must be submitted and approved, prior to order processing.

**For Plated Cover only**, specify Norton Finish Symbol; the arm will be supplied in a complementary sprayed finish; i.e. 8501BF-M closer x US3.

**For Plated Arm and Cover**, specify Norton Finish Symbol and add "Arm and Cover" to Closer Catalog Number; i.e. 8501M closer x arm and cover x US3.

**Wood Finishes** — Series 8501 W/8501BF-W closers are available with steel covers bonded with an unfinished wood lamination. The cover may be used unfinished, or it may be finished at the job site, along with the door and frame.

These covers are available in the following fine-grained woods:

Flat Cut Oak	White Birch
Teak	Flat Cut Walnut
Cherry	Honduras Mahogany

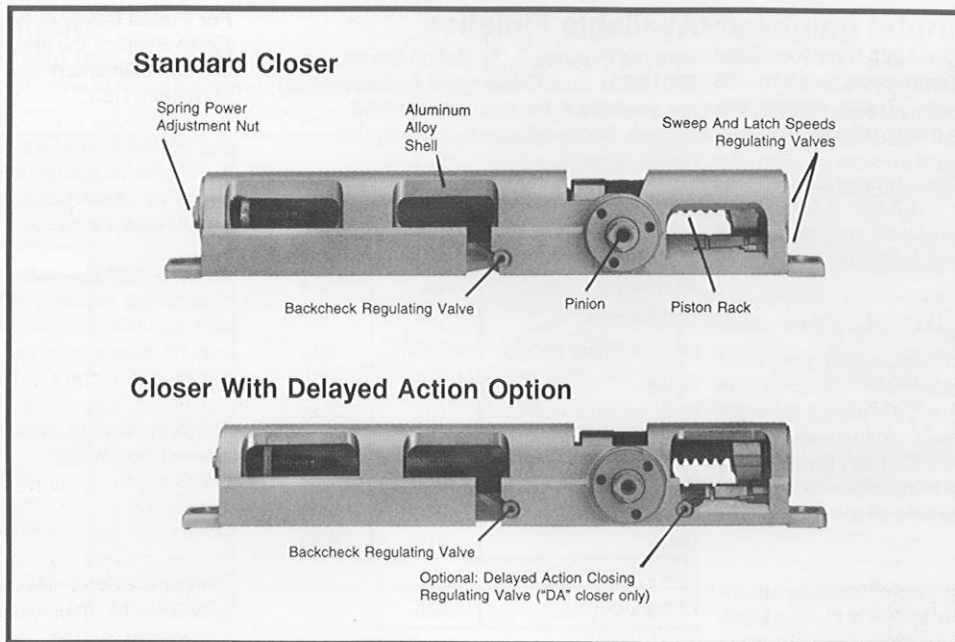
Contact the Norton Marketing Department for the availability of other wood grain laminates.

### Suggested Specification

Closer for \_\_\_\_\_ (interior) (and) (exterior) doors shall be full rack-and-pinion type with cast aluminum alloy shell. Closer shall be surface mounted and shall project no more than 2-1/8" from the mounting surface. Closer shall be non-handed to permit installation on doors of either hand. Closer to be supplied with a standard shoe and soffit plate to allow regular arm, parallel arm or top jamb mounting. Hydraulic fluid shall be non-gumming and non-freezing. Closer shall have multi-size spring power adjustment to permit setting of spring power from size (1 through size 4) (2 through size 6). Closer shall have two noncritical valves, hex-key-adjusted, to independently regulate sweep and latch speed. Closer shall have adjustable backcheck cushioning (closer shall have adjustable delayed action closing) controlled by a hexkey-adjusted valve. Regular arm and top jamb closers shall have a non-hold-open shoe permitting a 15% (+ 7-1/2%) power adjustment. Closer shall be enclosed in a (molded Slim Style cover) (molded Full cover) (metal Full cover plated with a finish) (wood laminated Full cover with a \_\_\_\_\_ woodgrain). Closers to be

Norton Series 8301, 8501, 8501 M, 8501 W, 8301BF, 8501BF, 8501BF-M, 8501BF-W.





## Features

**Multi-Size Power:** The closer spring assembly can be adjusted through a wide power range. A high shoulder adjustment nut accepts a standard 9/16" socket or wrench.

**Two Power Ranges:** Each series can be adjusted through a range of sizes: Series 8301/8501 Normal Power Range Closers, sizes 2 thru 6; Series 8301BF/8501BF Accessibility Code Closers, sizes 1 thru 4, Tri-Style Installation: Standard closers packaged for regular arm, top jamb or parallel arm installation.

**Non-Handed:** Pinion shaft extends vertically through the closer body in both directions. This permits the closer to be positioned on either right or left hand doors for all applications.

**Aluminum Alloy Shell:** Closer bodies are constructed of a special aluminum alloy, carefully selected to accommodate individual closer characteristics and operating conditions. Rack & Pinion Operation: Provides a smooth transmission of power for control of the door through its full opening and closing cycle.

**Adjustable Sweep Speed:** An independent regulating valve, hex-key-operated, permits adjustment of the general closing speed. **Adjustable Latch Speed:** An independent regulating valve, hex-key-operated, permits adjustment of the door's speed for approximately the last 5° of the closing cycle.

**Adjustable Backcheck Cushioning:** An independent regulating valve, hex-key operated, provides an adjustable hydraulic cushion to the door opening speed toward the end of the opening cycle.

**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°. (See more information, Pg. 8301/8501-5).

**Non-Critical Valves:** All control valves for sweep speed/latch speed and backcheck cushioning are noncritical and are adjusted by a standard 1/8" hex-key.

**Molded Slim Style Cover:** Supplied as standard with 8301 and 8301BF closers; fabricated of high-impact U.L. listed material for covering the closer body and mounting screws.

**Molded Full Cover:** Supplied as standard with 8501 and 8501BF closers; fabricated of high-impact U.L. listed material for covering the entire closer. This cover has breakout notches to permit proper handling during installation of the cover.

**Metal Full Cover:** An optional cover available with a plated or sprayed finish. This cover is non-handed except for top jamb installations since the shaft cutout must be factory prepared. **Order Series 8501 M/8501BF-M closers, specify finish and hand of door for top jamb installations.**

**Full Wood Laminated Cover:** An optional metal cover that is laminated with fine grained domestic or imported woods. It is supplied unfinished so it can be finished on the job with the door and frame. This cover is non-handed except for top jamb installations since the shaft cutout must be factory prepared. **Order Series 8501W or 8501BF-W closers, specify wood grain and the hand of door for top jamb installations.**

**Closer Adjustment Decal:** A decal is permanently affixed to the inside of the closer cover.

This decal fully details all closer adjustments for the Series 8301/8501. **Control Valve Access:** Molded Covers have access holes to permit adjustment of the control valves without removing the cover. An index mark identifies the access hole for the Sweep Speed Control Valve.

**Narrow Profile Arm:** Series 8381/8581 closers are supplied with a narrow profile arm for non-hold-open installations. It permits regular arm installation where the minimum ceiling clearance is 1" (25 mm), and the reveal does not exceed 1/8" (3mm); it can be installed top jamb with a drop plate where the minimum top rail of the door is 2-3/4" (70 mm), and the frame reveal does not exceed 3" (76 mm), or it can be mounted parallel arm to raise the closer body 5/8" (16 mm), higher on the top rail of the door than the standard closer will permit.

**Non-Hold-Open Arm:** Standard closer will be supplied with a Non-Hold-Open arm. This arm is non-handed.

**Adjusta-Power Shoe:** Supplied as standard for a 15% (+7-1/2%) power adjustment by relocating the forearm at the shoe, for all regular arm and top jamb non-hold-open closers only.

**Hold-Open Arm:** Closer has adjustable hold-open feature (90° to 180°). This arm is non-handed. **Order by suffixing "H" to the Catalog Number.**

**Parallel Rigid Arm:** Closer supplied with a heavy-duty rigid forearm for applications where heavy traffic and heavy use are anticipated. Order by prefixing "PR" to the Catalog Number. The Non-Hold-Open Parallel Rigid arm is non-handed. Also available with Hold-Open arm. **Order by suffixing "H" to the Catalog Number.** Hold-Open arms are handed.

## SERIES 8301/8501

## CONTROL OPTIONS

### Control Options

#### Norton Unitrol® Door Controls

The Series 8301 and Series 8501 door closer is the basic control component of the Norton Series UNI-8301 and Series UNI-8501 parallel arm Unitrol and the Series UNI-J8301 and Series UNI-J8501 top jamb Unitrol Door Control.

This unique control integrates a door closer,

a shock absorber, and an overhead heavy-duty door stop, with or without hold-open feature, into a single door control.

For complete details see the Unitrol Door Control Section.

#### Norton CloserPlus™ Door Controls

The Series 8301 and Series 8501 door closer is the basic control component for

the Norton Series CLP-8301 and Series CLP-8501 CloserPlus Door Control. This control integrates a door closer with a heavy-duty arm assembly and a positive door stop. A manual engage/disengage hold-open feature is optional.

For complete details see the CloserPlus Door Control Section.

### Special Feature Closer



**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°.

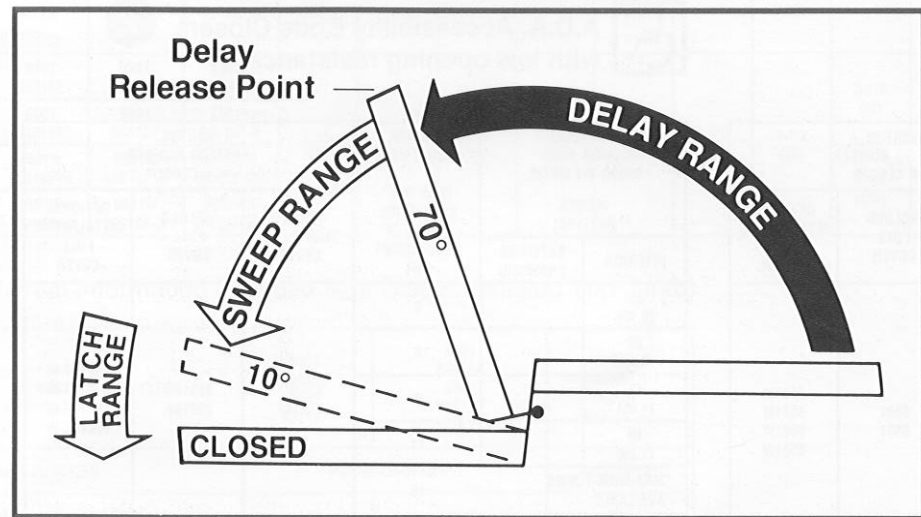
The amount of time delay depends on the combination of the angle of door release and valve adjustment. The valve can be adjusted with a 1/8" hex key from no delay time up to maximum delay times within the delay range of:

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. Anytime 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.

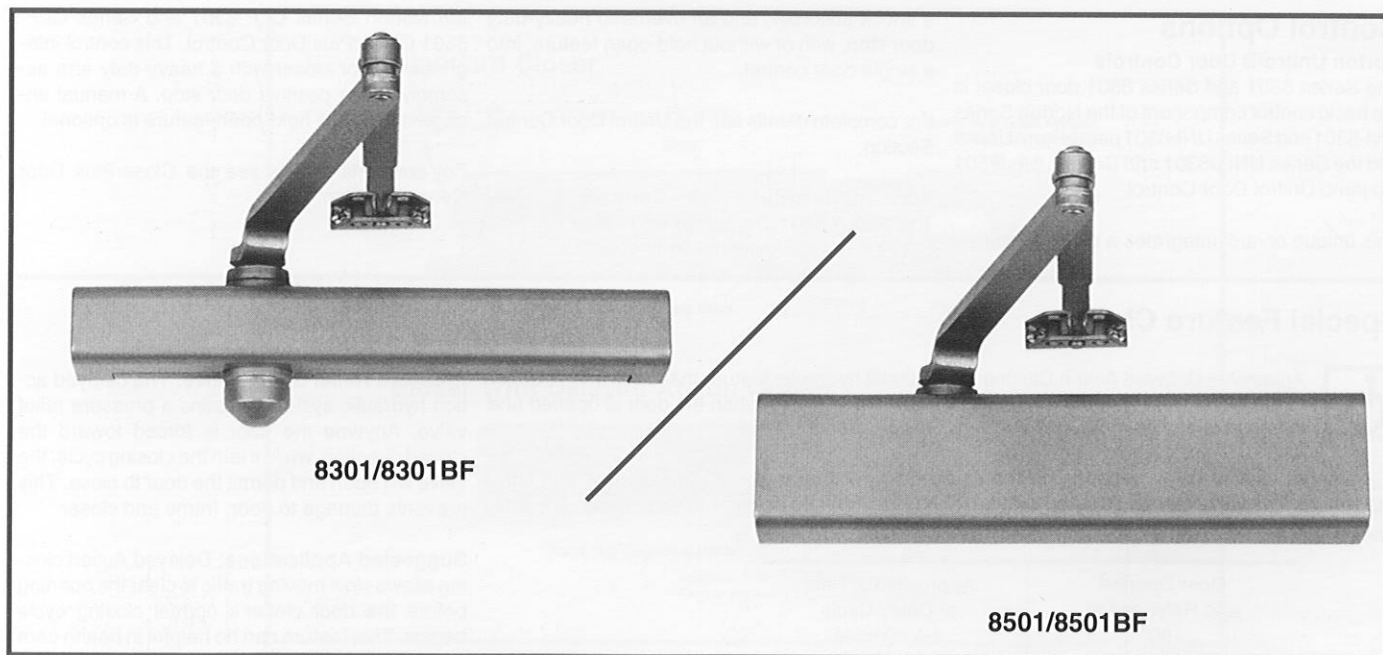
**Suggested Applications:** Delayed Action closing allows slow moving traffic to clear the opening before the door closer's normal closing cycle begins. This feature can be helpful in health care facilities such as hospitals and nursing homes. It provides sufficient time for persons on crutches or in wheel chairs 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 are advantageous are doors to computer rooms, doors between office and factory/ warehouse facilities, doors to workshops and to laboratories, to kitchen and food processing areas... to list just a few.



## SERIES 8301/8501

## REGULAR ARM INSTALLATION



8301/8301BF

8501/8501BF

### Door Size Power Adjustment and Catalog Numbers

#### Normal Power Range Closers 1

MAXIMUM DOOR SIZE WOOD OR METAL INCHES (METERS)		*POWER ADJUSTMENT FULL 360° CLOCKWISE TURNS OF ADJUSTMENT NUT	NORTON CATALOG NUMBER FOR CLOSER		
INTERIOR	EXTERIOR (INSWING)		MOLDED SLIM STYLE COVER	MOLDED FULL COVER	OPTIONAL METAL/WOOD FULL COVER
30 (0.75)	—	0	8301 8381	8501 8581	8501M 8581M 8501W 8581W
36 (0.90)	30 (0.75)	2			
42 (1.05)	36 (0.90)	4			
48 (1.20)	42 (1.05)	7			
—	48 (1.20)	9			
*MAXIMUM TURNS AVAILABLE		11			

1 Power of closer can be adjusted to conform to the sizing requirements outlined in ANSI A156.4-1980, Standards for Door Controls-Closers.



#### A.D.A. Accessibility Code Closers 2 with low opening resistance.

MAXIMUM DOOR SIZE WOOD OR METAL INCHES (METERS)		*POWER ADJUSTMENT FULL 360° CLOCKWISE TURNS OF ADJUSTMENT NUT	NORTON CATALOG NUMBER FOR CLOSER		
INTERIOR	EXTERIOR (INSWING)		MOLDED SLIM STYLE COVER	MOLDED FULL COVER	OPTIONAL METAL/WOOD FULL COVER
30 (0.75)	—	0	8301BF 8381BF	8501BF 8581BF	8501BF-M 8581BF-M 8501BF-W 8581BF-W
36 (0.90)	—	4			
42 (1.05)	36 (0.90)	7			
48 (1.20)	—	11			
*MAXIMUM TURNS AVAILABLE		15			

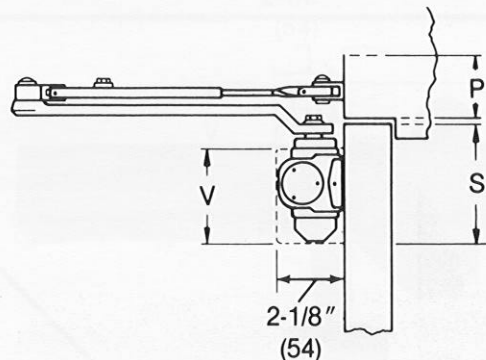
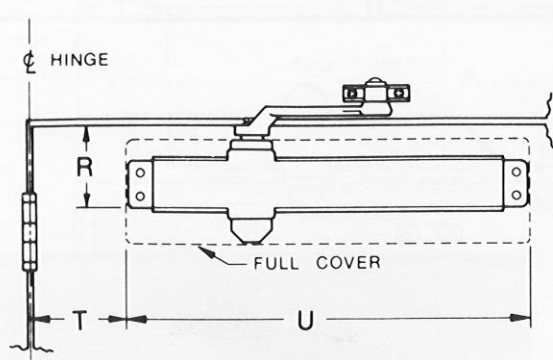
2 Power of closer can be adjusted to conform to the sizing requirements outlined in A.D.A. and ANSI A117.1-1980, Specifications for Making Buildings and Facilities Accessible To and Usable By Physically Handicapped People.

\*Closer is factory set at zero turns or the lowest setting.

All dimensions are for reference only. Dimensions in parentheses are meters. Door sizing information is based on installation on standard weight doors, 7'0" (2.13 m) high 1-3/4" (44 mm) thick; hung on anti-friction hinges and operating under normal conditions.

## SERIES 8301/8501

## REGULAR ARM INSTALLATION



### Regular Arm Closer – Dimensional Information

NORTON CATALOG NUMBER FOR CLOSER			DIMENSIONAL INFORMATION SHOWN IN INCHES (MILLIMETERS)												
			P MINIMUM CEILING CLEARANCE			R MINIMUM TOP RAIL				S MINIMUM TOP RAIL CLEARANCE		T TEMPLATE POSITION		U CLOSER LENGTH	V CLOSE HEIGHT
												FOR 100° DOOR OPENING			
						WITHOUT DROP PLATE	WITH 8146 DROP PLATE		8301 8501 8501M 8501W			8301BF 8501BF 8501BF-M 8501BF-W			
NON HOLD OPEN	NARROW PROFILE ARM	HOLD OPEN	NON HOLD OPEN	NARROW PROFILE ARM	H.O.	N.H.O. H.O.	NARROW PROFILE ARM	N.H.O. H.O.	NARROW PROFILE ARM	N.H.O. H.O.	NARROW PROFILE ARM				
8301 8301BF	8381 8381BF	8301H 8301BF-H	1-1/2 (38)	1 (25)	2-1/8 (54)	2-1/2 (64)	2-3/8 (60)	1-1/4 (32)	1-1/2 (38)	3-1/2 (89)	3-3/8 (86)	7 (178)	4 (102)	13 (330)	2-7/8 (73)
8501 8501BF	8581 8581BF	8501H 8501BF-H													
8501M 8501BF-M	8581M 8581BF-M	8501MH 8501BF-MH													
8501W 8501BF-W	8581W 8581BF-W	8501WH 8501BF-WH								4-1/4 (108)	4-1/8 (105)	6-3/4 (171)	3-3/4 (95)	13-5/8 (346)	3-3/4 (95)

### Reveal Information (Regular Arm Closer Installed Top Jamb)

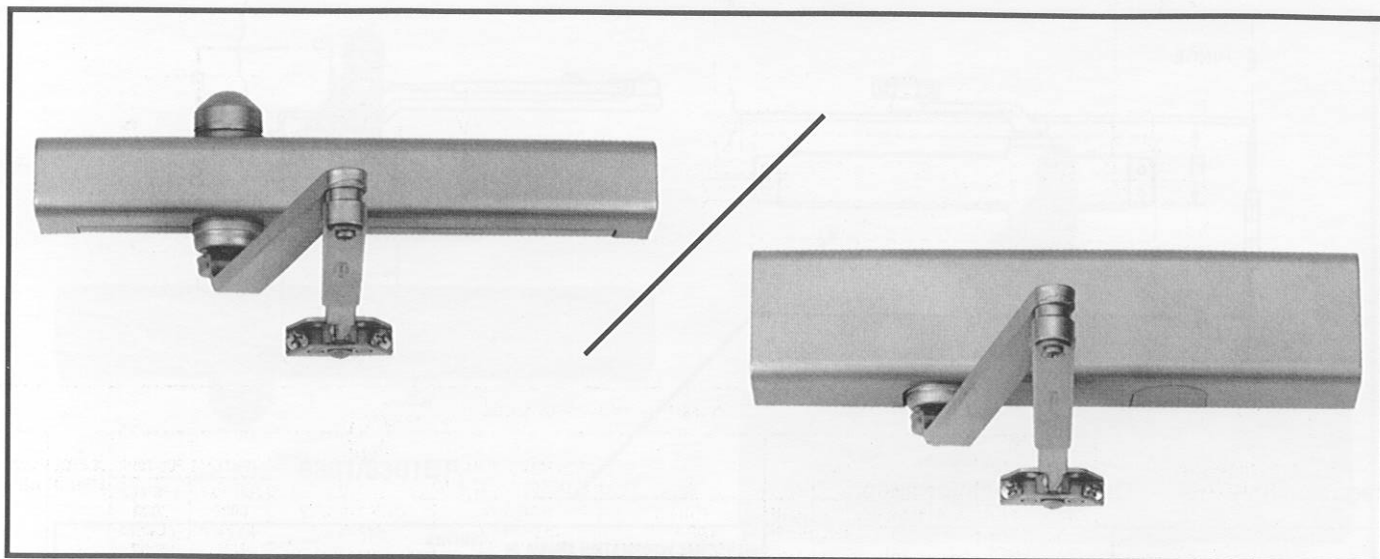
CATALOG ARM TYPE		8301 8301BF 8501 8501BF	8381 8381BF 8581 8581BF W/DROP PLATE	8301H 8301BF-H 8501H 8501BF-H
ARM FUNCTION		NON-HOLD-OPEN		HOLD-OPEN
MAXIMUM DOOR OPENING		180°	180°	180°
REVEAL RANGE	INCHES (mm)	0 to 3 (0 to 76)	0 to 3 (0 to 76)	0 to 2-3/4 (0 to 70)

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



## SERIES 8301/8501

## TOP JAMB INSTALLATION



### Door Size Power Adjustment and Catalog Numbers

#### Normal Power Range Closers 1

MAXIMUM DOOR SIZE WOOD OR METAL		*POWER ADJUSTMENT  FULL 360° CLOCKWISE TURNS OF ADJUSTMENT NUT	NORTON CATALOG NUMBER FOR CLOSER		
INCHES (METERS)			MOLDED SLIM STYLE COVER	MOLDED FULL COVER	OPTIONAL METAL/WOOD FULL COVER
INTERIOR	EXTERIOR				
30 (0.75)	—	0	8301 J8301  **8381 x 8146/8148	8501 J8501  **8581 x 8146/8148	8501M J8501M  **J8581M x 8547  **J8581W x 8547
36 (0.90)	32 (0.80)	2			
42 (1.05)	40 (1.00)	4			
48 (1.20)	46 (1.15)	7			
—	52 (1.30)	9			
*MAXIMUM TURNS AVAILABLE		11			



#### A.D.A. Accessibility Code Closers 2 with low opening resistance.

MAXIMUM DOOR SIZE WOOD OR METAL		*POWER ADJUSTMENT  FULL 360° CLOCKWISE TURNS OF ADJUSTMENT NUT	NORTON CATALOG NUMBER FOR CLOSER				
INCHES (METERS)			MOLDED SLIM STYLE COVER	MOLDED FULL COVER	OPTIONAL METAL/WOOD FULL COVER		
INTERIOR	EXTERIOR (INSWING)						
30 (0.75)	—	8301BF J8301BF  **8381BF x 8146/8148				8501BF J8501BF  **8581BF x 8146/8148	J8501BF-M J8501BF-W  **J8581BF-M x 8547  **J8581BF-W x 8547
36 (0.90)	—						
42 (1.05)	36 (0.90)						
48 (1.20)	—						
*MAXIMUM TURNS AVAILABLE		15					

1 Power of closer can be adjusted to conform to the sizing requirements outlined in ANSI A156.4-1980, Standards for Door Controls-Closers.

2 Power of closer can be adjusted to conform to the sizing requirements outlined in A.D.A. and ANSI A117.1-1980, Specifications for Making Buildings and Facilities Accessible To and Usable By Physically Handicapped People.

\*Closer is factory set at zero turns or the lowest setting.

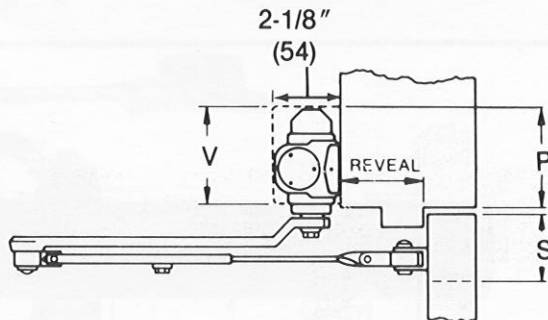
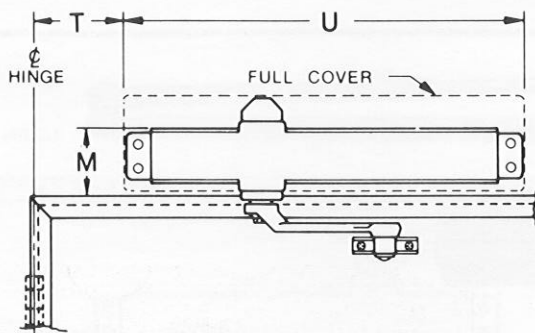
\*\*Narrow profile closer can be installed when mounted on a drop plate (8146/8148/8547).

All dimensions are for reference only. Dimensions in parentheses are meters. Door sizing information is based on installation on standard weight doors, 7'0" (2.13 m) high 1-3/4" (44 mm) thick; hung on anti-friction hinges and operating under normal conditions.



## SERIES 8301/8501

## TOP JAMB



Top Jamb Closers — Dimensional Information

NORTON CATALOG NUMBER FOR CLOSER			DIMENSIONAL INFORMATION SHOWN IN INCHES (MILLIMETERS)																U CLOSER LENGTH	V CLOSER HEIGHT	
			M MINIMUM FRAME FACE			P MINIMUM CEILING CLEARANCE			S MINIMUM TOP RAIL 5/8" (16mm) FRAME STOP									T TEMPLATE POSITION			
									FOR 100° DOOR OPENING			FOR ALL DOOR OPENINGS									
			WITHOUT DROP PLATE	WITH 8146 DROP PLATE	WITH 8148/ 8547 DROP PLATE	WITHOUT DROP PLATE	WITH 8146 DROP PLATE	WITH 8148/ 8547 DROP PLATE	WITHOUT DROP PLATE			WITH 8146 DROP PLATE			WITH 8148/8547 DROP PLATE			8301 8501 J8501M J8501W			8301BF 8501BF J8501BF-M J8501BF-W
NON HOLD OPEN	NARROW PROFILE ARM*	HOLD OPEN								NON HOLD OPEN	NARROW PROFILE ARM*	H.O.	NON HOLD OPEN	NARROW PROFILE ARM*	H.O.						
8301 8301BF J8301 J8301BF	8381 8381BF x DROP PLATE	8301H 8301BF-H J8301H J8301BF-H		1-1/8 (28)	1-1/2 (38)	2-3/4 (70)	1-5/8 (41)	1-1/2 (38)									7 (178)	4 (102)	13 (330)	2-7/8 (73)	
8501 8401BF J8501 J8501BF	8581 8581BF x DROP PLATE	8501H 8501BF-H J8501H J8501BF-H	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)	4-3/4 (121)				
J8501M J8501BF-M	J8581M J8581BF-M x 8547	J8501MH J8501BF-MH		N/A	1-5/8 (41)	3-3/4 (95)	N/A	1-5/8 (41)									6-3/4 (171)	3-3/4 (95)	13-5/8 (346)	3-3/4 (95)	
J8501W J8501BF-W	J8581W J8581BF-W x 8547	J8501WH J8501BF-WH																			

\*Narrow Profile Arm closers can only be installed when mounted on a drop plate (8146/8148/8547).

### Reveal Information

CATALOG ARM TYPE		J8301 / J8301BF J8501 / J8501BF		J8301H / J8301BF-H J8501H / J8501BF-H	
ARM FUNCTION		NON-HOLD-OPEN		HOLD-OPEN	
MAXIMUM DOOR OPENING		180°	160°	180°	160°
REVEAL RANGE	INCHES (mm)	2-3/4 to 4-1/4 (70 to 108)	4-1/4 to 7 (108 to 178)	2-1/8 to 4-1/4 (54 to 108)	4-1/4 to 6-3/4 (108 to 171)

### Reveal Information (Regular Arm Closers Installed Top Jamb)

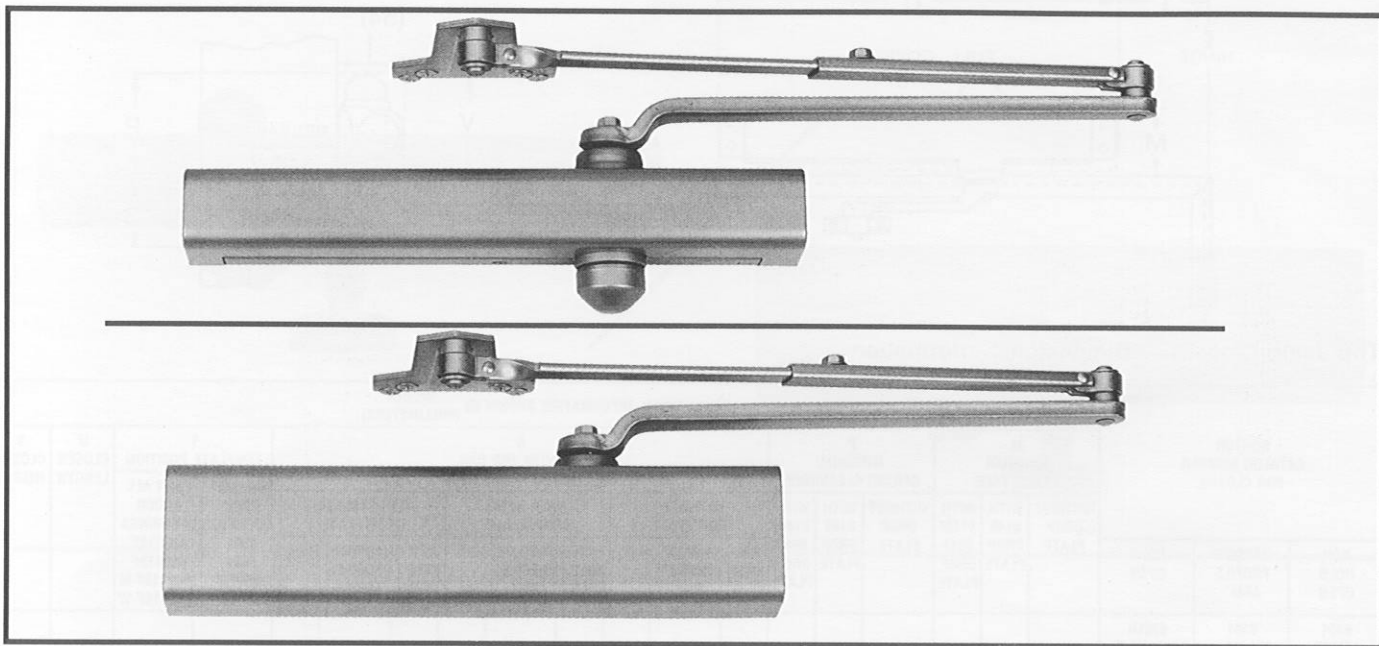
CATALOG ARM TYPE		8301 8301BF 8501 8501BF	8381 8381BF 8581 8581BF W/DROP PLATE	8301H 8301BF-H 8501H 8501BF-H
ARM FUNCTION		NON-HOLD-OPEN		HOLD-OPEN
MAXIMUM DOOR OPENING		180°	180°	180°
REVEAL RANGE	INCHES (mm)	0 to 3 (0 to 76)	0 to 3 (0 to 76)	0 to 2-3/4 (0 to 70)

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

All dimensions for reference only. Dimensions in parentheses are millimeters.

SERIES 8301/8501

## PARALLEL ARM INSTALLATION



### Door Size Power Adjustment and Catalog Numbers

#### Normal Power Range Closers 1

MAXIMUM DOOR SIZE WOOD OR METAL		*POWER ADJUSTMENT  FULL 360° CLOCKWISE TURNS OF ADJUSTMENT NUT	NORTON CATALOG NUMBER FOR CLOSER		
INCHES (METERS)			MOLDED SLIM STYLE COVER	MOLDED FULL COVER	OPTIONAL METAL/WOOD FULL COVER
INTERIOR	EXTERIOR				
30 (0.75)	——	1	8301 P8581	8501 P8581	8501M P8501M P8581M 8501W P8581W
36 (0.90)	30 (0.75)	3			
42 (1.05)	36 (0.90)	6			
48 (1.20)	42 (1.05)	8			
——	48 (1.20)	10			
*MAXIMUM TURNS AVAILABLE		11			



#### A.D.A. Accessibility Code Closers with low opening resistance. 2

MAXIMUM DOOR SIZE WOOD OR METAL		*POWER ADJUSTMENT  FULL 360° CLOCKWISE TURNS OF ADJUSTMENT NUT	NORTON CATALOG NUMBER FOR CLOSER		
INCHES (METERS)			MOLDED SLIM STYLE COVER	MOLDED FULL COVER	OPTIONAL METAL/WOOD FULL COVER
INTERIOR	EXTERIOR (INSWING)				
30 (0.75)	—	0	8301BF P8381BF	8501BF P8581BF	8501BF-M P8581BF-M 8501BF-W P8581BF-W
36 (0.90)	—	4			
42 (1.05)	36 (0.90)	7			
48 (1.20)	—	9			
*MAXIMUM TURNS AVAILABLE		15			

1

Power of closer can be adjusted to conform to the sizing requirements outlined in ANSI A156.4-1980, Standards for Door Controls-Closers.

2

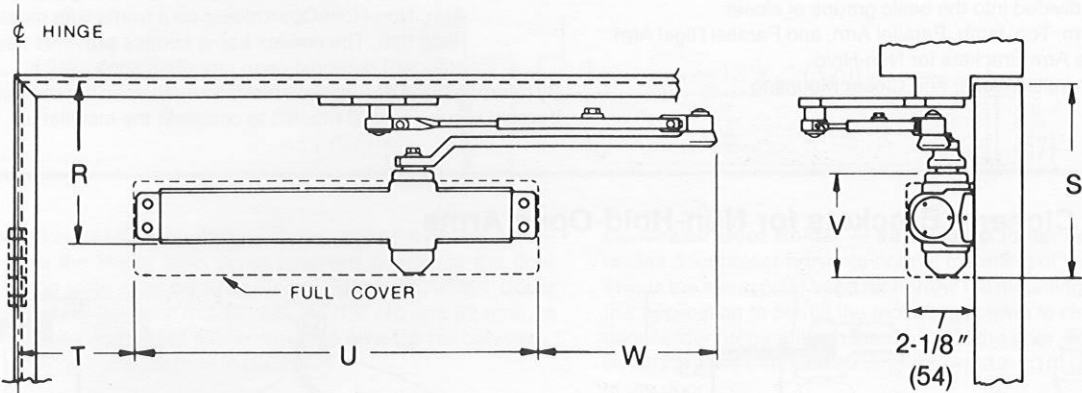
Power of closer can be adjusted to conform to the sizing requirements outlined in A.D.A. and ANSI A117.1-1980, Specifications for Making Buildings and Facilities Accessible To and Usable By Physically Handicapped People.

\*Closer is factory set at zero turns or the lowest setting.

All dimensions are for reference only. Dimensions in parentheses are meters. Door sizing information is based on installation on standard weight doors, 7'0" (2.13 m) high 1-3/4" (44 mm) thick; hung on anti-friction hinges and operating under normal conditions.

SERIES 8301/8501

PARALLEL ARM INSTALLATION



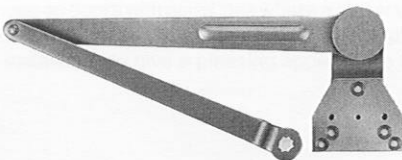
Parallel Arm Closer– Dimensional Information

NORTON CATALOG NUMBER FOR CLOSER			DIMENSIONAL INFORMATION SHOWN IN											INCHES (MILLIMETERS)		
			R MINIMUM TOP RAIL 5/8" (16mm) FRAME STOP						S TOP RAIL CLEARANCE			T TEMPLATE POSITION		U CLOSER LENGTH	V CLOSER HEIGHT	W ARM EXTENSION
			WITHOUT DROP PLATE			WITH 8148/8548 DROP PLATE						FOR 120° DOOR OPENING 8301 8501 8501M 8501W	FOR ALL DOOR OPENINGS 8301BF 8501BF 8501BF-M 8501BF-W			
			NON HOLD OPEN	NARROW PROFILE ARM	HOLD OPEN	NON HOLD OPEN	NARROW PROFILE ARM	HOLD OPEN	NON HOLD OPEN	NARROW PROFILE ARM	HOLD OPEN					
8301 8301BF	P8381 P8381BF	8301H 8301BF-H	5-1/4 (133)	4-1/4 (108)	5-1/4 (133)	2-7/8 (73)	2-3/8 (60)	2-7/8 (73)	6-1/4 (159)	5-1/4 (133)	6-1/4 (159)	3-1/4 (83)	1 (25)	13 (330)	2-7/8 (73)	8-1/8 (206)
8501 8501BF	P8581 P8581BF	8501H 8501BF-H														
8501M 8501BF-M	P8581-M P8581BF-M	8501MH 8501BF-MH														
8501W 8501BF-W	P8581W P8581BF-W	8501WH 8501BF-WH														

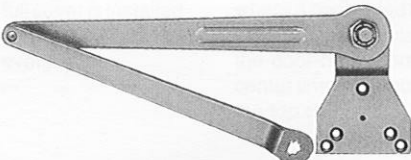
All dimensions are for reference only. Dimensions in parentheses are meters.

Parallel Rigid Arm

Series 8301/8501 closers are available with a heavy-duty forearm for parallel arm applications where heavy traffic and heavy use are anticipated.



Non-Hold-Open Arm/Non-Handed  
Order PR8301, PR8301BF,  
PR8501 or PR8501BF



Hold-Open Arm/Handed  
Order PR8301 H, PR8301BF-H,  
PR8501H or PR8501BF-H x Hand



## SERIES 8301/8501

## ACCESSORIES

The following accessories are available for use with Series 8301/8501 door closers.

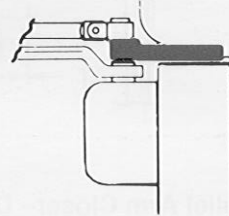
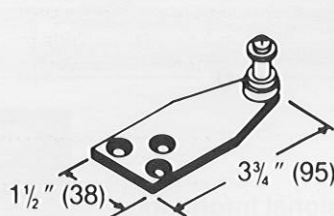
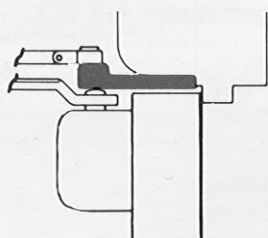
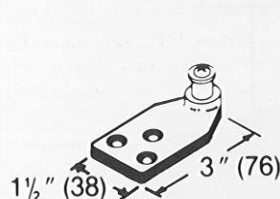
The accessories are divided into the basic groups of closer mounting: Regular Arm, Top Jamb, Parallel Arm, and Parallel Rigid Arm. These groups include Arm Brackets for Non-Hold-Open and Hold-Open installations; and Closer Mounting Brackets and Plates.

The initial statement in each paragraph outlines the situation for which the accessory is intended. Example:

**Molded/Bull Nose Trim:** You are attempting to mount a Regular Arm, Non-Hold-Open closer on a frame with molded or bull nose trim. The convex frame surface prevents use of the standard non-hold-open mounting shoe.

By referring to the descriptions that follow, the specifier can determine that it would require a 2403 bracket to complete the installation.

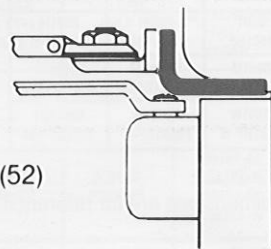
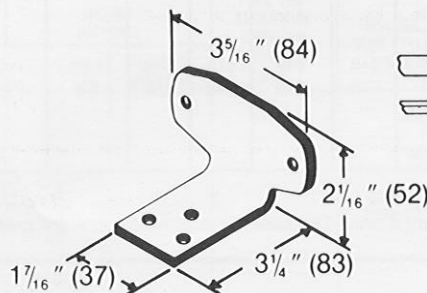
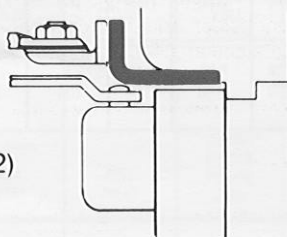
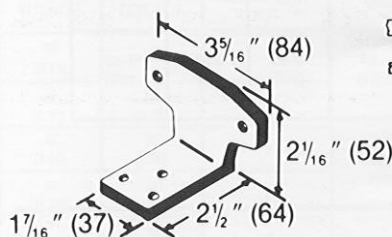
### Regular Arm Closers: Brackets for Non-Hold-Open Arms



**Molded/Bull Nose Trim — #2403 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" (51 mm) deep.

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

### Regular Arm Closers: Brackets for Hold-Open Arms



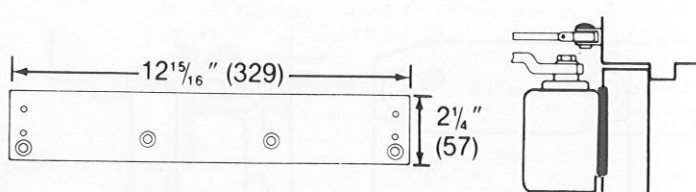
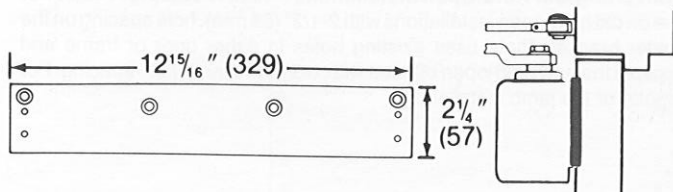
**Molded/Bull Nose Trim — #80 Bracket:** For use where the door frame has molded or bull nose trim which will not accept a standard hold-open shoe. It is mortised into the frame rabbet, and projects beyond the face of the frame. It will accommodate a rabbet up to 2" (51 mm) deep. This bracket is used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

**Molded/Bull Nose Trim — #80-3/4 Bracket:** This bracket is similar to — but longer than — the 80 bracket, and will accommodate frame rabbets from 2" to 2-7/8" (51 mm to 73 mm) deep. This bracket is used in combination with the standard hold-open mounting shoe.

## SERIES 8301/8501

## ACCESSORIES

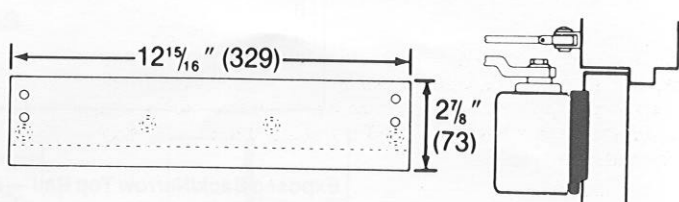
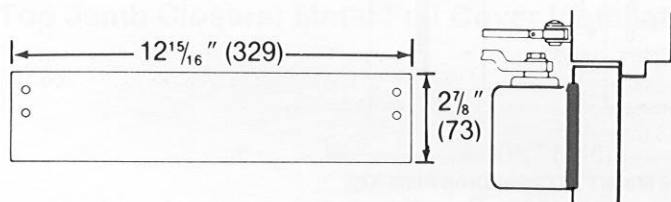
### Regular Arm Closers: Closer Mounting Plates



**Narrow Top Rail — #8146 Drop Plate:** For use where the narrow top rail of door prevents the closer from being mounted directly to the door surface. This drop plate must be used for any Series 8301/8501 closer mounted on a top rail between 1-9/16" and 2-7/16" (40 and 62 mm); in height, or any Series 8381/8581 closer mounted on a top rail between 1-7/16" and 2-3/8" (37 and 60 mm) in height.

**Concealed Door Holder — #8146 Drop Plate:** For use where a concealed door holder prevents normal mounting of the closer to the door. This is the same plate used for narrow rail mounting, but it 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 center line of the plate's upper mounting screws at 2-3/16" (56 mm). From the top of the door.

### Regular Arm Closers: Molded Full Cover Installations

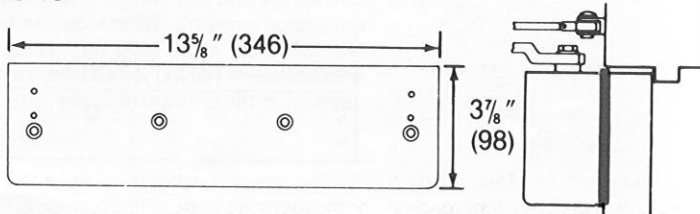
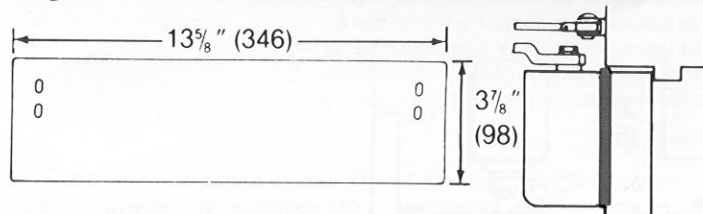


**Exposed Back — #8445 Molded Full Cover Decorative Back Plate:** For use on doors with glass lites where a closer with molded full cover is installed and the closer back is exposed. This plate covers the back of the installation to give a pleasing appearance from the reverse side.

**Exposed Back/Narrow Top Rail —  
Exposed Back/Concealed Door Holder —  
#8446 Molded Full Cover Drop Plate Kit:**

For use with molded full cover installation when an 8146 Plate is needed as a drop plate on a narrow top rail, or as a clearance plate for a concealed door holder, and the closer back is exposed. Kit contains an 8146 Drop Plate and an 8445 Decorative Plate.

### Regular Arm Closers: Metal Full Cover Installations



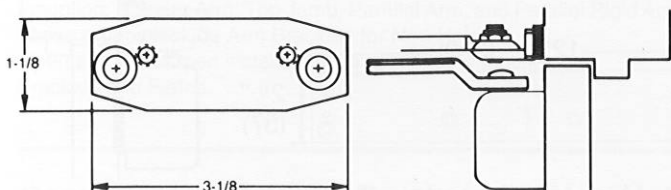
**Exposed Back — #8545 Metal Full Cover Decorative Back Plate:** For use on doors with glass lites where a closer with metal full cover is installed and the closer back is exposed. This plate covers the back of the installation to give a pleasing appearance from the reverse side.

**Concealed Door Holder — #8546 Metal Full 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 center line of the plate's upper mounting screws at 2-3/16" (56 mm). From the top of the door.

## SERIES 8301/8501

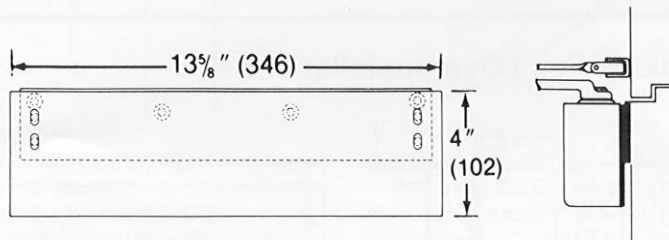
## ACCESSORIES

### Hold-Open Retrofit Adapter Plate



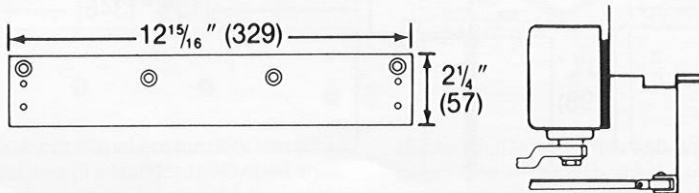
**Converting Old Hold-Open Installations — #2017 Adapter Plate:** For use on old hold-open installations with 2-1/2" (64 mm) hole spacing on the holder bracket. Plate uses existing holes in either door or frame and accepts the new hold-open bracket with 1-3/4" (44 mm) hole spacing. For regular or top jamb installations.

### Regular Arm Closers: Metal Full Cover Installations (cont'd.)



**Exposed Back/Narrow Top Rail — #8549 Metal Full Cover Drop Plate Kit:** For use with metal full cover installations, when an 8146 Plate is needed as a drop plate on a narrow top rail and the closer back is exposed. Kit contains an 8146 Drop Plate and an 8545 Decorative Plate.

### Top Jamb Closers: Closer Mounting Plates

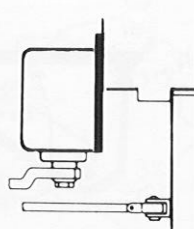
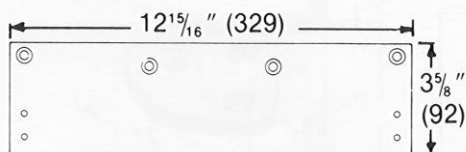


**Low Ceiling Clearance — #8146 Drop Plate:** For use where low ceiling clearance prevents normal top jamb mounting. This plate is used when clearance is from 1-7/8" to 2-7/8" (48 mm to 73 mm). Where ceiling clearance is less than 1-7/8" (48 mm) see #8148 Drop Plate detailed in the following text.

**Overhead Door Holder — #8146 Drop Plate:** For use where a surface or concealed overhead door holder prevents normal top jamb mounting. This plate drops the closer and allows arm mounting screws to clear the bottom of the door holder. This places the center line of the arm mounting screws at 2-7/8" (73 mm) from the top of the door.

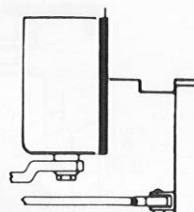
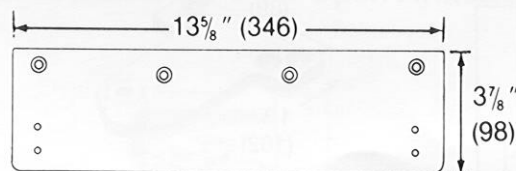


### Top Jamb Closers: Closer Mounting Plates (cont'd.)



**Low Ceiling Clearance — #8148 Drop Plate:** For use where the ceiling clearance is between 1-1/2" and 1-3/4" (38 mm and 44 mm).

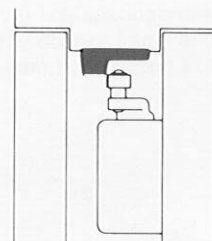
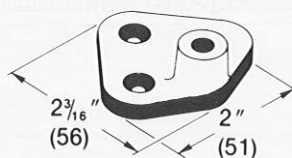
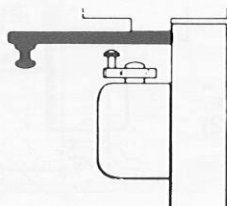
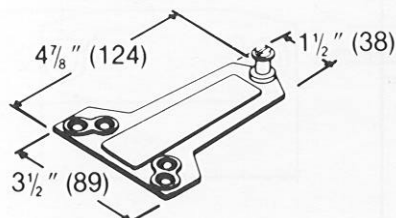
### Top Jamb Closers: Metal Full Cover Installations



**Low Ceiling Clearance —  
Overhead Door Holder —  
#8547 Metal Full Cover Drop Plate:**

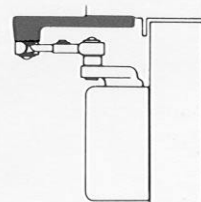
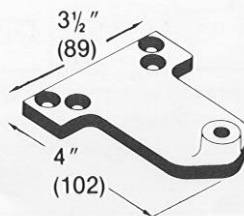
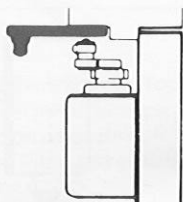
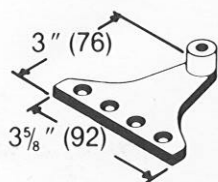
For use where low ceiling clearance prevents normal top jamb mounting. This plate is used when the clearance is between 1-5/8" and 3-7/8" (41 mm and 98 mm), Or for use where a surface or concealed overhead door holder prevents normal top jamb mounting of a closer with metal full cover. This plate drops the closer and allows arm mounting screws to clear the bottom of the door holder. This places the center line of the arm mounting screws at 3-1/2" (89 mm) from the top of the door.

### Parallel Arm Closers: Brackets for Non-Hold-Open Arms



**Standard Installation — #1618A Soffit Plate:** This soffit plate is supplied standard with all non-hold-open closers to permit parallel arm mounting. It can be mounted where the frame soffit is as narrow as 1" (25 mm).

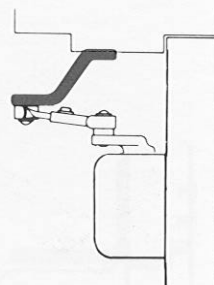
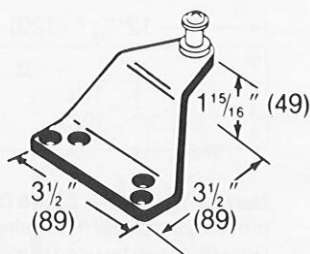
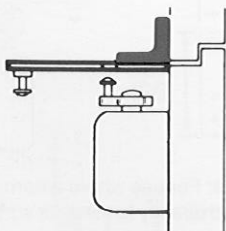
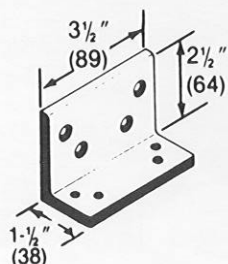
**Mounting between doors — #2018 Soffit Bracket:** For use where insufficient space between companion doors does not permit use of other soffit plates. This bracket permits mounting of the closer between doors with as little as 3" (76 mm) of header space. Permits closer arm to clear up to a 5/8" (16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



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

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

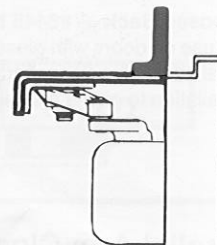
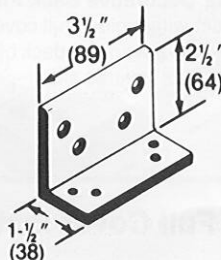
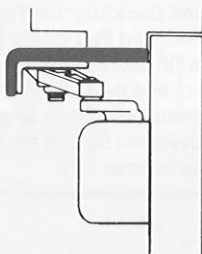
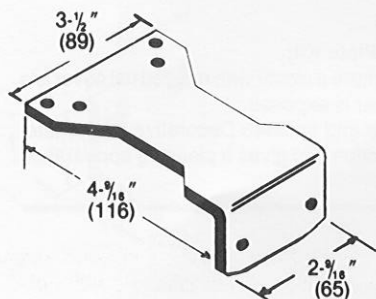
### Parallel Arm Closers: Brackets for Non-Hold-Open Arms (cont'd.)



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

**Extra-clearance — #2018S Offset Soffit Plate:** For use where the need for additional clearance prevents use of the standard soffit plate. This plate mounts to the frame soffit to provide up to 1-1/2" (38 mm) of clearance when a separate overhead door holder is used. Standard mounting requires a 2-5/8" (67 mm) wide frame soffit. It may also be used where unusually high frame stops or weather-stripping prevent the use of other soffit plates.

### Parallel Arm Closers: Brackets for Hold-Open Arms

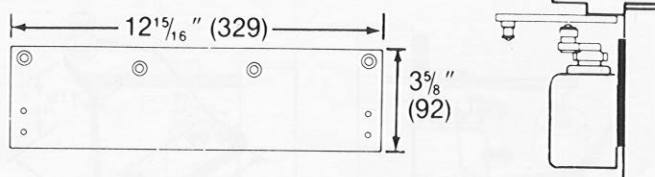


**Parallel Hold-Open — #1628H Adapter Plate:** This Adapter Plate is supplied standard with all hold-open closers to permit parallel arm mounting. It is used in combination with the standard hold-open mounting shoe. It can be mounted where the frame soffit is as narrow as 1" (25 mm).

**Flush Transom Hold-Open — #2022 Angle Bracket:** For use where rabbeted or flush transom conditions prevent installation of the standard 1618H hold-open adapter plate. It can also be used to convert regular arm or top jamb hold-open arms to parallel arm installation.

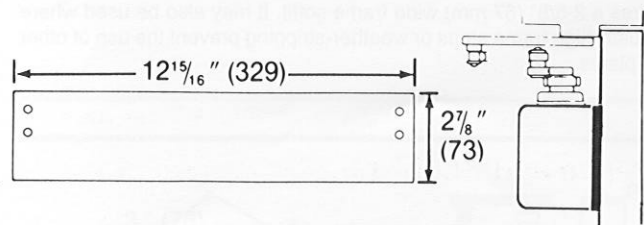


### Parallel Arm Closers: Closer Mounting Plates

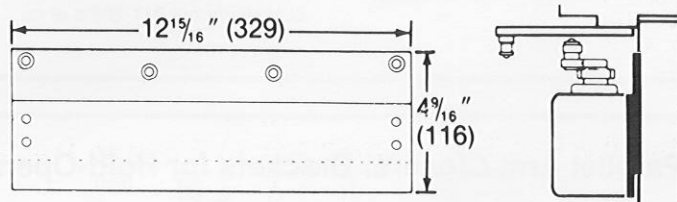


**Narrow Top Rail — #8148 Drop Plate:** For use where a narrow top rail prevents the closer from being mounted directly to the door surface. This Drop Plate can be used to mount a closer on a top rail as narrow as 2-15/16" (75 mm) in height.

### Parallel Arm Closers: Molded Full Cover Installations

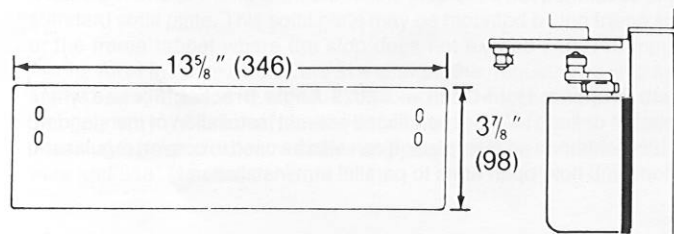


**Exposed Back — #8445 Molded Full Cover Decorative Back Plate:** For use on doors with glass lites where a closer with molded full cover is installed and the closer back is exposed. This plate covers the back of the installation to give a pleasing appearance from the reverse side.

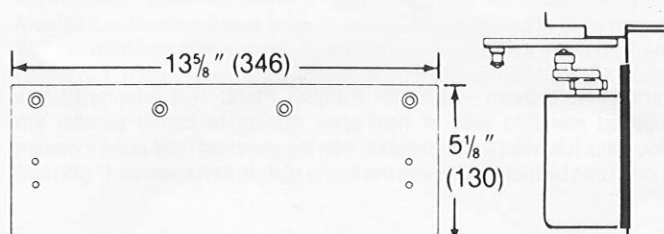


**Exposed Back/Narrow Top Rail — #8448 Molded Full Cover Drop Plate Kit:** For use On doors with glass lites where a closer with molded full cover is installed, and the back of the closer is exposed. Kit consists of an 8148 Drop Plate and an 8445 Decorative Back Plate. This covers the back of the installation and gives a pleasing appearance from the reverse side.

### Parallel Arm Closers: Metal Full Cover Installations

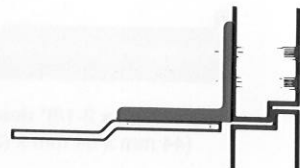
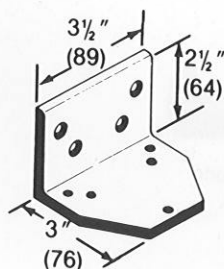
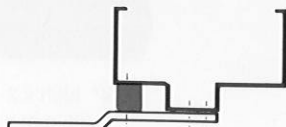
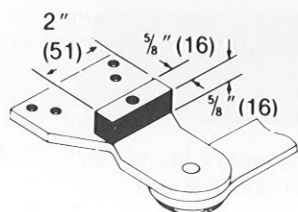


**Exposed Back — #8545 Metal Full Cover Decorative Back Plate:** For use on doors with glass lites where a closer with a metal full cover is installed and the closer back is exposed. This plate covers the back of the installation to give a pleasing appearance from the reverse side.



**Exposed Back/Narrow Top Rail — #8548 Metal Full Cover Drop Plate:** For use on doors with glass lites where a closer with metal full cover is installed on a narrow top rail, and the back of the closer is exposed. This Drop Plate can be used to mount a closer on a top rail as narrow as 2-15/16" (75 mm) in height. This plate covers the back of the installation to give a pleasing appearance from the reverse side.

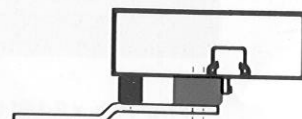
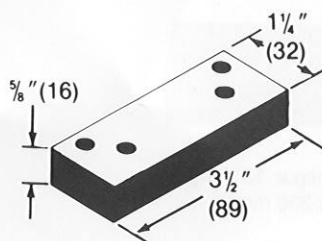
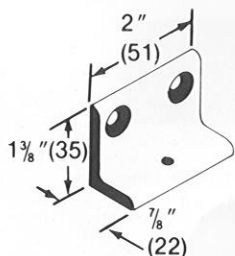
### Parallel Rigid Arm Closers: Brackets for Non-Hold-Open and Hold-Open Arms



**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.

### Parallel Rigid Arm Closers: Brackets for Non-Hold-Open and Hold-Open Arms (cont'd.)



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

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

**Closer Mounting Plates:** Where closer mounting plates are required for Parallel Rigid Arm closers, refer to Parallel Arm Closer Mounting Plates.

## SERIES 8301/8501

## REPLACEMENT COVERS



1-3/4" high x 2-1/8" deep x 13" long  
(44 mm x 54 mm x (330 mm).

**Molded Slim Style Cover — #8200P:** Supplied with all Series 8301/8301BF closers. Cover is non-handed and can be used on any regular arm, parallel arm, or top jamb mounted closer. Decal on inside of cover provides adjustment details. Cover fastens to closer with two attaching screws, included.



3-3/4" high x 2-1/8" deep x 13-5/8" long  
(95 mm x 54 mm x 346 mm)

**Metal Full Cover — #8400M:** The metal Full Cover is supplied with all Series 8501 M/8501BF-M closers. Available in any "Sprayed Finishes" or any "Plated Finishes" listed on page 8501-3. The cover notch for Top Jamb closers is factory prepared. Specify finish; specify hand of door when ordering Top Jamb metal Full Covers. Decal on inside of cover provides adjustment details. Cover fastens to closer with two mounting clips and two attaching screws, included.



2-7/8" high x 2-1/8" deep x 13" long  
(73 mm x 54 mm x 330 mm)

**Molded Full Cover — #8400P:** Supplied with all Series 8501/8501BF closers. Cover is non-handed and can be installed on any regular arm, parallel arm, or top jamb mounted closer. Decal on inside of cover provides adjustment details. Cover fastens to closer with two attaching screws, included.



3-7/8" high x 2-1/8" deep x 13-5/8" long  
(98 mm x 54 mm x 346 mm)

**Wood Laminated Cover — #8400W:** Supplied with all Series 8501W/8501BF-W closers. This metal cover is laminated with fine grained domestic or imported woods. The cover is supplied unfinished, so it can be finished on the job with the door and frame. This cover is non-handed, except for top jamb applications, since the shaft cutout must be factory prepared. Decal on inside of cover provides adjustment details. Order by specifying Wood Grain Laminate from page 8501-3. Specify hand of door when ordering Top Jamb covers. Cover fastens to closer with two mounting clips and two attaching screws, included.

For more information contact your Norton Representative or Norton Door Controls, A Division of Yale Security Inc., 1902 Airport Road, Monroe, NC 28110. Telephone: (800) 438-1951. Fax: (800) 338-0965. In North Carolina: (704) 283-2101. Fax: (704) 289-2875. In Canada, 3160 Orlando Drive, Mississauga, Ontario, Canada L4V 1R5. Telephone: (905) 672-6220. Fax: (905) 672-9022. WATS: (800) 461-3007.

[www.yalesecurity.com](http://www.yalesecurity.com)

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