

# Yale®

DOOR CLOSERS

## 2300BC SERIES



# CATALOG



## OVERVIEW

### INTRODUCTION

The 2300BC is a durable, economically priced door closer designed for commercial exterior and interior doors such as storefront and industrial applications.

#### Features:

- Spring sizes 2, 3, 4, 5
- Separate and independent valve for sweep speed and latch speed
- Adjustable backcheck
- Bi-packed (regular arm and top jamb mounting)
- 5-year limited warranty

#### Optional Features:

- Parallel mount (prefix PA)
- Friction hold open arm

### COMPLIANCE STANDARDS

All 2300BC series closers are ANSI/BHMA A156.4, Grade 3. All Yale® series 2300BC closers with non-hold open arms are listed by Underwriters' Laboratories for labeled fire doors. This includes compliance to UL10C and UBC-72 (1997) for 3-hour assemblies. The product is manufactured in an ISO 9001 facility. These closers are also listed by New York City Board of Standards and Appeals; Materials and Equipment Acceptance Division (41-60-SM).

### FINISHES

All door closers are painted with waterborne acrylics. All steel parts, mounting plates and brackets are powder coated. The closers will withstand 120 hours of salt spray. ANSI only requires 25 hours.

#### Sprayed Finishes

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



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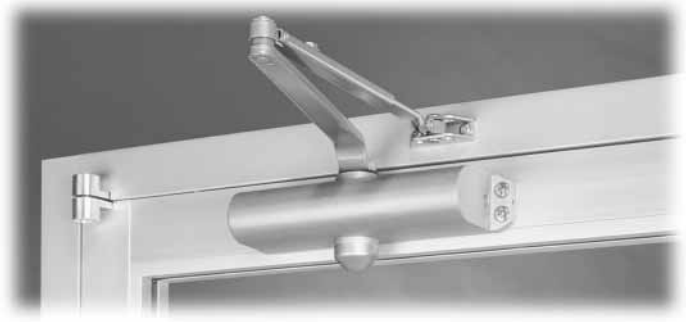


## APPLICATIONS

### REGULAR ARM

This is the only pull-side application for the 2300BC series door closer. It is the most power-efficient application for a door closer. Sufficient frame, door and/or ceiling clearance must be considered.

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

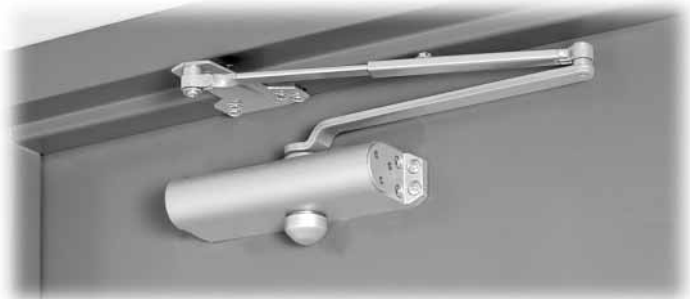


### PARALLEL ARM

This application provides the most appealing design appearance for the 2300BC series door closer. It is on the push side of the door and the arm assembly extends almost parallel to the door. In the closed position, there is very little or no hardware projecting beyond the frame face in most situations.

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

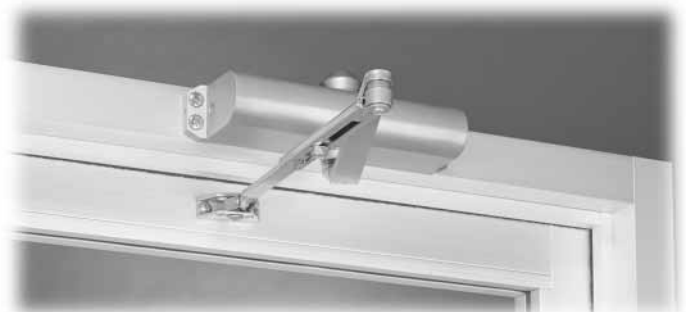
The entire closer and arm assembly are mounted below the frame stop, requiring a top rail clearance on the door of 5" (127mm), without using a drop plate. A 2388 drop plate requires a top rail clearance of just 2-5/8" (67mm).



### TOP JAMB

For efficiency reasons this push side application provides the best alternative to the regular arm application. There must be sufficient frame face and/or ceiling clearance for this application. It requires a top rail on the door of just 1-7/8" (48mm). This application provides the best door control for doors in exterior walls that swing out of a building. It will accommodate frame reveals to a maximum of 2-7/8" (73mm).

The entire door closer and arm assembly project from the frame, similar to the regular arm application, where matters of appearance can be of concern.





## 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.

### 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.

### Non-Handed

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

### Non-Critical Control Valves

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

### Adjustable Backcheck Cushion Valve

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

### Adjusta Power Shoe

Supplied as standard for a 15% ( $\pm 7\frac{1}{2}\%$ ) power adjustment by relocating the forearm at the shoe, for regular arm and top jamb non-hold open installations.

## OPTIONAL FEATURES

### Hold Open Arm

Closer arm has adjustable hold open feature (90° to 180°). This arm is non-handed.

### Fasteners

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

**S = standard; O = optional**

**SN** are for use on unreinforced hollow metal doors or to prevent any hollow metal door from collapse/dimpling. They can also be used for through-bolting on wood doors. SN are supplied for 1-3/4" (44mm) thick doors unless specified for 1-3/8" (35mm) or 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.

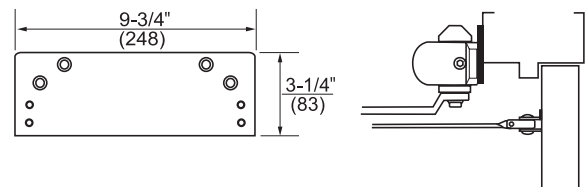


## ACCESSORIES

### TOP JAMB CLOSER MOUNTING PLATE

#### Top Jamb - #2388 Drop Plate

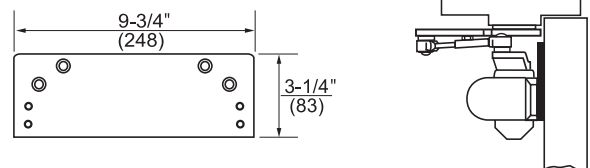
For use where there is insufficient ceiling clearance or the frame face is too narrow to mount a closer body. This drop plate can be used to mount a closer on a frame face as narrow as 1-1/2" (38mm).



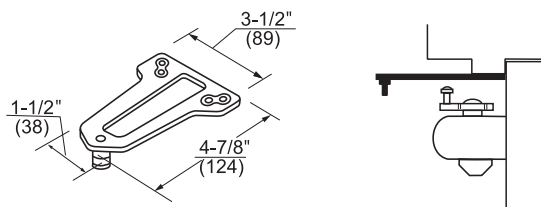
### PARALLEL ARM CLOSER MOUNTING PLATE

#### Parallel Arm - #2388 Drop Plate

For use where a narrow top rail prevents the closer from being mounted directly to the door surface. This drop plate can be used to mount a closer on a top rail as narrow as 2-5/8" (57mm).



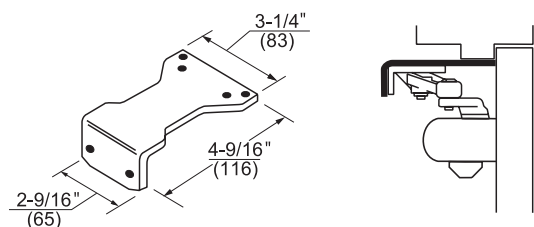
### BRACKETS FOR NON-HOLD OPEN ARMS



#### #2289A Soffit Plate

This soffit plate is supplied to permit parallel arm mounting. It can be mounted where the frame soffit is as narrow as 1" (25mm).

### BRACKETS FOR HOLD OPEN ARMS



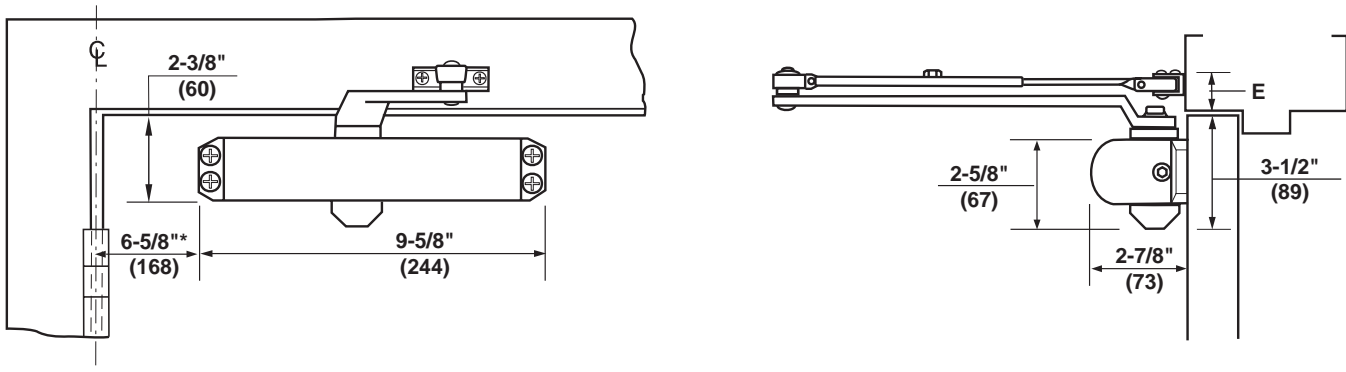
#### #2588 Adapter Plate

This adapter plate is supplied standard with parallel arm hold open closer. It can also be used to convert hold open arms for parallel arm installation. It can be mounted where the frame soffit is as narrow as 1" (25mm).



## TECHNICAL DETAILS

### REGULAR ARM



\*Template position for 100° door opening

Mounting holes for closer body are spaced 3/4" vertically x 9-1/16" horizontally.

E Minimum Ceiling Clearance	
Non-Hold Open	Hold Open
1-1/2" (38mm)	1-5/8" (41mm)

### DOOR CLOSER SIZE

**Note:** Door closing force is not adjustable. Correct size must be selected.

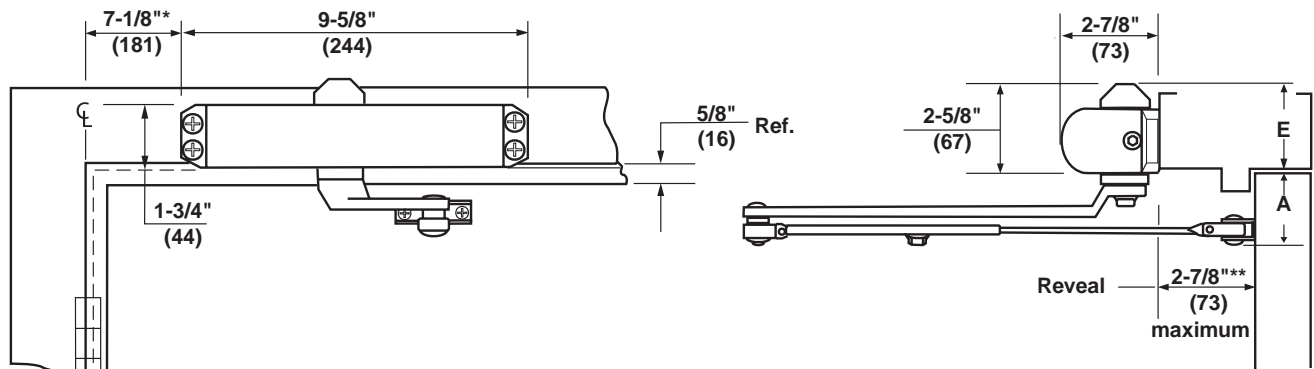
Recommended Maximum Door Width Inches (cm)		Model #	
Interior	Exterior	Non-Hold Open	Hold Open
34" (86)	30" (76)	2302BC	2312BC
40" (102)	34" (86)	2303BC	2313BC
48" (122)	40" (102)	2304BC	2314BC
—	48" (122)	2305BC	2315BC

All dimensions are for reference only and are in inches (mm) unless otherwise noted. Door sizing information is based on installation on standard weight doors, 7'0" (213cm) high x 1-3/4" (44mm) thick; hung on anti-friction hinges and operating under normal conditions. Doors in excess of 7'8" (234cm) high or 1-3/4" (44mm) thick, templated openings beyond 150° or doors subject to wind or draft conditions will generally require the next larger size closer.



## TECHNICAL DETAILS

### TOP JAMB



\*Template position for 100° door opening

\*\*For frame reveals in excess of 2-7/8" (73mm) order a longer adjusting rod:

Non-hold open - 2301-11A

Hold open - 2301-31A

Mounting holes for closer body are spaced 3/4" vertically x 9-1/16" horizontally.

E Minimum Ceiling Clearance		A Minimum Top Rail 5/8" (16mm) Frame Stop	
Without Drop Plate	With 2388 Drop Plate	Without Drop Plate	With 2388 Drop Plate
2-5/8" (67mm)	1-3/4" (44mm)	1-7/8" (48mm)	3-3/8" (86mm)

### DOOR CLOSER SIZE

**Note:** Door closing force is not adjustable. Correct size must be selected.

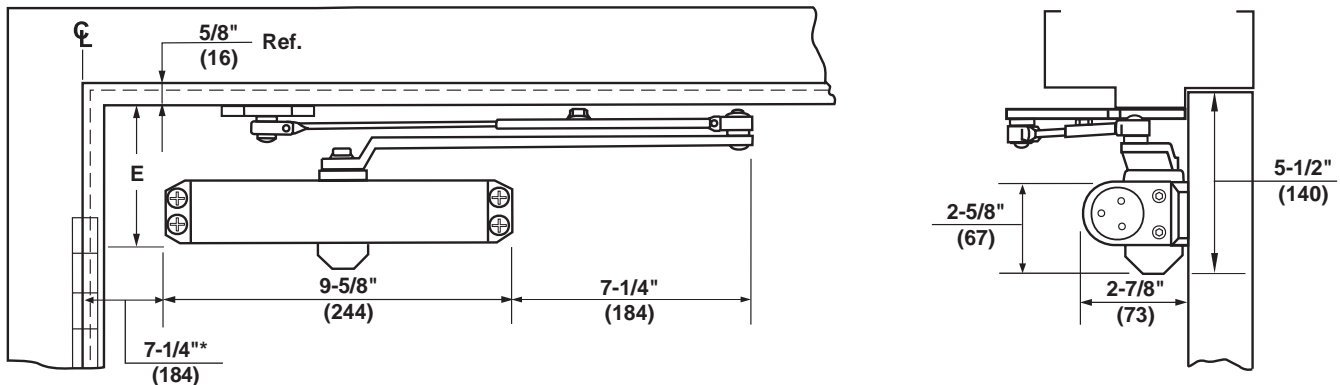
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## TECHNICAL DETAILS

### PARALLEL ARM



\*Template position for 100° door opening

Mounting holes for closer body are spaced 3/4" vertically x 9-1/16" horizontally.

E	
Minimum Top Rail 5/8" (16mm) Frame Stop	
Without Drop Plate	With 2388 Drop Plate
5" (127mm)	2-5/8" (67mm)

### DOOR CLOSER SIZE

**Note:** Door closing force is not adjustable. Correct size must be selected.

Recommended Maximum Door Width Inches (cm)		Model #	
Interior	Exterior	Non-Hold Open	Hold Open
32" (81)	28" (71)	PA2302BC	PA2312BC
38" (97)	32" (81)	PA2303BC	PA2313BC
46" (117)	36" (91)	PA2304BC	PA2314BC
52" (132)	42" (107)	PA2305BC	PA2315BC

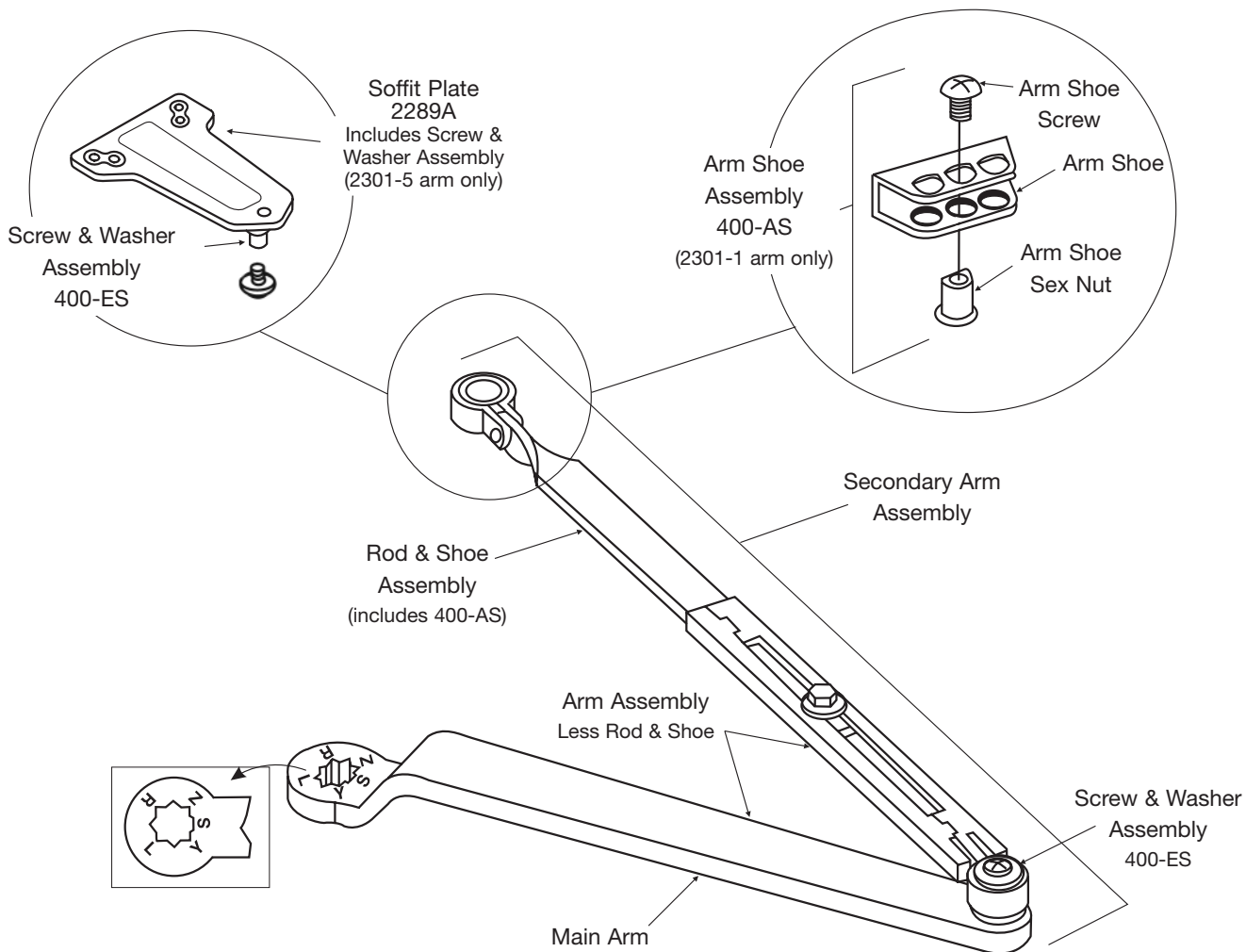
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# PARTS LIST

## NON-HOLD OPEN ARM ASSEMBLIES

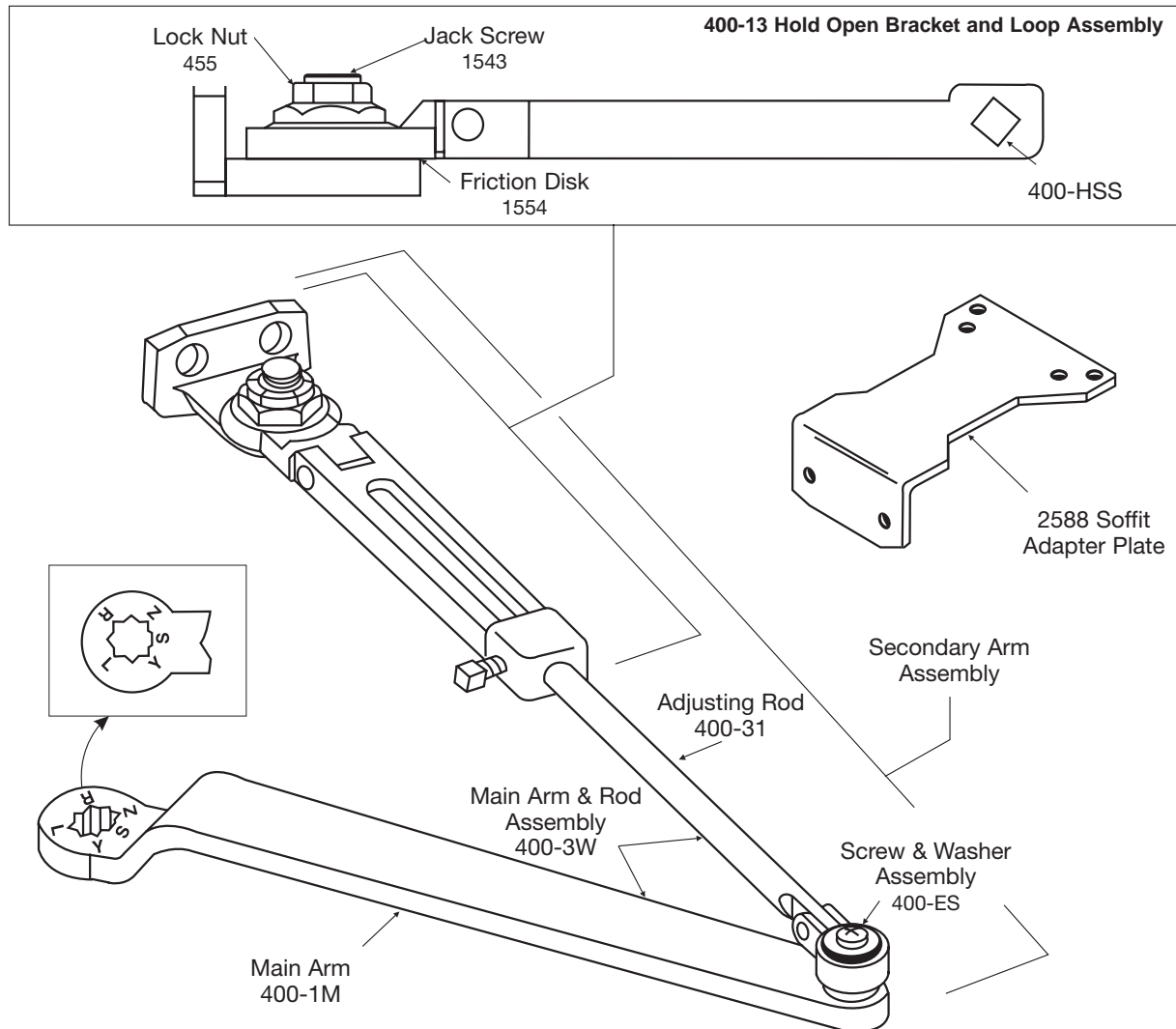


Closer Series	Complete Arm	Main Arm	Arm Assembly Less Rod and Shoe	Secondary Arm Assembly	Rod and Shoe Assembly
2300BC	2301-1	400-1M	2301-1W	2301-111	2301-11
	2301-1A (deep reveal)			2301-111A	2301-11A
PA2300BC	2301-5			2301-115	2301-15



## PARTS LIST

### HOLD OPEN ARM ASSEMBLIES



Closer Series	Complete Arm	Secondary Arm Assembly
2310BC	2301-3	400-113
PA2310BC	2301-8*	400-118*

\*2588 soffit adapter plate included.



## PARTS LIST

### SCREW PACKS

Sleeve Nuts Only	Through-Bolts & Grommet Nuts	Door Thickness
SN-138	TBGN138-38	1-3/8"
SN-134	TBGN134-38	1-3/4"
SN-214	TBGN214-38	2-1/4"

### MISCELLANEOUS PARTS

Part Number	Description
230XBCLAP	Closer Body Only
1639	Pinion Cap

## HOW TO ORDER


PA Prefixes	23 First and Second Digit	1 Third Digit	2 Fourth Digit	BC
No Prefix - 2300 series regular and top jamb mount  PA - 2300 parallel arm only	Defines closer series	O - Non-Hold Open 1 - Hold Open	Defines closer size  "2" - ANSI size 2 "3" - ANSI size 3 "4" - ANSI size 4 "5" - ANSI size 5	Adjustable backcheck cushioning (Standard)

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