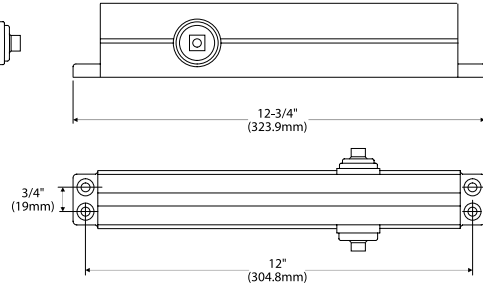
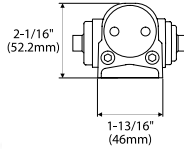


# HEAVY DUTY DOOR CLOSER DC8516

## ANSI/BHMA Grade 1



### SPECIFICATIONS

<b>Adjustable Power Size</b>	1 Thru 6 meets ADA Barrier-Free requirements
<b>Body</b>	One piece Aluminum Alloy Body
<b>Design</b>	Rack-and-Pinion
<b>Valves</b>	Separate and independent latch, sweep, and back-check pressure valves
<b>Handing</b>	Non-Handed
<b>Cover</b>	Plastic full cover standard
<b>Packing</b>	Tri-packed
<b>Fixing Packs</b>	SRT fasteners furnished standard
<b>Pinion</b>	32mm (1-17/64") diameter
<b>Pinion Shaft</b>	16mm (5/8") diameter
<b>Projection</b>	53mm (2-3/32"), w/o cover

### CODE COMPLIANCE



ANSI/BHMA A156.4 Grade 1 Closers  
 ANSI A117.1 ADA Accessibility  
 UL Listed for ANSI/UL10B and UL10C,  
 CAN/ULC S104 up to 3 Hours  
 UL 228 UBC Standard 7-2 (1997) NFPA 252  
 NFPA 80 National Fire Protection - Fire Door Assembly  
 NFPA101 National Fire Protection - Life Safety  
 ANSI/BHMA A156.18 Finishes

### Description

Door Closer with Sleeve Arm, ADA, Plastic Full Cover

### Part Number

**DC8516**

### Standard Finish

AL Aluminum Painted  
 DU Duro/Dark Bronze Painted  
 19G Graphite Black

Door Closer with Delayed Closing Action  
 Adjustable Power Range 1-6

**DC8516DA**

AL Aluminum Painted  
 19G Graphite Black

Door Closer with Friction Hold Open Arm, ADA, Plastic Full Cover

**DC8516HO**

AL Aluminum Painted  
 DU Duro/Dark Bronze Painted  
 19G Graphite Black

Door Closer with Cush Arm, ADA, Plastic Full Cover

**DC8516CUSH**

AL Aluminum Painted  
 19G Graphite Black

Door Closer with Hold Open Cush Arm, ADA, Plastic Full Cover

**DC8516HCUSH**

AL Aluminum Painted  
 19G Graphite Black

Door Closer with Slide Track Arm, ADA, Plastic Full Cover

**DC8516ST**

AL Aluminum Painted

Door Closer with Slide Track Hold Open Arm, ADA, Plastic Cover

**DC8516STH**

AL Aluminum Painted

*For additional finish options not listed, contact Sales Department for MOQ and lead times*

## FEATURES

### Aluminum Alloy Body

Closer bodies are cast of special aluminum alloy and machined to accommodate interactive steel components under operating conditions

### Rack & Pinion Operation

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

### Non-Handed

DC8516 Door Closer is non-handed and can be installed on either right or left hand swing doors

### Sweep Speed Control Valve

Allows adjustment of door speed from the door's 90° open position down to approximately 10° from the closed position

### Latch Speed Control Valve

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

### Tri-Packed

DC85 Series come with self-tapping (SRT), sex nuts & bolts (SNB) and parallel arm (PA) bracket to allow for regular, top jamb, and parallel arm installations

### Adjustable Back-Check Valve

Provides control of the door in the opening cycle, beginning at approximately 75° of door opening. The valve cushions the door opening when the door is forcibly opened beyond its preadjusted setting

### Standard Molded Cover

Molded from high impact material  
Covers are non-handed for all applications

### Multi-Sized Door Closer

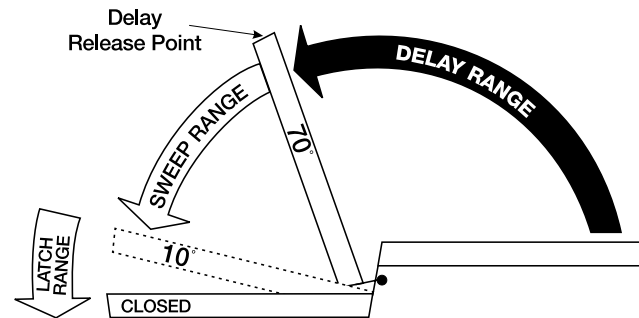
Shipped as size 3, but easily adjustable through the power range of 1 through 6. DC8516 Door Closer also conforms to the opening force requirements of the ADA as well as the ANSI/BHMA standard A117.1 for interior doors

## OPTIONAL FUNCTIONS

### Delayed Action Closing

An optional hydraulic adjustable feature adds a third speed (DA) 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 angle of door release and valve adjustment. The valve can be adjusted with 4mm hex key (provided) from no delay time up to maximum delay times of:

Door opened	Approximate Time of Delay Cycle
180°	4~5 minutes
120°	2~3 minutes
90°	25~30 seconds



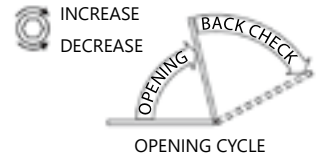
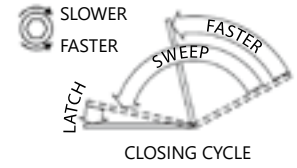
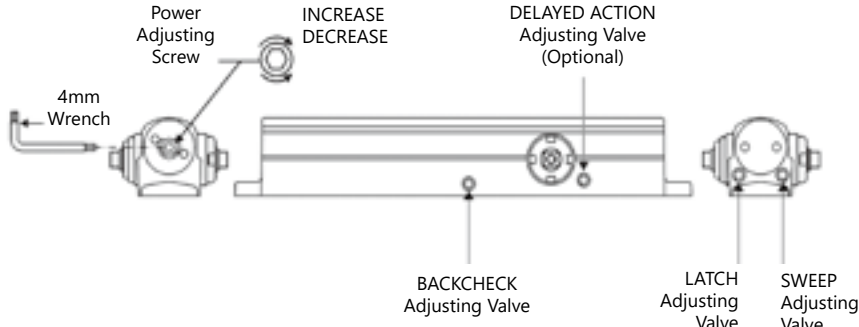
### Suggested Applications

Delayed Action Closing allows slow-moving traffic to clear the opening before the door closer's "normal" closing cycle begins. Healthcare, Hospitals and Nursing Homes facilities all use this feature. It gives sufficient time for persons in beds, wheelchairs or on crutches to pass through an opening without concern of the door closing on them. Delayed Action closers can also accommodate openings with movement of food service carts, hand trucks, and pallet jacks

### Pressure Relief Safety Valve

The (DA) 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 allow the door to close. This prevents damage to Closer, Arm, Frame and Door

**APPLICATION CHART**



Door Closer Size	Full turns of power adjusting screw*	Applicable Door Leaf Width		Applicable Door Weight
	8516 8516DA	Exterior (Swing out)	Interior	
1	-6	28" (0.71m)	32" (0.81m)	33~66LBS (15~30kg)
2	-4	32" (0.81m)	36" (0.91m)	66~99LBS (30~45kg)
3	O (Preset)	36" (0.91m)	42" (1.07m)	99~143LBS (45~55kg)
4	+5	42" (1.07m)	48" (1.22m)	143~187LBS (65~85kg)
5	+9	48" (1.22m)	54" (1.37m)	187~264LBS (85~120kg)
6	+12	54" (1.37m)	58" (1.47m)	264~330LBS (120~150kg)

**CLOCKWISE FOR POSITIVE NUMBERS (+)**



**COUNTER-CLOCKWISE FOR**

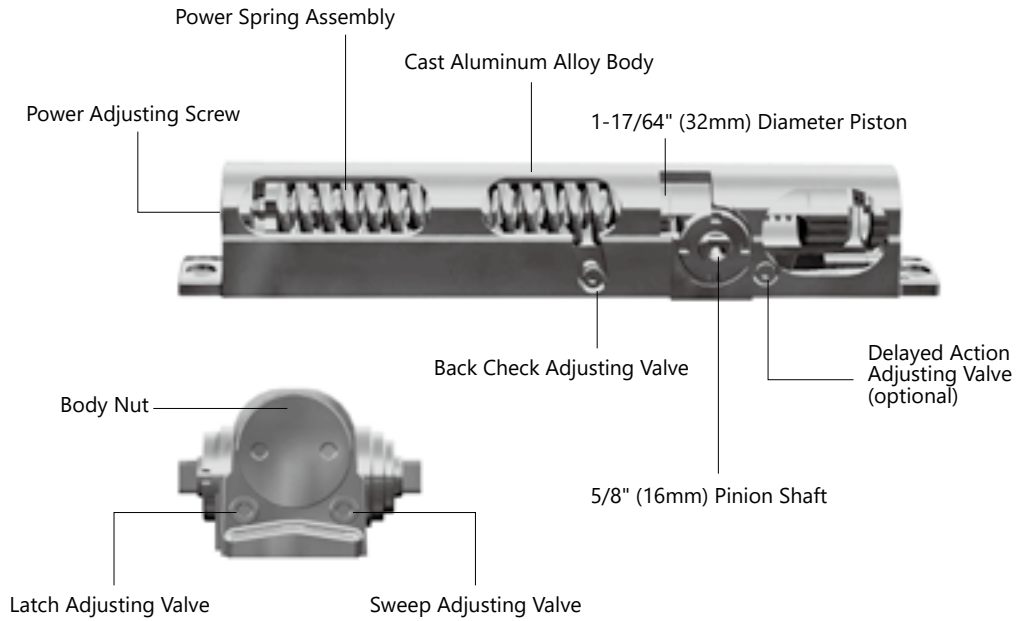


The closing force for DC8516 series door closers is adjustable from size 1 to size 6, as outlined in ANSI Standard A156.4. When these series of door closers are installed and adjusted to confirm to ADA reduced opening force requirements (5 lbs max.) for interior doors, they may not have adequate closing force to reliably close and latch door. Power adjustments charted on this page are recommended where possible to ensure proper door control

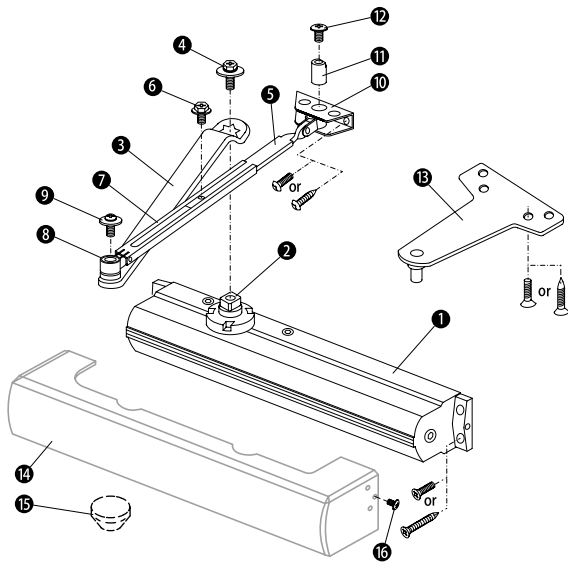
**▲ CAUTION!!**

Turns required are approximate because of various door conditions and locations. You may have to further adjust spring tension to suit your requirements

CUTAWAY VIEW



EXPLODED DIAGRAM

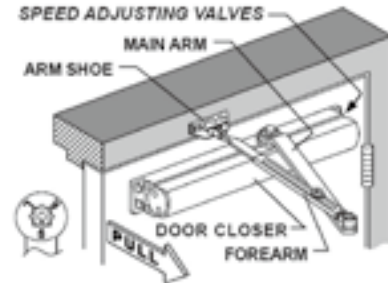
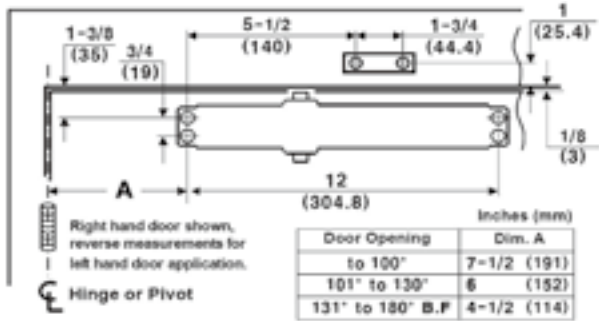


1. Closer Body
2. Pinion Shaft
3. Main Arm
4. Pinion Arm Screw
5. Adjustable Arm
6. Adjustable Arm Screw
7. Adjustable Sleeve
8. Pivot Bushing
9. Pivot Screw
10. Regular Shoe Plate
11. Bushing
12. Reg / PA Screw
13. Parallel Shoe
14. Cover, Slim or Full
15. Pinion Cap
16. Cover Screw

MOUNTING DIAGRAMS

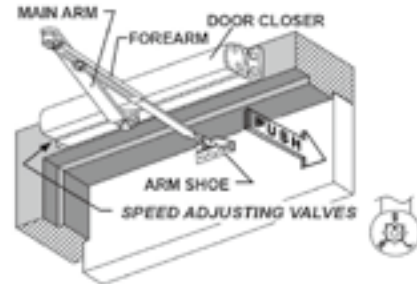
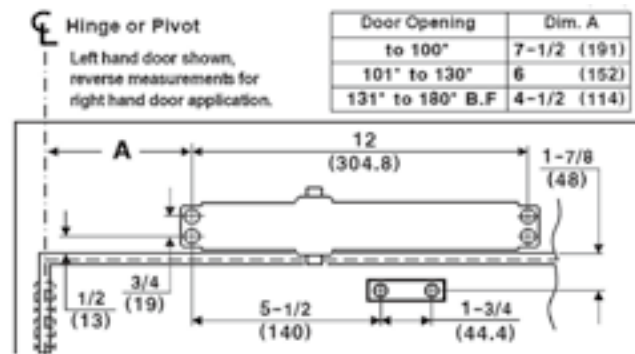
**Regular Mounting (Pull Side)**

Regular arm is the most common and strongest mounting option. Usually the closer is mounted on the door and the arm is mounted on the frame



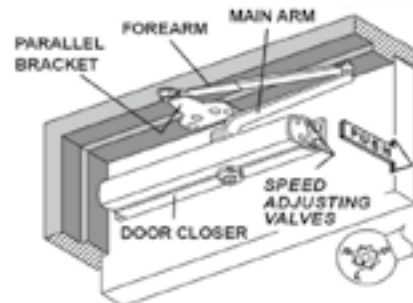
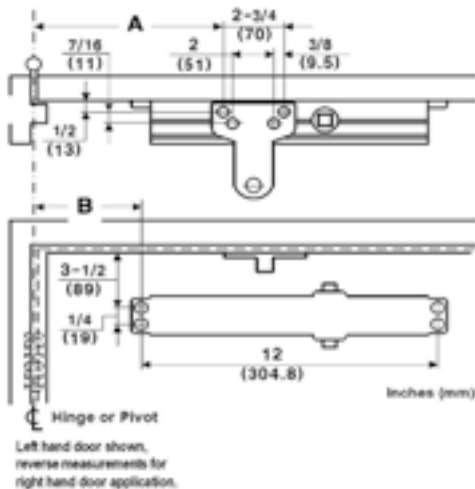
**Top Jamb Mounting (Push Side)**

Closer body is mounted to the frame with the arm straight out. Ideal for exterior door installations. You must consider frame depth reveal. Extended arm may be required



**Parallel Arm Mounting (Push Side)**

Closer body on door with parallel bracket on stop of frame. Arm is parallel to the door and does not stick out. Parallel arm installations have 25% less power than regular pull side mounting





STANDARD ARMS

**Regular / Parallel Arm with bracket**

Regular Non-handed arm with adjustable slider can be used for a wide range of frame conditions and can be mounted to hinge (pull) side, top jamb

For Parallel arm, use parallel arm bracket to mount on stop of frame on other (push) side of the door. Frame should be reinforced for parallel arm bracket

OPTIONAL ARMS

**DC8516HO**



Non-handed arm with adjustable round slide arm for a wide range of frame conditions. Open to desired range then tighten screw & lock nut and door will hold in that position every time until changed. For parallel mount use parallel arm bracket

**DC8516CUSH**



Non-handed heavy duty forged arm with cushion stop, parallel arm mount. Must use frame reinforcement in stop to mount

**DC8516ST**

Single lever (track) arm with a surface mounted closer designed for interior use on narrow head frames and top rails. Offers three mounting positions: Pull Side, Push Side and Top Jamb

**DC8516STH**



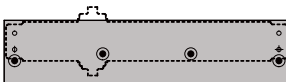
The Hold-Open options allows for hold-open points at 85°, 90°, 95°, 100°, 105° or 110° depending on clip location in track

OPTIONAL DROP PLATES – Narrow Top Rail

For use on doors with glass where the drop plates cover the back of the closer, for a more aesthetic view from the front. Also used when top rail is narrow and prevents the closer from being mounted to a surface of wood or metal. Correct installations will permit 180° maximum opening. Please see drop plate installation guide for detail applications. Drop plates available for DC85 closer with full cover or slim covers

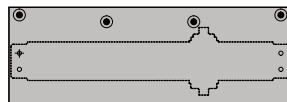
**DCDP85P1:**

Drop Plate for DC8516 with Full Cover Pull Side Mounting



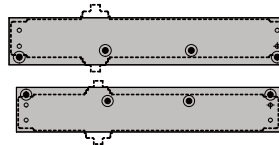
**DCDP85P2:**

Drop Plate for DC8516 with Full Cover Push Side Mounting



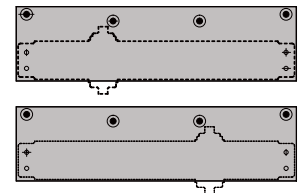
**DCDP85P3:**

Drop Plate for DC8516 with Slim Cover Pull Side Door Mount or Push Side Jamb Mount



**DCDP85P4:**

Drop Plate for DC8516 with Slim Cover Push Side Door Mount or Jamb Mount



## DC8516 DOOR CLOSER

### OPTIONAL COVERS

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#### **DCCV85F**

Plastic Full Cover



#### **DCCV85SLC**

Plastic Slim Cover



#### **DCCV85FSS**

Stainless Steel Cover



### PARALLEL ARM BRACKET

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#### **DCBK**

Parallel Arm Bracket



### FIXING PACKS

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#### **DCFP85**

Standard self-tapping screws (SRT) for closer body



#### **DCFPBK**

Standard fixing pack for parallel arm bracket



#### **DCFPSNB**

Standard sex nuts and bolts (SNB) fixing pack

