# ADVANTAGE® DOOR CLOSERS

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ADVANTAGE

Always Striving. BHMA



### **OOR CLOSER**

### Philadelphia Hardware Group Inc. is presenting the finest ADVANTAGE® surface

mounting door closers certified by BHMA including:

- Multi-size door closer: 9000, 8000, 6000, 6000S (slim cover), 4400 series.
- · Standard size door closer: 4000, 3000, 2000 series.
- Multi-size Delay Action door closer: 8000/DA, 6000/DA, 6000S/DA series.

### **GENERAL INFORMATION**

### ANSI A156.4 – American National Standard for Door Controls-Closers

ADVANTAGE® Grade 1 Door Closers are certified by ANSI/BHMA A156.4.

ADVANTAGE® Grade 2 Door Closers are factory tested to meet or exceed ANSI Grade 2 required strength and performance.

### **UL Listed**

All of ADVANTAGE® door closer series are UL listed, and conforms to Standards UL10C and UPC 7-2(1997).

### **Meet ADA Requirements**

ADVANTAGE® door closer 9000, 8000, 6000, and 4400 series meet requirements of ANSI A117.1, ADA.

Standards for Accessible Design, and NFPA 101.

Please note Door Closer with reduced opening force may not provide sufficient power to close a door.

Note: The information below concerning the Americans With Disabilities Act (A.D.A.) has been generated from ANSI/BHMA A117.1, the Federal Register, Part III, published by the Department of Justice, office of the Attorney General, 28CFR, part 36, and NFPA 101. The information listed here are requirements which must be met for door opening accessibility by the handicapped or disabled. Please refer to ANSI/BHMA A117.1, ADA standards and NFPA 101 for specific details.

**Door Opening Width** 

Single-leaf Doorways shall have a clear opening of 32" minimum. Clear opening of doorways with swinging doors shall be measured from the face of door and stop with the door open 90°.

Double-leaf Doorways should have at least one active leaf to meet the minimum opening criteria.

**Door Opening Face** 

Door closers shall be adjusted so that from the open position of 90° the time required to move the door to an open position of 12° shall be 5 seconds minimum.

The maximum force for pushing open or pulling open doors other than fire doors shall be as follows:

- 1. Interior hinged door: 5 lbs.
- 2. Exterior hinged door: 8.5 lbs.
- \* 4400 series apply to interior hinged door only.
- Fire Door (NFPA-101)

The force required to operate the door assembly in the direction of door leaf travel is not more than 30 lbf (133 N) to set the door leaf in motion and is not more than 15 lbf (67 N) to close the door assembly or open it to the minimum required width. Note: These forces shall be applied at the latch stile. The pound forces stated above should be reduced where possible to comply with exterior hinged door and interior hinged door requirements. However, door closing capability must not be compromised.

**Door Closing Speed** 

ADA: The closing speed from an open position 70° to a point 3" from the latch will take at least 3 seconds. A117.1: Door closers shall be adjusted so that from the open position of 90° the time required to move the door to an open position of 12° shall be 5 seconds minimum.

**Door Closers Handing** are non-handed and suitable for left-opening or right-opening door.

All Weather Hydraulic Fluid used to ensure smooth operation under severe weather conditions, operation temperatures 130°F ~ -40°F (55°C ~ -40°C).

Finish Stock available Aluminum (BHMA 689) for all model, Duranodic (BHMA 695) for all model Gold (BHMA 696) for all model Satin Chrome (BHMA 652) for 8000 series Aluminum Gold Duro (Duranodic)

### ACCESSORIES

Drop Plate allows a door closer to be fitted on narrow top rail or narrow top frame door.

Most of the ADVANTAGE® door closers have different kinds of Drop Plates for installation requirements, see following pages in detail.

Hold Open Arm used when door is requiring for a clear opening doorways at 90° stop.

#### \* Should not be used on Fire door application.

Parallel Rigid Cush Arm is a heavy duty arm with an auxiliary stop in soffit shoe to stop the door opening at a specific point. Apply to door where wall or floor stops are not appropriate. Parallel arm mounting application only.

Parallel Rigid Spring Cush Arm is Parallel Rigid Cush Arm with a Spring Stop in soffit shoe for abusive application.







# **DOOR CLOSER**

### ACCESSORIES

Page - 3

**Parallel Rigid Hold Open Cush Arm** is a heavy duty hold open arm featured with a plunger hold open to engage or disengage hold open by a handle on the arm. Auxiliary stop in soffit shoe to stop the door opening at a specific point. Parallel arm mounting application only.

\* Should not be used on Fire door application.

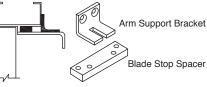
**Parallel Rigid Hold Open Spring Cush Arm** is Parallel Rigid Hold Open Cush Arm with a Spring Stop in soffit shoe for abusive application.

\* Should not be used on Fire door application.

**Parallel Rigid Arm** is an extra heavy duty arm that is intended to use in heavy traffic areas. Parallel arm mounting application only. **Slide Track Arm with Hold Open Stop** provides the smoothest lines available in a surface- mounted door closer. The design minimize projection and eliminate obtrusive arm angles. The arm geometry reduces door closer power efficiency by approximately 25% from that of a regular arm. \* Using hold open stop is not code compliant on fire rated doors.

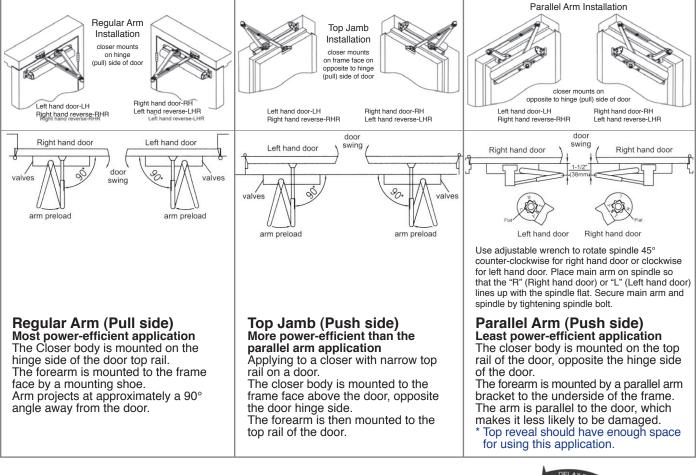
Blade Stop Spacer lowers parallel arm shoe to clear 1/2" (13mm) blade stop.

**Arm Support Bracket** provides anchor for fifth screw, to use with stop arms when reveal is less than 3-1/16" (78mm). (for 8000 door closer only)



### **DOOR CLOSER APPLICATION**

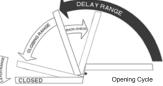
There are three basic methods of mounting surface door closers to the door and frame including regular arm, parallel arm and top jamb mounts. All **ADVANTAGE®** door closers are supplied standard with a tri-pack for mounting any of three types applications.



### **CLOSER ADJUSTMENT**

**ADVANTAGE**<sup>®</sup> Door closers have hex wrench controlling valves for adjusting Closing speed and latch speed. Multi-size door closers have a nut for spring power adjustment, and additional valve for Backcheck. Delay Action control valve available with Delay Action model.





# **DOOR CLOSER**

Unit adjustment

• Valve "S" controls sweep range

Valve "D" controls delayed action range

Closing speed controls

Closing speed controls

Sweep & Latch

Slov

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· Valve "L" controls latch range

Closing speed controls (figure 1,2 and 6)

Standard Closing cycle

### Closing speed & Latching speed are

dual valve control for door closing speed.

Closing speed is the speed of door closing from full opening to approximately 10°~5° of door closed position.

Latching speed is the speed from approximately 10°~5° door opening to door closed position. Slow latch speed provides less door closing noise.

**Backcheck** slows down the door opening at approximately 70° in order to prevent damage to building and door frames. The backcheck control valve provides a 20° adjustment (70°  $\sim$  90°) to set the optimum backcheck start point.

\* Multi-size door closers are standard with Backcheck function.

**Delay Action** is the 3rd control for closing speed adjustment.

It effective from full opening to approximately 70°, and provides a slow closing speed. The closing time between 180° to 70° is at least 20seconds, and easily adjustable up to 1minutes. Closer with Delay Action provides sufficient time that allows people or the elderly to get through the door before it starts to close.

### Multi-size Spring adjustment

Multi-size door closers are able to adjust the spring power to meet the power needs of the door. Spring power of the closer can be increased by turning the power adjustment nut clockwise, vice versa.

Closing power control (Figure 3)

Closing power control

To decrease po

Power Adjustment Nut

### **Closer Size (Spring Power)**

|        | Recommended Maximum Door Size |                                  |                                  |                                   |                                   |           |  |  |  |  |
|--------|-------------------------------|----------------------------------|----------------------------------|-----------------------------------|-----------------------------------|-----------|--|--|--|--|
| Closer | Regular & Top Jamb            |                                  |                                  | Parall                            | Door Weight                       |           |  |  |  |  |
| Size   | Interior                      | Exterior Swing-in<br>(Pull Side) | Exterior Swing-out<br>(Push Side | Interior Swing-out<br>(Push side) | Exterior Swing-out<br>(Push side) | (Lbs.)    |  |  |  |  |
| 1      | 28"                           | N/A                              | N/A                              | N/A                               | N/A                               | 33 ~ 66   |  |  |  |  |
| 2      | 36"                           | N/A                              | N/A                              | 30"                               | N/A                               | 66~99     |  |  |  |  |
| 3      | 42"                           | 30"                              | 36"                              | 36"                               | 30"                               | 99~143    |  |  |  |  |
| 4      | 48"                           | 36"                              | 42"                              | 42"                               | 36"                               | 143 ~ 187 |  |  |  |  |
| 5      | 54"                           | 42"                              | 48"                              | 48"                               | 42"                               | 187 ~ 264 |  |  |  |  |
| 6      | 60"                           | 48"                              | 54"                              | 54"                               | 48"                               | 264~330   |  |  |  |  |

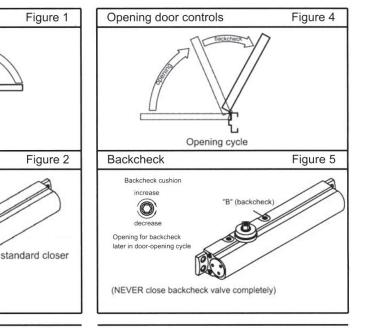
Figure 3

\* Multi-size door closers provide the spring power required to fit your door size and application.

### **ADVANTACE**<sup>®</sup>

by PHILADELPHIA HARDWARE GROUP

- Opening door control (figure 4 and 5)
- Backcheck ("B") Valve controls the hydraulic resistance to door opening. NEVER close this valve completely- it is not to provide a positive stop



Delayed Action Control (Figure 6)

# Delayed Action control Figure 6

### **9000** SERIES

**ANSI GRADE 1** ANSI/BHMA A156.4

Series 2000, PT1

**UL10C Positive Pressure** Rated. Conforms to UBC 7-2 (1997). (Uniform Building Code Standard) Exceeds 1,500,000 cycles with Backcheck LISTED

Comply with ANSI A117.1

**25-Year Warranty** 

**ANSI GRADE 1** 



Model 9000 9000/DA

Adjustable power size 1-6 with Back Check Adjustable power size 1-6 with Back Check and Delay Action

**Applications** 

- Heavy Duty Commercial model ideal for high traffic door such as schools, hospitals, and public institutions
- Same mounting hole pattern as CAL-ROYAL 900
- (CTC 11-1/8" x 1-1/8"), ideal for renovations
- Tri-packed for all type applications
- Sex-bolts included for Metal Door mounting

### Features

- Multi-size spring adjustable power size 1-6 Factory preset size 3
- Meet ADA
- Standard with adjustable Backcheck

### Product Specification

|   | Material | Aluminum alloy body, forged steel arm                       |
|---|----------|---|
|   |          | Heat treated forged steel piston                            |
|   |          | Double Heat treated Steel pinion                            |
|   | Cover    | Full plastic cover – standard                               |
| Valves Triple valve control for Closing speed, Latching speed |          | Triple valve control for Closing speed, Latching speed, and |
|   |          | Back-check  |
|   |          | Staked valve for power adjustment                           |
|   | Arm &    | Standard arm and parallel bracket included for different    |
|   | Brackets | mounting demand   |
|   | Screws   | Self-tapping wood screws, machine screws, and sex-bolts     |
|   | Finishes | Aluminum, Duronotic, and Gold                               |

### **Optional Fuctions**

- Hold Open Arm (9001)
- Parallel Rigid Cush Arm (9002)
- Parallel Rigid Cush and Stop Arm (9003)
- Extended Forearm (9004)
- Parallel Rigid Arm (9005)
- Slide Track Arm (9006)
- Drop Plate (90DP-PA)
- \* Special Order from the factory
- Metal Cover Finish (BHMA): US3 (632), US4 (633), US26 (651), US26D (652), US32D (630)

### Technical Dimensions

| Series 9000                  | Size    | A        |            |
|------------------------------|---------|----------|------------|
| A. Length of Closer Body     | 11-7/8" |          | ]          |
| B. Horizontal Mounting Holes | 11-1/8" |          |            |
| C. Vertical Mounting Holes   | 1-1/8"  |          |            |
| D. Height of Closer Body     | 2"      |          |            |
| E. Projection from Door      | 2-3/8"  | End View | Front View |





HFW01 Flat Wrench for Hold Open Arm

#### **PAB01**

Parallel Bracket

For Hold Open Arm mounting can also use for regular parallel arm application

BSS02 **Blade Stop Spacer** Design to lower parallel arm shoe to clear 1/2" (13 mm) blade stop



Parallel Rigid Hold Open Cush Arm Hand control plunger hold open main & forearm for extra Auxiliary stop in soffit shoe

90DP-PA

heavy traffic use Size: 11-13/16" x 3-9/16"

9005

Parallel Rigid Arm

Featured with solid steel

Drop Plate –Parallel arm mount Used to mount a closer on a top rail as narrow as 1-9/16" in height





9006 Slide Track Arm Featured with adjustable Hold Open Angle

90C Standard Full **Plastic Cover** 

Extended Forearm

For Top Jamb with reveal

greater than 4" and up

9004

to 8"

1349 Sex-bolt with screw For 1-3/4" standard Door Thick



### **8000** SERIES

### **ANSI GRADE 1**

ANSI/BHMA A156.4

UL10C Positive Pressure Rated. Conforms to UBC 7-2 (1997). (Uniform Building Code Standard)

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### **ANSI GRADE 1**

Comply with

ANSI A117.1

**Optional Fuctions** 

Parallel Rigid Cush Arm (8002)

Extended Forearm (8004) Parallel Rigid Arm (8005) Slide Track Arm (8006) Drop Plate (see Accessories) **Special Order from the factory** 

80DP-ST

Metal Cover

Wide choice of options for different applications • Hold Open Arm (8001)

Parallel Rigid Cush and Stop Arm (8003)

Finish (BHMA): US3 (632), US4 (633), US26 (651), ÚS26D (652), US32D (630)

Accessories

Size: 12-1/4 x 3-9/16" Drop Plate - Pull Side

**25-Year Warranty** 

Series 2000, PT1 Exceeds 1,500,000 cycles with Backcheck LISTED

### Model 8000 8000/DA

Adjustable power size 1-6 with Back Check Adjustable power size 1-6 with Back Check and Delay Action

### Applications

- Extra Heavy Duty Commercial model ideal for high traffic door Versatile for new constructions, such as schools, hospitals, and public institutions
- Same mounting hole pattern as LCN4041, ideal for renovations
- Tri-packed for all type applications
- Sex-bolts included for Metal Door mounting

### Features

- Multi-size spring adjustable power size 1-6 Factory preset size 3
- Meet ADA

### Product Specification

|                        | Material | Heavy Duty Cast Iron body, forged steel arm              |  |  |  |  |
|------------------------|----------|--|--|--|--|--|
| l                      |          | Heat treated forged steel piston                         |  |  |  |  |
| l                      |          | Double Heat treated Steel pinion                         |  |  |  |  |
| ĺ                      | Cover    | Full plastic cover – standard                            |  |  |  |  |
| ĺ                      | Valves   | Triple valve control for Closing speed, Latching speed,  |  |  |  |  |
| and Back-check cushion |          |  |  |  |  |  |
| l                      |          | Delayed Action valve – Optional (Model: 8000/DA)         |  |  |  |  |
| l                      |          | Staked valve for power adjustment                        |  |  |  |  |
| ĺ                      | Arm &    | Standard arm and parallel bracket included for different |  |  |  |  |
| l                      | Brackets | mounting demand  |  |  |  |  |
| ľ                      | Screws   | Self-tapping wood screws, machine screws, and sex-bolts  |  |  |  |  |
| ľ                      | Finishes | Aluminum, Duronotic, Gold, and US26D-Satin Chrome        |  |  |  |  |

### **Technical Dimensions**

| Series 8000                  | Size   |          | OTEO.        |
|------------------------------|--------|----------|--------------|
| A. Length of Closer Body     | 11"    |          | ala de la ca |
| B. Horizontal Mounting Holes | 5"     | Con D    |              |
| C. Vertical Mounting Holes   | 1"     | Ĩ        |              |
| D. Height of Closer Body     | 2-3/4" |          |              |
| E. Projection from Door      | 2"     | End View | A            |



8001 8002 Hold-open Arm Parallel Rigid Stand for pull side & top jamb Cush Arm Use with PA bracket for Auxiliary Stop in parallel arm mount soffit shoe

HFW01 Flat Wrench for Hold Open Arm

#### 8004

**ASB01** 

**Extended Forearm** For Top Jamb with reveal between 2-5/8" to 4-13/16"

Arm Support Bracket

Use with Cush Arms when 5 reveal is less than 3-1/16" (78 mm). The bracket provides anchorage for fifth screw loading



#### 8003 Parallel Rigid

Hold Open Cush Arm Hand control plunger hold open main & forearm for extra Auxiliary stop in soffit shoe 8003SC

Parallel Rigid Hold Open Spring Cush Arm Hand control plunger hold open. Spring stop in soffit shoe

8006

Slide Track Arm Featured with adjustable Hold Open Angle

### **PAB**01

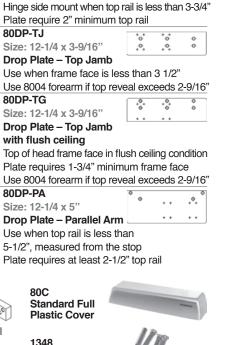
Parallel Bracket For Hold Open Arm mounting can also use for regular parallel arm application



Featured with solid steel heavy traffic use

Front View

#### **BSS01** Blade Stop Spacer Design to lower parallel arm shoe to clear 1/2" (13 mm) blade stop



Sex-bolt with screw



### 6000, 6000S SERIES

### **ANSI GRADE 1**

**ANSI GRADE 1** 

ANSI/BHMA A156.4 Series 2000, PT1

Exceeds 1,500,000 cycles with Backcheck LISTED

hospitals, and public institutions

Tri-packed for all type applications

**UL10C Positive Pressure** Rated. Conforms to UBC 7-2 (1997). (Uniform Building Code Standard)

Comply with ANSI A117.1 **25-Year Warranty** 



#### Model 6000, 6000S 6000/DA, 6000S/DA

Applications

ideal for renovations

Adjustable power size 1-6 with Back Check Adjustable power size 1-6 with Back Check and Delay Action

Full Cover

### Slim Cover

### Features

Multi-size spring adjustable power size 1-6, Factory preset size 3

Sex-bolts included for Metal Door mounting

Heavy Duty Commercial model ideal for high traffic door Versatile for new constructions, such as schools,

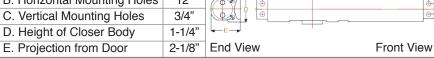
Same mounting hole pattern as NORTON 8000 CTC 12" x 3/4",

- Meet ADA
- Standard with adjustable Backcheck

### Product Specification

| Aluminum alloy body, forged steel arm<br>Heat treated forged steel piston |  |  |  |
|---|--|--|--|
| Double Heat treated Steel pinion  |  |  |  |
| Full plastic cover – 6000 series  |  |  |  |
| Triple valve control for Closing speed, Latching speed, and               |  |  |  |
| Back-check  |  |  |  |
| Delayed Action valve – Optional (Model: 6000/DA, 6000S/DA)                |  |  |  |
| Staked valve for power adjustment   |  |  |  |
| Standard arm and parallel bracket included for different                  |  |  |  |
| mounting demand   |  |  |  |
| Self-tapping wood screws, machine screws, and sex-bolts                   |  |  |  |
| Aluminum, Duronotic, and Gold   |  |  |  |
|   |  |  |  |

### **Technical Dimensions** Series 6000, 6000S Size A. Length of Closer Body 12-3/4" **B.** Horizontal Mounting Holes 12"





Hold-open Arm Parallel Rigid Stand for pull side & top jamb Cush Arm Use with PA bracket for Auxiliary Stop in parallel arm mount soffit shoe

HFW01 Flat Wrench for Hold Open Arm

### **PAB01**

Parallel Bracket For Hold Open Arm mounting can also use for regular parallel arm application

6002

BSS02 Blade Stop Spacer Design to lower parallel arm shoe to clear 1/2" (13 mm) blade stop

6003 Parallel Rigid Hold Open Cush Arm Hand control plunger hold open Auxiliary stop in soffit shoe

6004 Extended Forearm

Slide Track Arm Featured with adjustable Hold Open Angle

60C-S Standard Slim Plastic Cover

6006



Parallel Rigid Arm Featured with solid steel main & forearm for extra heavy traffic use

0 For Top Jamb with reveal greater than 4" and up to 8"





Wide choice of options for different applications

**Optional Fuctions** 

Hold Open Arm (6001)

Finish (BHMA): US3 (632), US4 (633), US26 (651), US26D (652), US32D (630)

| Accessories  |         |         |     |     |
|--|---------|---------|-----|-----|
| 60DP-ST  | 0       | 0       | 0   | \$  |
| Size: 13-1/8 x 3-1/4"  | *       |         |     | *   |
| Drop Plate – Pull Side,  | or      |         |     |     |
| Concealed Door Holder  |         |         |     |     |
| Use for hinge side mount   |         |         |     |     |
| Upside-down to mount w   |         |         |     |     |
| holder prevents normal d   |         |         |     | ing |
| Plate require 2-7/16" mini   |         | top ra  | all |     |
| 60DP-TJ<br>Size: 13-1/8 x 3-5/8"   | \$      | 0       | 0   | *   |
| Drop Plate – Top Jamb  | *       |         |     | *   |
| Apply to low ceiling cleara  | nco h   | otwo    | on  |     |
| 1-1/2" ~ 1-3/4"  |         | Jeiwe   | CII |     |
| 60DP-PAS   |         |         |     |     |
| Size: 13-1/8 x 3-5/8"  |         |         |     |     |
| Drop Plate – Parallel Ar   | m       |         |     |     |
| Plate require 2-7/8" minim   | num te  | op rail |     |     |
| Cross reference: NORTC   | N #3    | 148     |     |     |
| 60DP-PA  | <b></b> | +       | +   | +   |
| Size: 13-1/8 x 5"  | *       |         |     |     |
|  |         |         |     |     |
| Drop Plate –   | *       |         |     | *   |
| Parallel arm mount   | -       |         |     | *   |
| Parallel arm mount<br>Used to mount a closer o                                   | -       | p rail  | as  | *   |
| Parallel arm mount   | -       | p rail  | as  | ÷   |
| Parallel arm mount<br>Used to mount a closer o                                   | -       | p rail  |     |     |
| Parallel arm mount<br>Used to mount a closer o<br>narrow as 3" in height<br>1344 | -       | p rail  |     |     |

### **4400** SERIES

### **ANSI GRADE 1**

ANSI/BHMA A156.4

Series 2000, PT1

UL10C Positive Pressure Rated. Conforms to UBC 7-2 (1997). (Uniform Building Code Standard) Exceeds 1,500,000 cycles with Backcheck LISTED

**ANSI GRADE 1** 4400 Series

**25-Year Warranty** 



ADVANTA

### Model 4400

Adjustable power size 1-6 with Back Check

### Applications

- Heavy Duty Commercial model, ideal for high traffic door Versatile for new constructions, such as schools, hospitals, and public institutions
- Universal mounting hole pattern Size 4: CTC 9-1/16" x 3/4"
- Tri-packed for all type applications
- Sex-bolts included for Metal Door mounting

### Features

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- Multi-size spring adjustable power size 1-6, factory preset size 3
- 4400 meets ADA, Barrier Free interior
- Standard with adjustable Backcheck

### **Product Specification**

| Material | Aluminum alloy body, forged steel arm<br>Heat treated forged steel piston |
|----------|---|
|          | Double Heat treated Steel pinion  |
| Cover    | Full plastic cover – standard   |
| Valves   | Triple valve control for Closing speed, Latching speed, and               |
|          | Back-check  |
|          | Staked valve for power adjustment   |
| Arm &    | Standard arm and parallel bracket included for different                  |
| Brackets | mounting demand   |
| Screws   | Self-tapping wood screws, machine screws, and sex-bolts                   |
| Finishes | Aluminum, Duronotic, and Gold   |
|          |   |

### **Optional Fuctions**

Comply with

ANSI A117.1

- Hold Open Arm (4001)
- Drop Plate (see Accessories)

### \* Special Order from the factory

 Metal Cover (Slim Cover with power size 1-4 only) Finish (BHMA): US3 (632), US4 (633), US26 (651), US26D (652), US32D (630)

### **Technical Dimensions**

| Series 5000, 4400            | Size    |         |          | A          |
|------------------------------|---------|---------|----------|------------|
| A. Length of Closer Body     | 9-3/4"  | 9-3/4"  |          | в в        |
| B. Horizontal Mounting Holes | 9-1/16" | 9-1/16" |          |            |
| C. Vertical Mounting Holes   | 3/4"    | 3/4"    |          |            |
| D. Height of Closer Body     | 1-3/4"  | 1-3/4"  |          |            |
| E. Projection from Door      | 2-7/8"  | 2-7/8"  | End View | Front View |

#### **Accessories** 40C 40DP-TJ Hold-open Arm Standard Full Size: 9-3/4" x 2-9/16" Stand for pull side **Plastic Cover** Drop Plate - Top Jamb and top jamb low ceiling clearance Use with PA bracket for parallel arm mount For use when ceiling clearance is between 1-3/4" and 2-5/8" 1344 Cross reference: NORTON #1687 Flat Wrench Sex-bolt with screw 40DP-PA For 1-3/4" standard Door Thick For Hold Open Arm Size: 9-3/4" x 3-1/2" **Drop Plate – Parallel** BSS02 arm mount Parallel Bracket **Blade Stop Spacer**

Used to mount a closer on a top rail as narrow as 2-5/8" in height

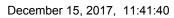


Design to lower parallel arm shoe to clear 1/2" (13 mm) blade stop



for Hold Open Arm mounting can also use

for regular parallel arm application



7

4001

HFW01

**PAB02** 

### 4000, 3000, 2000 SERIES ANSI GRADE 2

**GRADE 2** Factory tested to meet

ANSI Grade 2 durability

**UL10C Positive Pressure** Rated. Conforms to UBC 7-2 (1997). (Uniform Building Code Standard) LISTED

**10-Year Warranty** 



### Model

| model |                       |
|-------|-----------------------|
| 4000  | Standard power size 4 |
| 3000  | Standard power size 3 |
| 2000  | Standard power size 2 |
|       |                       |

### **Applications**

- Medium and Light Duty model Medium Duty 4000 Light Duty 3000, 2000
- Universal mounting hole pattern Size 4: CTC 9-1/16" x 3/4" Size 3: CTC 8-3/16" x 3/4" Size 2: CTC 6-5/8" x 3/4"



### **Product Specification**

| Material | Aluminum alloy body, forged steel arm<br>Heat treated forged steel piston |
|----------|---|
|          | Double Heat treated Steel pinion  |
| Valves   | Dual valves control for Closing speed and                                 |
|          | Latching speed.   |
| Arm &    | Standard arm and parallel bracket included for different                  |
| Brackets | mounting demand   |
| Screws   | Wood screws and machine screws  |
| Finishes | Aluminum, Duronotic, and Gold   |

### **Optional Fuctions**

- Hold Open Arm (3001, 4001)
- Drop Plate (See Accessories)
- Sex-bolts (Metal door mounting)
- Full plastic cover, available for 4000 series only (40C)

### Technical Dimensions

| Series 4000, 3000, 2000      | Size    |         |         |          | • A•       |
|------------------------------|---------|---------|---------|----------|------------|
| A. Length of Closer Body     | 9-3/4"  | 8-3/4"  | 7-5/16" |          |            |
| B. Horizontal Mounting Holes | 9-1/16" | 8-3/16" | 6-5/8"  |          |            |
| C. Vertical Mounting Holes   | 3/4"    | 3/4"    | 3/4"    |          | •          |
| D. Height of Closer Body     | 1-3/4"  | 1-3/4"  | 1-3/4"  | ► E →    |            |
| E. Projection from Door      | 2-7/8"  | 2-7/8"  | 2-5/8"  | End View | Front View |

### **Accessories**

4001

Hold-open Arm For 4000 Series

Pull side and top jamb Use with PA bracket for parallel arm mount

<u>...</u>

HFW01 Flat Wrench For Hold Open Arm

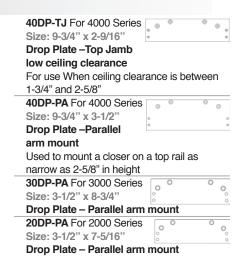
**PAB02** 

Parallel Bracket for Hold Open Arm mounting can also use for regular parallel arm application



40C For 4000 Series Standard Full **Plastic Cover** 

1344 Sex-bolt with screw For 1-3/4" standard Door Thick







# **ORDER INFORMATION**

### **Product Availabilities**

| Series   | Power Size         | Duty        | Function Availability |   |                                 | Accessories |                    |                       |                   |               |              |                  |                |
|----------|--------------------|-------------|-----------------------|---|---------------------------------|-------------|--------------------|-----------------------|-------------------|---------------|--------------|------------------|----------------|
|          |                    |             | Back<br>Check         |   | Hold Open with<br>Hold Open Arm |             | Cush &<br>Stop Arm | Parallel<br>Rigid Arm | Side<br>Track Arm | Drop<br>Plate | Sex-<br>Bolt | Plastic<br>Cover | Metal<br>Cover |
| 9000     | Adjustable No. 1-6 | Heavy       |                       |   | •                               | •           | •                  | •                     |                   | •             | •            |                  | ٠              |
| 9000/DA  | Adjustable No. 1-6 | Heavy       |                       | • | •                               | •           |                    | •                     |                   | ٠             | ٠            | •                |                |
| 8000     | Adjustable No. 1-6 | Extra Heavy |                       |   | •                               | •           | •                  | •                     | •                 | •             | •            | •                |                |
| 8000/DA  | Adjustable No. 1-6 | Extra Heavy |                       | • | •                               | •           | •                  | •                     | •                 | •             | •            | •                |                |
| 6000     | Adjustable No. 1-6 | Heavy       |                       |   | •                               | •           | •                  | •                     | •                 | •             | •            | •                |                |
| 6000S    | Adjustable No. 1-6 | Heavy       |                       |   | •                               | •           | •                  | •                     | •                 | •             | •            | •                |                |
| 6000/DA  | Adjustable No. 1-6 | Heavy       |                       | • | •                               | •           | •                  | •                     | •                 | •             | •            | •                |                |
| 6000S/DA | Adjustable No. 1-6 | Heavy       |                       | • | •                               | •           | •                  | •                     | •                 | •             | •            | •                |                |
| 4400     | Adjustable No. 1-6 | Heavy       | •                     |   | •                               |             |                    |                       |                   | •             | •            | •                |                |
| 4000     | No. 4              | Medium      |                       |   | •                               |             |                    |                       |                   | •             | •            | •                |                |
| 3000     | No. 3              | Light       |                       |   | •                               |             |                    |                       |                   | •             | •            |                  |                |
| 2000     | No. 2              | Light       |                       |   |                                 |             |                    |                       |                   | •             | •            |                  |                |

Standard or optional

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• Special order from the factory, allow for longer lead time. Please call for more information

| ADVANTAGE® Door Closers                                     | Power Size    | Ρ | Product Code |        |        |  |  |  |  |  |
|---|---------------|---|--------------|--------|--------|--|--|--|--|--|
| Adjustable Power with Back-C                                | heck (BC)     |   | Aluminum     | Duro   | Gold   |  |  |  |  |  |
| 9000  | No. 1-6 BC    | Ŀ | 609910       | 609911 | 609912 |  |  |  |  |  |
| 8000  | No. 1-6 BC    | F | 608810       | 608811 | 608812 |  |  |  |  |  |
| 6000  | No. 1-6 BC    | Ŀ | 606710       | 606711 | 606712 |  |  |  |  |  |
| 6000S (Slim Cover)  | No. 1-6 BC    | F | 606730       | 606731 | 606732 |  |  |  |  |  |
| 4400  | No. 1-6 BC    | F | 604410       | 604411 | 604412 |  |  |  |  |  |
| Adjustable Power with Back-Check (BC) and Delay Action (DA) |               |   |              |        |        |  |  |  |  |  |
| 9000/DA   | No. 1-6 BC DA | F | 609940       | 609941 | 609942 |  |  |  |  |  |
| 8000/DA   | No. 1-6 BC DA | F | 608840       | 608841 | 608842 |  |  |  |  |  |
| 6000/DA   | No. 1-6 BC DA | F | 606740       | 606741 | 606742 |  |  |  |  |  |
| 6000S/DA (Slim Cover)                                       | No. 1-6 BC DA | F | 606750       | 606751 | 606752 |  |  |  |  |  |
| Fixed Power Size  |               |   |              |        |        |  |  |  |  |  |
| 4000  | No. 4         |   | 604010       | 604011 | 604012 |  |  |  |  |  |
| 3000  | No. 3         |   | 603300       | 603301 | 603302 |  |  |  |  |  |
| 2000  | No. 2         |   | 602200       | 602201 | 602202 |  |  |  |  |  |





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# **CROSS REFERENCE**

| <b>ADVANTAGE®</b> | 9000             | 8000             | 6000     | 6000S    | 4400          | 4000         | 3000         | 2000             |  |
|-------------------|------------------|------------------|----------|----------|---------------|--------------|--------------|------------------|--|
| Spring Power Size | 1 – 6            | 1 – 6            | 1 – 6    | 1 – 6    | 1 – 6         | 4            | 3            | 2<br>6-5/8" x ¾" |  |
| CTC Hole Pattern  | 11-1/8" x 1-1/8" | 5" x 2-1/4" x 1" | 12" x ¾" | 12" x ¾" | 9-1/16" x ¾"  | 9-1/16" x ¾" | 8-3/16" x ¾" |                  |  |
| CAL-ROYAL         | N900-PBF         | CR441            | CR801    | CR801S   | 300           | 740          | 730          | • 720            |  |
|                   |                  |                  |          |          |               | 440-FP       | 430-P        | • 420-P          |  |
| CRL               | PR74BC           | PR90             |          |          | • PR80/PR82BF | DC54         | DC53         | DC52             |  |
|                   |                  |                  |          |          | PR80 Size 2-5 | Size 4       | Size 3       | Size 2           |  |
| DESIGN            |                  | 416              | 316      |          | 116           | 100          | 100          | 100              |  |
| HARDWARE          |                  |                  |          |          |               |              |              |                  |  |
| DORMA             |                  | • 8916           | 8616     |          | • 7400        | • 7304       | • 7303       |                  |  |
|                   |                  |                  |          |          |               | • 7204       | • 7203       |                  |  |
| FALCON            |                  | SC70             | SC81     |          | • SC60/SC61   | SC64         | • SC93       |                  |  |
| DOR-O-MATIC       |                  |                  |          |          | SC60 Size 2-5 | SC94         |              |                  |  |
| GLOBAL            | • TC600          | TC4300           | TC500    | TC400    | TC200         | TC204        | TC2203       | • TC302          |  |
| DOOR CONTROL      |                  |                  |          |          |               |              |              | • TC2202         |  |
| HAGER             |                  | 5100             | 5200     |          | 5300          | 5400         | • 5400       | • 5400           |  |
| INTERNATIONAL     | • 9000           | 44CI             | 5000     |          | 8050          | 854          | 853          | ● 852            |  |
| DOOR CLOSER       |                  |                  |          |          |               | • 754        | 753          | • 752            |  |
|                   |                  |                  |          |          |               | 654          | 653          | 652              |  |
| LCN               |                  | 4040             |          |          | • 1260        |              |              |                  |  |
|                   |                  |                  |          |          | Size 1-5      |              |              |                  |  |
| NORTON            |                  | • 7500           | 8501     | 8301     | 1600          |              |              |                  |  |
| PDQ               |                  | 7100             | 5300     |          | 1100/3100     | 1100/3100    |              |                  |  |
| Manufacturing     |                  |                  |          |          |               |              |              |                  |  |
| SARGENT           | • 1431           | • 281            | 1331     |          | 1130          | 1134         |              |                  |  |
| S.PARKER          | 900BC            |                  |          |          | • BF900       | 534          | 533          | • 532            |  |
|                   |                  |                  |          |          | 814BC         |              |              |                  |  |
| TAYMOR            | 1900             |                  |          |          | • 800/800BF   | 604          | • 603        | 602              |  |
|                   |                  |                  |          |          | 800 Size 2-5  |              |              |                  |  |
| TELL              | • 700            | 900              | 800      |          | 600           | 500          |              |                  |  |
| YALE              |                  | 4400             | 3501     | 3301     | 50            | • 5104       | • 5103       | • 5102           |  |
|                   |                  |                  | YMDC2501 |          | YMDC1101      |              |              |                  |  |

• The same mounting hole pattern with similar application • Different mounting hole pattern in the same power size All brand names & trademarks used are properties of their respective owners



ADVANTACE by Philadelphia hardware group

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