DORMA

8900

Surface Applied Door Closers

8900 SERIES HEAVY-DUTY SURFACE CLOSERS

Versatile, durable, and reliable, featuring modern styling for institutional or high-traffic commercial applications.

DORMA'S 8900 Series, Grade 1 hydraulic surface closers are housed in corrosion-resistant aluminum with a hardened pinion/piston providing toughness and high-strength. The arm hub is made from forged steel.

Standard on the 8900 Series closers are backcheck positioning with two adjustment valves, adjustable spring sizes from 1–6. Independently certified to 10 million, the 8900 Series closers are ideal for a variety of heavy-duty, as well as barrier-free, applications.

CONTENTS

DORMA USA quality and environmental management systems in Reamstown, PA and Steeleville, IL are certified to ISO 9001:2008 and ISO 14001:2004.

Technical Details

- Available as 8916 with fully adjustable spring sizes 1–6. Size 1 (5 lb opening force) meets interior barrier-free AD requirements.
- 8916 may be used on doors up to 48" wide interior (42" wide exterior) and up to 180 lb.
- 8956 available with adjustable spring sizes of 5–6 +50% for use on exceptionally wide, tall, or heavy doors.
- Non-handed for regular, top jamb, and parallel arm applications.
- Backcheck (BC) valve (standard) provides adjustable-intensity hydraulic cushioning, preventing uncontrolled door opening to protect door and frame during abusive or abrupt opening.
- POS backcheck positioning valve (standard) maintains an effective backcheck range on parallel arm applications. Valve is accessible with the closer installed.
- Full adjustment using BC, POS, Sweep and Latch valves standard.
- Optional delayed action (DA) adjustable with separate independent valve to allow for unobstructed passage through opening.
- Full plastic cover standard. Full metal or full plastic slotted covers optional.
- All tamper-resistant (hex key) valve adjustments (including POS) accessible with closer installed.
- Standard components required for three most popular mounting configurations (Reg., TJ, PA).
- Standard fasteners include separate wood and metal screws and SN1 sex nuts for 1-3/4" thick doors.
- Full-sized templates enable accurate installation.
- A variety of specialty arm options, interchangeable across most DORMA surface closer models.
- Full complement of optional plates and brackets available for special applications.
- Screw options include self-drilling and tapping screws (DPK89) for steel door and frame applications or self-tapping screws (TPK89) for aluminum door and frame applications.
- Stainless steel (STA Series) model available (see STA brochure for details).
- Available with holder/release with (EMR Series) or without (EMF Series) photoelectric detector to control spread of smoke and fire (see EMR/EMF brochure for details).

Certifications

- ANSI/BHMA A156.4 Grade 1 certified.
- UL and CUL listed.
- Meets UL10C for positive pressure.
- Meets ANSI/BHMA A117.1 and ADA for barrier-free accessibility.
- CSFM approved.

Specification

The heavy-duty 8900 Series non-handed surface applied door closer with adjustable spring power and backcheck positioning adjustment. The 8900 has two independent, noncritical adjustment valves to control sweep and latch closing speeds. The backcheck positioning valve maintains an effective backcheck range on parallel arm applications. The 8916 will be available with field adjustable spring power from size 1–6 for barrier-free requirements. All closers to have field adjustable spring power from size 1–6 and meet barrier-free requirements. The 8956 will be adjustable size 5 to 6 +50% additional closing force over the size 6. All 8900 fully adjustable spring force door closers to include an integral design to positively stop adjustment of the spring at the minimum and maximum spring force settings.

Optional Specifications:

The 8600 Series closer will have delayed action (DA). Delayed action range will be effective from maximum opening to approximately 65°. All 8900 closers to have full metal covers. All 8900 closers to have sex nuts with machine screws for 1-3/8" door (SN2). Closers to have self-drilling screws for steel doors and frames (DPK86). Closers to have self-tapping screws for aluminum doors and frames (TPK86). Closers to have TORX security for all exposed fasteners (TX89).

Finishes

Standard Sprayed Finishes

- Aluminum: 689
- Bronze: 691 (Dull), 690 (Statuary), or 695 (Dark Duranodic)
- Gold: 696
- Black: 693

Optional DORMA Custom Color or Designer Color Finishes

Contact Customer Service.

Optional Plated/ Architectural Finishes

- Brass: 605 (Bright) or 606 (Satin)
- Bronze: 611 (Bright), 612 (Satin), or 613 (Oxidized Satin Oil Rubbed)
- Nickel: 618 (Bright) or 619 (Satin)
- Chrome: 625 (Bright) or 626 (Satin)
- Stainless: 630 (Satin)

Warranty

For details, refer to **DORMA Limited Warranty** on our website at **go.dorma.com/terms.**

REDUCED OPENING FORCE INSTALLATIONS CAUTION

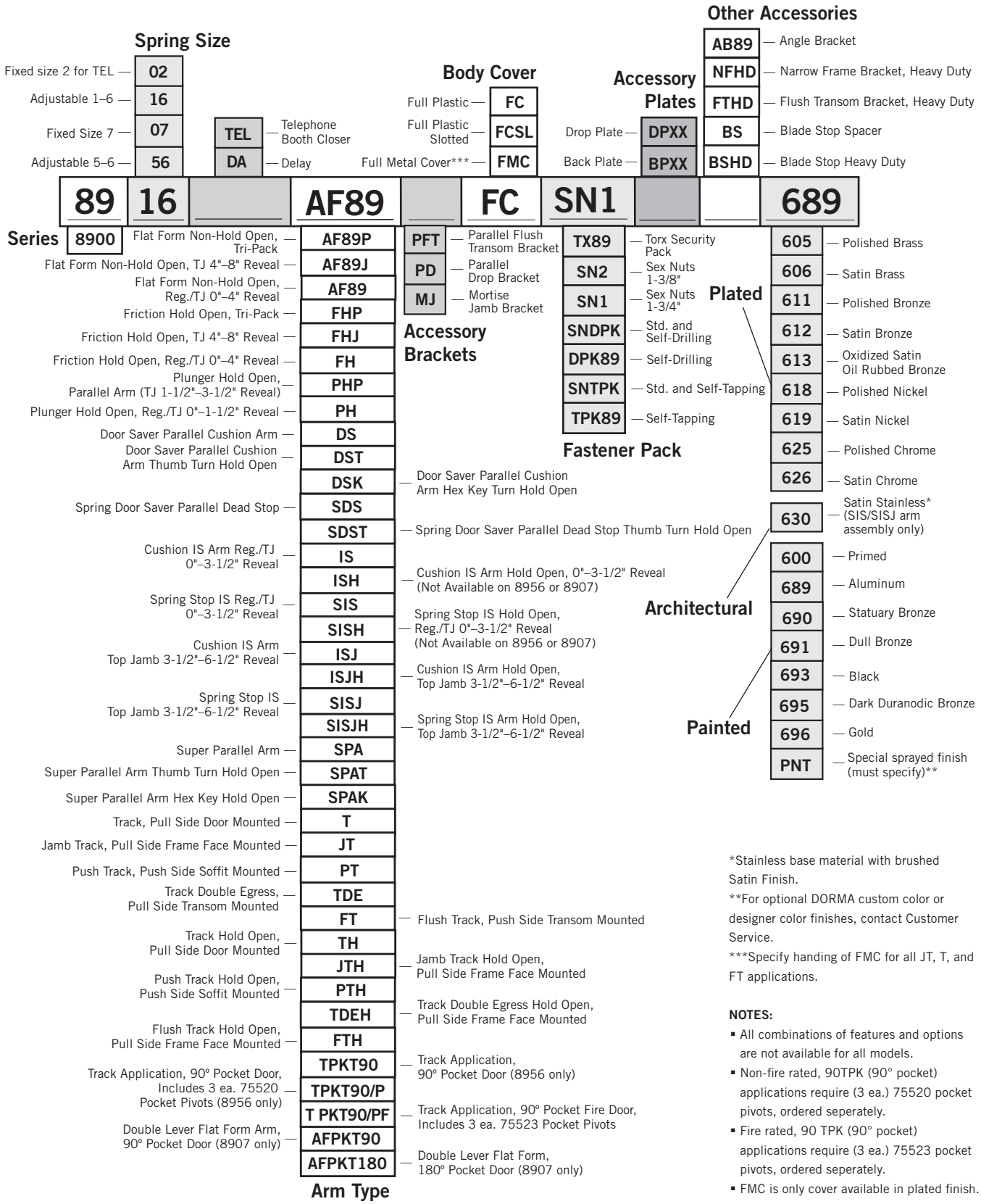
Manual door closers, including those certified to meet ANSI/ BHMA A156.4, when installed and adjusted to conform to ADA or other reduced opening force requirements, may not provide sufficient power to reliably close and latch a door.

Refer to catalog for Low Energy Operators to meet reduced opening force requirements without affecting closing power.

Features	8916	8956
Spring size (8916 shipped as size 4)	1–6	5–6 + 50%
Non-handed	•	•
Parallel arm bracket	•	•
Full line of specialty function arms and plates	•	•
Backcheck positioning adjustment	•	•
Controlled closing with two adjustment valves	180°–15° 15°–0°	180°–15° 15°–0°
Backcheck	•	•
Hydraulic delayed action	○	○
Hold open	○	○
SN1 sex nuts for 1-3/4" thick doors included	•	•
Self-drilling screws	○	○
Self-tapping screws	○	○
Tamper-resistant TORX screws	○	○
Full cover (plastic)	•	•
Full cover (metal)	○	○

• standard ○ optional

HOW TO ORDER 8900 SERIES



*Stainless base material with brushed Satin Finish.

**For optional DORMA custom color or designer color finishes, contact Customer Service.

***Specify handing of FMC for all JT, T, and FT applications.

NOTES:

- All combinations of features and options are not available for all models.
- Non-fire rated, 90TPK (90° pocket) applications require (3 ea.) 75520 pocket pivots, ordered seperately.
- Fire rated, 90 TPK (90° pocket) applications require (3 ea.) 75523 pocket pivots, ordered seperately.
- FMC is only cover available in plated finish.

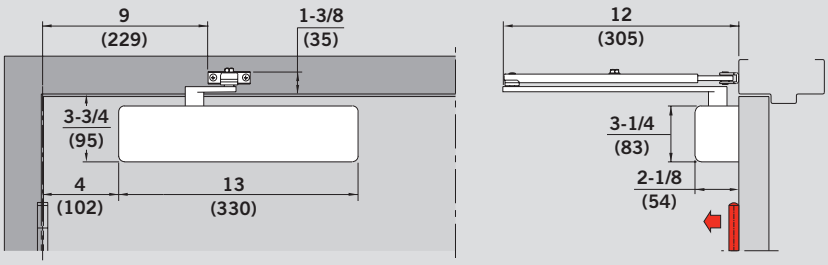
Technical Drawing Symbols & Notes

- • – Recommended application
- **N/A** – Not applicable/application not recommended
- ♿ – Opening force 5 lb or less on interior doors

NOTE: The effective degree at which the backcheck occurs is determined by a **backcheck positioning** adjustment. Specifically designed for parallel arm applications, it advances the backcheck to an approximate range similar to regular and top jamb applications. The backcheck range(s) shown with each parallel arm technical drawing reflects an **on** status. Regular, top jamb, and track ranges reflect an **off** status. The 8900 Series closer is shipped with the backcheck positioning valve on.

REGULAR × FLAT FORM ARM

8916 AF89
8956 AF89



4-1/2" × 4-1/2" Butt Hinges

Minimum door rail for mounting closer 3-3/8".
Minimum door rail to bottom of cover 3-5/8".

Size Selection Chart

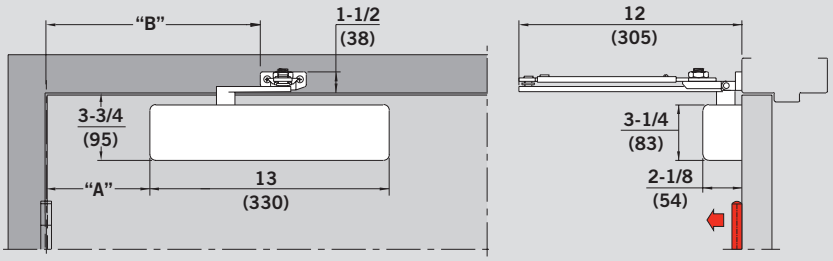
		Door Width						
Closer	**Interior/ Exterior**	2'-0" min.	2'-6" max.	3'-0" max.	3'-6" max.	4'-0" max.	4'-6" max.	5'-0" max.
8916	Interior	•	•	♿	♿	♿	♿	N/A
	Exterior	•	•	•	•	•	N/A	N/A
8956	Interior	N/A	N/A	N/A	N/A	•	•	•
	Exterior	N/A	N/A	N/A	•	•	•	N/A

Maximum Opening	***Approximate Backcheck**	**Approximate Delayed Action**
180°	65°–180°	180°–65°

* Backcheck positioning valve factory preset to on, advancing backcheck approximately 15°.

REGULAR × FRICTION HOLD OPEN

8916 FH
8956 FH



4-1/2" × 4-1/2" Butt Hinges

Minimum door rail for mounting closer 3-3/8".
Minimum door rail to bottom of cover 3-5/8".

Size Selection Chart

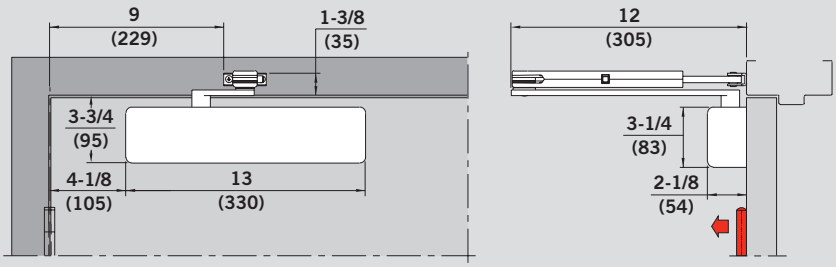
		Door Width						
Closer	**Interior/ Exterior**	2'-0" min.	2'-6" max.	3'-0" max.	3'-6" max.	4'-0" max.	4'-6" max.	5'-0" max.
8916	Interior	•	•	♿	♿	♿	♿	N/A
	Exterior	•	•	•	•	•	N/A	N/A
8956	Interior	N/A	N/A	N/A	N/A	•	•	•
	Exterior	N/A	N/A	N/A	•	•	•	N/A

Template Ref.	Dim "A"	Dim "B"	Approximate Maximum Opening	*Approximate Backcheck	Approximate Delayed Action	Min. Hold Open	Max. Hold Open
To 100°	5-3/4" (146)	11-5/8" (295)	130°	65°–130°	90°–65°	85°	110°
100° to 120°	3-3/4" (95)	8-7/8" (225)	180°	70°–180°	100°–70°	105°	170°

* Backcheck positioning valve factory preset to on, advancing backcheck approximately 15°

REGULAR × PLUNGER HOLD OPEN

8916 PH
8956 PH



4-1/2" × 4-1/2" Butt Hinges

Minimum door rail for mounting closer 3-3/8".
Minimum door rail to bottom of cover 3-5/8".

Size Selection Chart

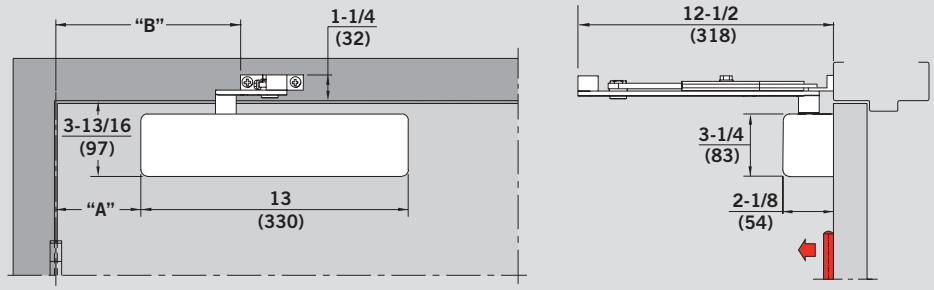
		Door Width						
Closer	**Interior/ Exterior**	2'-0" min.	2'-6" max.	3'-0" max.	3'-6" max.	4'-0" max.	4'-6" max.	5'-0" max.
8916	Interior	•	•	♿	♿	♿	♿	N/A
	Exterior	•	•	•	•	•	N/A	N/A
8956	Interior	N/A	N/A	N/A	N/A	•	•	•
	Exterior	N/A	N/A	N/A	•	•	•	N/A

Maximum Opening	*Approximate Backcheck	Approximate Delayed Action	Minimum Hold Open	Maximum Hold Open
180°	65°–180°	180°–70°	30°	140°

* Backcheck positioning valve factory preset to on, advancing backcheck approximately 15°.

REGULAR × CUSHION IS ARM

8916 IS/ISH
8956 IS/ISH



4-1/2" × 4-1/2" Butt Hinges

Minimum door rail for mounting closer 3-3/8".
Minimum door rail to bottom of cover 3-13/16".

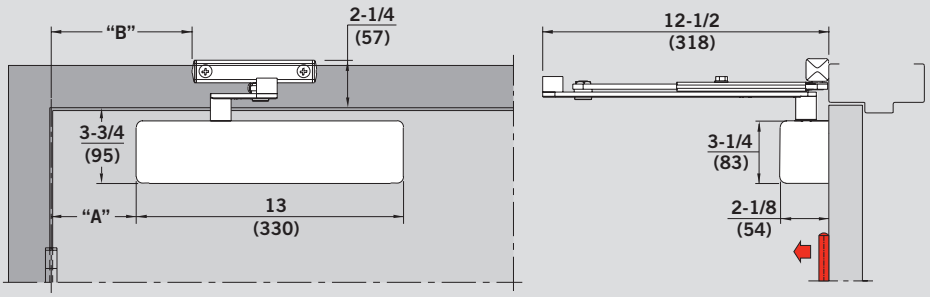
Size Selection Chart								
		Door Width						
Closer	**Interior/ Exterior**	2'-0" min.	2'-6" max.	3'-0" max.	3'-6" max.	4'-0" max.	4'-6" max.	5'-0" max.
8916	Interior	•	•	♿	♿	♿	♿	N/A
	Exterior	•	•	•	•	•	N/A	N/A
8956	Interior	N/A	N/A	N/A	N/A	•	•	•
	Exterior	N/A	N/A	N/A	•	•	•	N/A

Template Ref.	Dim "A"	Dim "B"	Cushion/ Hold Open	*Approximate Backcheck	Approximate Delayed Action
85°	5-3/4" (146)	13-5/8" (346)	85°	70°–85°	70°–85°
90°	5-1/8" (130)	13-1/4" (337)	90°	70°–90°	70°–90°
95°	4-5/16" (110)	13" (330)	95°	70°–95°	70°–95°
100°	5-1/4" (133)	12-3/8" (314)	100°	70°–100°	70°–100°
105°	3-3/4" (95)	12" (305)	105°	75°–105°	70°–105°
110°	3-3/8" (92)	11-5/8" (295)	110°	75°–110°	70°–110°

* Backcheck positioning valve factory preset to on, advancing backcheck approximately 15°

REGULAR × SPRING STOP IS ARM

8916 SIS/SISH
8956 SIS/SISH



4-1/2" × 4-1/2" Butt Hinges

Minimum door rail for mounting closer 3-3/8".
Minimum door rail to bottom of cover 3-3/4".

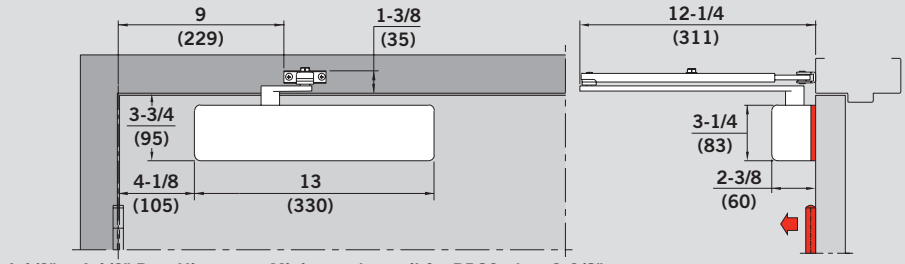
Size Selection Chart						
		Door Width				
Closer	**Interior/ Exterior**	2'-0" min.	2'-6" max.	3'-0" max.	3'-6" max.	4'-0" max.
8916	Interior	•	•	♿	♿	♿
	Exterior	•	•	•	•	•
8956	Interior	N/A	N/A	N/A	N/A	•
	Exterior	N/A	N/A	N/A	•	•

Template Ref.	Dim "A"	Dim "B"	**Dead Stop/ Hold Open	*Approximate Backcheck	Approximate Delayed Action
85°	8-7/8" (226)	11-9/16" (294)	85°	60°–85°	70°–85°
90°	8-1/4" (210)	10-15/16" (278)	90°	60°–90°	70°–90°
100°	7-3/8" (188)	10-1/16" (256)	100°	70°–100°	70°–100°
110°	6-5/8" (168)	9-5/16" (237)	110°	70°–110°	70°–110°

*Backcheck positioning valve factory preset to on, advancing backcheck approximately 15°.
** Hold open is approximately 5°–7° less than the dead stop angle listed in the chart.

REGULAR × FLAT FORM ARM × BACKPLATE

8916 AF89 BP89
8956 AF89 BP89



4-1/2" x 4-1/2" Butt Hinges

Minimum door rail for BP89 plate 3-3/8".
Minimum door rail to bottom of plate/cover 3-5/8".

Size Selection Chart

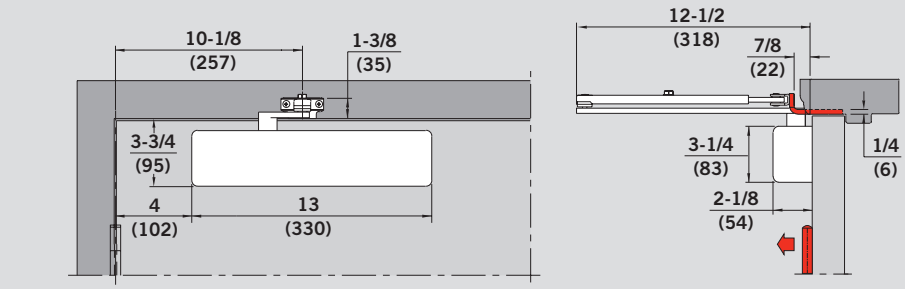
		Door Width						
Closer	**Interior/ Exterior**	2'-0" min.	2'-6" max.	3'-0" max.	3'-6" max.	4'-0" max.	4'-6" max.	5'-0" max.
8916	Interior	•	•	♿	♿	♿	♿	N/A
	Exterior	•	•	•	•	•	N/A	N/A
8956	Interior	N/A	N/A	N/A	N/A	•	•	•
	Exterior	N/A	N/A	N/A	•	•	•	N/A

Maximum Opening	***Approximate Backcheck**	**Approximate Delayed Action**
180°	65°–180°	180°–70°

* Backcheck positioning valve factory preset to on, advancing backcheck approximately 15°.

REGULAR × FLAT FORM ARM × MORTISED JAMB BRACKET

8916 AF8MJ
8956 AF8MJ



4-1/2" x 4-1/2" Butt Hinges

Minimum door rail for mounting closer 3-3/8".
Minimum door rail to bottom of cover 3-5/8".

Size Selection Chart

		Door Width						
Closer	**Interior/ Exterior**	2'-0" min.	2'-6" max.	3'-0" max.	3'-6" max.	4'-0" max.	4'-6" max.	5'-0" max.
8916	Interior	•	•	♿	♿	♿	♿	N/A
	Exterior	•	•	•	•	•	N/A	N/A
8956	Interior	N/A	N/A	N/A	N/A	•	•	•
	Exterior	N/A	N/A	N/A	•	•	•	N/A

Maximum Opening	***Approximate Backcheck**	**Approximate Delayed Action**
180°	80°–180°	180°–65°

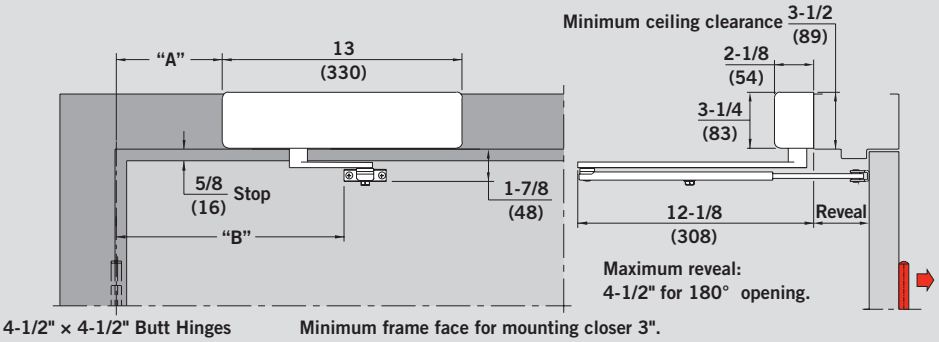
* Backcheck positioning valve factory preset to on, advancing backcheck approximately 15°.

TOP JAMB × FLAT FORM ARM

8916 AF89J
(>4" to 8" reveal)

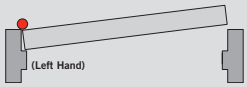
8956 AF89J
(>4" to 8" reveal)

NOTE: Use AF89 for reveal ≤4"



4-1/2" × 4-1/2" Butt Hinges

Minimum frame face for mounting closer 3".
Specify hand.



Size Selection Chart

		Door Width						
Closer	**Interior/ Exterior**	2'-0" min.	2'-6" max.	3'-0" max.	3'-6" max.	4'-0" max.	4'-6" max.	5'-0" max.
8916	Interior	•	•	♿	♿	♿	♿	N/A
	Exterior	•	•	•	•	•	N/A	N/A
8956	Interior	N/A	N/A	N/A	N/A	•	•	•
	Exterior	N/A	N/A	N/A	•	•	•	N/A

Template Ref.	**Dim "A"**	**Dim "B"**	**Reveal**	**Arm**	**Approximate Maximum Opening**	***Approximate Backcheck**	**Approximate Delayed Action**
To 100°	5-3/4" (146)	12-3/8" (314)	0"	AF89	115°	70°–115°	115°–60°
			4"	AF89	120°	75°–120°	120°–70°
To 100°	**5-3/4" (146)**	**12-3/8" (314)**	**>4"**	**AF89J**	**120°**	**75°–120°**	**120°–70°**
			8"	**AF89J**	**125°**	**80°–125°**	**125°–70°**
Over 100°	1-3/4" (44)	8-3/8" (213)	0"	AF89	180°	85°–180°	180°–80°
			4"	AF89	180°	95°–180°	180°–95°
Over 100°	**1-3/4" (44)**	**8-3/8" (213)**	**>4"**	**AF89J**	**180°**	**95°–180°**	**180°–95°**
			8"	**AF89J**	**160°**	**105°–160°**	**160°–100°**

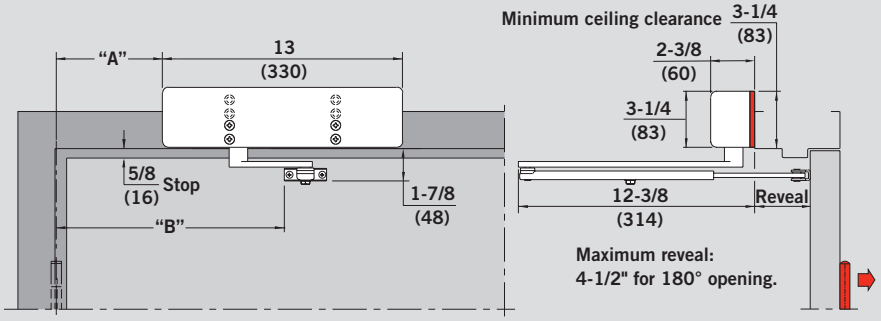
*Backcheck positioning valve factory preset to on, advancing backcheck approximately 15°.
NOTE: Bold type shows supplied arm.

TOP JAMB × FLAT FORM ARM × BACKPLATE

8916 AF89J BP89
(>4" to 8" reveal)

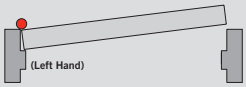
8956 AF89J BP89
(>4" to 8" reveal)

NOTE: Use AF89 BP89 for reveal ≤4"



4-1/2" × 4-1/2" Butt Hinges

Minimum frame face for mounting BP89 plate 1-5/8".
Specify hand.



Size Selection Chart

		Door Width						
Closer	**Interior/ Exterior**	2'-0" min.	2'-6" max.	3'-0" max.	3'-6" max.	4'-0" max.	4'-6" max.	5'-0" max.
8916	Interior	•	•	♿	♿	♿	♿	N/A
	Exterior	•	•	•	•	•	N/A	N/A
8956	Interior	N/A	N/A	N/A	N/A	•	•	•
	Exterior	N/A	N/A	N/A	•	•	•	N/A

Template Ref.	**Dim "A"**	**Dim "B"**	**Reveal**	**Arm**	**Approximate Maximum Opening**	***Approximate Backcheck**	**Approximate Delayed Action**
To 100°	5-3/4" (146)	12-3/8" (314)	0"	AF89	115°	70°–115°	115°–60°
			4"	AF89	120°	75°–120°	120°–70°
To 100°	**5-3/4" (146)**	**12-3/8" (314)**	**>4"**	**AF89J**	**120°**	**75°–120°**	**120°–70°**
			8"	**AF89J**	**125°**	**80°–125°**	**125°–70°**
Over 100°	1-3/4" (44)	8-3/8" (213)	0"	AF89	180°	85°–180°	180°–80°
			4"	AF89	180°	95°–180°	180°–95°
Over 100°	**1-3/4" (44)**	**8-3/8" (213)**	**>4"**	**AF89J**	**180°**	**95°–180°**	**180°–95°**
			8"	**AF89J**	**160°**	**105°–160°**	**160°–100°**

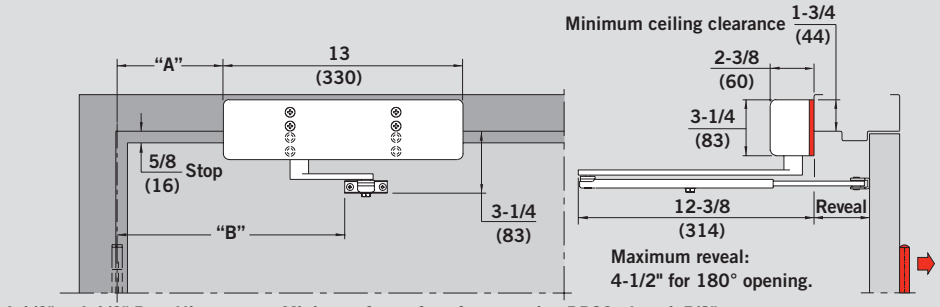
*Backcheck positioning valve factory preset to on, advancing backcheck approximately 15°.
NOTE: Bold type shows supplied arm.

TOP JAMB DROP × FLAT FORM ARM × BACKPLATE

8916 AF89J BP89
(>4" to 8" reveal)

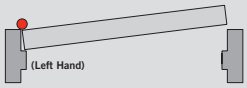
8956 AF89J BP89
(>4" to 8" reveal)

NOTE: Use AF89 for reveal ≤4"



4-1/2" × 4-1/2" Butt Hinges

Minimum frame face for mounting BP89 plate 1-5/8". Specify hand.



Size Selection Chart

Closer	Interior/ Exterior	Door Width 2'-0" min.	2'-6" max.	3'-0" max.	3'-6" max.	4'-0" max.	4'-6" max.	5'-0" max.
8916	Interior	•	•	♿	♿	♿	♿	N/A
	Exterior	•	•	•	•	•	N/A	N/A
8956	Interior	N/A	N/A	N/A	N/A	•	•	•
	Exterior	N/A	N/A	N/A	•	•	•	N/A

Template Ref.	Dim "A"	Dim "B"	Reveal	Arm	Approximate Maximum Opening	*Approximate Backcheck	Approximate Delayed Action
To 100°	5-3/4" (146)	12-3/8" (314)	0"	AF89	115°	70°–115°	115°–60°
			4"	AF89	120°	75°–120°	120°–70°
To 100°	**5-3/4" (146)**	**12-3/8" (314)**	**>4"**	**AF89J**	**120°**	**75°–120°**	**120°–70°**
			8"	**AF89J**	**125°**	**80°–125°**	**125°–70°**
Over 100°	1-3/4" (44)	8-3/8" (213)	0"	AF89	180°	85°–180°	180°–80°
			4"	AF89	180°	95°–180°	180°–95°
Over 100°	**1-3/4" (44)**	**8-3/8" (213)**	**>4"**	**AF89J**	**180°**	**95°–180°**	**180°–95°**
			8"	**AF89J**	**160°**	**105°–160°**	**160°–100°**

*Backcheck positioning valve factory preset to on, advancing backcheck approximately 15°.

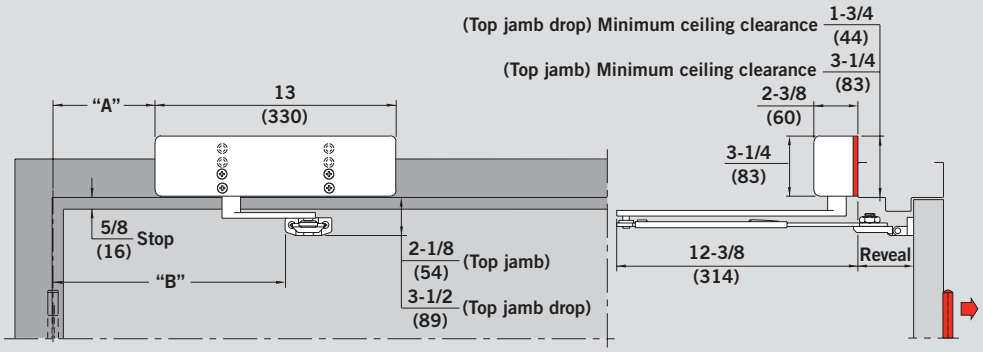
NOTE: Bold type shows supplied arm.

TOP JAMB × FRICTION HOLD OPEN × BACKPLATE

8916 FHJ BP89
(>3-1/4" to 8" reveal)

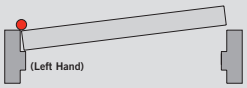
8956 FHJ BP89
(>3-1/4" to 8" reveal)

NOTE: Use FH BP89 for reveal ≤3-1/4"



4-1/2" × 4-1/2" Butt Hinges

Minimum frame face for mounting BP89 plate 1-5/8". Specify hand.



Size Selection Chart

Closer	Interior/ Exterior	Door Width 2'-0" min.	2'-6" max.	3'-0" max.	3'-6" max.	4'-0" max.	4'-6" max.	5'-0" max.
8916	Interior	•	•	♿	♿	♿	♿	N/A
	Exterior	•	•	•	•	•	N/A	N/A
8956	Interior	N/A	N/A	N/A	N/A	•	•	•
	Exterior	N/A	N/A	N/A	•	•	•	N/A

Template Ref.	Dim "A"	Dim "B"	Reveal	Arm	Approx. Maximum Opening	*Approx. Backcheck	Approx. Delayed Action	Min. Hold Open	Max Hold Open
To 100°	7-3/4" (197)	12-1/2" (318)	0"	FH	103°	70°–105°	105°–65°	70°	100°
			4"	FH	104°	70°–105°	105°–70°	70°	100°
To 100°	**7-3/4" (197)**	**12-1/2" (318)**	**>3-1/4"**	**FHJ**	**104°**	**65°–105°**	**105°–65°**	**70°**	**100°**
			8"	**FHJ**	**104°**	**70°–105°**	**105°–70°**	**70°**	**100°**
Over 100°	3-1/2" (89)	8-1/4" (210)	0"	FH	180°	85°–180°	180°–85°	70°	170°
			4"	FH	180°	95°–180°	180°–95°	70°	170°
Over 100°	**3-1/2" (89)**	**8-1/4" (210)**	**>3-1/4"**	**FHJ**	**180°**	**90°–180°**	**180°–90°**	**70°**	**170°**
			8"	**FHJ**	**165°**	**100°–165°**	**165°–100°**	**60°**	**155°**

*Backcheck positioning valve factory preset to on, advancing backcheck approximately 15°.

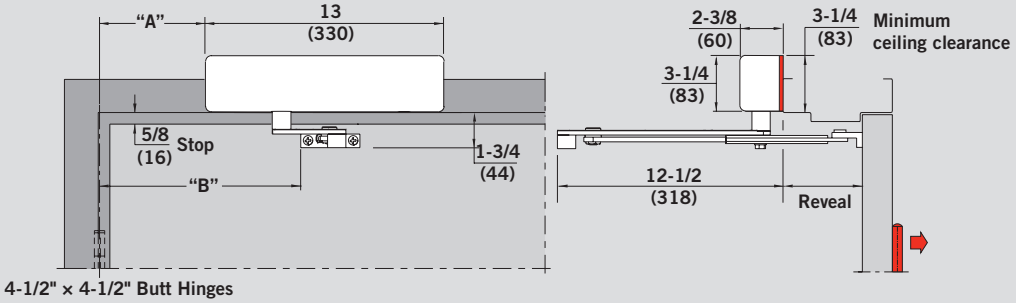
NOTE: Bold type shows supplied arm.

TOP JAMB × CUSHION IS ARM × BACKPLATE

8916 ISJ/ISJH BP89
(>3-1/2" to 6-1/2" reveal)

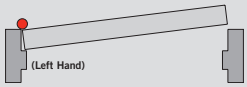
8956 ISJ/ISJH BP89
(>3-1/2" to 6-1/2" reveal)

NOTE: Use IS/ISH for reveal ≤3-1/2"



4-1/2" × 4-1/2" Butt Hinges

Minimum frame face for mounting BP89 plate 1-5/8". Specify hand.



Size Selection Chart

Closer	Interior/ Exterior	Door Width 2'-0" min.	2'-6" max.	3'-0" max.	3'-6" max.	4'-0" max.	4'-6" max.	5'-0" max.
8916	Interior	•	•	♿	♿	♿	♿	N/A
	Exterior	•	•	•	•	•	N/A	N/A
8956	Interior	N/A	N/A	N/A	N/A	•	•	•
	Exterior	N/A	N/A	N/A	•	•	•	N/A

Template Ref.	Dim "A"	Dim "B"	Reveal	Arm	Cushion/ Hold Open	*Approx. Backcheck	Approx. Delayed Action
85°	6-3/8" (162)	12-5/8" (321)	0"–3-1/2"	IS	85°	60°–85°	85°–60°
			>3-1/2"–6-1/2"	**ISJ**	**85°**	**60°–85°**	**85°–60°**
90°	5-5/8" (143)	12-1/8" (308)	0"–3-1/2"	IS	90°	60°–90°	90°–60°
			>3-1/2"–6-1/2"	**ISJ**	**90°**	**60°–90°**	**90°–60°**
95°	5-3/8" (137)	11-3/4" (298)	0"–3-1/2"	IS	95°	65°–95	95°–65°
			>3-1/2"–6-1/2"	**ISJ**	**95°**	**65°–95°**	**95°–65°**
100°	5-1/8" (130)	11-1/4" (286)	0"–3-1/2"	IS	100°	65°–100°	100°–55°
			>3-1/2"–6-1/2"	**ISJ**	**100°**	**70°–100°**	**100°–70°**
105°	4-7/8" (124)	11" (279)	0"–3-1/2"	IS	105°	70°–105°	105°–70°
			>3-1/2"–6-1/2"	**ISJ**	**105°**	**70°–105°**	**105°–70°**
110°	4-5/8" (117)	10-3/4" (273)	0"–3-1/2"	IS	110°	70°–110°	110°–70°
			>3-1/2"–6-1/2"	**ISJ**	**110°**	**70°–110°**	**110°–70°**

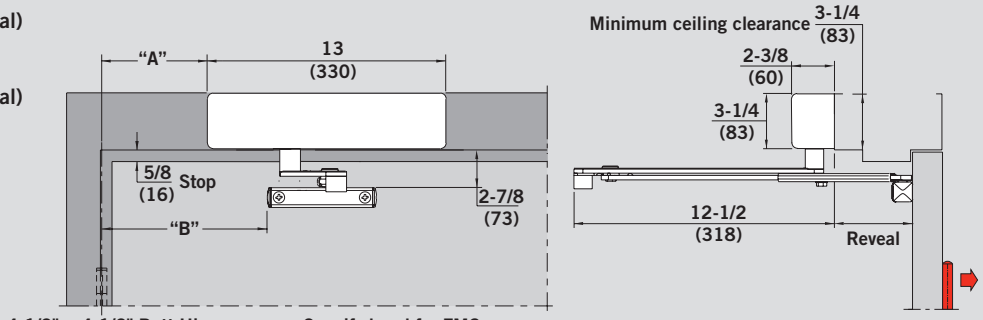
* Backcheck positioning valve factory preset to on, advancing backcheck approximately 15°.
NOTE: Bold type shows supplied arm.

TOP JAMB × SPRING STOP IS ARM

8916 SISJ/SISJH
(>3-1/2" to 6-1/2" reveal)

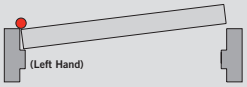
8956 SISJ/SISJH
(>3-1/2" to 6-1/2" reveal)

NOTE: Use S-IS/S-ISH for reveal ≤3-1/2"



4-1/2" × 4-1/2" Butt Hinges

Specify hand for FMC.
Backcheck positioning valve in "OFF" position.



Size Selection Chart

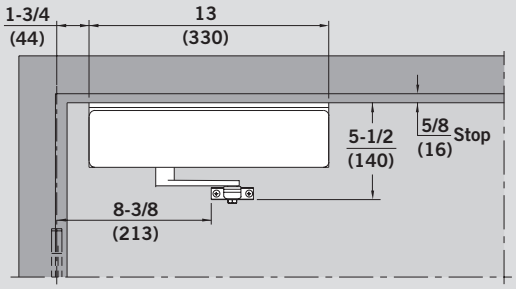
Closer	Interior/ Exterior	Door Width 2'-0" min.	2'-6" max.	3'-0" max.	3'-6" max.	4'-0" max.
8916	Interior	•	•	♿	♿	♿
	Exterior	•	•	•	•	•
8956	Interior	N/A	N/A	N/A	N/A	•
	Exterior	N/A	N/A	N/A	•	•

Template Ref.	Dim "A"	Dim "B"	Reveal	Arm	**Dead Stop/ Hold Open	*Approx. Backcheck	Approx. Delayed Action
85°	8-5/16" (211)	11" (279)	0"–3-1/2"	SIS	85°	60°–85°	85°–60°
			>3-1/2"–6-1/2"	**SISJ**	**85°**	**60°–85°**	**85°–60°**
90°	8" (203)	10-11/16" (271)	0"–3-1/2"	SIS	90°	60°–90°	90°–60°
			>3-1/2"–6-1/2"	**SISJ**	**90°**	**60°–90°**	**90°–60°**
100°	6-7/8" (175)	9-9/16" (243)	0"–3-1/2"	SIS	100°	65°–100°	100°–65°
			>3-1/2"–6-1/2"	**SISJ**	**100°**	**70°–100°**	**100°–70°**
110°	6-1/4" (159)	8-15/16" (227)	0"–3-1/2"	SIS	110°	70°–110°	110°–70°
			>3-1/2"–6-1/2"	**SISJ**	**110°**	**70°–110°**	**110°–70°**

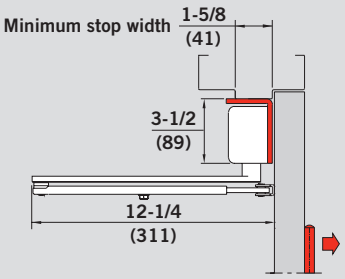
* Backcheck positioning valve factory preset to on, advancing backcheck approximately 15°.
** Hold open is approximately 5°–7° less than the dead stop angle listed in the chart.
NOTE: Bold type shows supplied arm.

TOP JAMB × FLAT FORM ARM × ANGLE BRACKET

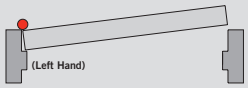
8916 AF89 AB89
8956 AF89 AB89



4-1/2" × 4-1/2" Butt Hinges



Minimum door rail for arm shoe 6" (5/8" stop shown).
Specify hand.



Size Selection Chart

		Door Width						
Closer	**Interior/ Exterior**	2'-0" min.	2'-6" max.	3'-0" max.	3'-6" max.	4'-0" max.	4'-6" max.	5'-0" max.
8916	Interior	•	•	♿	♿	♿	♿	N/A
	Exterior	•	•	•	•	•	N/A	N/A
8956	Interior	N/A	N/A	N/A	N/A	•	•	•
	Exterior	N/A	N/A	N/A	•	•	•	N/A

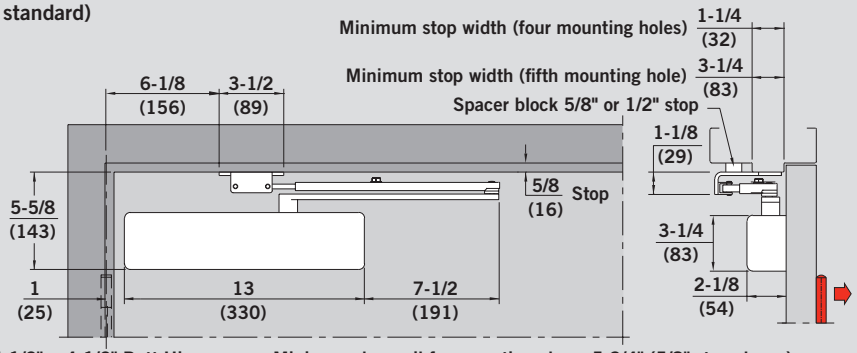
Maximum Opening	***Approximate Backcheck**	**Approximate Delayed Action**
180°	70°–180°	180°–80°

* Backcheck positioning valve factory preset to on, advancing backcheck approximately 15°.

PARALLEL ARM × FLAT FORM ARM

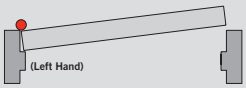
8916 AF89P

8956 AF89P
(P89 bracket furnished standard)



4-1/2" × 4-1/2" Butt Hinges

Minimum door rail for mounting closer 5-3/4" (5/8" stop shown).
Minimum door rail to bottom of cover 6-1/8" (5/8" stop shown).
Backcheck positioning valve in "ON" position.



Size Selection Chart

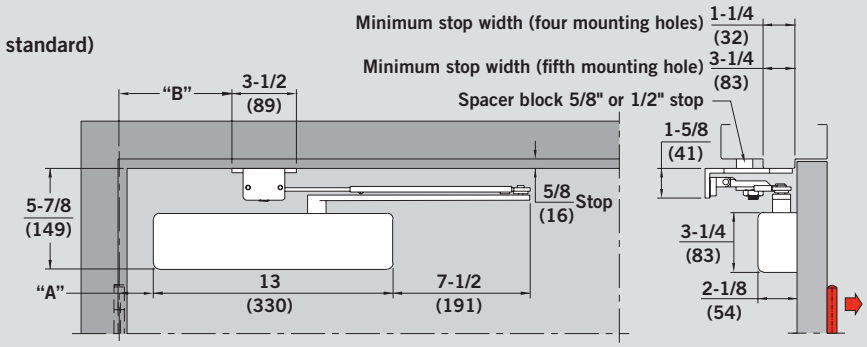
		Door Width					
Closer	**Interior/ Exterior**	2'-0" min.	2'-6" max.	3'-0" max.	3'-6" max.	4'-0" max.	4'-6" max.
8916	Interior	•	•	♿	♿	♿	N/A
	Exterior	•	•	•	•	N/A	N/A
8956	Interior	N/A	N/A	N/A	•	•	•
	Exterior	N/A	N/A	•	•	•	N/A

Maximum Opening	**Approximate Backcheck**	**Approximate Delayed Action**	**Minimum Door Width**
180°	60°–180°	180°–70°	24"

PARALLEL ARM × FRICTION HOLD OPEN

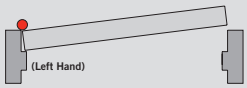
8916 FHP

8956 FHP
(PHB bracket furnished standard)



4-1/2" × 4-1/2" Butt Hinges

Minimum door rail for mounting closer 6-1/8" (5/8" stop shown).
Minimum door rail to bottom of cover 6-3/8" (5/8" stop shown).
Backcheck positioning valve in "ON" position.



Size Selection Chart

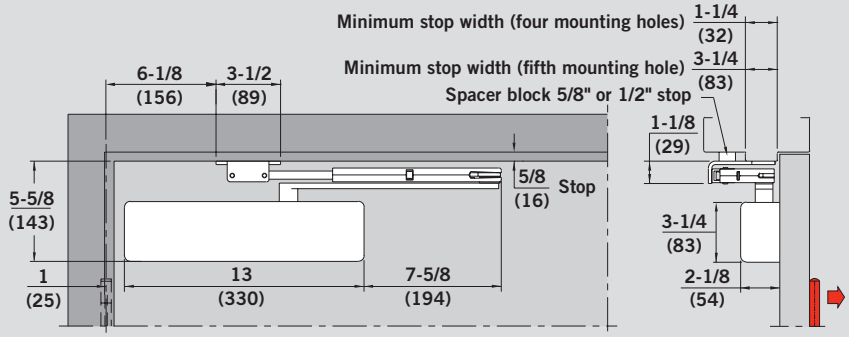
		Door Width					
Closer	**Interior/ Exterior**	2'-0" min.	2'-6" max.	3'-0" max.	3'-6" max.	4'-0" max.	4'-6" max.
8916	Interior	•	•	♿	♿	♿	N/A
	Exterior	•	•	•	•	N/A	N/A
8956	Interior	N/A	N/A	N/A	•	•	•
	Exterior	N/A	N/A	•	•	•	N/A

Template Ref.	**Dim "A"**	**Dim "B"**	**Approx. Maximum Opening**	**Approx. Backcheck**	**Approx. Delayed Action**	**Min. Hold Open**	**Max Hold Open**	**Min. Door Width**
To 100°	5-5/8" (143)	10-1/2" (267)	110°	65°–110°	110°–65°	45°	105°	29"
Over 100°	1-1/4" (32)	6-1/8" (156)	180°	60°–180°	180°–70°	45°	175°	24"

PARALLEL ARM × PLUNGER HOLD OPEN

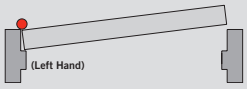
8916 PHP

8956 PHP
(P89 bracket furnished standard)



4-1/2" × 4-1/2" Butt Hinges

Minimum door rail for mounting closer 5-7/8" (5/8" stop shown).
Minimum door rail to bottom of cover 6-1/8" (5/8" stop shown).
Backcheck positioning valve in "ON" position.



Size Selection Chart

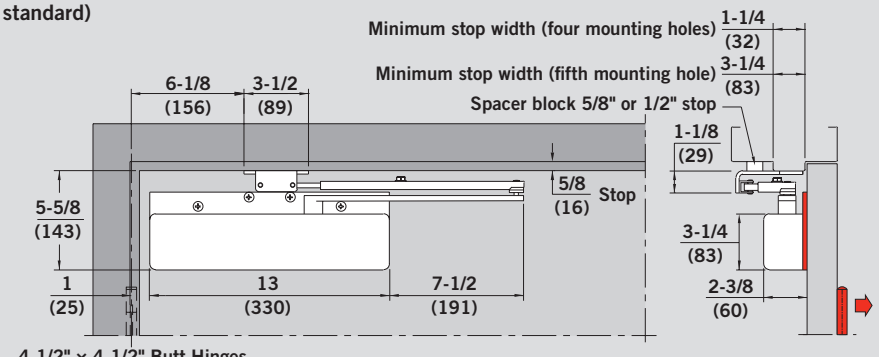
		Door Width					
Closer	**Interior/ Exterior**	2'-0" min.	2'-6" max.	3'-0" max.	3'-6" max.	4'-0" max.	4'-6" max.
8916	Interior	•	•	♿	♿	♿	N/A
	Exterior	•	•	•	•	N/A	N/A
8956	Interior	N/A	N/A	N/A	•	•	•
	Exterior	N/A	N/A	•	•	•	N/A

Maximum Opening	**Approximate Backcheck**	**Approximate Delayed Action**	**Minimum Hold Open**	**Maximum Hold Open**	**Minimum Door Width**
180°	60°–180°	180°–75°	30°	130°	24°

PARALLEL ARM × FLAT FORM ARM × DROP PLATE

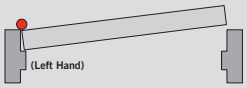
8916 AF89P DP89

8956 AF89P DP89
(P89 bracket furnished standard)



4-1/2" × 4-1/2" Butt Hinges

Minimum door rail for mounting DP89 plate 2-7/8" (5/8" stop shown).
Minimum door rail to bottom of cover/plate (5/8" stop shown).
Backcheck positioning valve in "ON" position.



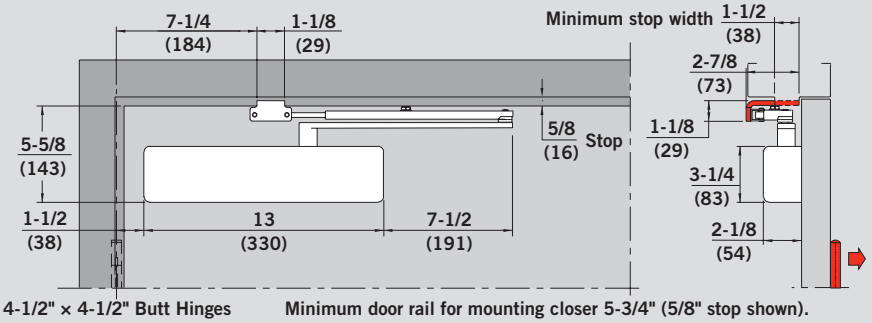
Size Selection Chart

		Door Width					
Closer	**Interior/ Exterior**	2'-0" min.	2'-6" max.	3'-0" max.	3'-6" max.	4'-0" max.	4'-6" max.
8916	Interior	•	•	♿	♿	♿	N/A
	Exterior	•	•	•	•	N/A	N/A
8956	Interior	N/A	N/A	N/A	•	•	•
	Exterior	N/A	N/A	•	•	•	N/A

Maximum Opening	Approximate Backcheck	Approximate Delayed Action	Minimum Door Width
180°	60°–180°	180°–70°	24"

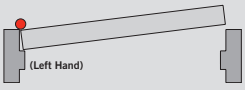
PARALLEL ARM × FLAT FORM ARM × MORTISED JAMB BRACKET

8916 AF8MJ
8956 AF8MJ



4-1/2" × 4-1/2" Butt Hinges

Minimum door rail for mounting closer 5-3/4" (5/8" stop shown).
Minimum door rail to bottom of cover 6-1/8" (5/8" stop shown).
Backcheck positioning valve in "ON" position.



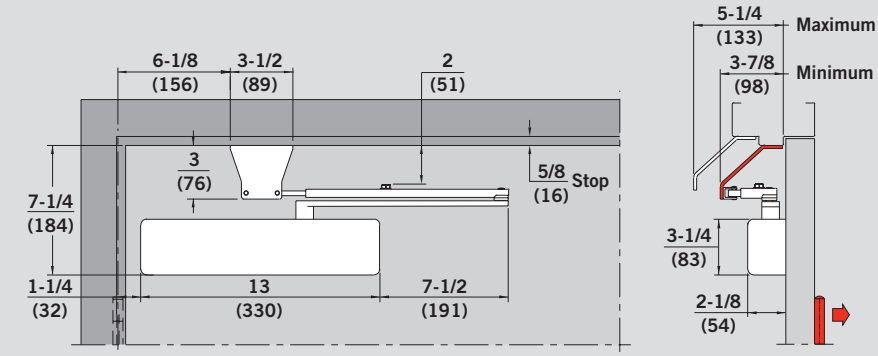
Size Selection Chart

		Door Width					
Closer	**Interior/ Exterior**	2'-0" min.	2'-6" max.	3'-0" max.	3'-6" max.	4'-0" max.	4'-6" max.
8916	Interior	•	•	♿	♿	♿	N/A
	Exterior	•	•	•	•	N/A	N/A
8956	Interior	N/A	N/A	N/A	•	•	•
	Exterior	N/A	N/A	•	•	•	N/A

Maximum Opening	Approximate Backcheck	Approximate Delayed Action	Minimum Door Width
180°	65°–180°	180°–70°	24"

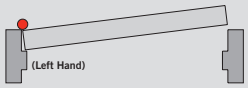
PARALLEL ARM × FLAT FORM ARM × PARALLEL DROP BRACKET

8916 AF89 PD
8956 AF89 PD



4-1/2" × 4-1/2" Butt Hinges

Minimum door rail for mounting closer 7-3/8" (5/8" stop shown).
Minimum door rail to bottom of cover 7-3/4" (5/8" stop shown).
Backcheck positioning valve in "ON" position.



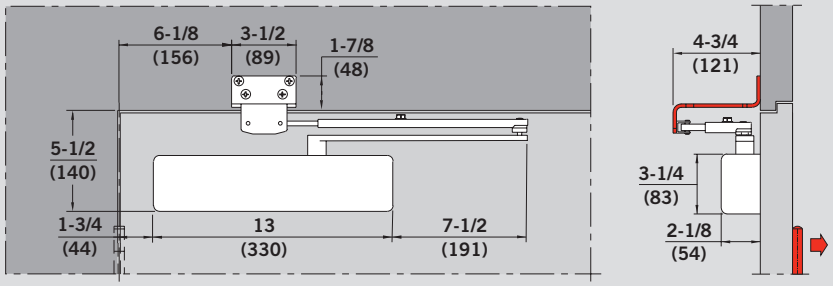
Size Selection Chart

		Door Width					
Closer	**Interior/ Exterior**	2'-0" min.	2'-6" max.	3'-0" max.	3'-6" max.	4'-0" max.	4'-6" max.
8916	Interior	•	•	♿	♿	♿	N/A
	Exterior	•	•	•	•	N/A	N/A
8956	Interior	N/A	N/A	N/A	•	•	•
	Exterior	N/A	N/A	•	•	•	N/A

Maximum Opening	**Approximate Backcheck**	**Approximate Delayed Action**	**Minimum Door Width**
180°	70°–180°	180°–70°	24"

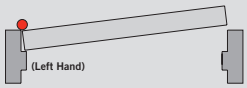
PARALLEL ARM × FLAT FORM ARM × PARALLEL FLUSH TRANSOM BRACKET

8916 AF89 PFT
8956 AF89 PFT



4-1/2" × 4-1/2" Butt Hinges

Minimum door rail for mounting closer 5-1/8".
Minimum door rail to bottom of cover 5-3/8".
Backcheck positioning valve in "ON" position.



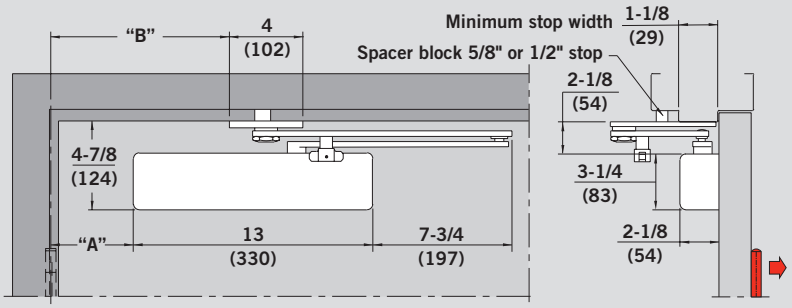
Size Selection Chart

		Door Width					
Closer	**Interior/ Exterior**	2'-0" min.	2'-6" max.	3'-0" max.	3'-6" max.	4'-0" max.	4'-6" max.
8916	Interior	•	•	♿	♿	♿	N/A
	Exterior	•	•	•	•	N/A	N/A
8956	Interior	N/A	N/A	N/A	•	•	•
	Exterior	N/A	N/A	•	•	•	N/A

Maximum Opening	**Approximate Backcheck**	**Approximate Delayed Action**	**Minimum Door Width**
180°	60°–180°	180°–70°	24"

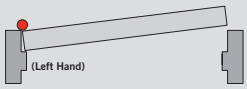
HEAVY-DUTY SUPER PARALLEL ARM

8916 SPA/SPAT/SPAK
8956 SPA/SPAT/SPAK



4-1/2" × 4-1/2" Butt Hinges

Minimum door rail for mounting closer 5" (5/8" stop shown).
Minimum door rail to bottom of cover 5-3/8" (5/8" stop shown).
Backcheck positioning valve in "ON" position.



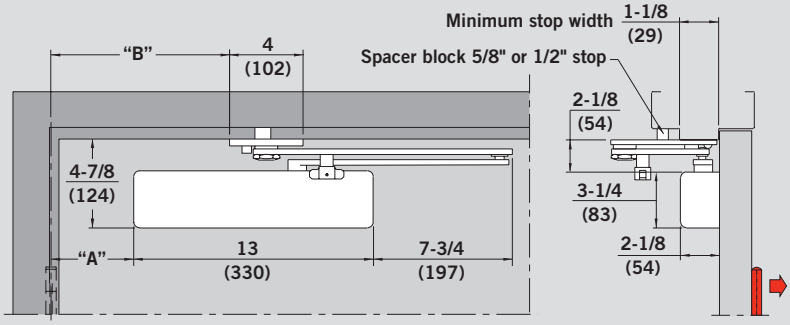
Size Selection Chart

Closer	Interior/ Exterior	Door Width 2'-0" min.	2'-6" max.	3'-0" max.	3'-6" max.	4'-0" max.	4'-6" max.
8916	Interior	•	•	♿	♿	♿	N/A
	Exterior	•	•	•	•	N/A	N/A
8956	Interior	N/A	N/A	N/A	•	•	•
	Exterior	N/A	N/A	•	•	•	N/A

Angle of Opening/ Hold Open	Dim "A" Closer	Dim "B" Soffit Plate	Approximate Maximum Opening	Approximate Backcheck	Approximate Delayed Action	Min. Door Width
To 100° H.O. 90°	4-1/2" (114)	9-3/8" (238)	100°	60°–100°	100°–65°	26"
To 180° H.O. 125°	7/8" (22)	6-1/4" (159)	180°	70°–180°	180°–75°	23"
(ABP) Advanced Backcheck Position						
To 100° H.O. 90°	4-3/4" (121)	9-7/8" (251)	100°	45°–100°	100°–70°	28"

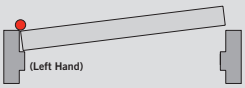
HEAVY-DUTY PARALLEL ARM DOOR SAVER × CUSHION

8916 DS/DST/DSK
8956 DS/DST/DSK



4-1/2" × 4-1/2" Butt Hinges

Minimum door rail for mounting closer 5" (5/8" stop shown).
Minimum door rail to bottom of cover 5-3/8" (5/8" stop shown).
Backcheck positioning valve in "ON" position.



Size Selection Chart

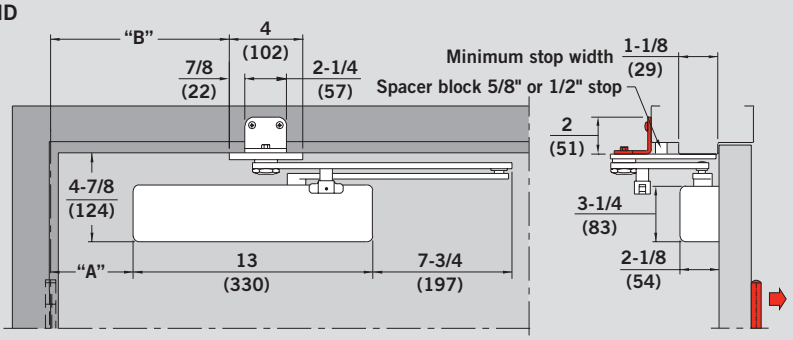
Closer	Interior/ Exterior	Door Width 2'-0" min.	2'-6" max.	3'-0" max.	3'-6" max.	4'-0" max.	4'-6" max.
8916	Interior	•	•	♿	♿	♿	N/A
	Exterior	•	•	•	•	N/A	N/A
8956	Interior	N/A	N/A	N/A	•	•	•
	Exterior	N/A	N/A	•	•	•	N/A

Template Ref.	Dim "A" Closer	Dim "B" Soffit Plate	*Cushion/ Hold Open	Approximate Backcheck	Approximate Delayed Action	Min. Door Width
85°	4-3/8" (111)	10-5/8" (270)	85°	50°–85°	85°–60°	26"
90°	3-1/2" (89)	9-3/4" (248)	90°	55°–90°	90°–60°	25"
100°	2-3/8" (60)	8-5/8" (219)	100°	60°–100°	100°–65°	24"
110°	1-1/4" (32)	7-1/2" (191)	110°	65°–110°	110°–70°	23"

* Hold open is approximately 1°–2° less than the cushion angle listed in the chart.

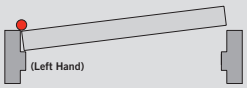
HEAVY-DUTY SUPER PARALLEL ARM × NARROW FRAME BRACKET

8916 SPA/SPAT/SPAK NFHD
8956 SPA/SPAT/SPAK NFHD



4-1/2" × 4-1/2" Butt Hinges

Minimum door rail for mounting closer 5" (5/8" stop shown).
Minimum door rail to bottom of cover 5-3/8" (5/8" stop shown).
Backcheck positioning valve in "ON" position.



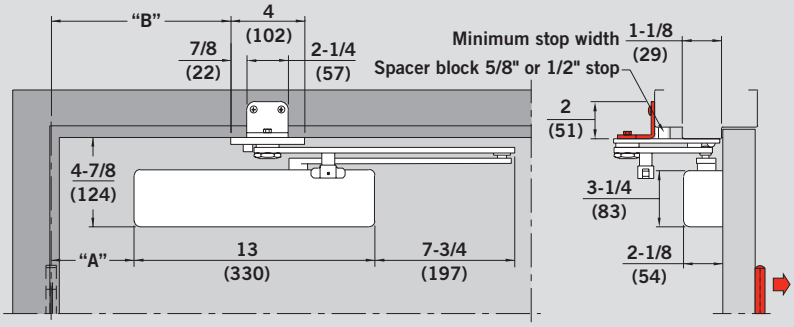
Size Selection Chart

Closer	Interior/ Exterior	Door Width 2'-0" min.	2'-6" max.	3'-0" max.	3'-6" max.	4'-0" max.	4'-6" max.
8916	Interior	•	•	♿	♿	♿	N/A
	Exterior	•	•	•	•	N/A	N/A
8956	Interior	N/A	N/A	N/A	•	•	•
	Exterior	N/A	N/A	•	•	•	N/A

Angle of Opening/ Hold Open	Dim "A" Closer	Dim "B" Soffit Plate	Approximate Maximum Opening	Approximate Backcheck	Approximate Delayed Action	Min. Door Width
To 100° H.O. 90°	4-1/2" (114)	9-3/8" (238)	100°	60°–100°	100°–65°	26"
To 180° H.O. 125°	7/8" (22)	6-1/4" (159)	180°	70°–180°	180°–75°	23"
(ABP) Advanced Backcheck Position						
To 100° H.O. 90°	4-3/4" (121)	9-7/8" (251)	100°	45°–100°	100°–70°	28"

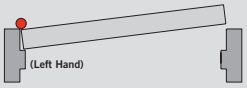
HEAVY-DUTY PARALLEL ARM DOOR SAVER × CUSHION × NARROW FRAME BRACKET

8916 DS/DST/DSK NFHD
8956 DS/DST/DSK NFHD



4-1/2" × 4-1/2" Butt Hinges

Minimum door rail for mounting closer 5" (5/8" stop shown).
Minimum door rail to bottom of cover 5-3/8" (5/8" stop shown).
Backcheck positioning valve in "ON" position.



Size Selection Chart

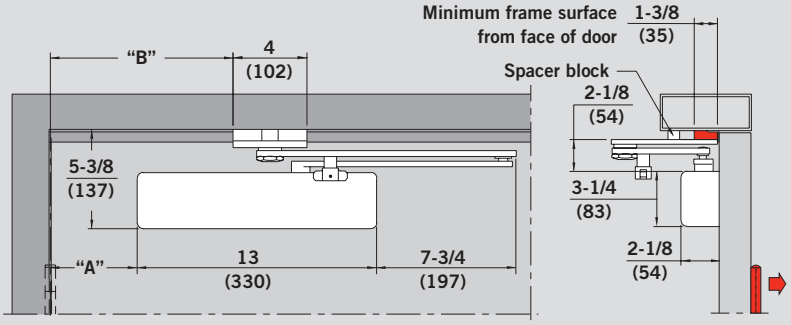
Closer	Interior/ Exterior	Door Width 2'-0" min.	2'-6" max.	3'-0" max.	3'-6" max.	4'-0" max.	4'-6" max.
8916	Interior	•	•	♿	♿	♿	N/A
	Exterior	•	•	•	•	N/A	N/A
8956	Interior	N/A	N/A	N/A	•	•	•
	Exterior	N/A	N/A	•	•	•	N/A

Template Ref.	Dim "A" Closer	Dim "B" Soffit Plate	*Cushion/ Hold Open	Approximate Backcheck	Approximate Delayed Action	Min. Door Width
85°	4-3/8" (111)	10-5/8" (270)	85°	50°–85°	85°–60°	26"
90°	3-1/2" (89)	9-3/4" (248)	90°	55°–90°	90°–60°	25"
100°	2-3/8" (60)	8-5/8" (219)	100°	60°–100°	100°–65°	24"
110°	1-1/4" (32)	7-1/2" (191)	110°	65°–110°	110°–70°	23"

* Hold open is approximately 1°–2° less than the cushion angle listed in the chart.

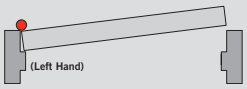
HEAVY-DUTY SUPER PARALLEL ARM × BLADE STOP SPACER

8916 SPA/SPAT/SPAK BSHD
8956 SPA/SPAT/SPAK BSHD



4-1/2" × 4-1/2" Butt Hinges

Minimum door rail for mounting closer 5" (5/8" stop shown).
Minimum door rail to bottom of cover 5-3/8" (5/8" stop shown).
Backcheck positioning valve in "ON" position.



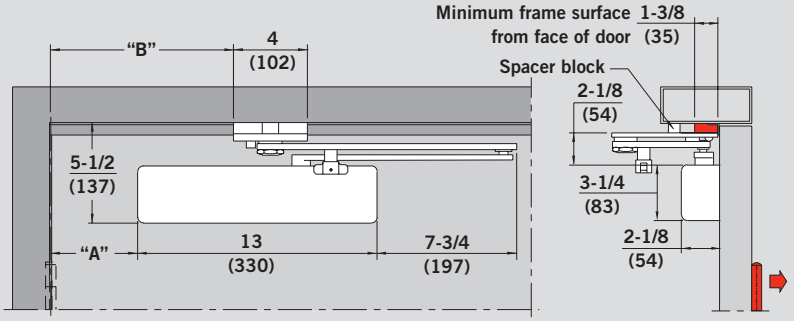
Size Selection Chart

Closer	Interior/ Exterior	Door Width 2'-0" min.	2'-6" max.	3'-0" max.	3'-6" max.	4'-0" max.	4'-6" max.
8916	Interior	•	•	♿	♿	♿	N/A
	Exterior	•	•	•	•	N/A	N/A
8956	Interior	N/A	N/A	N/A	•	•	•
	Exterior	N/A	N/A	•	•	•	N/A

Angle of Opening/ Hold Open	Dim "A" Closer	Dim "B" Soffit Plate	Approximate Maximum Opening	Approximate Backcheck	Approximate Delayed Action	Min. Door Width
To 100° H.O. 90°	4-1/2" (114)	9-3/8" (238)	100°	60°–100°	100°–65°	26"
To 180° H.O. 125°	7/8" (22)	6-1/4" (159)	180°	70°–180°	180°–75°	23"
(ABP) Advanced Backcheck Position						
To 100° H.O. 90°	4-3/4" (121)	9-7/8" (251)	100°	45°–100°	100°–70°	28"

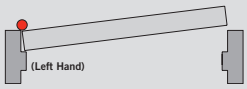
HEAVY-DUTY PARALLEL ARM DOOR SAVER × CUSHION × BLADE STOP SPACER

8916 DS/DST/DSK BSHD
8956 DS/DST/DSK BSHD



4–1/2" × 4-1/2" Butt Hinges

Minimum door rail for mounting closer 5" (5/8" stop shown).
Minimum door rail to bottom of cover 5-3/8" (5/8" stop shown).
Backcheck positioning valve in "ON" position.



Size Selection Chart

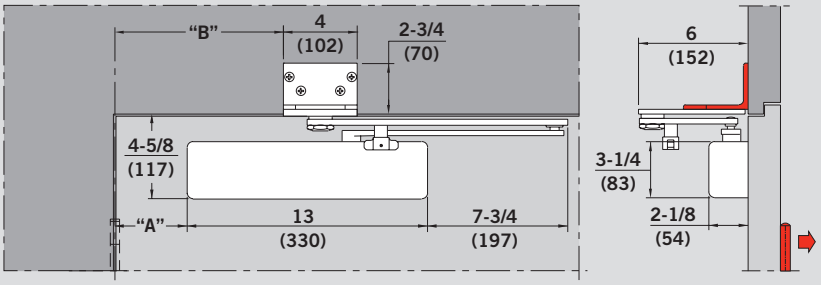
Closer	Interior/ Exterior	Door Width 2'-0" min.	2'-6" max.	3'-0" max.	3'-6" max.	4'-0" max.	4'-6" max.
8916	Interior	•	•	♿	♿	♿	N/A
	Exterior	•	•	•	•	N/A	N/A
8956	Interior	N/A	N/A	N/A	•	•	•
	Exterior	N/A	N/A	•	•	•	N/A

Template Ref.	Dim "A" Closer	Dim "B" Soffit Plate	*Cushion/ Hold Open	Approximate Backcheck	Approximate Delayed Action	Min. Door Width
85°	4-3/8" (111)	10-5/8" (270)	85°	50°–85°	85°–60°	26"
90°	3-1/2" (89)	9-3/4" (248)	90°	55°–90°	90°–60°	25"
100°	2-3/8" (60)	8-5/8" (219)	100°	60°–100°	100°–65°	24"
110°	1-1/4" (32)	7-1/2" (191)	110°	65°–110°	110°–70°	23"

* Hold open is approximately 1°–2° less than the cushion angle listed in the chart.

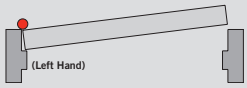
HEAVY-DUTY SUPER PARALLEL ARM × FLUSH TRANSOM BRACKET

8916 SPA/SPAT/SPAK FTHD
8956 SPA/SPAT/SPAK FTHD



4-1/2" × 4-1/2" Butt Hinges

Minimum door rail for mounting closer 4-3/4" (5/8" stop shown)
Minimum door rail to bottom of cover 5-1/8" (5/8" stop shown)
Backcheck positioning valve in "ON" position.



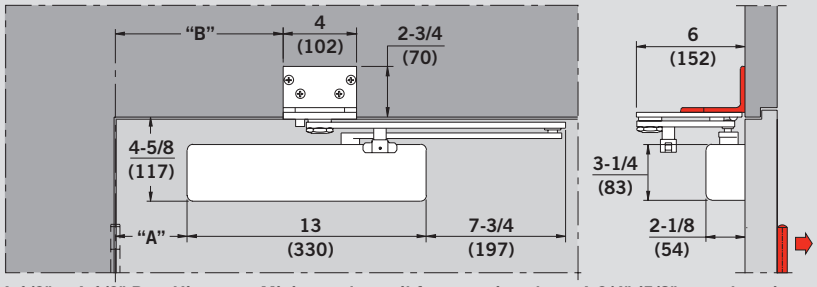
Size Selection Chart

Closer	Interior/ Exterior	Door Width 2'-0" min.	2'-6" max.	3'-0" max.	3'-6" max.	4'-0" max.	4'-6" max.
8916	Interior	•	•	♿	♿	♿	N/A
	Exterior	•	•	•	•	N/A	N/A
8956	Interior	N/A	N/A	N/A	•	•	•
	Exterior	N/A	N/A	•	•	•	N/A

Angle of Opening/ Hold Open	Dim "A" Closer	Dim "B" (F102) Bracket	Approximate Maximum Opening	Approximate Backcheck	Approximate Delayed Action	Min. Door Width
To 100° H.O .90°	4-1/2" (114)	9-3/8" (238)	100°	60°–100°	100°–65°	26"
To 180° H.O. 125°	7/8" (22)	6-1/4" (159)	180°	70°–180°	180°–75°	23"
(ABP) Advanced Backcheck Position						
		Soffit Plate				
To 100° H.O. 90°	4-3/4" (121)	9-7/8" (251)	100°	45°–100°	100°–70°	28"

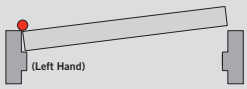
HEAVY-DUTY PARALLEL ARM DOOR SAVER × CUSHION × FLUSH TRANSOM BRACKET

8916 DS/DST/DSK FTHD
8956 DS/DST/DSK FTHD



4-1/2" × 4-1/2" Butt Hinges

Minimum door rail for mounting closer 4-3/4" (5/8" stop shown).
Minimum door rail to bottom of cover 5-1/8" (5/8" stop shown).
Backcheck positioning valve in "ON" position.



Size Selection Chart

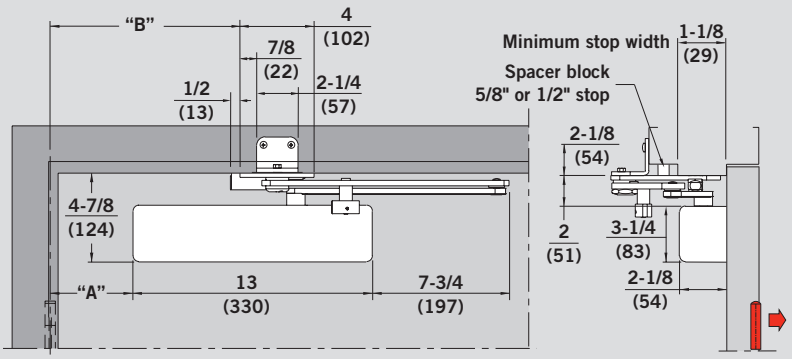
Closer	Interior/ Exterior	Door Width 2'-0" min.	2'-6" max.	3'-0" max.	3'-6" max.	4'-0" max.	4'-6" max.
8916	Interior	•	•	♿	♿	♿	N/A
	Exterior	•	•	•	•	N/A	N/A
8956	Interior	N/A	N/A	N/A	•	•	•
	Exterior	N/A	N/A	•	•	•	N/A

Template Ref.	Dim "A" Closer	Dim "B" (FT102) Bracket	*Cushion/ Hold Open	Approximate Backcheck	Approximate Delayed Action	Min. Door Width
85°	4-3/8" (111)	10-5/8" (270)	85°	50°–85°	85°–60°	26"
90°	3-1/2" (89)	9-3/4" (248)	90°	55°–90°	90°–60°	25"
100°	2-3/8" (60)	8-5/8" (219)	100°	60°–100°	100°–65°	24"
110°	1-1/4" (32)	7-1/2" (191)	110°	65°–110°	110°–70°	23"

* Hold open is approximately 1°–2° less than the cushion angle listed in the chart.

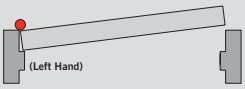
HEAVY-DUTY PARALLEL ARM × SPRING DOOR SAVER

8916 SDS/SDST
8956 SDS/SDST



4-1/2" × 4-1/2" Butt Hinges

Minimum door rail for mounting closer 5" (5/8" stop shown).
Minimum door rail to bottom of cover 5-3/8" (5/8" stop shown).
Backcheck positioning valve in "ON" position.



Size Selection Chart

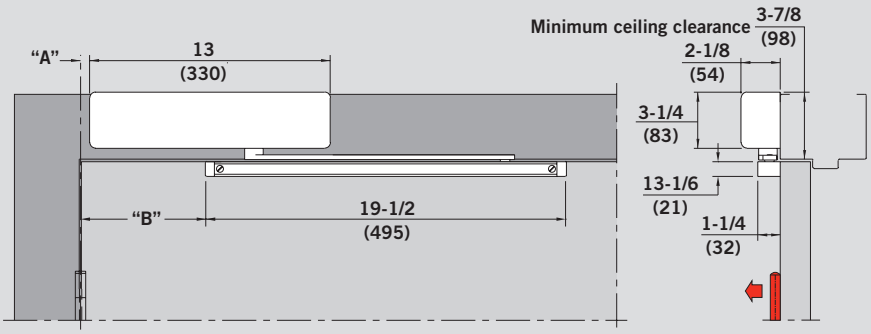
Closer	Interior/ Exterior	Door Width 2'-0" min.	2'-6" max.	3'-0" max.	3'-6" max.	4'-0" max.	4'-6" max.
8916	Interior	•	•	♿	♿	♿	N/A
	Exterior	•	•	•	•	N/A	N/A
8956	Interior	N/A	N/A	N/A	•	•	•
	Exterior	N/A	N/A	•	•	•	N/A

Template Ref.	Dim "A" Closer	Dim "B" Soffit Plate	*Dead Stop/ Hold Open	Approximate Backcheck	Approximate Delayed Action	Min. Door Width
85°	4-3/8" (111)	10-5/8" (270)	85°	50°–85°	85°–60°	26"
90°	3-1/2" (89)	9-7/8" (251)	90°	55°–90°	90°–60°	25"
100°	2-3/8" (60)	8-5/8" (219)	100°	60°–100°	100°–65°	24"
110°	1-1/4" (32)	7-1/2" (191)	110°	65°–110°	110°–70°	23"

* Hold open is approximately 5°–7° less than the dead stop angle listed in the chart.

TRACK—PULL SIDE DOOR MOUNTED

8916 T
8916 TH
8956 T
8956 TH



4-1/2" × 4-1/2" Butt Hinges

Minimum frame face for closer 3-1/2".
Specify hand.

Size Selection Chart

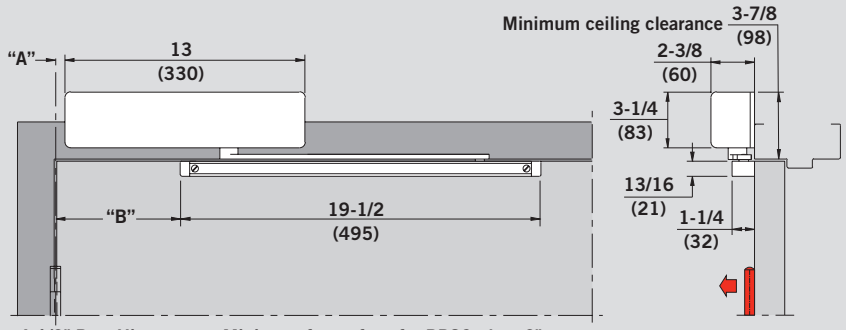
Closer	Interior/ Exterior	Door Width 2'-0" min.	2'-6" max.	3'-0" max.	3'-6" max.	4'-0" max.
8916	Interior	•	•	♿	♿	N/A
	Exterior	•	•	•	N/A	N/A
8956	Interior	N/A	N/A	•	•	•
	Exterior	N/A	•	•	•	N/A

Template Ref.	Dim "A"	Dim "B"	Cushion	Maximum Hold Open	*Approximate Backcheck	Approximate Delayed Action	Min. Door Width
85°	1/2" (13)	9-3/4" (248)	85°	80°	70°–85°	85°–60°	31"
90°	1/2" (13)	9" (229)	90°	85°	70°–90°	90°–60°	30"
110°	1/2" (13)	6-1/4" (159)	110°	105°	70°–110°	110°–60°	27"
180°	3/4" (19)	4" (102)	180°	160°	75°–180°	180°–65°	25"

*Backcheck positioning valve preset to on, advancing backcheck to approximately 15°.

TRACK—PULL SIDE DOOR MOUNTED × BACKPLATE

8916 T BP89
8916 TH BP89
8956 T BP89
8956 TH BP89



4-1/2" × 4-1/2" Butt Hinges

Minimum frame face for BP89 plate 2".
Specify hand.

Size Selection Chart

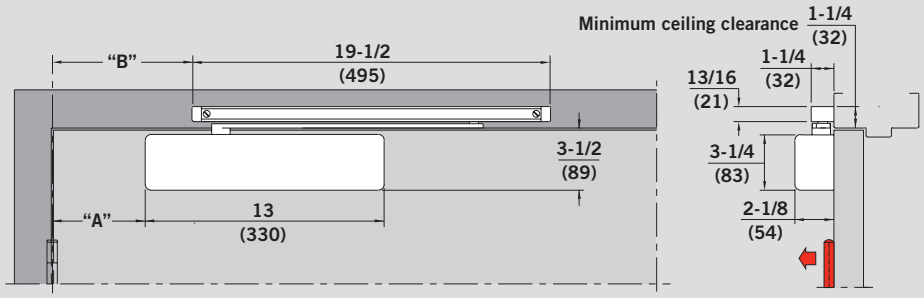
Closer	Interior/ Exterior	Door Width 2'-0" min.	2'-6" max.	3'-0" max.	3'-6" max.	4'-0" max.
8916	Interior	•	•	♿	♿	N/A
	Exterior	•	•	•	N/A	N/A
8956	Interior	N/A	N/A	•	•	•
	Exterior	N/A	•	•	•	N/A

Template Ref.	Dim "A"	Dim "B"	Dead Stop	Maximum Hold Open	*Approximate Backcheck	Approximate Delayed Action	Min. Door Width
85°	1/2" (13)	9-3/4" (248)	85°	80°	70°–85°	85°–60°	31"
90°	1/2" (13)	9" (229)	90°	85°	70°–90°	90°–60°	30"
110°	1/2" (13)	6-1/4" (159)	110°	105°	70°–110°	110°–60°	27"
180°	3/4" (19)	4" (102)	180°	160°	75°–180°	180°–65°	25"

*Backcheck positioning valve preset to on, advancing backcheck to approximately 15°.

JAMB TRACK—PULL SIDE FRAME MOUNTED

8916 JT
8916 JTH
8956 JT
8956 JTH



4-1/2" × 4-1/2" Butt Hinges

Minimum frame face for mounting track 1-1/4".
Minimum door rail for mounting closer 3".
Minimum door rail to bottom of cover 3-3/8".

Size Selection Chart

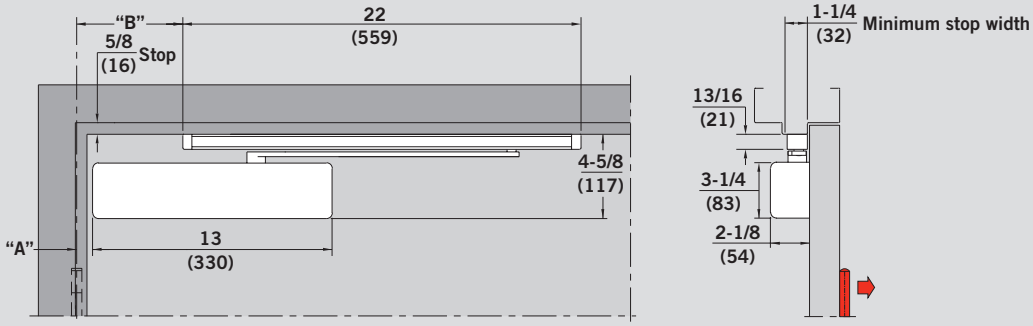
Closer	Interior/ Exterior	Door Width 2'-0" min.	2'-6" max.	3'-0" max.	3'-6" max.	4'-0" max.
8916	Interior	•	•	♿	•	N/A
	Exterior	•	•	•	N/A	N/A
8956	Interior	N/A	N/A	•	•	•
	Exterior	N/A	•	•	•	N/A

Template Ref.	Dim "A" Closer	Dim "B" Soffit Plate	Cushion	Maximum Hold Open	*Approximate Backcheck	Approximate Delayed Action	Min. Door Width
85°	3-1/2" (89)	9-3/4" (248)	85°	80°	75°–85°	85°–65°	31"
90°	3-1/2" (89)	9" (229)	90°	85°	75°–90°	90°–65°	30"
110°	3-1/2" (89)	7" (178)	110°	100°	75°–110°	110°–65°	28"
175°	3-1/2" (89)	4" (102)	178°	145°	75°–180°	178°–65°	25"

*Backcheck positioning valve preset to on, advancing backcheck to approximately 15°.

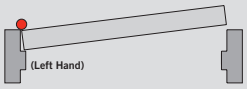
PUSH TRACK—PUSH SIDE SOFFIT MOUNTED

8916 PT89
8916 PT89H
8956 PT89
8956 PT89H



4-1/2" × 4-1/2" Butt Hinges

Minimum door rail for mounting closer 4-1/4" (5/8" stop shown).
Minimum door rail to bottom of cover 5-1/8" (5/8" stop shown).

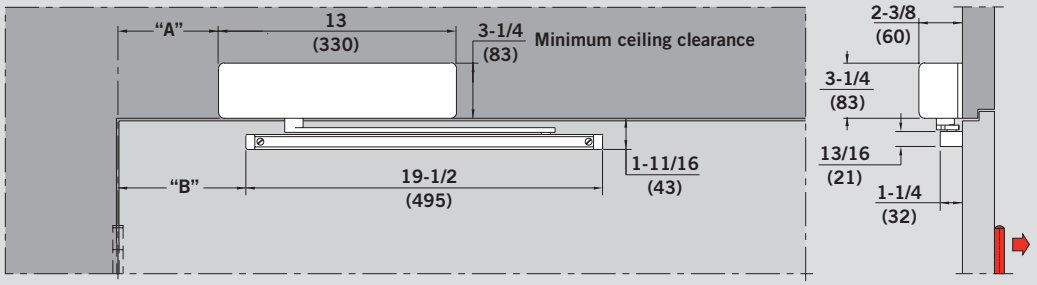


Size Selection Chart					
		Door Width			
Closer	**Interior/ Exterior**	2'-6" max.	3'-0" max.	3'-6" max.	4'-0" max.
8916	Interior	•	•	•	N/A
	Exterior	•	•	N/A	N/A
8956	Interior	N/A	•	•	•
	Exterior	•	•	•	N/A

*Backcheck positioning valve preset to on, advancing backcheck to approximately 15°.

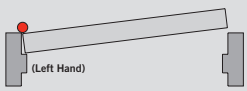
FLUSH TRACK—PUSH SIDE DOOR MOUNTED × BACKPLATE

8916 FT BP89
8916 FTH BP89
8956 FT BP89
8956 FTH BP89



4-1/2" × 4-1/2" Butt Hinges

Minimum transom surface for mounting BP89 plate 3".
Specify hand.



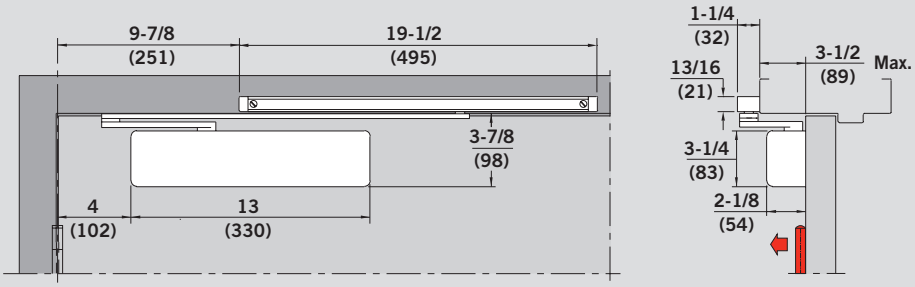
Size Selection Chart						
		Door Width				
Closer	**Interior/ Exterior**	2'-0" min.	2'-6" max.	3'-0" max.	3'-6" max.	4'-0" max.
8916	Interior	•	•	♿	♿	N/A
	Exterior	•	•	•	N/A	N/A
8956	Interior	N/A	N/A	•	•	•
	Exterior	N/A	•	•	•	N/A

Template Ref.	Dim "A"	Dim "B"	Cushion	Maximum Hold Open	Approximate Backcheck	Approximate Delayed Action	Min. Door Width
85°	5-1/2" (140)	7" (178)	85°	80°	70°–85°	80°–65°	29"
90°	5-1/2" (140)	6-1/8" (156)	90°	85°	70°–90°	90°–60°	28"
110°	4-1/2" (114)	4-3/4" (121)	110°	105°	75°–110°	110°–65°	26"
135°	3-1/2" (89)	3-3/4" (95)	135°	125°	85°–135°	135°–70°	25"

*Backcheck positioning valve preset to on, advancing backcheck to approximately 15°.

TRACK DOUBLE EGRESS—PULL SIDE FRAME MOUNTED

8916 TDE
8916 TDEH
8956 TDE
8956 TDEH



4-1/2" × 4-1/2" Butt Hinges

Minimum door rail for mounting closer 3-1/2".
Minimum door rail to bottom of cover 3-3/4".
Arm requires a mimimum 3-3/4" clearance between door face and wall when opening 90 and greater.

Size Selection Chart					
		Door Width			
Closer	**Interior/ Exterior**	2'-6" max.	3'-0" max.	3'-6" max.	4'-0" max.
8916	Interior	•	♿	♿	N/A
	Exterior	•	•	N/A	N/A
8956	Interior	N/A	•	•	•
	Exterior	•	•	•	N/A

Template Ref.	Cushion	Maximum Hold Open	*Approximate Backcheck	Approximate Delayed Action	Minimum Door Width
125°	125°	110°	80°–125°	125°–65°	30"

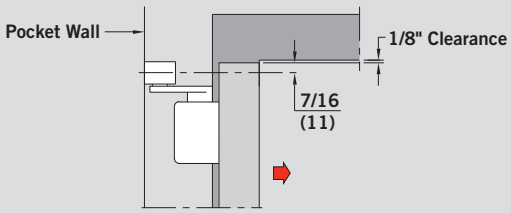
* Backcheck positioning valve factory preset to on, advancing backcheck approximately 15°.

90° POCKET DOOR (TRACK ARM)

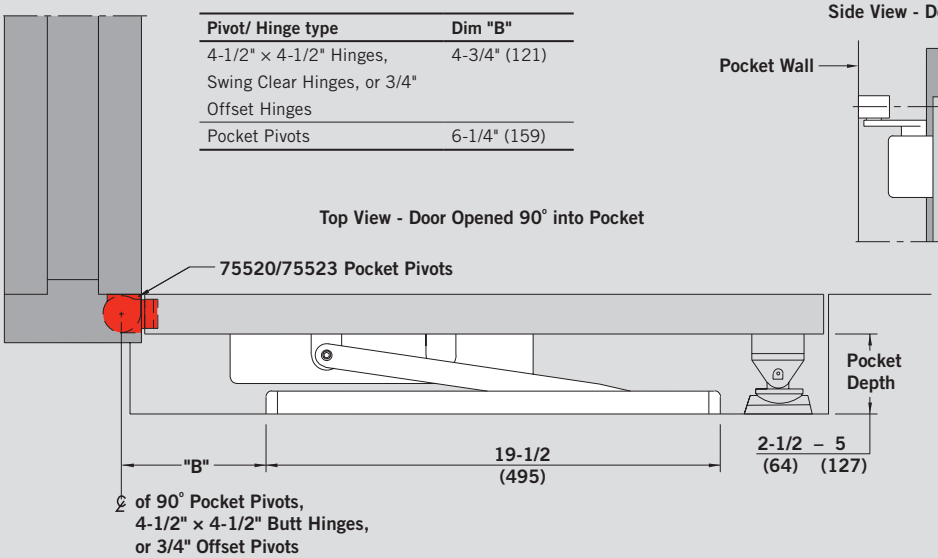
8956 T PKT 90

Pivot/ Hinge type	Dim "B"
4-1/2" × 4-1/2" Hinges, Swing Clear Hinges, or 3/4" Offset Hinges	4-3/4" (121)
Pocket Pivots	6-1/4" (159)

Side View - Door Opened 90° into Pocket



Top View - Door Opened 90° into Pocket



All DORMA pocket door closers, combined with a DORMA EM Series wall magnet, create a held open flush door until power is interrupted or the door is manually shut. See individual EM and LM Series product brochures for specific magnet and pivot information.

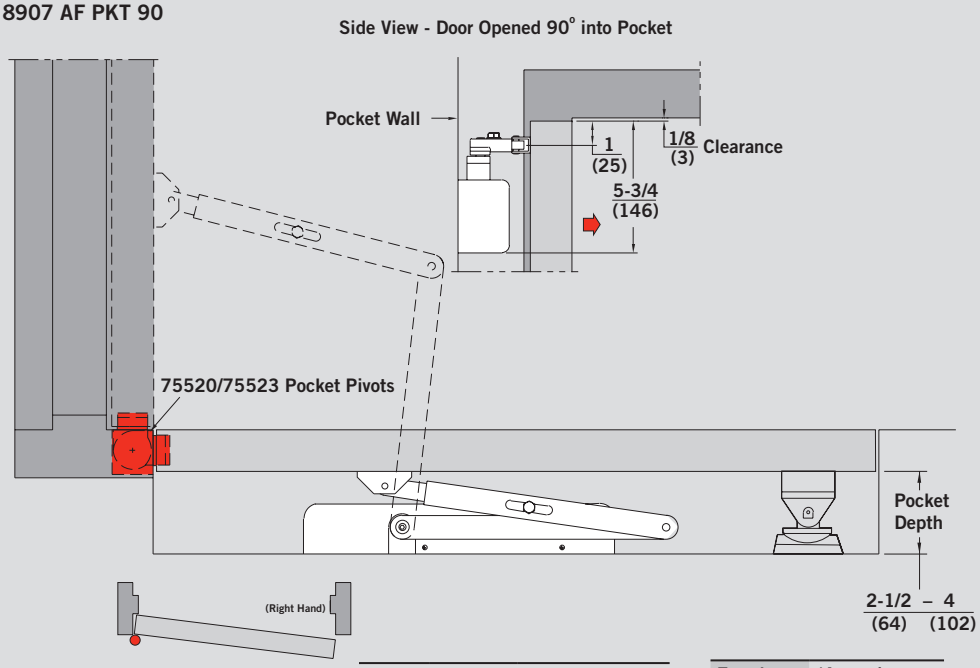
Size Selection Chart		
		Door Width
Closer	**Interior/ Exterior**	3'-0" max.
8956	Interior	•

Template Ref.	*Approximate Backcheck	Approximate Delayed Action	Minimum Door Width
90°	65°–90°	90°–65°	26"

* Backcheck positioning valve factory preset to on, advancing backcheck approximately 15°.

90° POCKET DOOR (DOUBLE-LEVER ARM)

8907 AF PKT 90



Size Selection Chart		
Closer	**Interior/ Exterior**	**Door Range**
8907	Interior	2'-0" to 4'-0"

Template Ref.	***Approximate Backcheck**
90°	80°–90°

* Backcheck range is with positioning valve on.

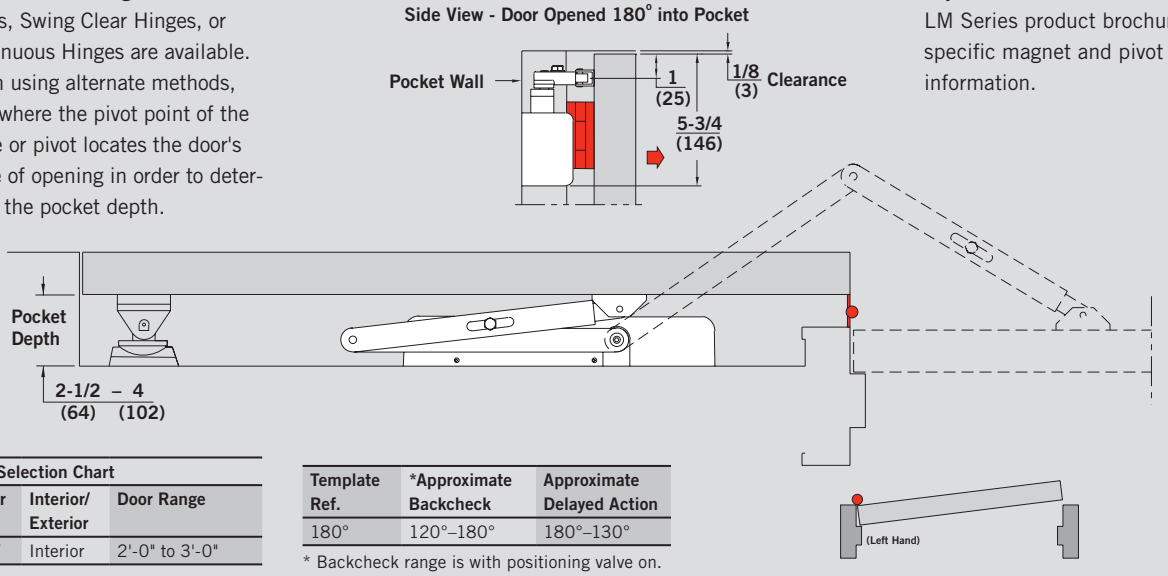
All DORMA pocket door closers, combined with a DORMA EM Series wall magnet, create a held open flush door until power is interrupted or the door is manually shut. See EM and LM Series product brochures for specific magnet and pivot information.

The recommended method for hanging a 90° pocket door is via the use of pocket pivots, which create optimum unobstructed space while creating a flush appearance with the door in line with the frame. Alternate methods using 3/4" Offset Pivots, Swing Clear Hinges, or Continuous Hinges are available. When using alternate methods, note where the pivot point of the hinge or pivot locates the door's angle of opening in order to determine the pocket depth.

180° POCKET DOOR (DOUBLE-LEVER ARM)

8907 AF PKT 180

The recommended method for hanging the door is via the use of butt hinges, which create optimum unobstructed space when the door is in the pocket. Alternate methods using 3/4" Offset Pivots, Swing Clear Hinges, or Continuous Hinges are available. When using alternate methods, note where the pivot point of the hinge or pivot locates the door's angle of opening in order to determine the pocket depth.



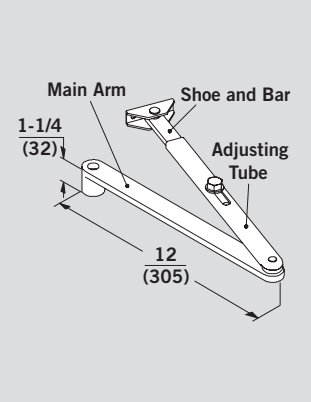
Size Selection Chart		
Closer	**Interior/ Exterior**	**Door Range**
8907	Interior	2'-0" to 3'-0"

Template Ref.	***Approximate Backcheck**	**Approximate Delayed Action**
180°	120°–180°	180°–130°

* Backcheck range is with positioning valve on.

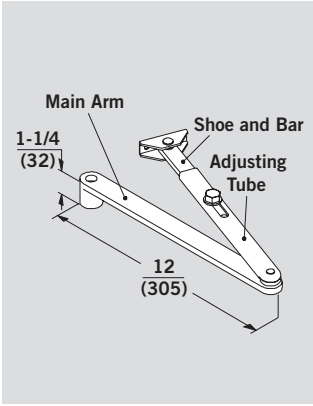
All DORMA pocket door closers, combined with a DORMA EM Series wall magnet, create a held open flush door until power is interrupted or the door is manually shut. See individual EM and LM Series product brochures for specific magnet and pivot information.

Flat Form Arm



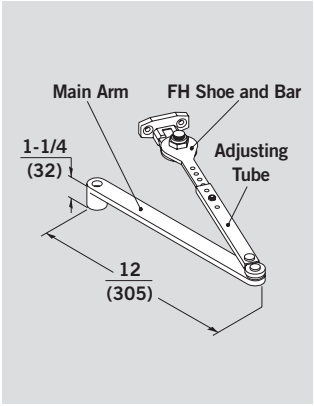
Standard arm furnished with 8900 Series closers. Arm is non-handed.
AF89 — Regular flat form arm, complete (0"–4" [0 mm–102 mm] reveal).
AF89J — Top jamp flat form arm complete (4"– 8" [102 mm to 203 mm] reveal).
AF89P — Parallel flat form arm complete (Tri-Pack) (0"– 4" [0 mm–102 mm] reveal). P89 included.
AFM89 — Regular flat form main arm and adjusting tube.

Flat Form Arm for MJ



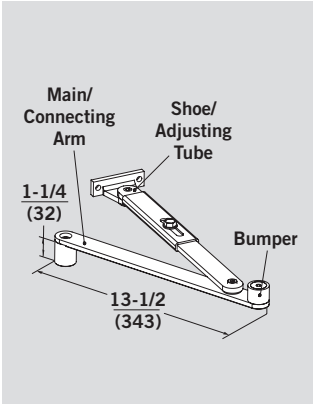
AF8MJ — Regular flat form arm complete for use with MJ (mortise jamb) bracket.
MJ bracket ordered separately.

Friction Hold Open Arm



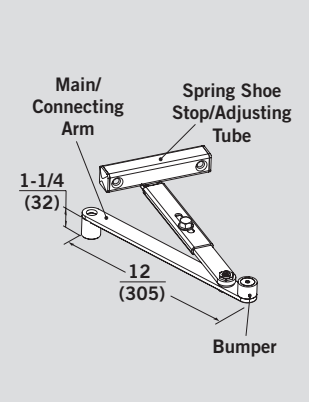
Provides a hold open function between approximately 90° and 180° of door opening (conditions permitting). Arm is non-handed.
FH — Friction hold open arm complete (0"–4" [0 mm–102 mm] reveal).
FHJ — Top jamb friction hold open arm complete (4"– 8" [102 mm–203 mm] reveal).
FHP — Friction hold open arm complete (Tri-Pack) (0"– 4" [0 mm–102mm] reveal). PHB included.
FHM04 — Friction hold open main arm and adjusting tube (0"– 4" [0 mm–102 mm] reveal).
FHM48 — Friction hold open main arm and adjusting tube (3-1/4"–8" [83 mm–203 mm] reveal).
FHSB — Friction hold open shoe and bar.

Cushion IS Arm



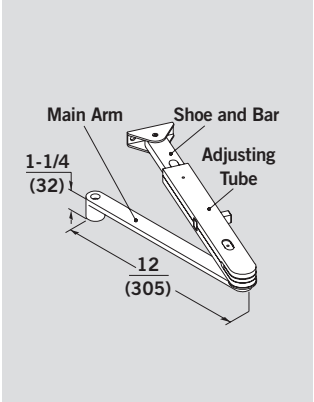
Provides a cushioned opening function for regular and top jamb applications at 85°, 90°, 95°, 100°, 105°, and 110°. Arm is non-handed.
IS — Cushion IS arm complete (0"– 3-1/2" [0 mm–89 mm] reveal).
ISJ — Cushion IS top jamb arm complete (3-1/2"–6-1/2" [89 mm–165 mm] reveal).
ISH — Cushion IS hold open arm complete (0"–3-1/2" [0–89 mm] reveal).
ISJH — Cushion IS top jamb hold open arm complete. (3-1/2"–6-1/2" [89 mm–165 mm] reveal).

Spring Stop IS Arm



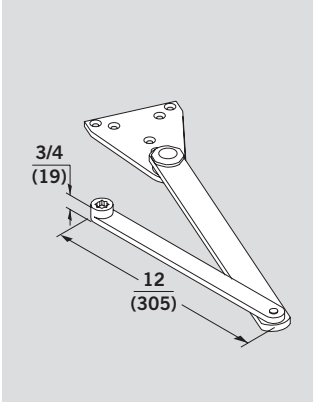
Provides a spring assisted dead stop function for regular and top jamb applications at 85°, 90°, 100°, and 110°. Arm is non-handed.
SIS — Spring stop IS arm complete (0"–3-1/2" [0 mm–89 mm] reveal).
SISH — Spring stop IS hold open arm complete (0"–3-1/2" [0 mm–89 mm] reveal).
SISJ — Spring stop IS top jamb arm complete (3-1/2"–6-1/2" [89 mm–165 mm] reveal).
SISJH — Spring stop IS top jamb hold open arm complete (3-1/2"–6-1/2" [89 mm–165 mm] reveal).

Plunger Hold Open Arm



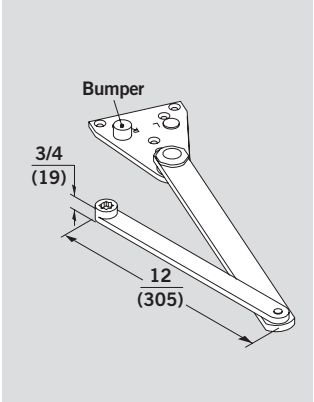
Provides a hold open function at a selected point within a range from approximately 30° to 130° (conditions and installation applications permitting). Ideal for doors frequently placed in and out of hold open. Arm is non-handed.
PH — Plunger hold open arm complete regular or top jamb mount (0"–1-1/4" [0 mm–32 mm] reveal).
PHP — Plunger hold open arm complete parallel arm or top jamb mount (1-1/4"–3-1/4" [32 mm–83 mm] reveal).
PHM — Plunger hold open main arm and adjusting tube.
PHSB — Plunger hold open shoe and bar regular and top jamb mount (0"–1-1/4" [0 mm–32 mm] reveal).
PHSBP — Plunger hold open shoe and bar parallel arm or top jamb mount (1-1/4"–3-1/4" [32 mm–83 mm] reveal).

Super Parallel Arm



Heavy-duty parallel arm. Available in non-hold open, thumb turn hold open and hex key turn hold open. Units can be installed for maximum opening of 100° or 180°. Hold open units will hold open at 90° or 125°. Maximum opening is 180° (conditions permitting). Arm is non-handed. Non-hold open arm illustrated.
SPA — Super parallel arm non-hold open.
SPAT — Super parallel arm thumb turn hold open.
SPAK — Super parallel arm hex key turn hold open.

Door Saver Arm

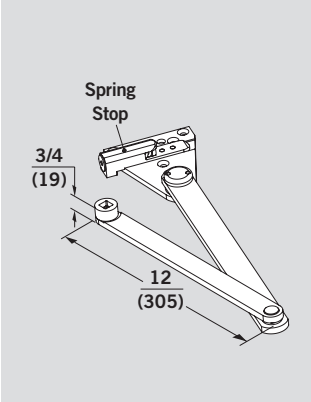


Heavy-duty parallel arm with integral cushioned opening function. Available in non-hold open, thumb turn hold open, and hex key turn hold open. Units can be installed to achieve either stop or stop and hold open at 85°, 90°, 100°, and 110°. Maximum opening is 110° (conditions permitting). Arm is non-handed. Non-hold open arm illustrated.
DS — Door saver arm non-hold open only.
DST — Door saver arm thumb turn hold open.
DSK — Door saver arm hex key turn hold open.
BUMPER DS — Door saver bumper only.

Cushion IS/Spring Stop IS Arm Accessories

SISM — Cushion IS/spring stop IS main arm and connecting arm. (0"–3-1/2" [0 mm–89 mm] reveal).
SISJM — Cushion IS/spring stop IS top jamb main arm and connecting arm. (3-1/2"–6-1/2" [89 mm–165 mm] reveal).
ISSB — Cushion IS spring shoe stop and adjusting tube.
BUMPER IS — Cushion IS/spring stop IS urethane bumper.
S SPRING IS — Spring shoe stop assembly complete.

Spring Stop Door Saver Arm



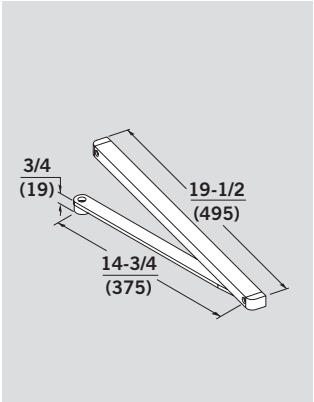
Heavy-duty parallel arm with spring assisted dead stop function. Available in non-hold open and thumb turn hold open. Units can be installed to achieve either stop or stop and hold open at 85°, 90°, 100°, and 110°. Maximum opening is 110° (conditions permitting). Arm is non-handed. Non-hold open arm illustrated.

SDS — Spring stop door saver arm.

SDST — Spring stop door saver arm thumb turn hold open.

S SPRING DS — Spring stop assembly compete.

Track Arm



Provides slide track function for improved aesthetics and vandal resistance. Units can be installed to provide 85°, 90°, 110° or 180° of door opening (conditions and application permitting). Arm is non-handed. Also available with hold open option to provide selective single point hold open. Range of hold open and maximum opening varies with mounting application. T version illustrated.

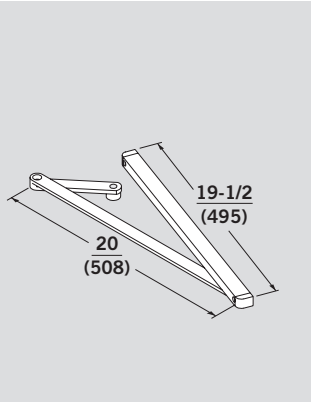
T — Track arm complete. Can be used in T, JT and FT track applications.

TH — Track hold open arm complete. Can be used in THO, JTHO and FTHO track applications.

PT89 — Push-side track arm complete. Used with PT track applications (closer on door, track or soffit).

PT89H — Push-side track hold open arm complete. Used with PT track applications (closer on door, track on soffit).

TDE Track Arm

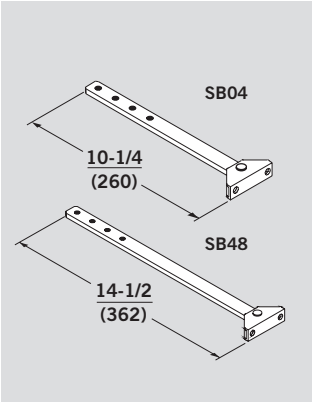


Provides slide track function for pull-side reveal conditions up to 3-1/2". Provides 125° of door opening (conditions permitting). Arm is handed. Also available with hold open option to provide selective single point hold open between 30° and 110°. Arm requires a minimum 3-3/4" clearance between door face and wall when opened 90° and greater.

TDE — Double egress track arm complete.

TDEH — Double egress hold open track arm complete.

Regular Arm Shoe and Bar

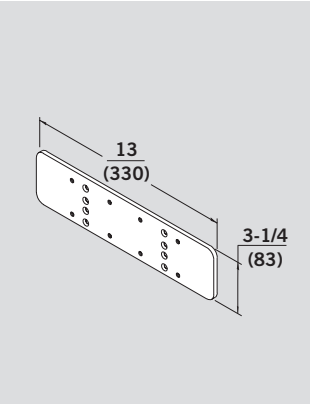


SB04 — 0"–4" (0 mm–102 mm) reveal - Shoe and bar only.

SB48 — 4"–8" (102 mm–203 mm) reveal - Shoe and bar only.

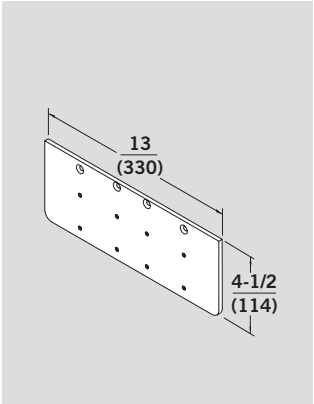
SB04 and SB48 must be used in conjunction with AMF89. Non-handed.

Backplate



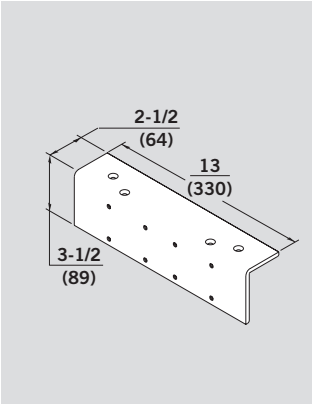
BP89 — For mounting top jamb when frame face is less than 2-7/8" (73 mm). Two sets of mounting holes accommodate 1-3/4" (44 mm) or 3-1/4" (83 mm) minimum ceiling clearance.* Top set of holes create top jamb drop application to clear a surface applied stop/holder. Can also be used for regular mount closer to clear mortised stop/holder.

Drop Plate



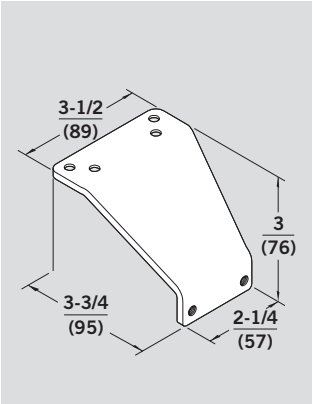
DP89 — For parallel arm installation of 8900 Series closers when top door rail is less than 5-3/4" (146 mm) for non-hold open and plunger hold open. When top door rail is less than 6" (152 mm) for friction applications (assuming 5/8" (16 mm) stop dimension).

Angle Bracket



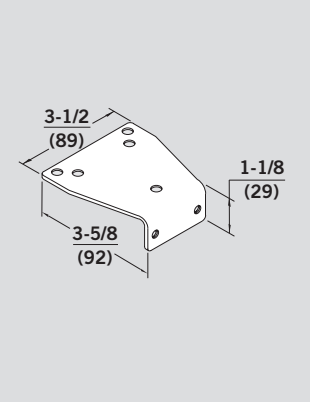
AB89 — For installation of 8900 Series closers where parallel arm and top jamb applications are not practical due to low overhead ceiling clearance, narrow frame face, or unusual trim conditions. This bracket can also be used to provide clearance for a surface-applied stop/holder.

Drop Bracket



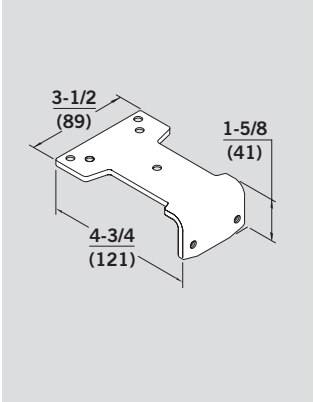
PD — For 8900 Series closer non-hold open parallel arm applications to clear a surface-applied stop/holder.

Bracket



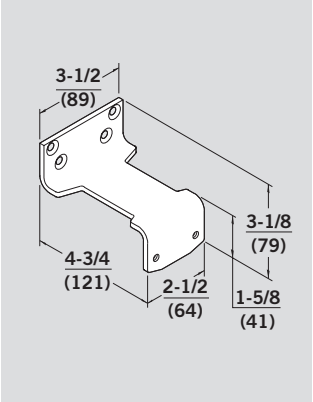
P89 — Furnished standard with 8900 P Series closer non-hold open and plunger hold open parallel arm applications. Spacer block furnished standard for use with narrow stop applications.

Parallel Hold Open Bracket



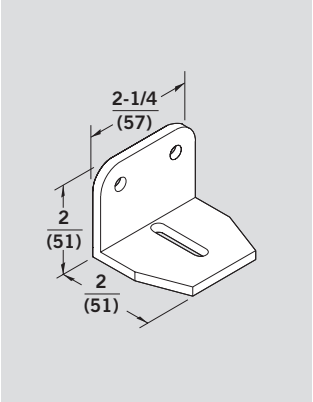
PHB — Furnished standard with 8900 FHP Series closer friction hold open parallel arm applications. Spacer block furnished standard for use with narrow stop applications.

Parallel Flush Transom Bracket



PFT — For all 8900 Series closer hold open and non-hold open parallel arm installations where flush transom conditions prohibit use of P89 or PHB bracket.

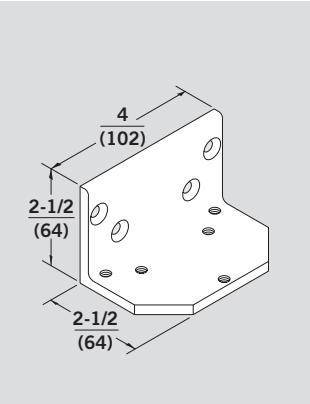
Narrow Frame Bracket



NFHD — For use with all 8900 Series DS and SPA applications where total frame depth is less than 4-1/2" (114 mm), prohibiting use of standard spacer block. NFHD bracket is used in lieu of block supplied with arm.

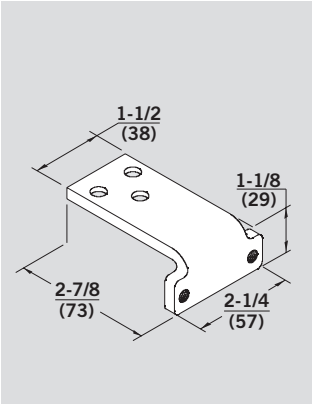
*Overhead ceiling clearance is measured from bottom of frame face to ceiling.

Flush Transom Bracket



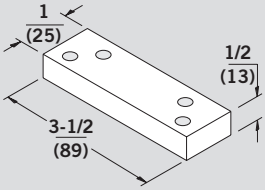
FTHD — For use with all 8900 Series DS and SPA applications where flush transom conditions prohibit normal installation of soffit bracket.

Mortised Jamb Bracket



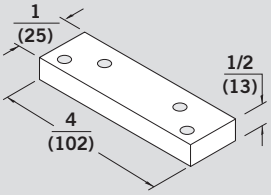
MJ — For 8900 Series closers with regular mount non-hold open assemblies where frame conditions will not permit use of the standard foot, e.g. molded, bull nose, or ornate trim. Permits use of parallel arm application between twin communicating doors where limited space prohibits use of P89 bracket. Flat form arm applications must use MJ in combination with AF8MJ Arm.

Blade Stop Spacer



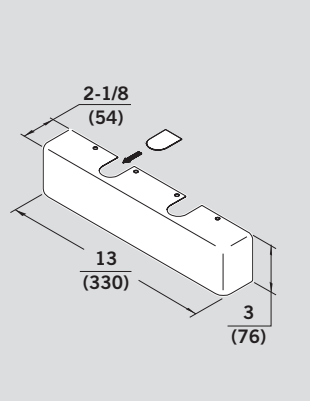
BS — For use with all 8900 Series P89, PD, and PHB applications installed on cased frames with applied blade stops. This block is used in conjunction with the spacer furnished with the arm to provide adequate clearance for the blade stop.

Heavy-Duty Blade Stop Spacer



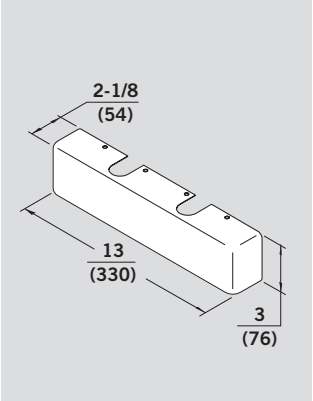
BSHD — For use with all 8900 Series DS and SPA applications installed on cased frames with applied blade stops. This block is used in conjunction with the spacer furnished with the arm to provide adequate clearance for the blade stop.

Full Plastic Cover



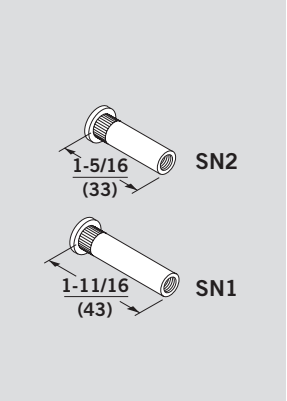
FC — Full plastic cover with interchangeable tab.
FCSL — Full plastic slotted cover with interchangeable tab. Mounting holes slotted for low ceiling conditions.

Full Metal Cover

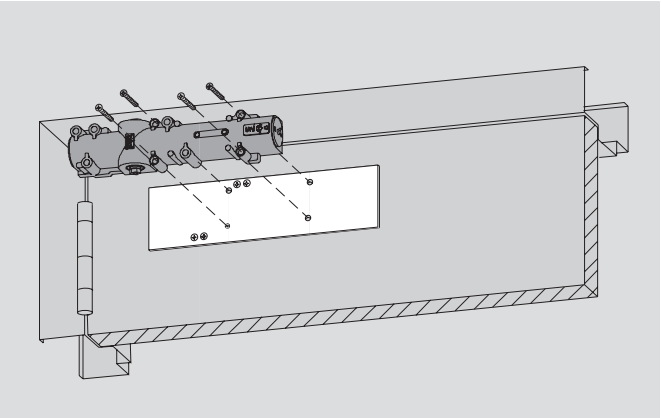


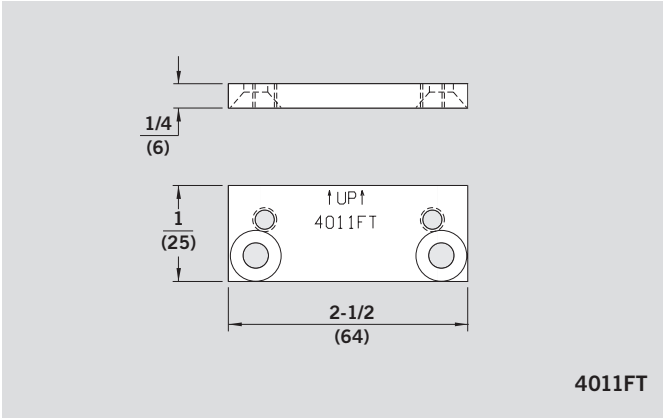
FMC— Full metal cover. Specify hand for top jamb, T track, and FT track applications.

Sex Nuts



SN1 — Sex nuts for 1-3/4" (44 mm) door.
SN2 — Sex nuts for 1-3/8" (35 mm) door.
Required for use on unreinforced doors and wood or composite labeled fire doors for securely attaching hardware to the door.





4011FT

4040R — Conversion plate utilizes **LCN 4040 Reg. 120°** holes for attachment to the door. The frame face will require drilling and tapping two holes for the arm shoe assembly. The DORMA 8900 Series closer will open a full 180° at this location.

4040P — Conversion plate utilizes **LCN 4040 PA 180°** holes for attachment to the door. The frame will require drilling and tapping four holes for the DORMA 960R soffit bracket. The DORMA 8900 Series closer will open a full 180° at this location.

4040C — Conversion plate utilizes **LCN 4040 Cush 90°** holes for attachment to the door. Requires drilling and tapping five holes in the frame for the DORMA **DS** soffit bracket.

4040E — Conversion plate utilizes **LCN 4040 EDA 180°** holes for attachment to the door. Requires drilling and tapping five holes in the frame for the **SPA** soffit bracket.

4011 — Conversion plate utilizes **LCN 4011 Reg. 90°** or **LCN 4011 Reg. 140°** holes for attachment to the door. The frame face will require drilling and tapping two holes for the arm shoe assembly.

4111 — Conversion plate utilizes **LCN 4111 PA 90°** or **LCN 4111 PA 180°** holes for attachment to the door. Requires drilling and tapping five holes in the frame for the DORMA **SPA** soffit bracket.

4020 — Conversion plate utilizes **LCN 4020 TJ 100°** or **LCN 4020 TJ 180°** holes for attachment to the frame face. The door will require drilling and tapping two holes for the arm shoe assembly.

7500R — Conversion plate utilizes **Norton 7500 Reg. 90°** or **Norton 7500 Reg. 180°** holes for attachment to the door. The arm shoe attaches using the existing Norton arm shoe preparation.

P7500 — Conversion plate utilizes **Norton P7500 PA 90°** or **Norton P7500 PA 180°** holes for attaching the closer body to the door. The soffit bracket attaches using the existing Norton soffit bracket preparation.

8300/8500 — Conversion plate utilizes **Norton 8300** and **8500** regular and parallel arm holes for attachment to the door. Regular arm shoe and parallel arm soffit bracket attachments use the existing Norton preparation.

4011FT — Optional arm shoe conversion plate used with 4040R, 4011, or 4020 for applications in which redrilling is not desirable.

89/DC220R — Conversion plate utilizes **Corbin/Russwin DC2200** regular arm mounting holes for attaching the closer body to the door. Arm shoe attaches using the existing C/R mounting holes.

89SPA/DC2210PA — Conversion plate utilizes **Corbin/Russwin DC2210** heavy duty parallel arm mount holes for attaching the closer body to the door. The soffit bracket would need new holes prepared in the soffit to utilize the DORMA SPA plate.

8980R/PA — Conversion plate utilizes **DORMA TS83** regular or parallel arm template holes to mount the closer to the door. For parallel arm, the parallel bracket can either remain or be replaced with a new P89 standard parallel arm bracket.

DORMA

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07000322 · 3.14CT (reprinted 3.15) · 3M · USA