



DOOR CLOSER

SERIES No.50

Closers for interior and exterior doors shall be full rack-and-pinion type with cast alminum alloy shell. Closer shall be surface mounted by 3/4" mounting hole spacing and shall project no more than 3.15/16" from the surface of the door. Closer shall be non-handed to permit installation on doors of either hand. Closer shall have two non critical thermostatic valves to separately control sweep and latch speeds and provide constant closing speeds even under extreme temperatures. Hydraulic fluid shall be non-gumming, and non-freezing. Closer shall have adjustable back-check positioning control.

Regular Arm and Top Jamb Closers shall have a non-hold open shoe permitting a 15% (+/- 7.1/2%) power adjustment.

Tri-Style Installation: Versatile closer packaged for regular arm, top jamb or parallel arm installation.

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

Aluminum Alloy Shell: Series 50 closers bodies are constructed of special aluminum alloy, carefully selected to accommodate individual closer characteristics and operating conditions.

Rack & Pinion Operation: Provides a smooth transmission of power for control of the door through its full opening and closing speed.

Adjustable Sweep Speed: An independent regulating valve permits adjustment of the general closing speed.

Adjustable Latch Speed: An independent regulating valve permits adjustment of the door's speed for approximately the last 12 degrees of the closing cycle.

Adjustable Backcheck Positioning: An independent valve allows adjustment of the point in the door's opening cycle, at which backcheck cushioning takes effect. It provides a range of 20 degrees within which backcheck can be set. The exact range is dependent upon the arm application and templated position of the closer.

Non-Critical Valves: All control valves for sweep speed / latch speed and backcheck controls are non-critical. Non-Hold Open arm: Standard closer will be supplied with a Non-Hold Open arm. This arm is nonhanded.

Adjusta-power shoe: Supplies as standard for a 15% (+/- 7.1/2%) power adjustment by relocating the forearm at the shoe for regular arm closers.

Hold Open Arm: Closer has adjustable hold open feature (up to 170 degrees). This arm is non-handed.



COMPARISON CHART 50SERIES

NHN	LCN	NORTON	YALE	DORMA	BRITON	SARGENT
50	1070	1600	50	600	2000	1100

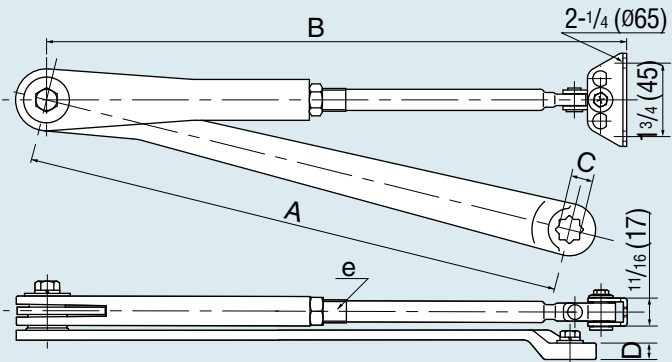
THE DATA ON CHART REPRESENTS OUR JUDGEMENTS OF WHICH ARE MOST SIMILAR. IT IS NOT GUARANTEED AN SPECIFI PRODUCT EXACTLY EQUALS ANY OTHER PRODUCT.

RECOMMENDED CLOSER SIZES FOR INTERIOR & EXTERIOR DOOR

MODEL No.		MAXIMUM WIDTH AND WEIGHT DOOR							
		EXTERIOR				INTERIOR			
REGULAR	HOLD OPEN	WIDTH		WEIGHT		WIDTH		WEIGHT	
		inch	mm	kg	lbs	inch	mm	kg	lbs
51	151					32	813	38	85
52	152					34	864	45	100
53	153	30	762	45	100	38	965	57	125
54	154	36	914	57	125	48	1219	68	150
55	155	42	1067	68	150	54	1372	91	200
56	156	48	1220	91	200	60	1524	114	250

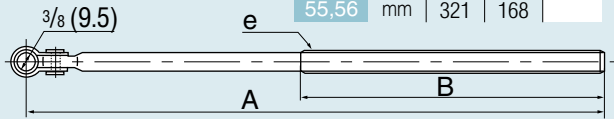
1. Hold-Open Regular Arm

TYPE	UNIT	A	B			C	D	e
			Standard	Max.	Min.			
151	inch	9 ¹ / ₄	10 ² / ₃₂	10 ¹⁵ / ₃₂	9 ⁵ / ₈	29 ⁵ / ₆₄	15 ⁵ / ₆₄	M12
152	mm	235	256	266	244	11.5	6	
153,154,155	inch	11	11 ⁴⁹ / ₆₄	12 ¹¹ / ₆₄	11 ³ / ₈	29 ⁵ / ₆₄	25 ⁵ / ₆₄	M14
	mm	280	299	309	289	11.5	10	
156	inch	13	13 ³¹ / ₃₂	14 ¹¹ / ₃₂	13 ³⁷ / ₆₄	1 ¹ / ₂	25 ⁵ / ₆₄	M14
	mm	330	355	360	345	12.5	10	



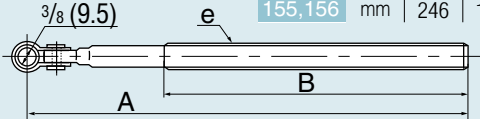
2. Long Link

Non Hold-Open



TYPE	UNIT	A	B	e
51,52	inch	12 ⁵ / ₈	5 ¹ / ₈	M8
	mm	321	130	
53,54	inch	12 ⁵ / ₈	6 ⁵ / ₈	W ³ / ₈
55,56	mm	321	168	

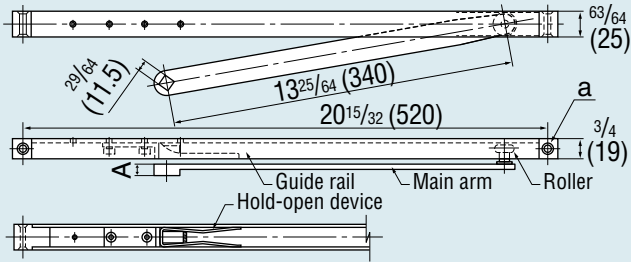
Hold-Open



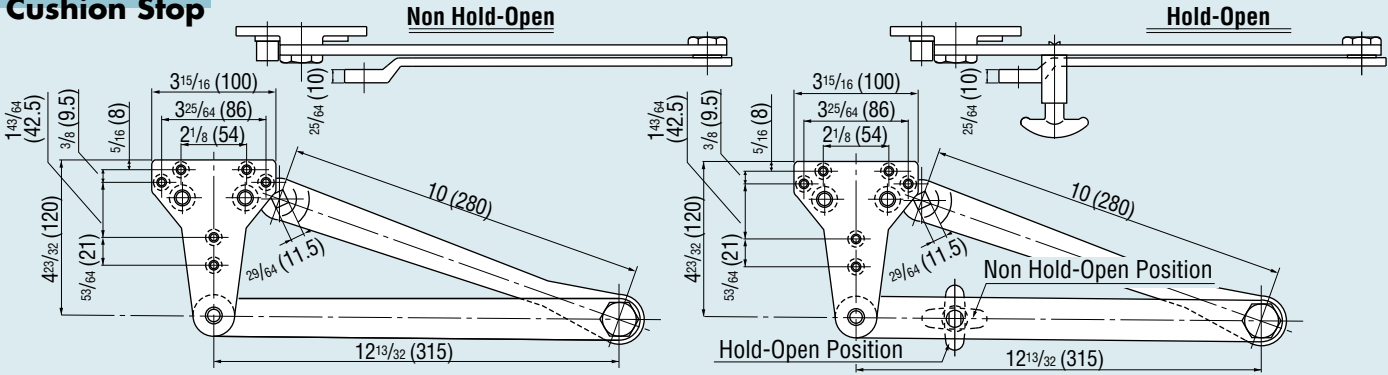
TYPE	UNIT	A	B	e
151,152	inch	9 ⁹ / ₃₂	6 ¹¹ / ₁₆	M11
	mm	236	170	
153,154	inch	9 ¹¹ / ₁₆	6 ¹¹ / ₁₆	M14
155,156	mm	246	170	

3. Tracks

TYPE		UNIT	A	Diameter of hole a
Non Hold-Open	Hold-Open			
51GL,52GL	151GL,152GL	inch	15 ⁵ / ₆₄	7 ⁷ / ₃₂
		mm	6	5.5
53GL,54GL	153GL,154GL	inch	15 ⁵ / ₃₂	7 ⁷ / ₃₂
55GL	155GL	mm	12	5.5



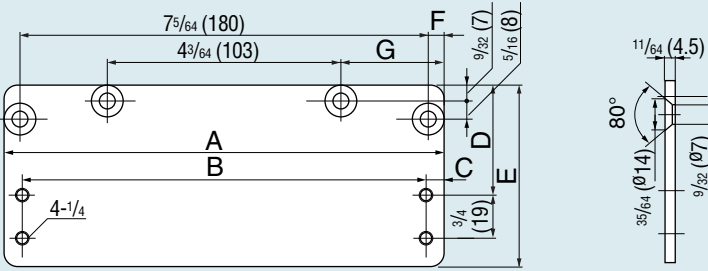
4. Cushion Stop



5. Plate

Note: It may be available for Top Jamb Installation.

TYPE	UNIT	A	B	C	D	E	F	G
51P	inch	7 ⁴¹ / ₆₄	7	5 ⁵ / ₁₆	1 ²⁹ / ₃₂	3 ⁹ / ₆₄	9 ⁹ / ₃₂	1 ⁵¹ / ₆₄
52P	mm	194	178	8	48.5	80	7	45.5
53P	inch	8 ¹³ / ₁₆	8 ⁹ / ₁₆	5 ⁵ / ₁₆	1 ⁵⁷ / ₆₄	3 ⁹ / ₆₄	5 ⁵ / ₆₄	2 ³ / ₈
	mm	224	208	8	48	80	22	60.5
54P	inch	9 ⁴⁹ / ₆₄	9 ¹ / ₁₆	2 ³ / ₆₄	2	3 ¹⁷ / ₆₄	1 ¹¹ / ₃₂	2 ⁵⁵ / ₆₄
55P	mm	248	230	9	51	83	34	72.5
56P	inch	10 ¹⁵ / ₁₆	10 ¹⁵ / ₆₄	2 ³ / ₆₄	2 ³ / ₆₄	3 ⁵ / ₁₆	1 ⁵⁹ / ₆₄	3 ⁷ / ₁₆
	mm	278	260	9	52	84	49	87.5

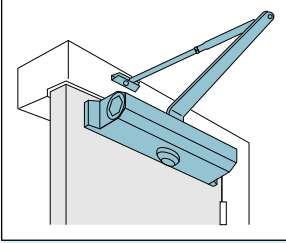




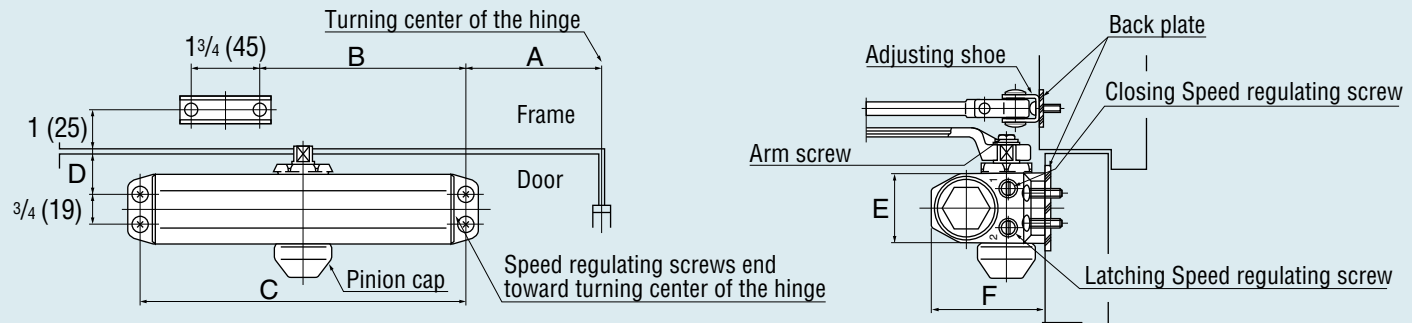
50 SERIES DOOR CLOSER

Left hand door shown. Same dimensions apply for right hand door.
Measured from turning center of the hinge.

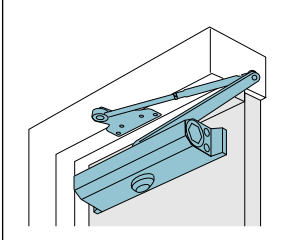
STANDARD INSTALLATION



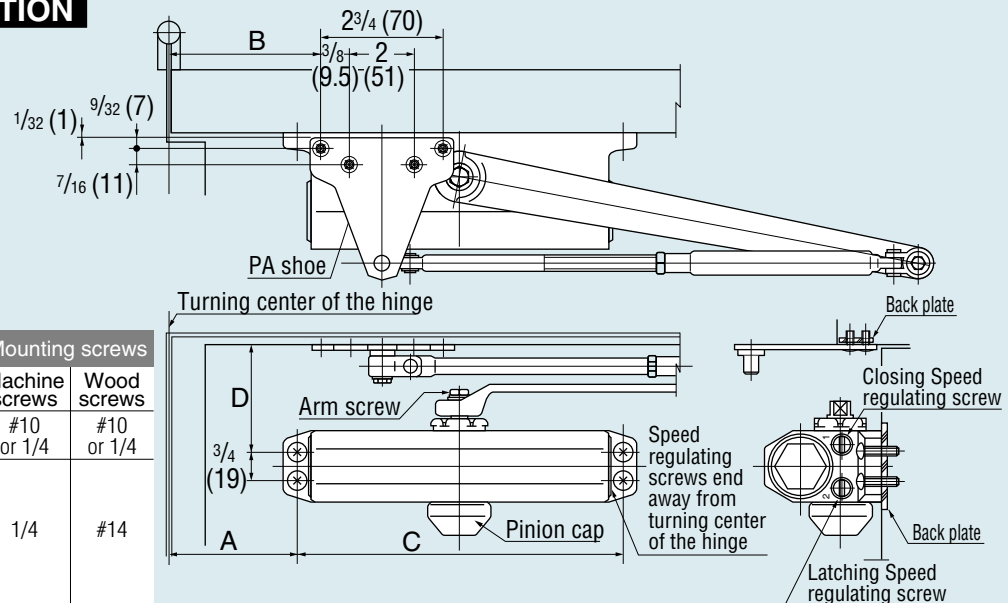
TYPE	UNIT	Dimensions							Mounting screws		
		A			B	C	D	E	F	Machine screws	Wood screws
		180°	120°	90°							
51	inch	3	5 ¹¹ / ₃₂	6 ¹⁷ / ₃₂	4 ⁷ / ₃₂	7	1	1 ¹³ / ₁₆	2 ³¹ / ₃₂	#10	#10
52	mm	76	136	166	107	178	25	46	75	or 1/4	or 1/4
53,1053	inch	3 ³ / ₈	5 ³ / ₄	6 ¹⁵ / ₁₆	5 ³ / ₁₆	8 ³ / ₁₆	1	1 ¹³ / ₁₆	2 ²⁹ / ₃₂	1/4	#14
	mm	86	146	176	132	208	25	46	74		
54,1054	inch	2 ³¹ / ₃₂	5 ⁵ / ₁₆	6 ¹ / ₂	5 ⁵ / ₈	9 ¹ / ₁₆	1 ¹ / ₈	1 ¹⁵ / ₁₆	3 ¹ / ₃₂		
55,1055	mm	75	135	165	143	230	28	49	77		
56,1056	inch	5 ⁹ / ₁₆	6 ¹⁵ / ₁₆	8 ⁵ / ₁₆	7 ³ / ₈	10 ¹ / ₄	1 ³ / ₁₆	1 ³ / ₄	3 ¹⁵ / ₁₆		
	mm	141	176	211	187	260	30	44	100		



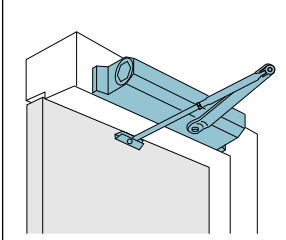
PARALLEL ARM INSTALLATION



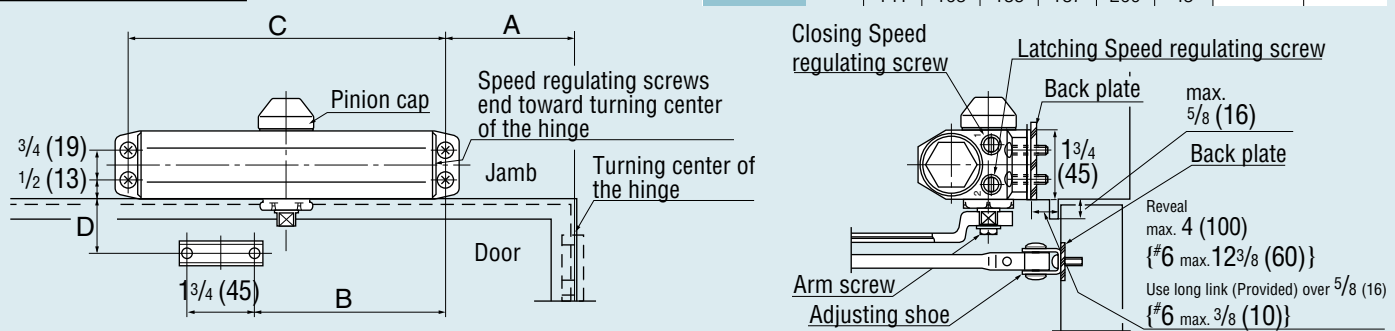
TYPE	UNIT	Dimensions				Mounting screws	
		A	B	C	D	Machine screws	Wood screws
51P	inch	3	3 ¹ / ₃₂	7	2 ³ / ₄	#10	#10
52P	mm	76	77	178	70	or 1/4	or 1/4
53P,1053P	inch	6 ³ / ₈	7 ¹ / ₈	8 ³ / ₁₆	2 ³ / ₄	1/4	#14
	mm	162	181	208	70		
54P,1054P	inch	6 ¹⁵ / ₁₆	7 ¹ / ₈	9 ¹ / ₁₆	2 ⁷ / ₈		
55P,1055P	mm	151	181	230	73		
56P,1056P	inch	5 ⁹ / ₁₆	7 ⁵ / ₁₆	10 ¹ / ₄	2 ¹⁵ / ₁₆		
	mm	141	185	260	74		



TOP JAMB INSTALLATION



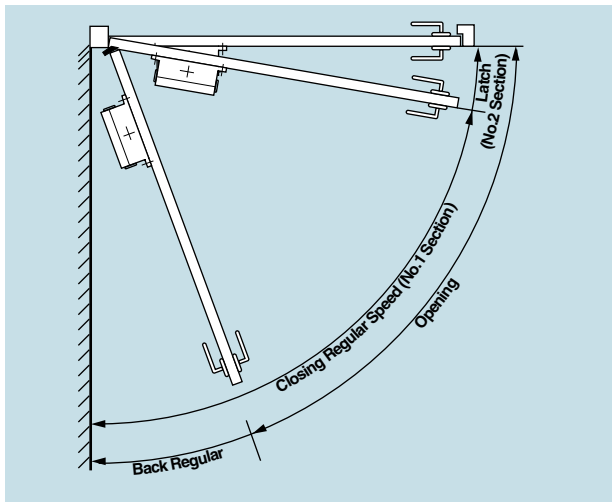
TYPE	UNIT	Dimensions							Mounting screws	
		A			B	C	D		Machine screws	Wood screws
51	inch	4 ¹⁷ / ₃₂	5 ³ / ₈	7 ¹¹ / ₁₆	4 ¹⁹ / ₃₂	7	1 ⁹ / ₁₆		#10	#10
52	mm	115	136	195	117	178	40		or 1/4	or 1/4
53,1053	inch	3 ¹⁵ / ₁₆	5 ¹ / ₂	7 ³ / ₃₂	5 ³ / ₁₆	8 ³ / ₁₆	1 ⁹ / ₁₆		1/4	#14
	mm	100	140	180	132	208	40			
54,1054	inch	3 ¹ / ₂	5 ³ / ₃₂	6 ²¹ / ₃₂	5 ⁵ / ₈	9 ¹ / ₁₆	1 ¹¹ / ₁₆			
55,1055	mm	89	129	169	143	230	43			
56,1056	inch	5 ⁹ / ₁₆	6 ¹³ / ₃₂	7 ⁹ / ₃₂	7 ³ / ₈	10 ¹ / ₄	1 ¹¹ / ₁₆			
	mm	141	163	185	187	260	43			



BACK CHECK

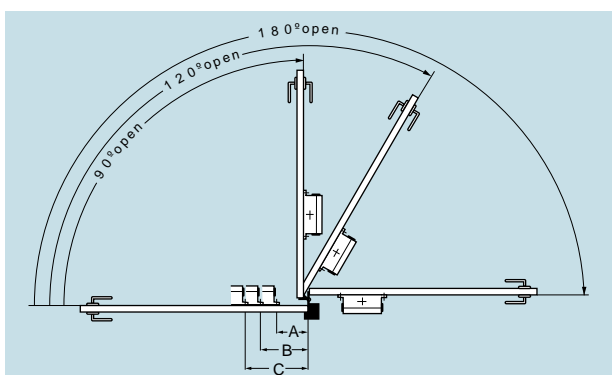
Daihatsu Series 1050 back-check closer prevents the door from striking against the wall. Back check function is adjustable.

Back Check Starts From an angle of approximately 70° ~ 85°



Change of Mounting Position on Door

Depending on how far the door should be held open, select the mounting position of the closer for an increase/decrease in power according to requirements, as shown in the diagram below. Basically, as the closer is mounted to the hinge, the greater the closing power.



Position of Closer

Distance from hinge center	Door Open Angle	Power up Ratio
A	180°	Standard
B	120°	20% up
C	90°	30% up



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