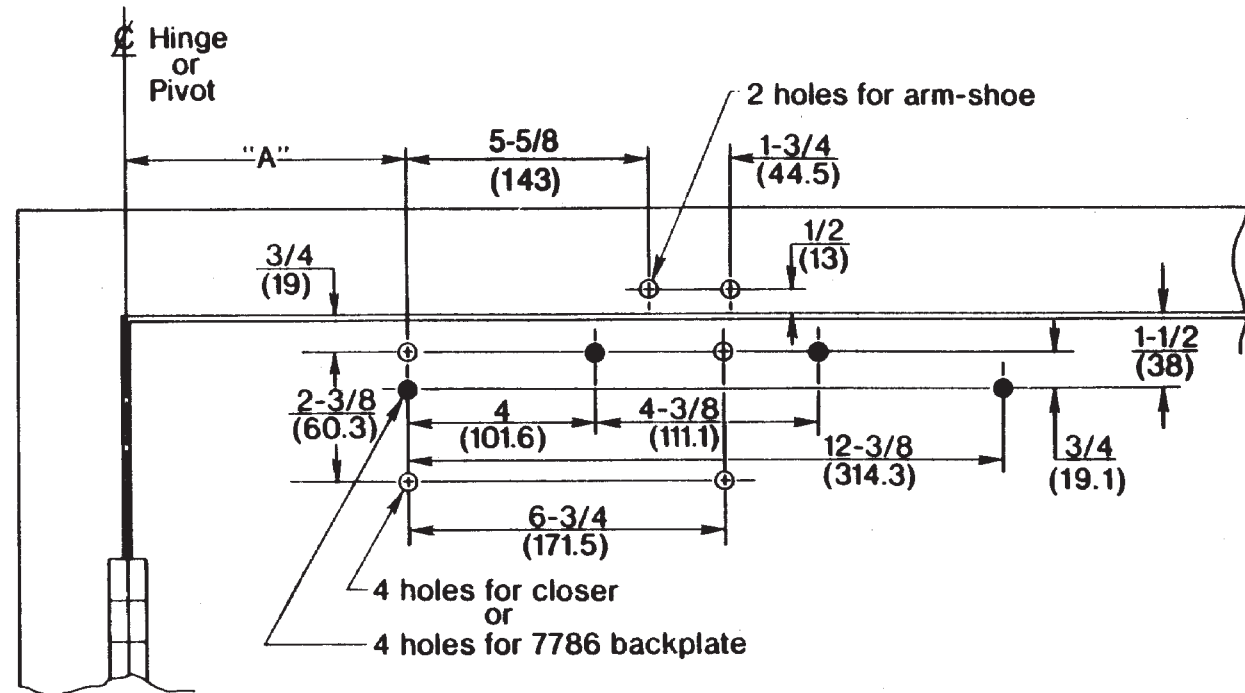


Opening	Dimension "A"	
	inches	mm.
To 100°	7-5/8	194
100° to 120°	6-5/8	168
120° to 150°	4-5/8	117
150° to 180°	4-1/8	105



- Caution: Door swing may be limited by door, frame, wall or hardware conditions (including closer projection).
- Do not scale drawing.
- Right hand door shown.
- Dimensions are given in inches (mm).
- Minimum ceiling clearance for closer arm : 1" (25mm).
- Hollow-metal doors require channel or box-type reinforcement when thru-bolt mount is specified.
- Through bolts required for wood or plastic faced fire-door mounting.
- Minimum thickness recommended for reinforcements in hollow-metal doors and frames: .1046" (2.66mm) unless otherwise noted.

★ Sex nut head [9/16" (15.00mm.) diameter x 1/8" (3mm.) high] has to be mortised in door or stop for top two closer or backplate fasteners.

★★ Grommet nut head [5/8" (16.00mm.) diameter x 1/8" (3mm.) high] has to be mortised in door or stop for top two closer or holder backplate fasteners.

PREPARATION FOR FASTENERS			
Fasteners		Door or Frame	Drill Sizes
STANDARD	#14 type "A" S.M. Screw	Wood	3/16" (4.30mm.)
	Arm: 1-1/4" (32mm.) Closer: 2-3/4" (70mm.)		
OPTIONAL	1/4-20 Machine Screw	Metal	#7 [201" (5.10mm.) dia.] drill 1/4-20 UNC tap
	Sex-nuts and bolts (See mortising note★)	Hollow-metal	9/32" (7.00mm.) through; 3/8" (9.50mm.) face opposite to closer.
		Aluminum or Wood	3/8" (9.50mm.) through.
	Through-bolts and grommet-nuts (See mortising note★★)	All	9/32" (7.00mm.) through; 3/8" (9.50mm.) dia. X 3/8" (10mm.) deep on face opposite to closer.

7580, 7780, and 7780TEL Series Door Closers With or Without 7786 Backplate Regular Arm Installation With Non Hold Open Arm

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TEMPLATE NUMBER

7377-0110

DATE

07-08