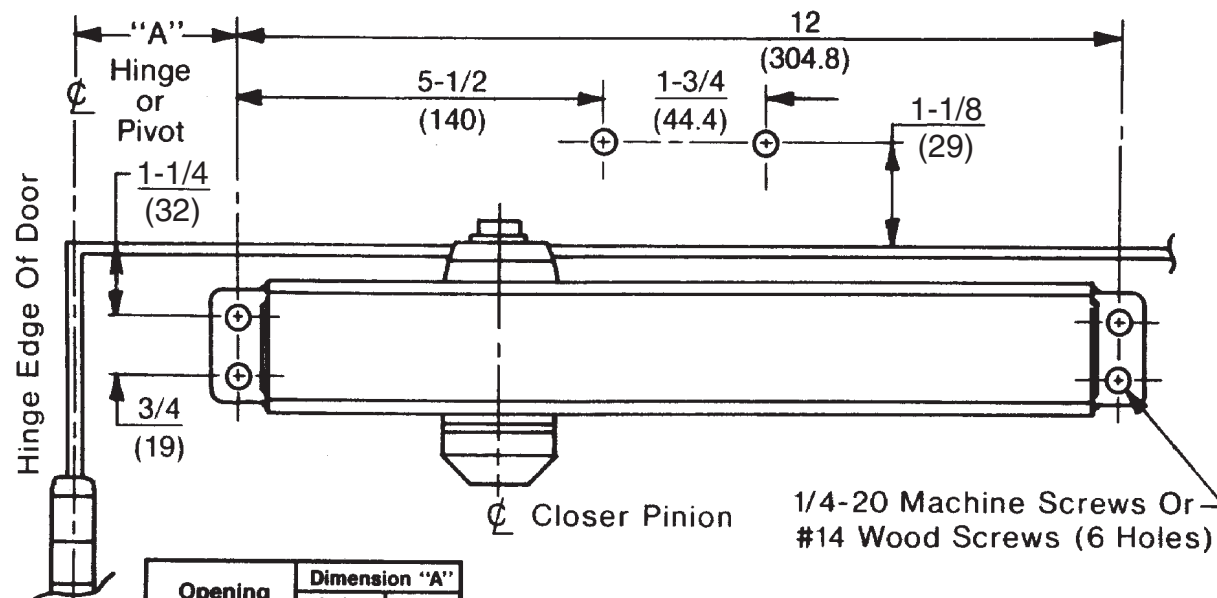
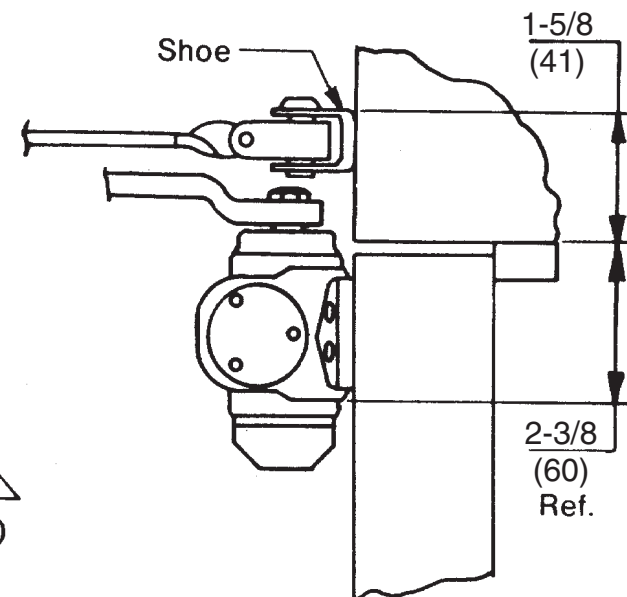


Opening	Dimension "A"
To 100°	7-1/2 (191)
101° to 130°	6 (152)
131° to *180°	4-1/2 (114)

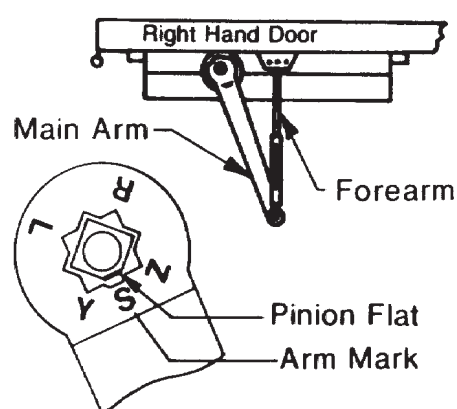
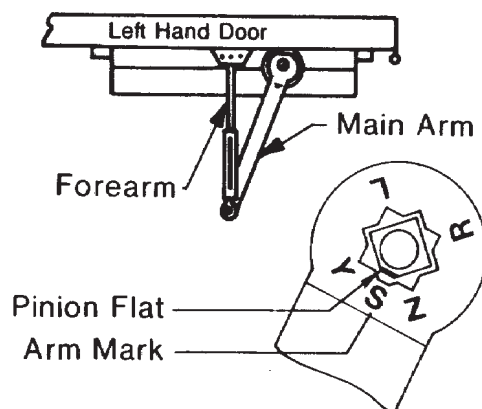
- *Door/Wall/Hardware/Jamb conditions permitting
- Notes:**
1. Do not scale drawing.
 2. Right hand door shown.
 3. Dimensions given in inches (millimeters).
 4. Hollow metal doors require channel or box type reinforcement when thru-bolt mount is specified.
 5. Sex bolts required for wood or plastic faced fire door mounting.
 6. Minimum thickness recommended for reinforcements in hollow metal doors and frames: .1046" (2.66mm) unless otherwise noted.



Opening	Dimension "A"	
	inches	mm.
To 100°	7-1/2	191
100° to 130°	6	152
Over 130°	4-1/2	114



Position of Arm and Pinion Flat



- Do not scale drawing.
- Right hand door shown.
- Dimensions are in inches (mm.).
- Hollow metal doors require channel or box type reinforcement when thru bolt mount is specified.
- Sex bolts required for wood or plastic faced fire door mounting.
- Minimum thickness recommended for reinforcements in hollow metal doors and frames: .1046" (2.66 mm.) unless otherwise noted.



TRADEMARK
 HARDWARE

**8000 Series Door Closer
 Regular Arm Application
 8100, 8300, and 8500
 Sizes 1 Thru 6**

**NORTON
 RIXSON**

ASSA ABLOY

TEMPLATE NUMBER

7380-0101

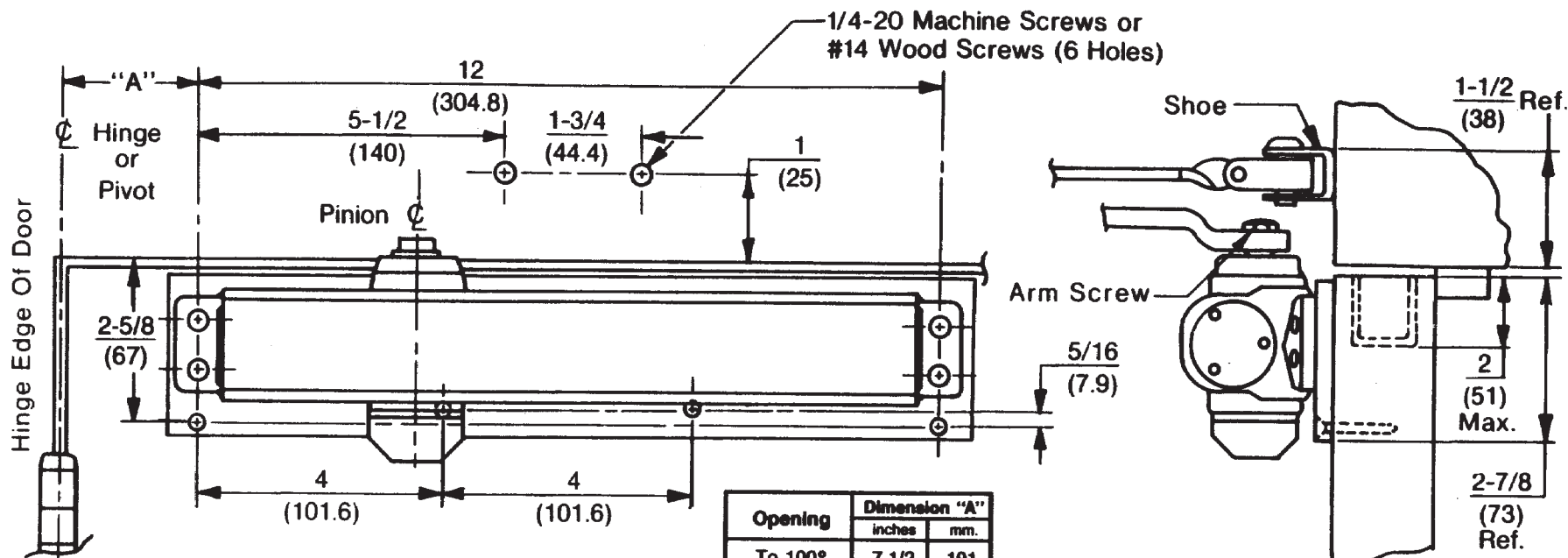
REV

3

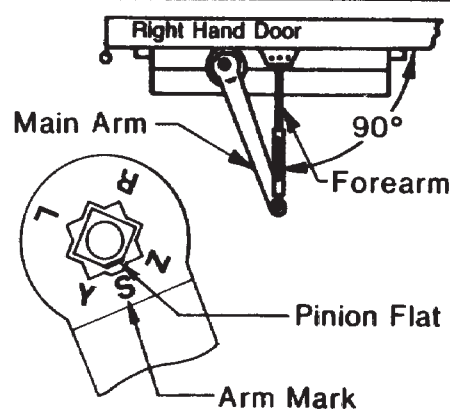
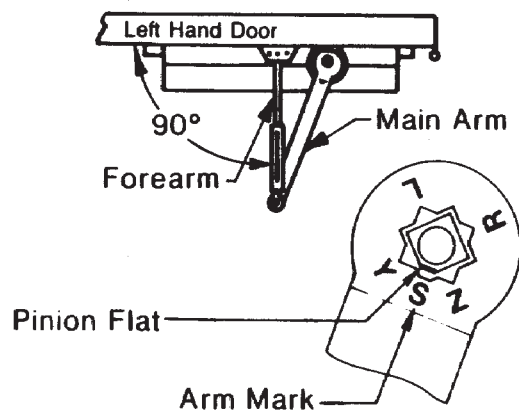
DATE

12/21

Approved 2022-02-26



Position of Arm and Pinion Flat



- Do not scale drawing.
- Right hand door shown.
- Dimensions are in inches (mm.).
- Hollow metal doors require channel or box type reinforcement when thru bolt mount is specified.
- Sex bolts required for wood or plastic faced fire door mounting.
- Minimum thickness recommended for reinforcements in hollow metal doors and frames: .1046" (2.66 mm.) unless otherwise noted.



TRADEMARK
 HARDWARE

8000 Series Door Closer
Regular Arm Application With 8146 Back Plate for Concealed Holder Clearance
8100, 8300, and 8500
Sizes 1 Thru 6

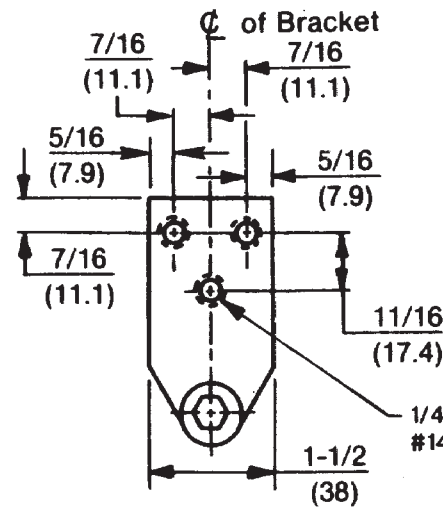
**NORTON
 RIXSON**

ASSA ABLOY

TEMPLATE NUMBER	REV	DATE
7380-0102	3	12/21

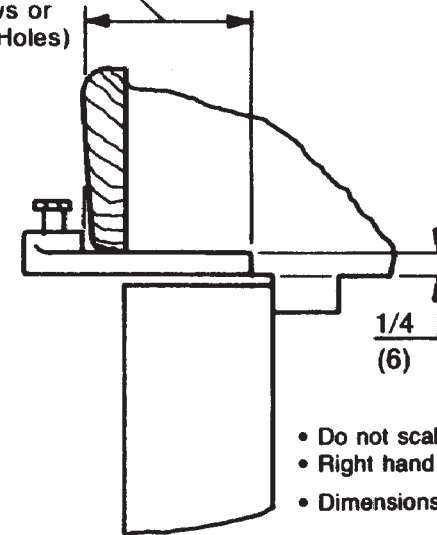
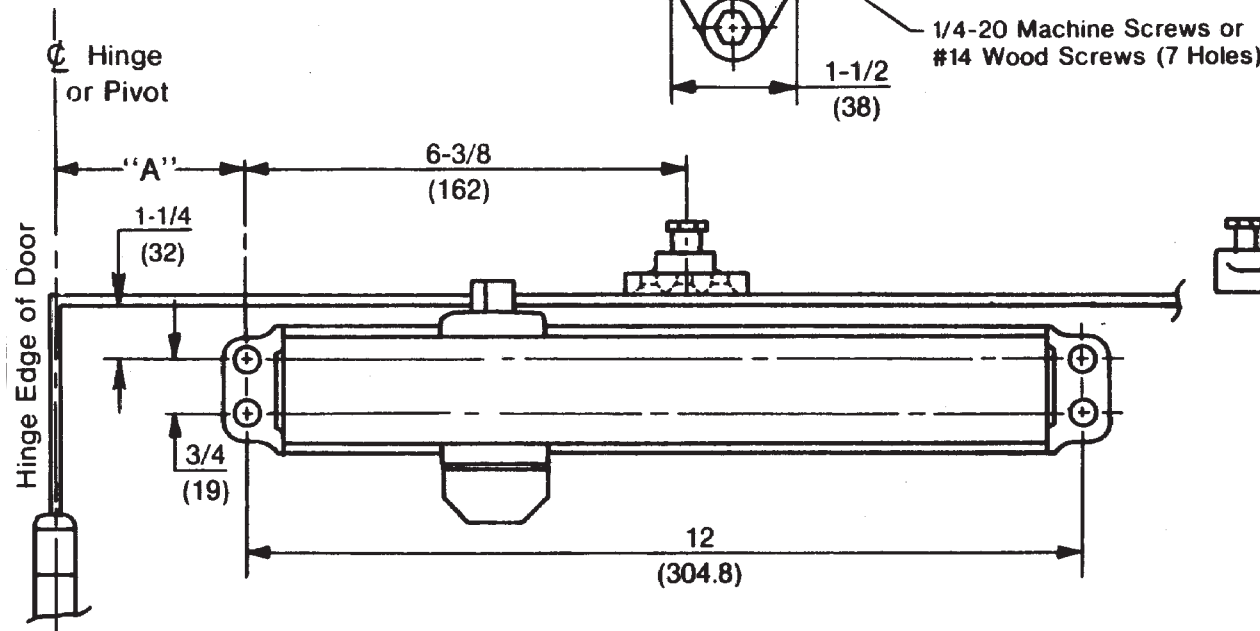
Approved 2022-02-26

Opening	Dimension "A"	
	inches	mm.
To 100°	7-1/2	191
100° to 130°	6	152
Over 130°	4-1/2	114



Note: Bracket Is Mortised
 Into Jamb As Shown

For 2403 Bracket — 2-1/4 (57)
 For 2403-3/4 Bracket — 3 (76)



- Do not scale drawing.
- Right hand door shown.
- Dimensions are in inches (mm.).
- Hollow metal doors require channel or box type reinforcement when thru bolt mount is specified.
- Sex bolts required for wood or plastic faced fire door mounting.
- Minimum thickness recommended for reinforcements in hollow metal doors and frames: .1046" (2.66 mm.) unless otherwise noted.



TRADEMARK
 HARDWARE

8000 Series Door Closer
Regular Arm Application With 2403 and 2403-3/4 Bracket For Bull Nose Trim
8100, 8300, and 8500
Sizes 1 Thru 6

**NORTON
 RIXSON**

ASSA ABLOY

TEMPLATE NUMBER

7380-0103

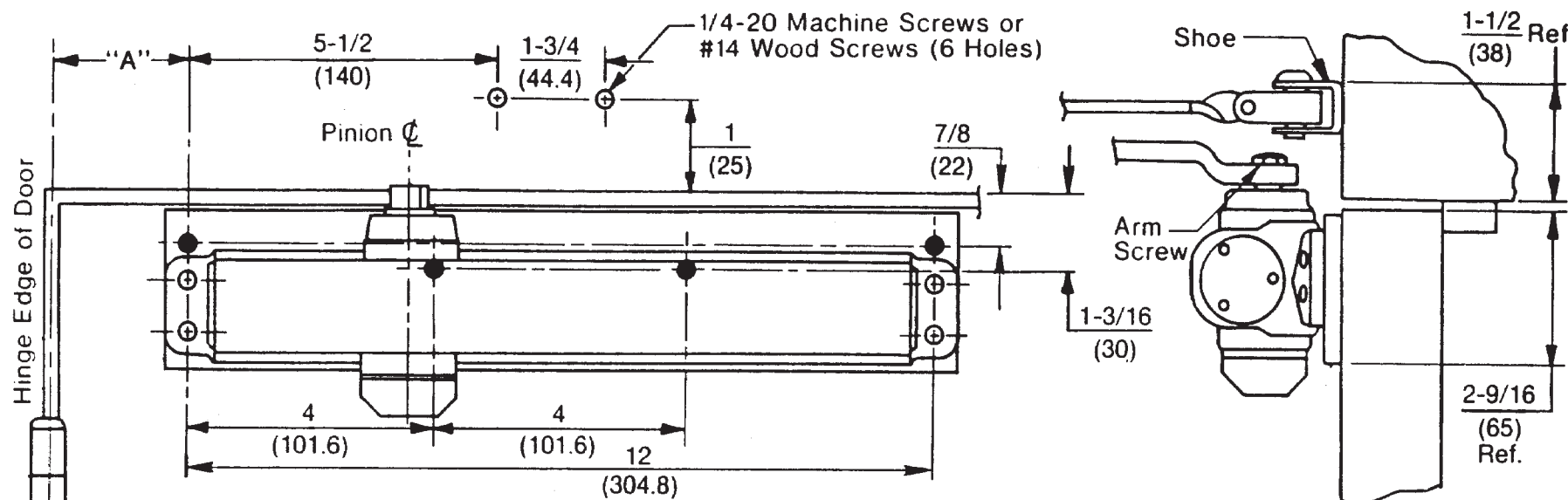
REV

3

DATE

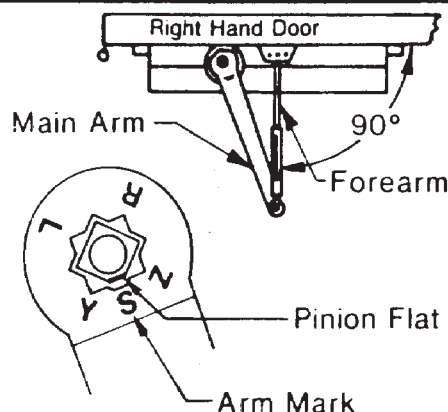
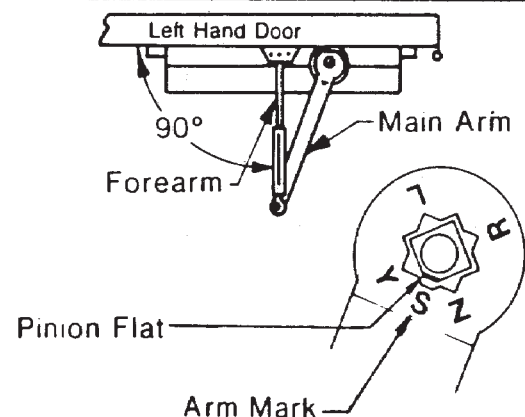
12/21

Approved 2022-02-26



Opening	Dimension "A"	
	inches	mm.
To 100°	7-1/2	191
100° to 130°	6	152
Over 130°	4-1/2	114

Position of Arm and Pinion Flat



- Do not scale drawing.
- Right hand door shown.
- Dimensions are in inches (mm.).
- Hollow metal doors require channel or box type reinforcement when thru bolt mount is specified.
- Sex bolts required for wood or plastic faced fire door mounting.
- Minimum thickness recommended for reinforcements in hollow metal doors and frames: .1046" (2.66 mm.) unless otherwise noted.



TRADEMARK
 HARDWARE

8000 Series Door Closer
Regular Arm Application With 8146 Back Plate for 1-3/4 Top Rail
8100, 8300, and 8500
Sizes 1 Thru 6

**NORTON
 RIXSON**

ASSA ABLOY

TEMPLATE NUMBER

7380-0104

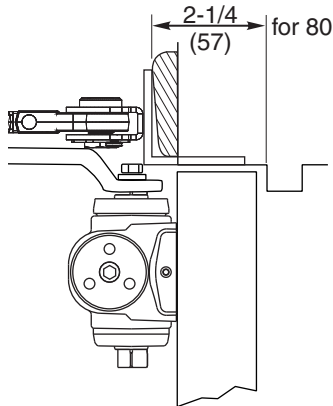
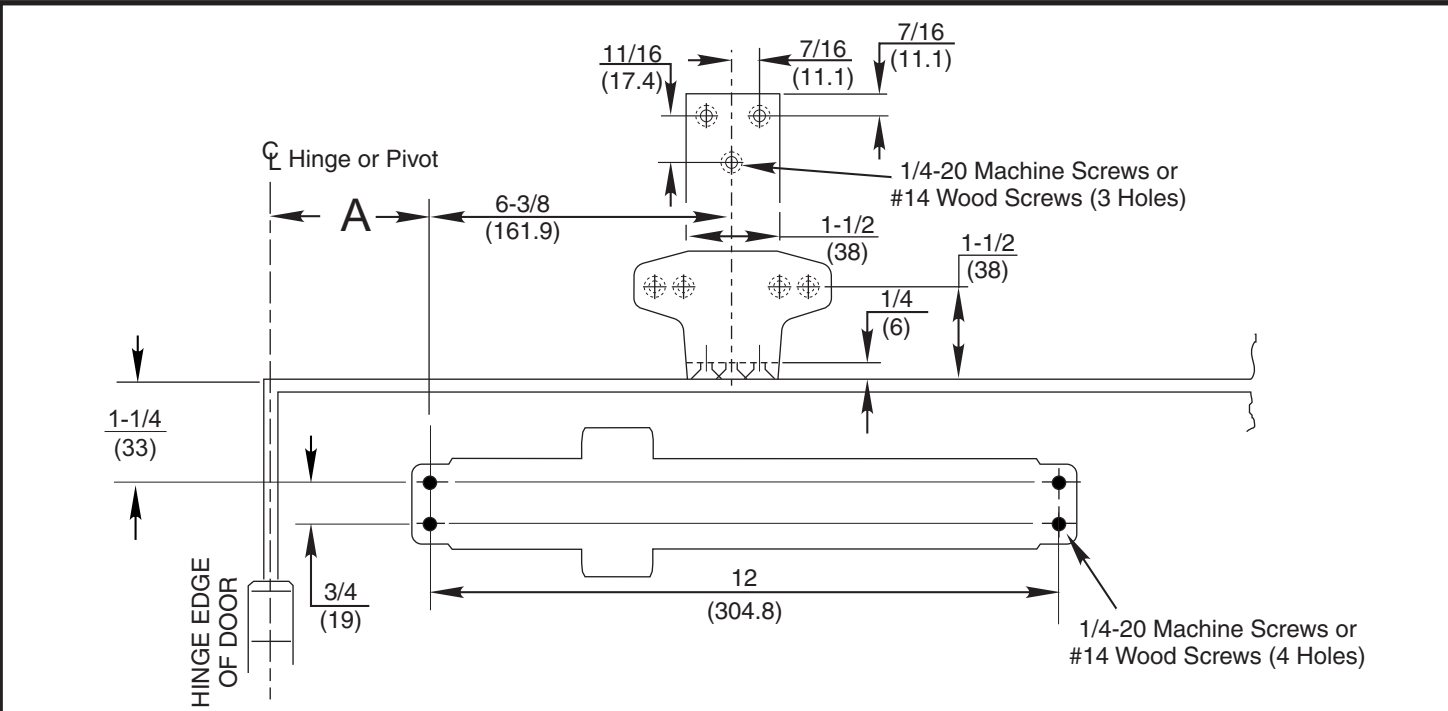
REV

3

DATE

12/21

Approved 2022-02-26



Note: Bracket is mortised into jamb as shown.

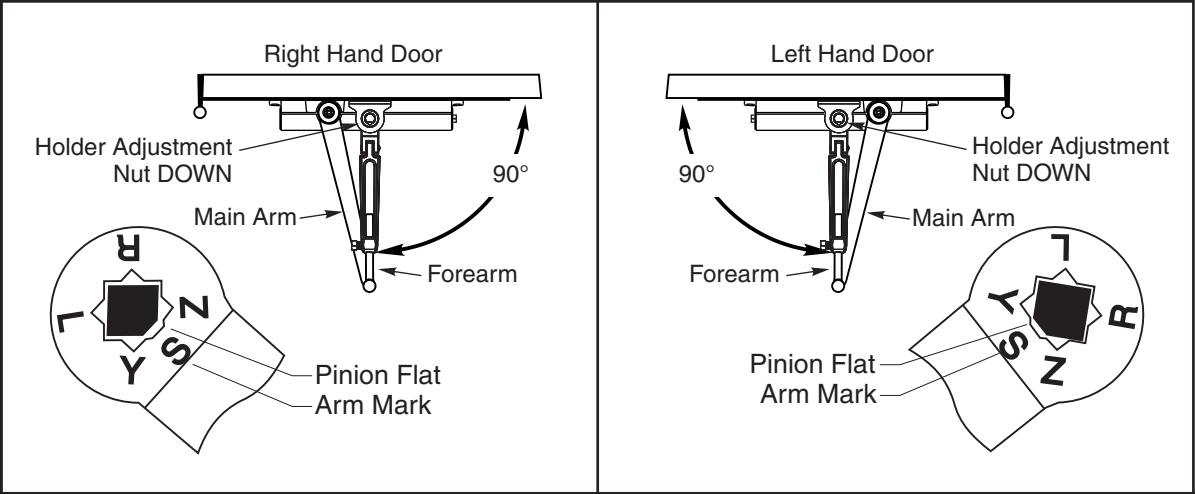
Opening	Dimension "A"
To 100°	7-1/2 (191)
101° to 130°	6 (152)
131° to *180°	4-1/2 (114)

*Door/Wall/Hardware/Jamb conditions permitting

Notes:

1. Do not scale drawing.
2. Right hand door shown.
3. Dimensions given in inches (millimeters).
4. Hollow metal doors require channel or box type reinforcement when thru-bolt mount is specified.
5. Sex bolts required for wood or plastic faced fire door mounting.
6. Minimum thickness recommended for reinforcements in hollow metal doors and frames: .1046" (2.66mm) unless otherwise noted.

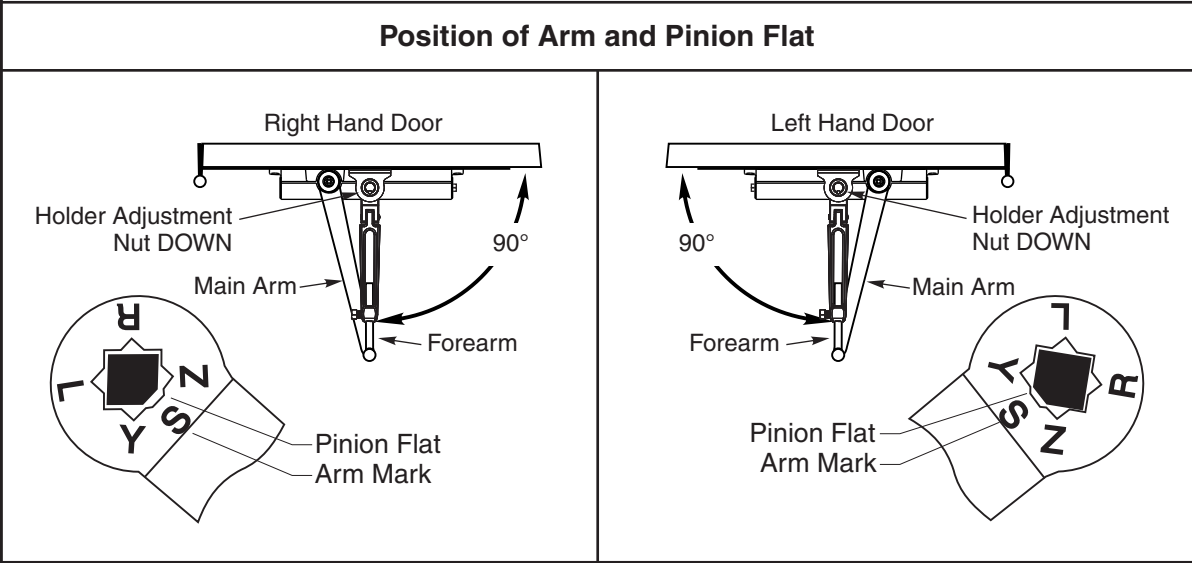
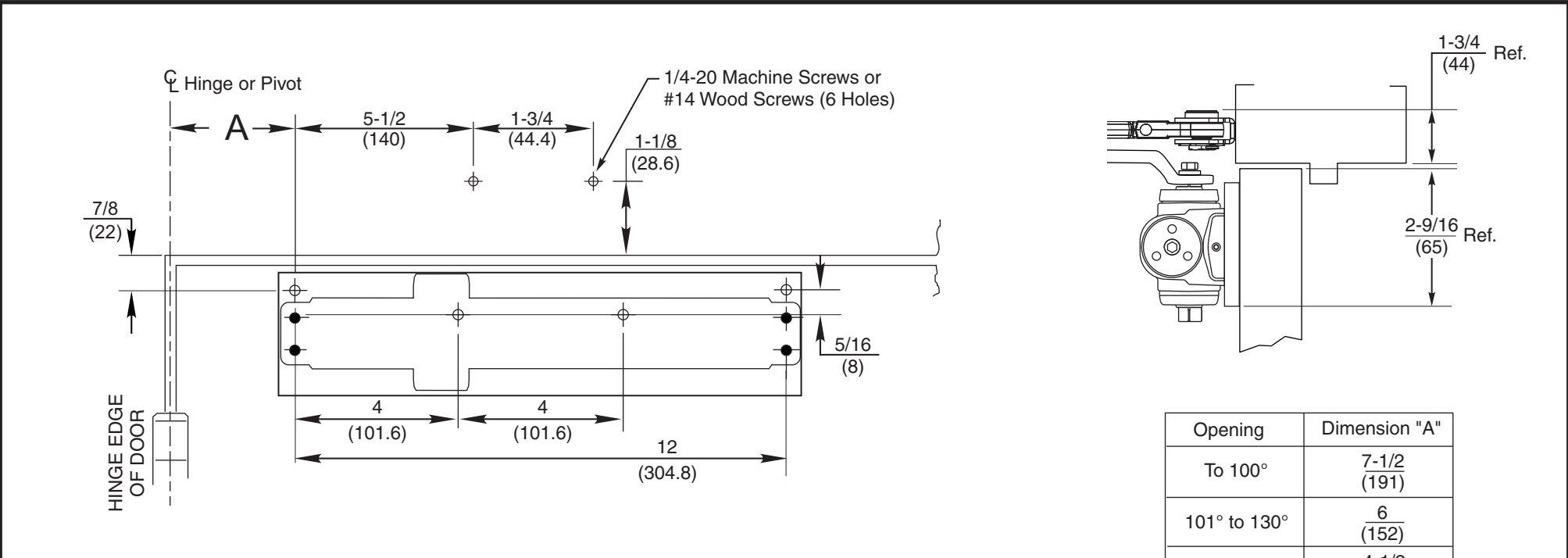
Position of Arm and Pinion Flat



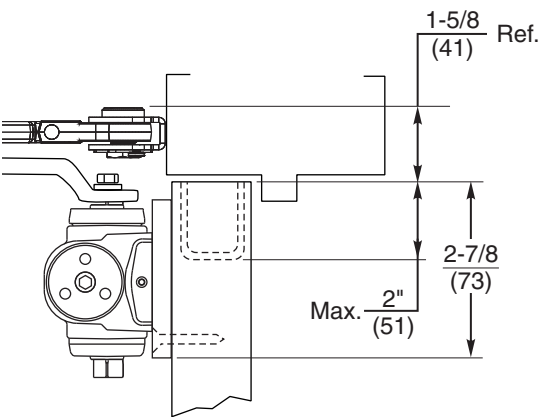
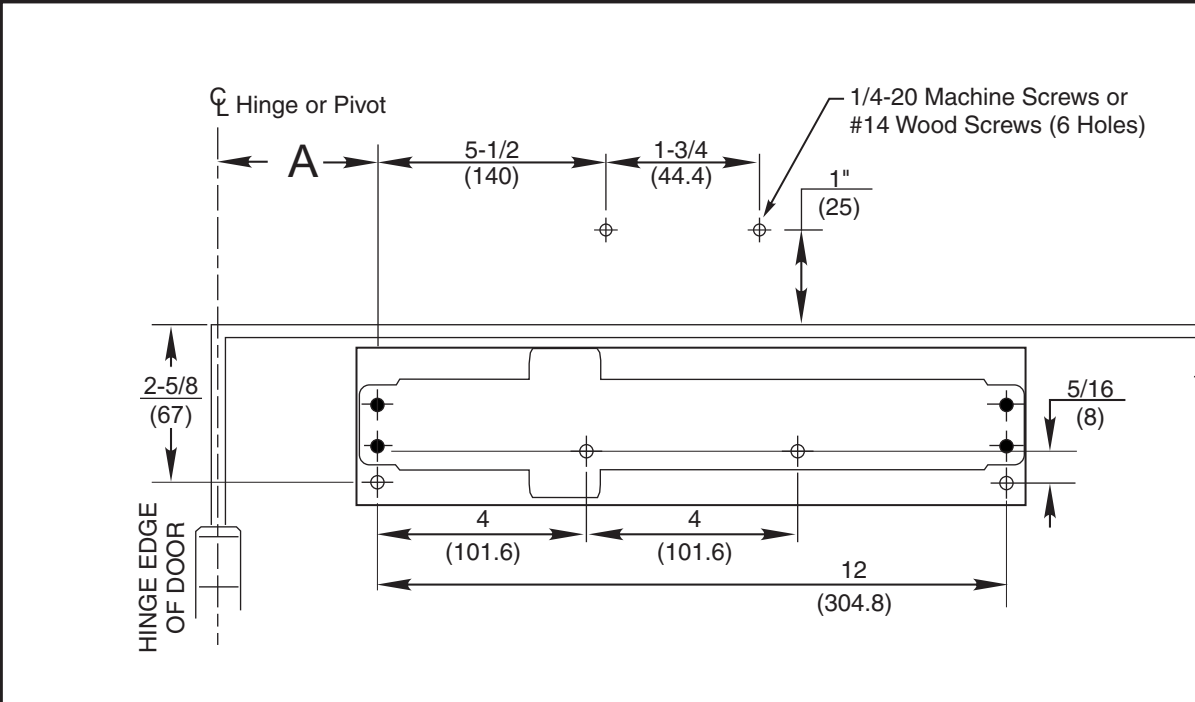
8000H Series Door Closer with 80 Bracket
Regular Hold Open Application For Bull Nose Trim
8100H, 8300H, and 8500H
Sizes 1 Thru 6



TEMPLATE NUMBER	REV	DATE
7380-0107	3	01/22



- *Door/Wall/Hardware/Jamb conditions permitting
- Notes:**
1. Do not scale drawing.
 2. Right hand door shown.
 3. Dimensions given in inches (millimeters).
 4. Hollow metal doors require channel or box type reinforcement when thru-bolt mount is specified.
 5. Sex bolts required for wood or plastic faced fire door mounting.
 6. Minimum thickness recommended for reinforcements in hollow metal doors and frames: .1046" (2.66mm) unless otherwise noted.

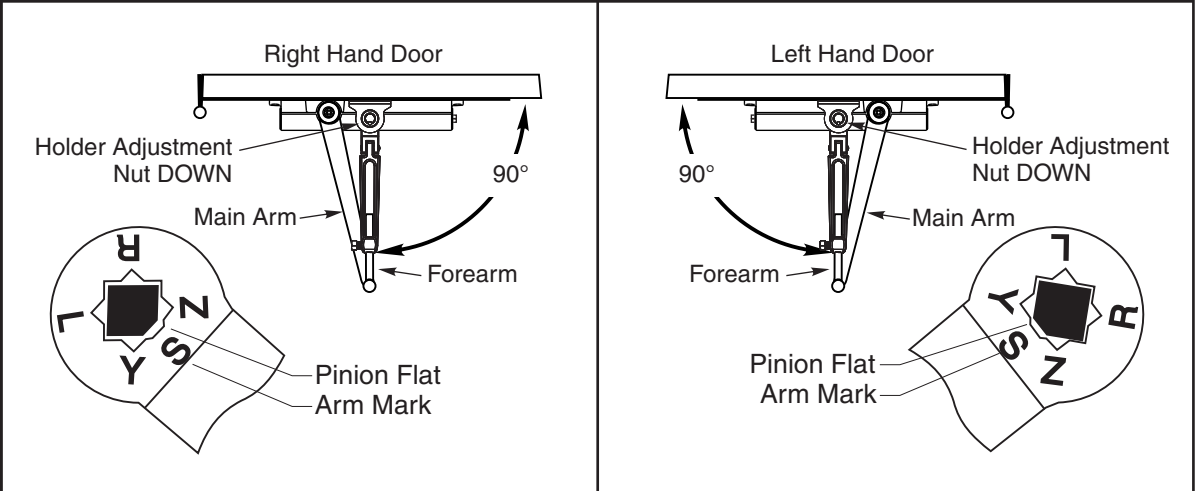


Note: Typical overhead stop channel.

Opening	Dimension "A"
To 100°	7-1/2 (191)
101° to 130°	6 (152)
131° to *180°	4-1/2 (114)

- *Door/Wall/Hardware/Jamb conditions permitting
- Notes:**
- 1. Do not scale drawing.
 - 2. Right hand door shown.
 - 3. Dimensions given in inches (millimeters).
 - 4. Hollow metal doors require channel or box type reinforcement when thru-bolt mount is specified.
 - 5. Sex bolts required for wood or plastic faced fire door mounting.
 - 6. Minimum thickness recommended for reinforcements in hollow metal doors and frames: .1046" (2.66mm) unless otherwise noted.

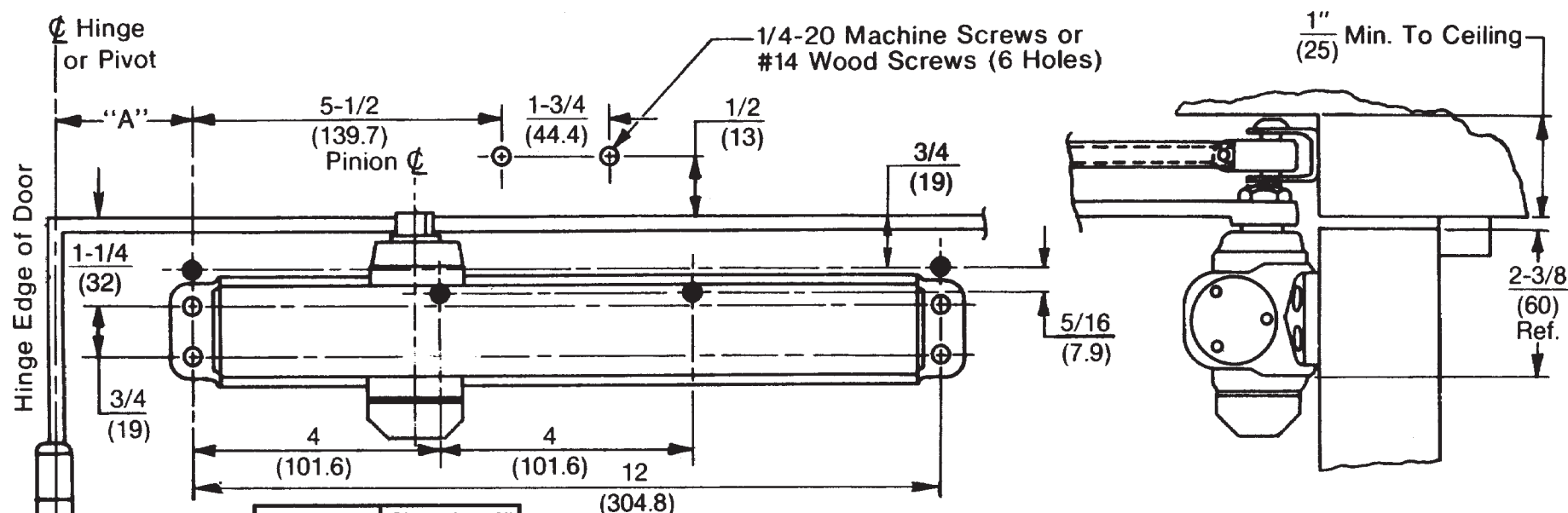
Position of Arm and Pinion Flat



8000H Series Door Closer
Hold Open Application With 8146 Back Plate for Concealed Stop Clearance
8100H, 8300H, and 8500H



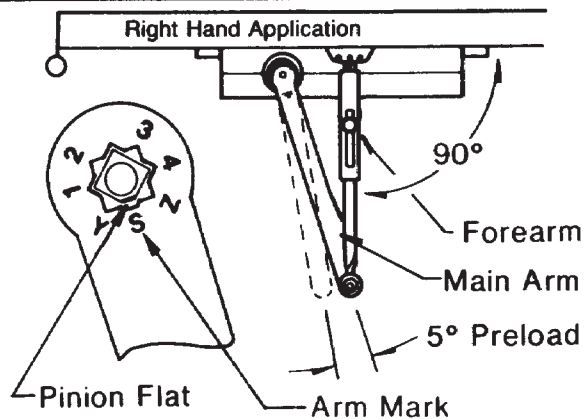
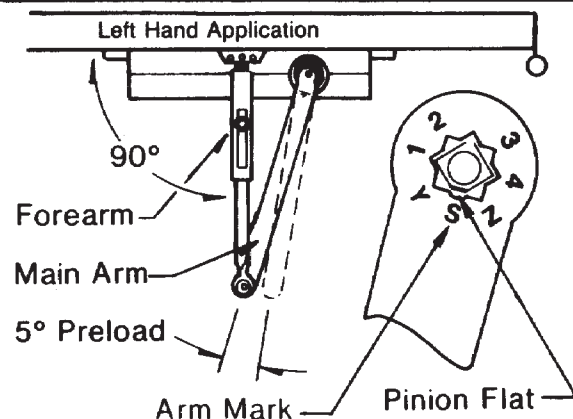
TEMPLATE NUMBER	REV	DATE
7380-0109	3	01/22



Opening	Dimension "A"	
	inches	mm.
To 100°	7-1/2	191
100° to 130°	6	152
Over 130°	4-1/2	114

● Prepare These Holes Only When
8146 Back Plate is Used

Position of Arm & Pinion Flat



- Do not scale drawing.
- Right hand door shown.
- Dimensions are in inches (mm.).
- Hollow metal doors require channel or box type reinforcement when thru bolt mount is specified.
- Sex bolts required for wood or plastic faced fire door mounting.
- Minimum thickness recommended for reinforcements in hollow metal doors and frames: .1046" (2.66 mm.) unless otherwise noted.



TRADEMARK
HARDWARE

8080 Series Door Closer
Regular Low Ceiling Arm Application With or Without 8146 Back Plate
8180, 8380, and 8580
Sizes 1 Thru 6

**NORTON
RIXSON**

ASSA ABLOY

TEMPLATE NUMBER

7380-0110

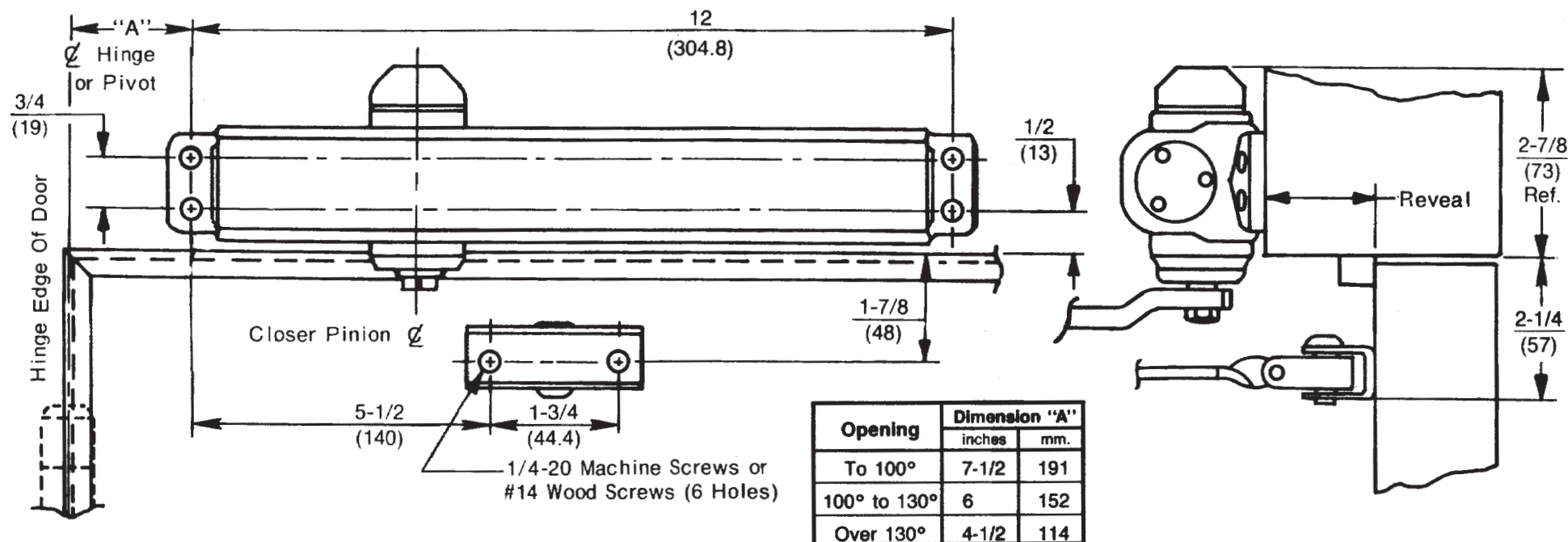
REV

3

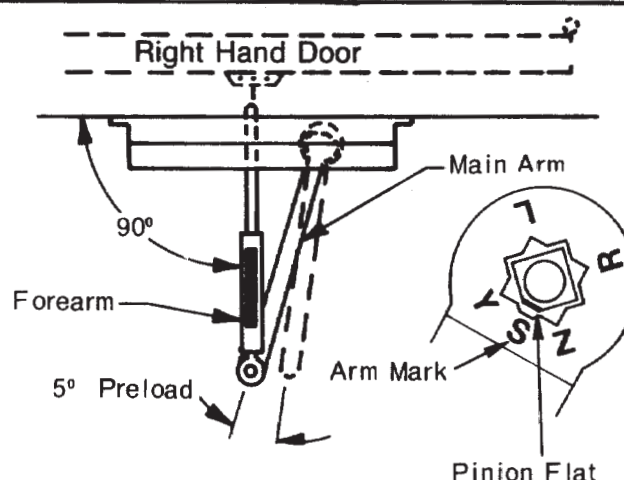
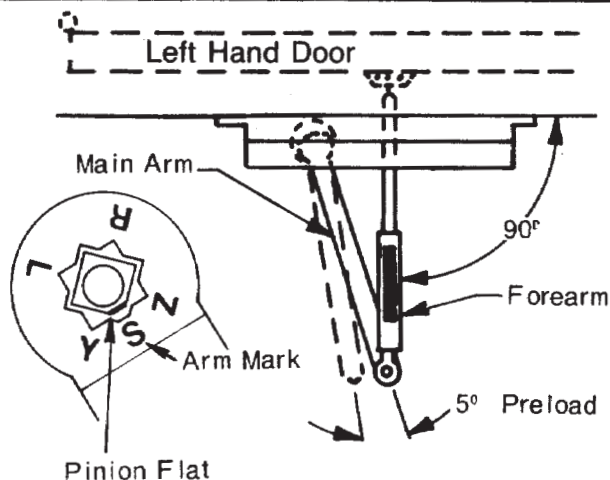
DATE

12/21

Approved 2022-02-26



Position of Arm and Pinion Flat



- Do not scale drawing.
- Left hand door shown.
- Dimensions are in inches (mm.).
- Hollow metal doors require channel or box type reinforcement when thru bolt mount is specified.
- Sex bolts required for wood or plastic faced fire door mounting.
- Minimum thickness recommended for reinforcements in hollow metal doors and frames: .1046" (2.66 mm.) unless otherwise noted.
- Use regular length rod for reveals to 3" (76 mm.). Use long rod for reveals 2-3/4" (70 mm.) to 6-3/4" (171 mm.).

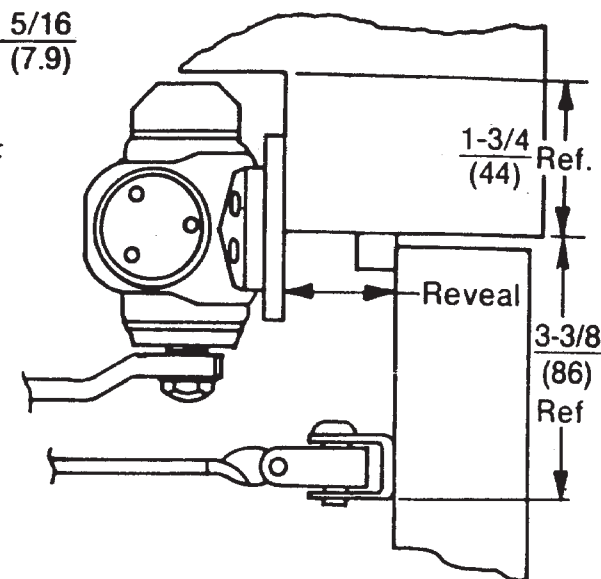
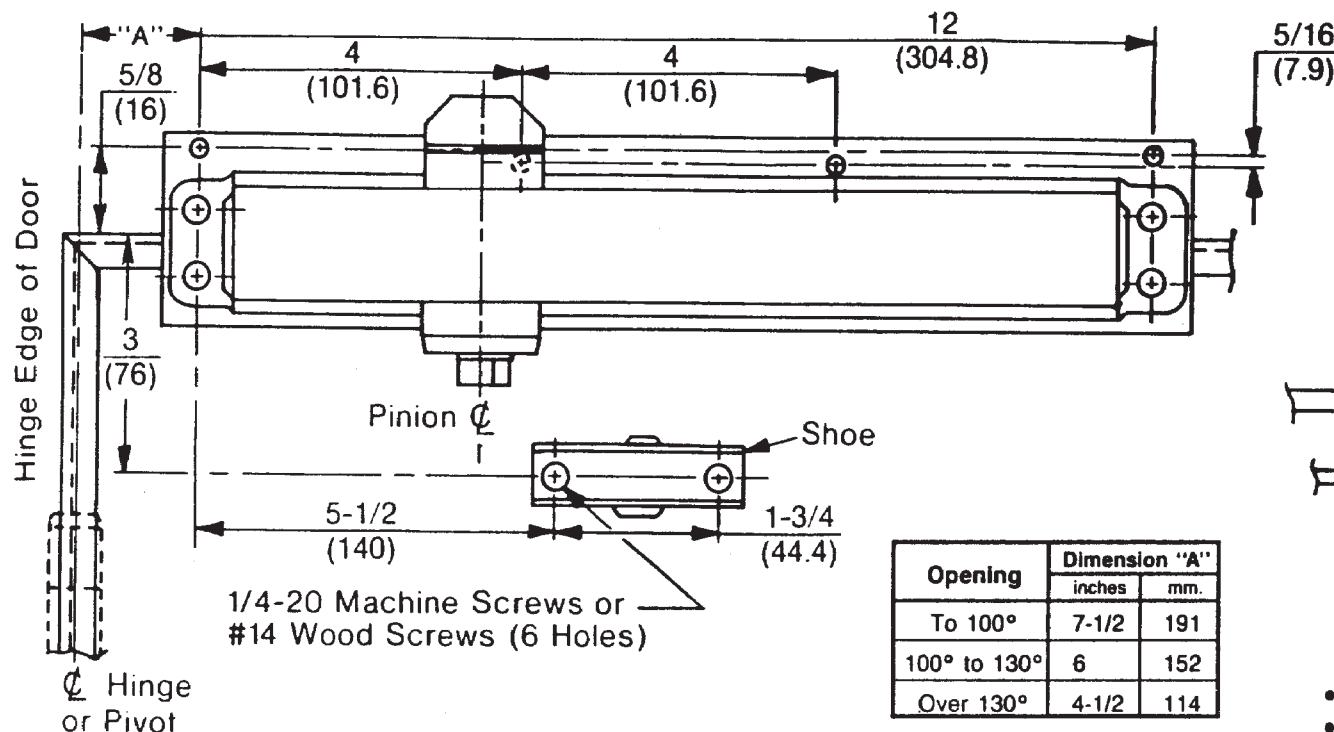


J8000 Series Door Closer
Top Jamb Application
J8100, J8300, and J8500
Sizes 1 thru 6

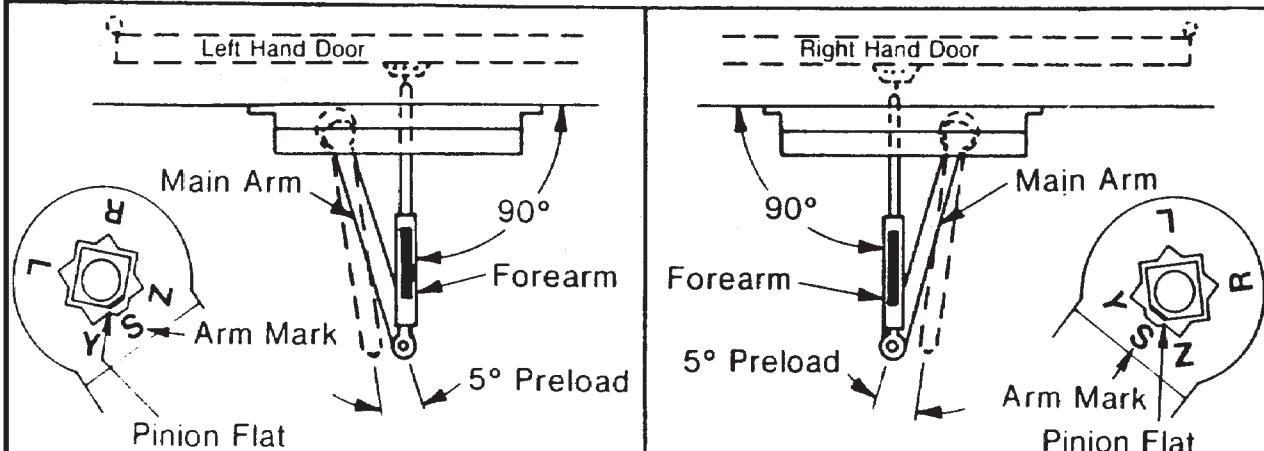


TEMPLATE NUMBER	REV	DATE
7380-0150	3	12/21

Approved 2022-02-26



Position of Arm and Pinion Flat



- Do not scale drawing.
- Left hand door shown.
- Dimensions are in inches (mm.).
- Hollow metal doors require channel or box type reinforcement when thru bolt mount is specified.
- Sex bolts required for wood or plastic faced fire door mounting.
- Minimum thickness recommended for reinforcements in hollow metal doors and frames: .1046" (2.66 mm.) unless otherwise noted.
- Use regular length rod for reveals to 3" (76 mm.). Use long rod for reveals 2-3/4" (70 mm.) to 6-3/4" (171 mm.).



TRADEMARK
 HARDWARE

J8000 Series Door Closer
Top Jamb Application With 8146 Back Plate for Low Ceiling Clearance
J8100, J8300, and J8500
Sizes 1 thru 6

**NORTON
 RIXSON**

ASSA ABLOY

TEMPLATE NUMBER

7380-0151

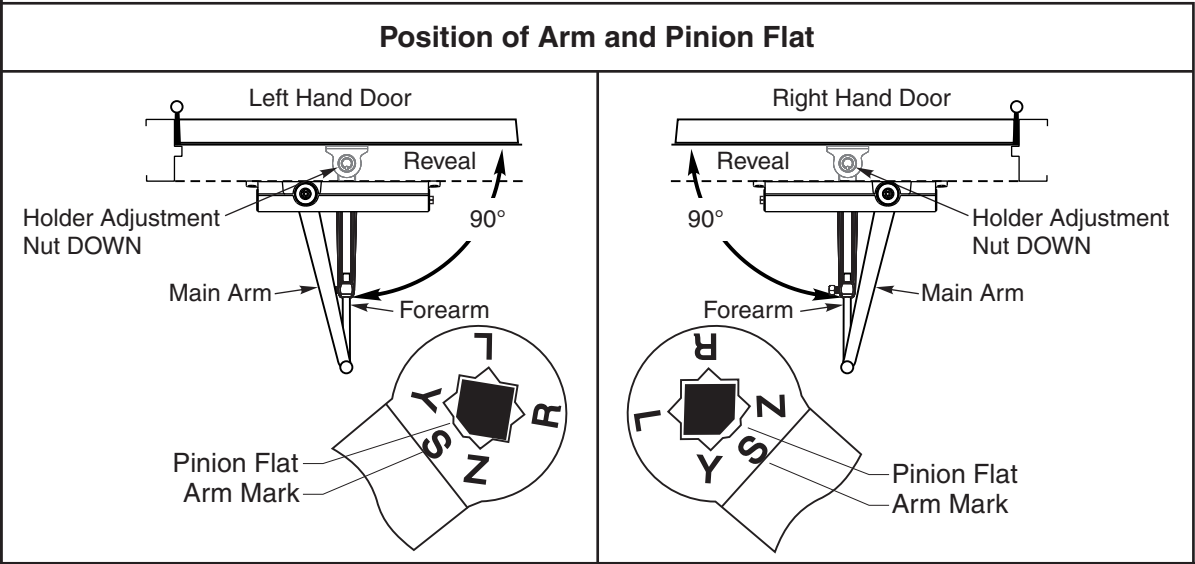
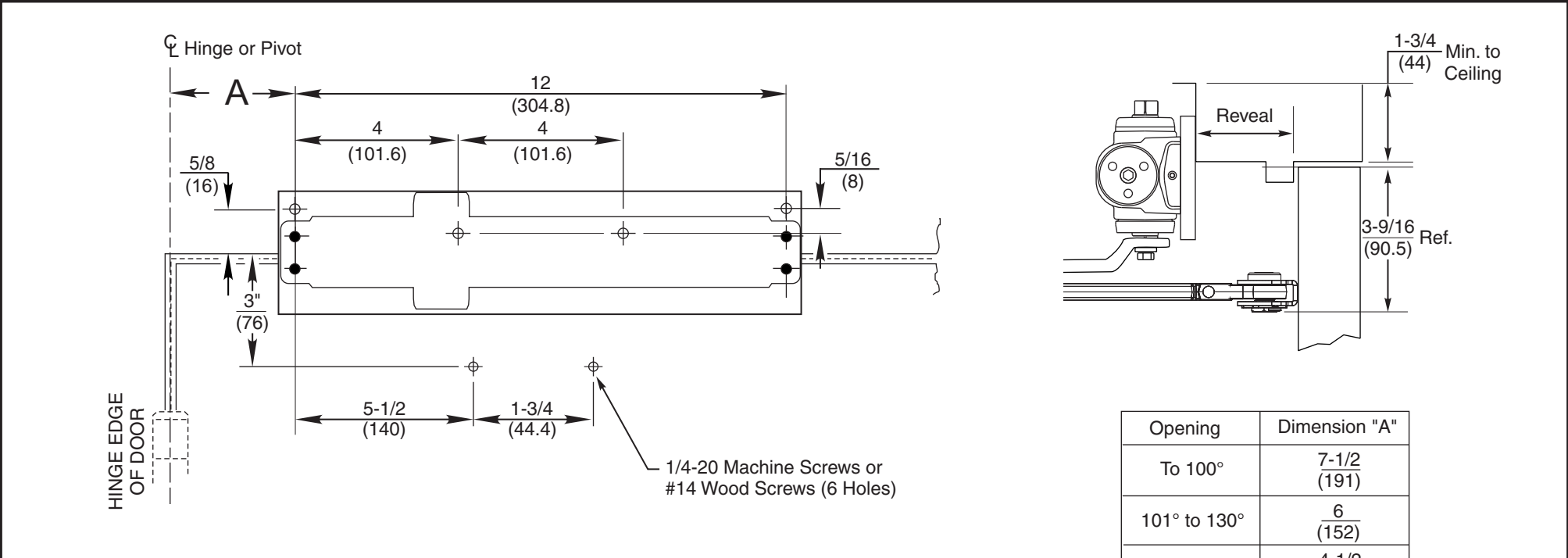
REV

3

DATE

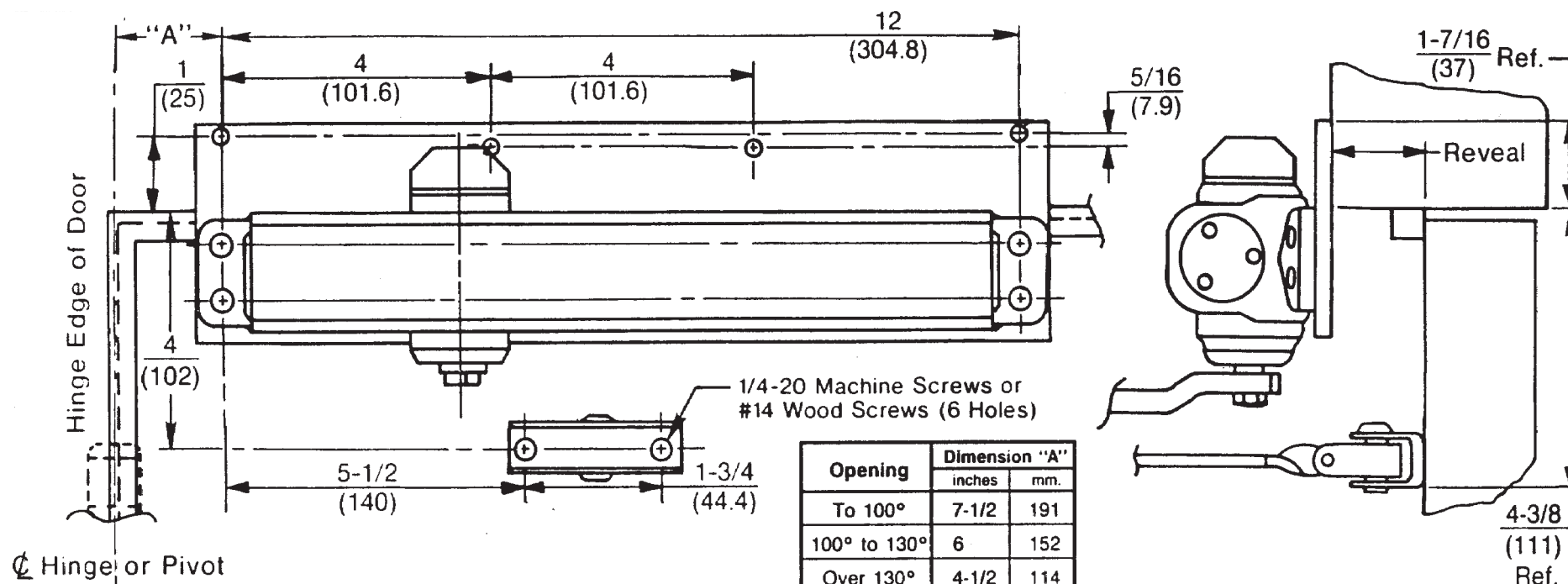
12/21

Approved 2022-02-26

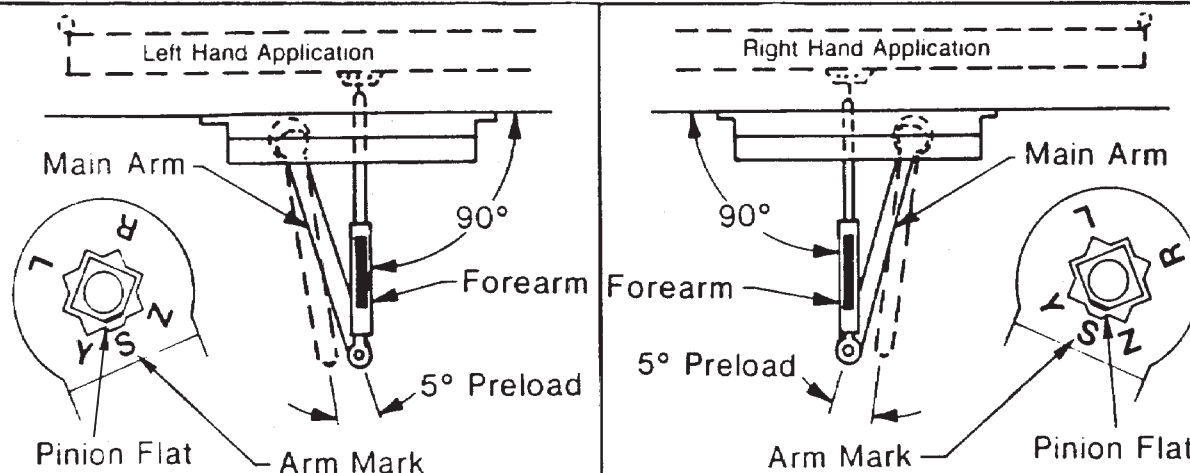


*Door/Wall/Hardware/Jamb conditions permitting

- Notes:**
1. Do not scale drawing.
 2. Left hand door shown.
 3. Dimensions given in inches (millimeters).
 4. Hollow metal doors require channel or box type reinforcement when thru-bolt mount is specified.
 5. Sex bolts required for wood or plastic faced fire door mounting.
 6. Minimum thickness recommended for reinforcements in hollow metal doors and frames: .1046" (2.66mm) unless otherwise noted.
 7. Use regular length rod for reveals to 3" (76mm). Use long rod for reveals 2-3/4" (70mm) to 6-3/4" (171mm).



Position of Arm & Pinion Flat



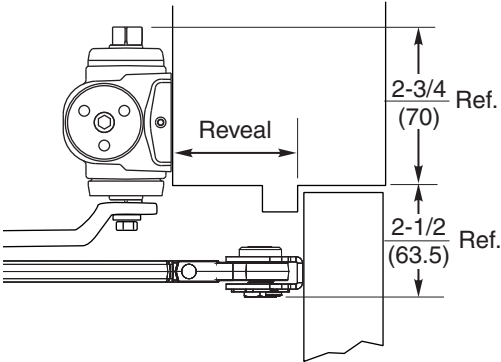
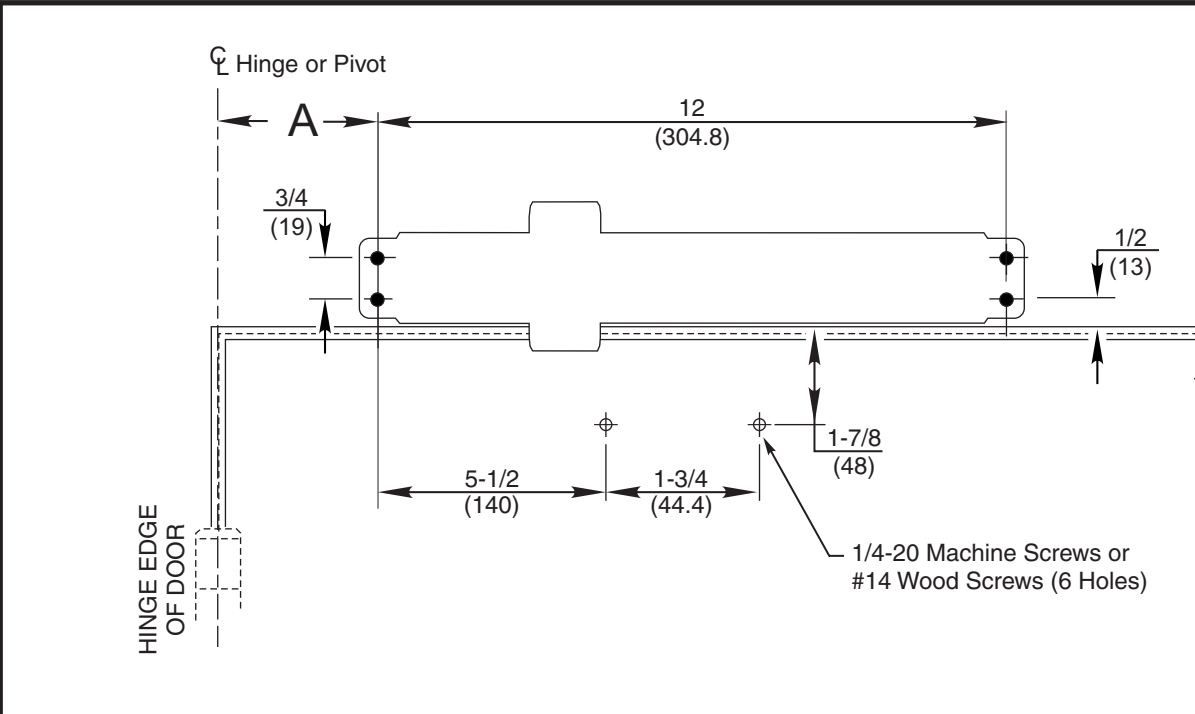
- Do not scale drawing.
- Left hand door shown.
- Dimensions are in inches (mm.).
- Hollow metal doors require channel or box type reinforcement when thru bolt mount is specified.
- Sex bolts required for wood or plastic faced fire door mounting.
- Minimum thickness recommended for reinforcements in hollow metal doors and frames: .1046" (2.66 mm.) unless otherwise noted.
- Use regular length rod for reveals to 3" (76 mm.). Use long rod for reveals 2-3/4" (70 mm.) to 6-3/4" (171 mm.).



J8000 Series Door Closer Top Jamb Application With 8148 Drop Plate J8100, J8300, and J8500 Sizes 1 thru 6

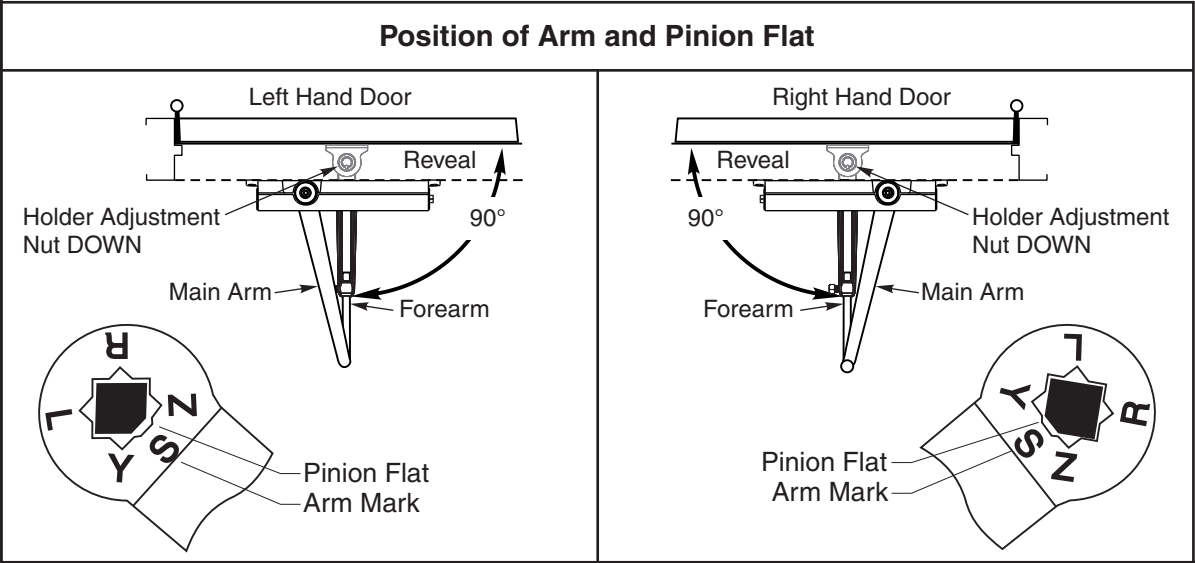


TEMPLATE NUMBER	REV	DATE
7380-0154	3	12/21

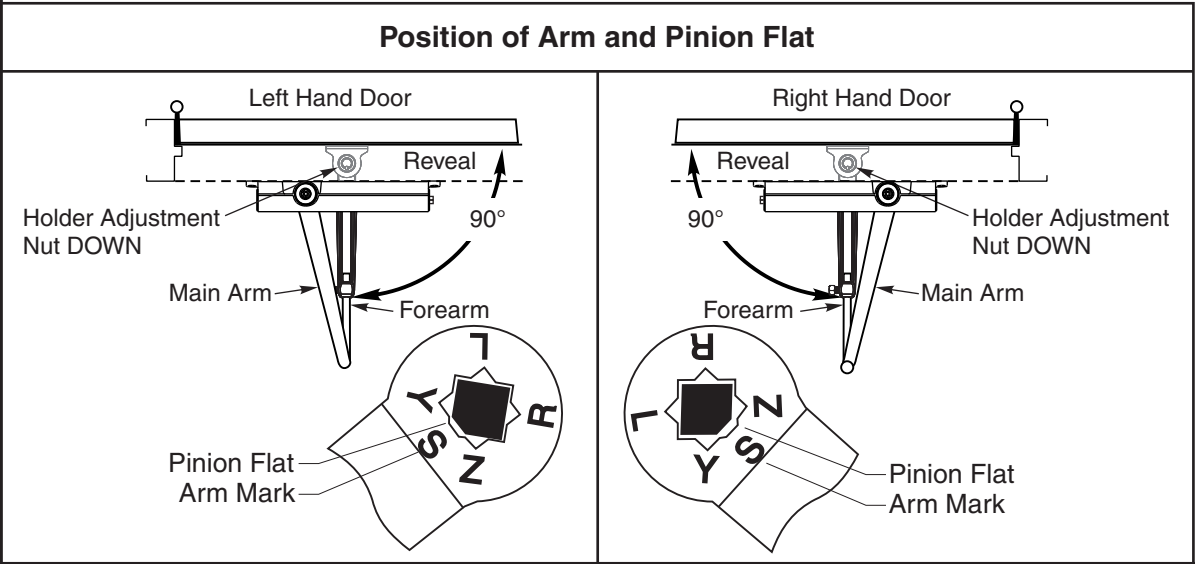
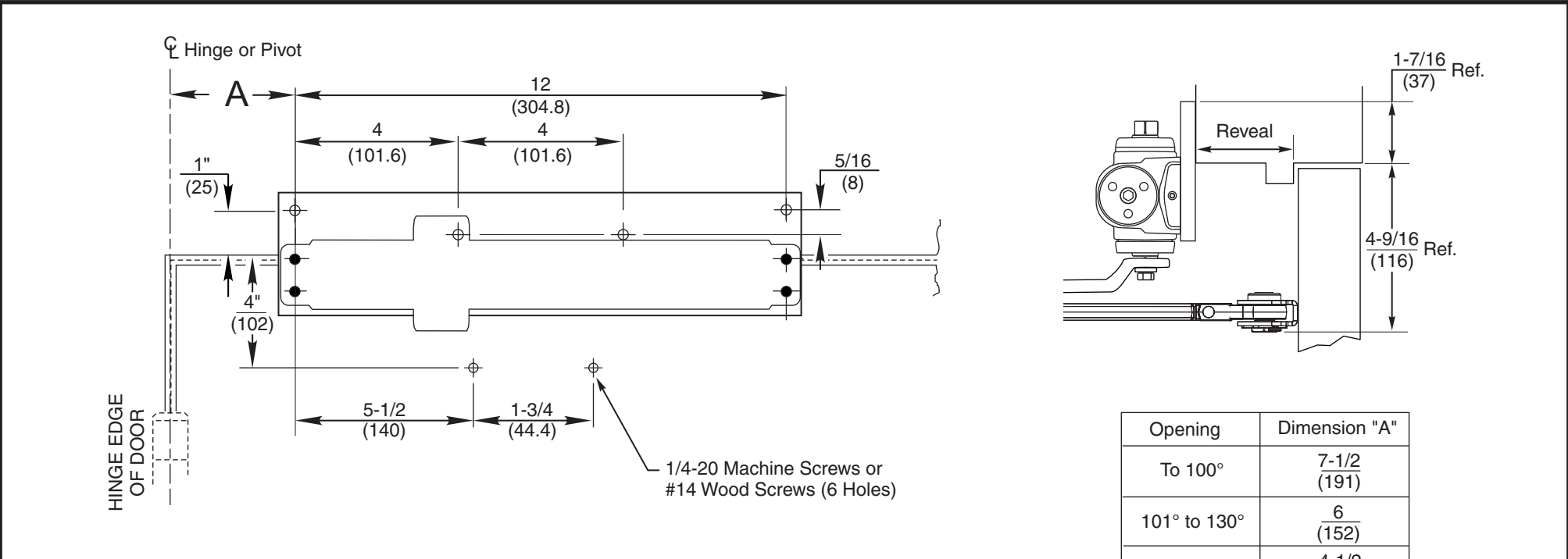


Opening	Dimension "A"
To 100°	7-1/2 (191)
101° to 130°	6 (152)
131° to *180°	4-1/2 (114)

*Door/Wall/Hardware/Jamb
conditions permitting

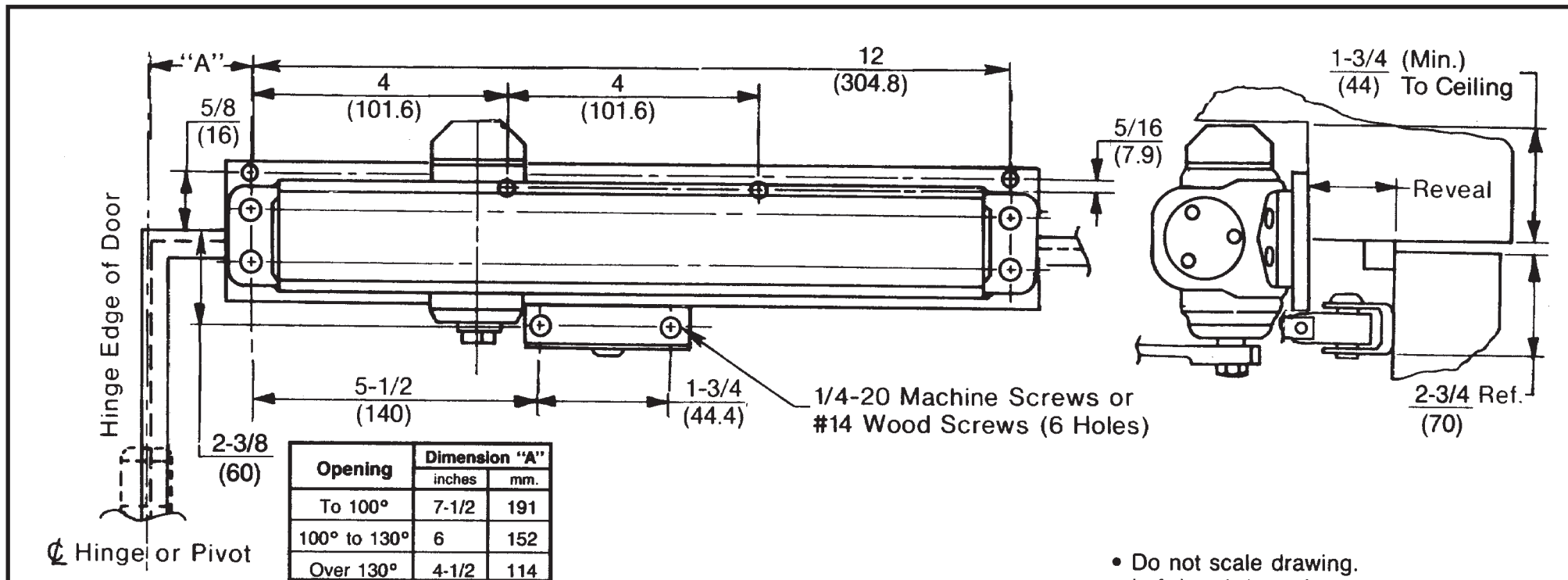


- Notes:**
1. Do not scale drawing.
 2. Left hand door shown.
 3. Dimensions given in inches (millimeters).
 4. Hollow metal doors require channel or box type reinforcement when thru-bolt mount is specified.
 5. Sex bolts required for wood or plastic faced fire door mounting.
 6. Minimum thickness recommended for reinforcements in hollow metal doors and frames: .1046" (2.66mm) unless otherwise noted.
 7. Use regular length rod for reveals to 3" (76mm). Use long rod for reveals 2-3/4" (70mm) to 6-3/4" (171mm).

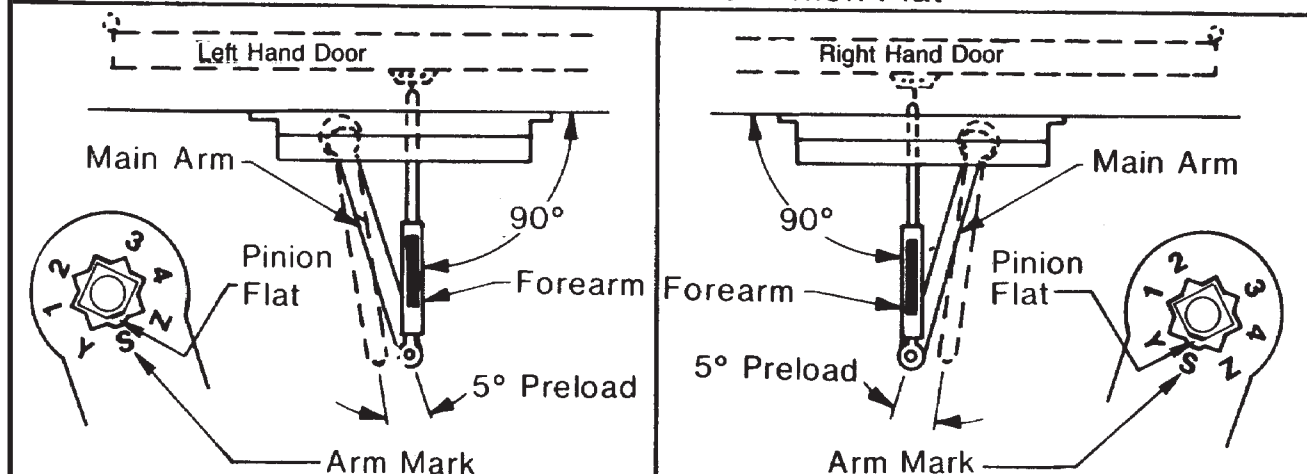


*Door/Wall/Hardware/Jamb conditions permitting

- Notes:**
1. Do not scale drawing.
 2. Left hand door shown.
 3. Dimensions given in inches (millimeters).
 4. Hollow metal doors require channel or box type reinforcement when thru-bolt mount is specified.
 5. Sex bolts required for wood or plastic faced fire door mounting.
 6. Minimum thickness recommended for reinforcements in hollow metal doors and frames: .1046" (2.66mm) unless otherwise noted.
 7. Use regular length rod for reveals to 3" (76mm). Use long rod for reveals 2-3/4" (70mm) to 6-3/4" (171mm).



Position of Arm & Pinion Flat



- Do not scale drawing.
- Left hand door shown.
- Dimensions are in inches (mm.).
- Hollow metal doors require channel or box type reinforcement when thru bolt mount is specified.
- Sex bolts required for wood or plastic faced fire door mounting.
- Minimum thickness recommended for reinforcements in hollow metal doors and frames: .1046" (2.66 mm.) unless otherwise noted.
- Use regular length rod for reveals to 3" (76 mm.). Use long rod for reveals 2-3/4" (70 mm.) to 6-3/4" (171 mm.).



J8080 Series Door Closer

Top Jamb Low Profile Application With 8146 Back Plate

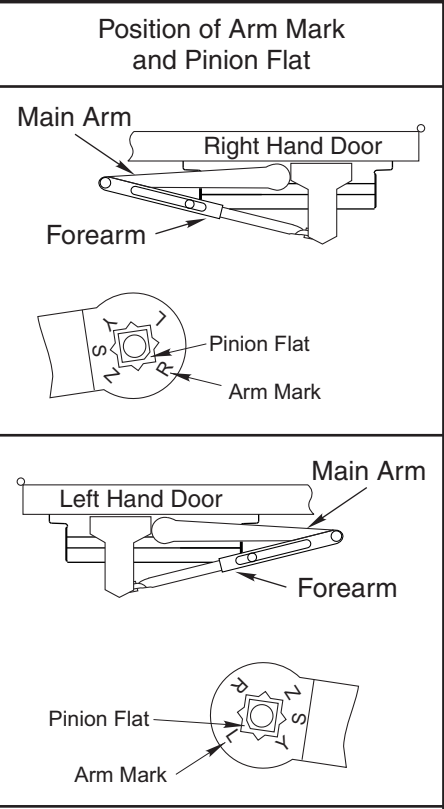
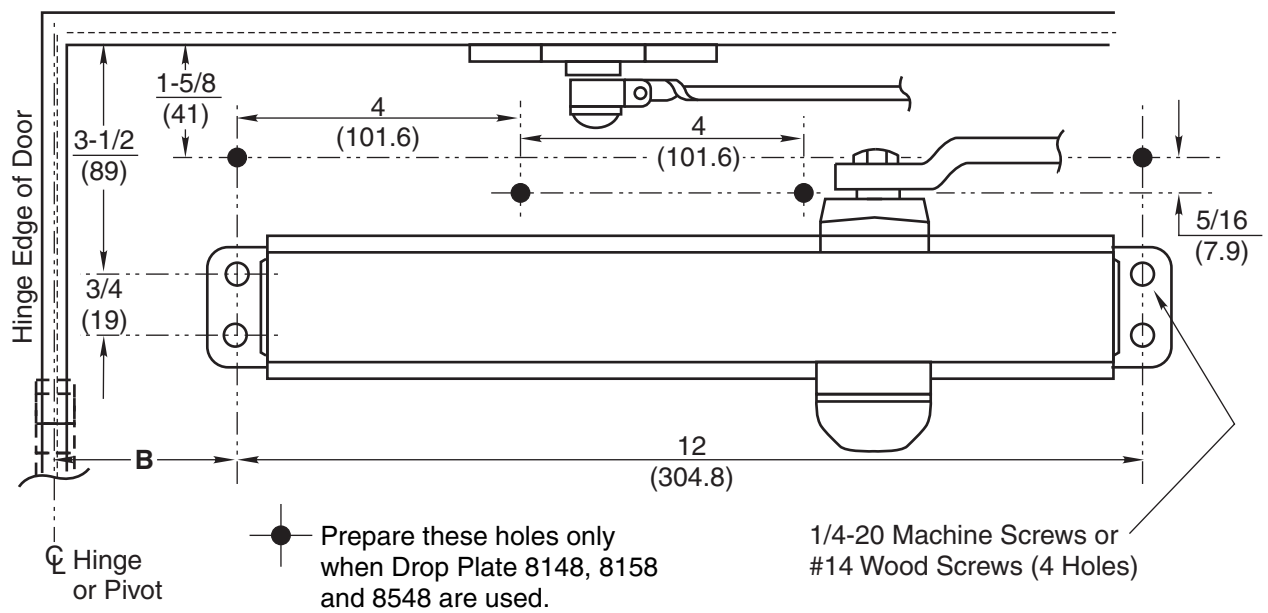
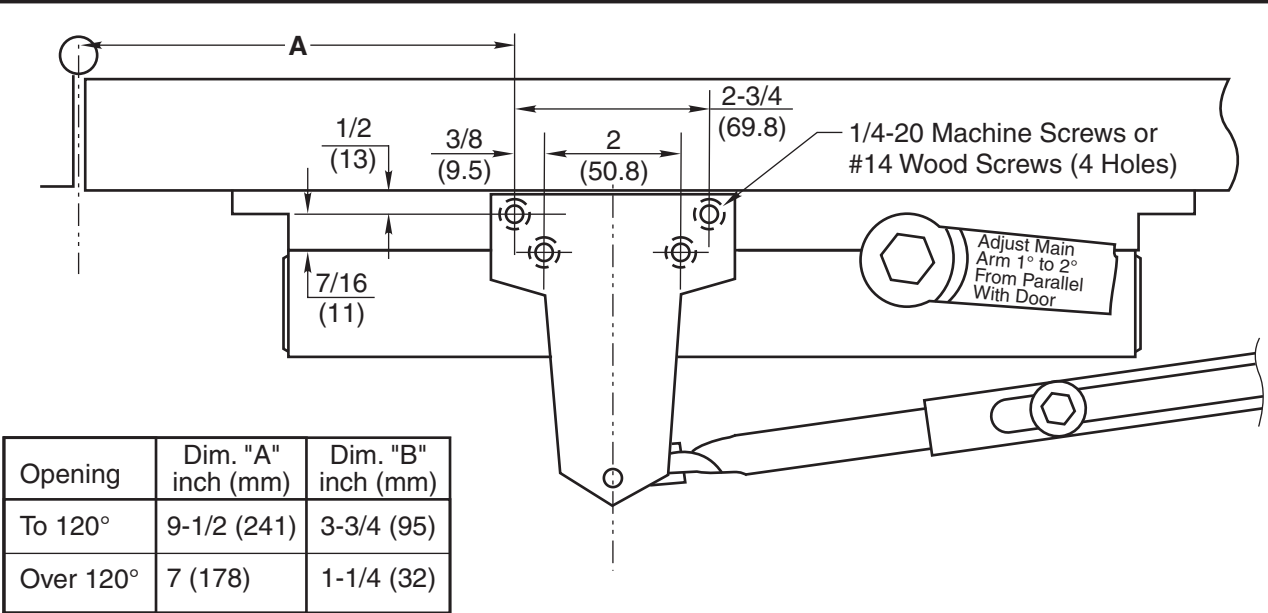
J8180, J8380, and J8580

Sizes 1 thru 6

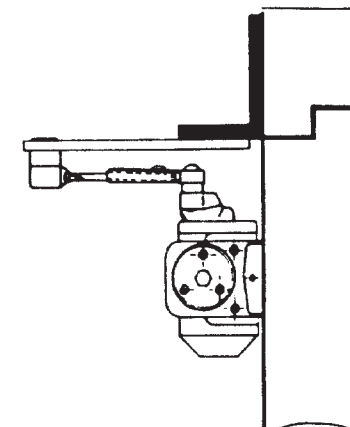
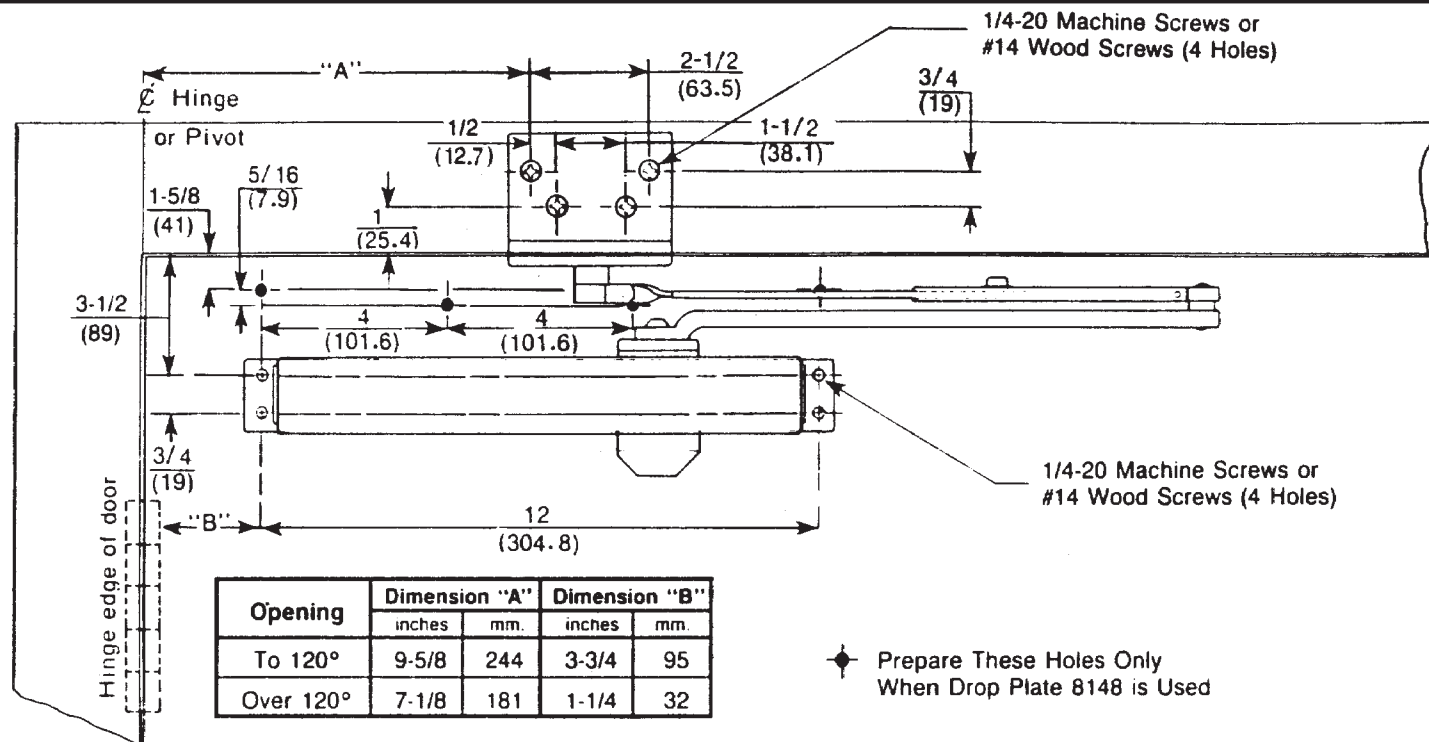


ASSA ABLOY

TEMPLATE NUMBER	REV	DATE
7380-0161	3	12/21

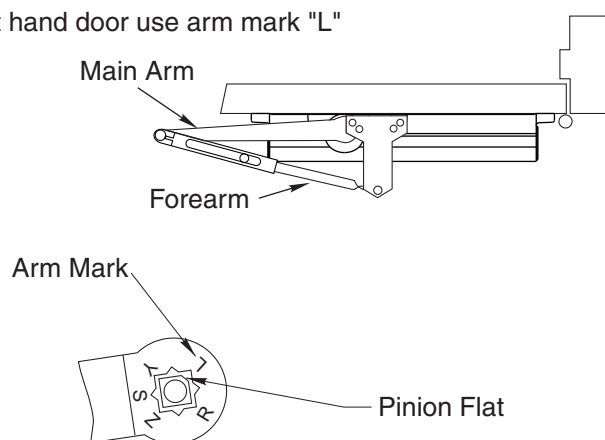


- Do not scale drawing.
- Left hand door shown.
- Dimensions are in inches (mm).
- Hollow metal doors require channel or box type reinforcement when thru bolt mount is specified.
- Sex bolt required for wood or plastic faced fire door mounting.
- Minimum thickness recommended for reinforcements in hollow metal doors and frames: .1046 (2.66mm) unless otherwise noted.

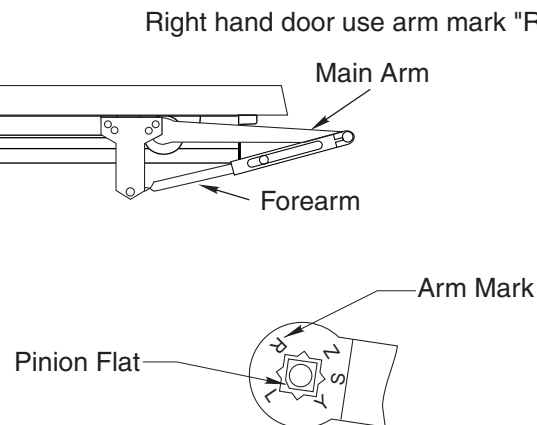


POSITION OF ARM MARK AND PINION FLAT

Left hand door use arm mark "L"



Right hand door use arm mark "R"



- Do not scale drawing.
- Left hand door shown.
- Dimensions are in inches (mm.).
- Hollow metal doors require channel or box type reinforcement when thru bolt mount is specified.
- Sex bolt required for wood or plastic faced fire door mounting.
- Minimum thickness recommended for reinforcements in hollow metal doors and frames: .1046" (2.66 mm.) unless otherwise noted.

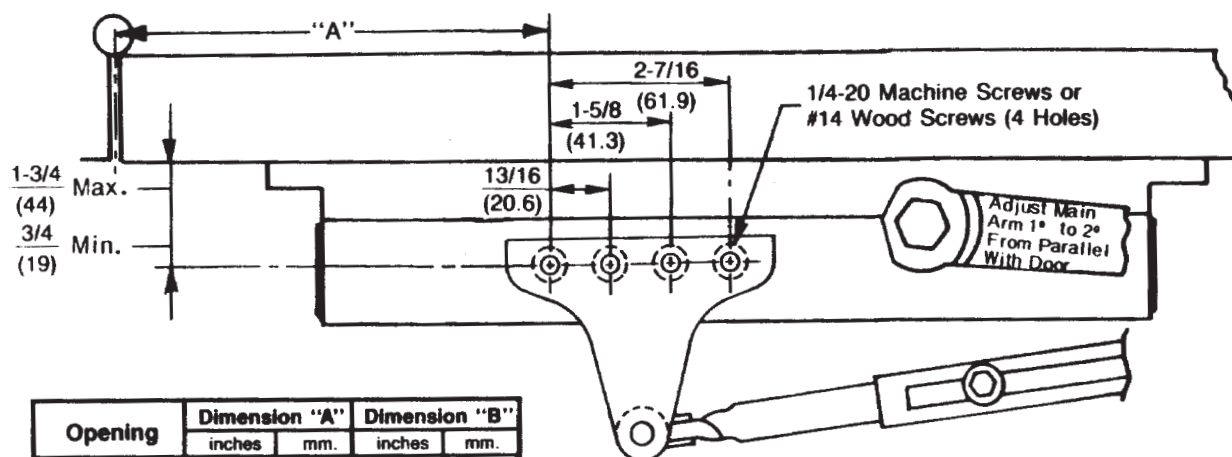


P8000 Series Door Closers
Parallel Arm Application With 2022 Bracket
With or Without 8148 Drop Plate
P8100, P8300, and P8500 - Sizes 1 - 6

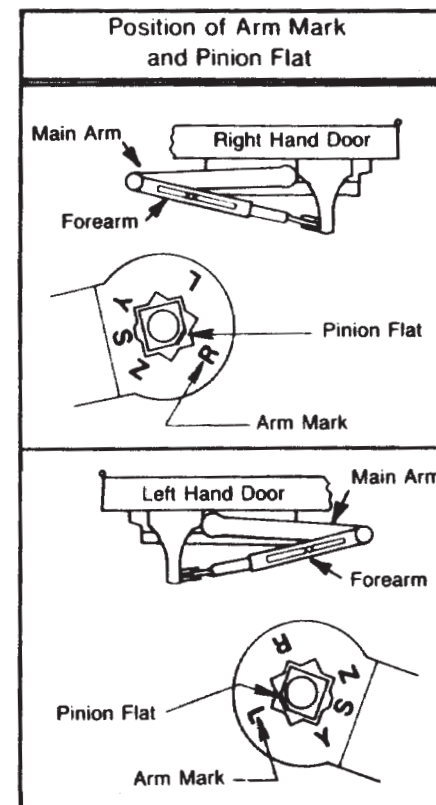
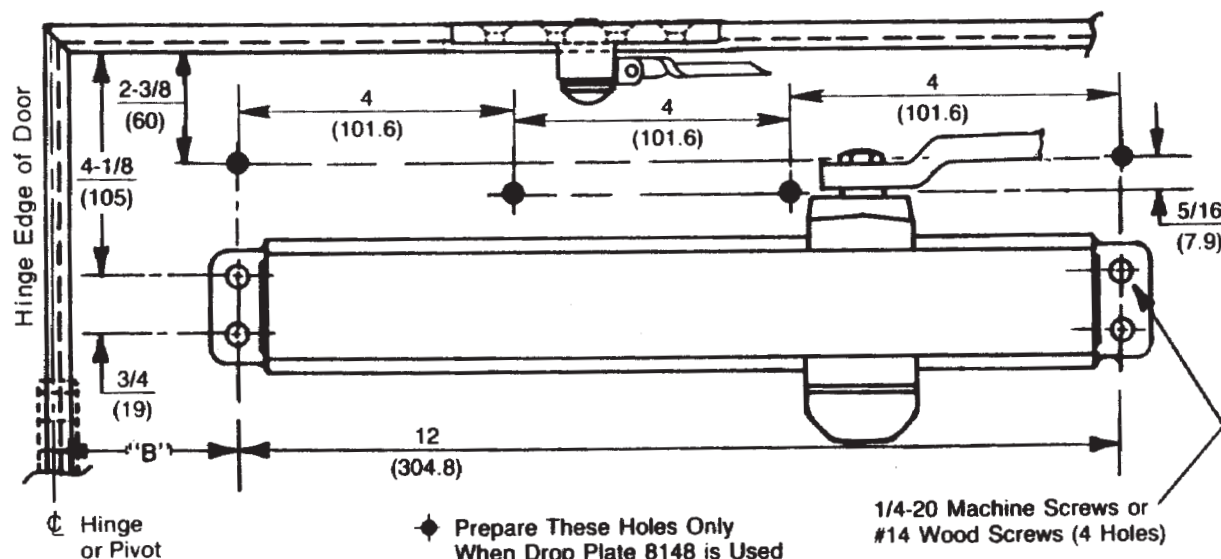


TEMPLATE NUMBER	REV	DATE
7380-0203	3	12/21

Approved 2022-02-26



Opening	Dimension "A"		Dimension "B"	
	inches	mm.	inches	mm.
To 120°	9-5/8	244	3-3/4	95
Over 120°	7-1/8	181	1-1/4	32



- Do not scale drawing.
- Left hand door shown.
- Dimensions are in inches (mm.).
- Hollow metal doors require channel or box type reinforcement when thru bolt mount is specified.
- Sex bolt required for wood or plastic faced fire door mounting.
- Minimum thickness recommended for reinforcements in hollow metal doors and frames: .1046" (2.66 mm.) unless otherwise noted.



TRADEMARK
 HARDWARE

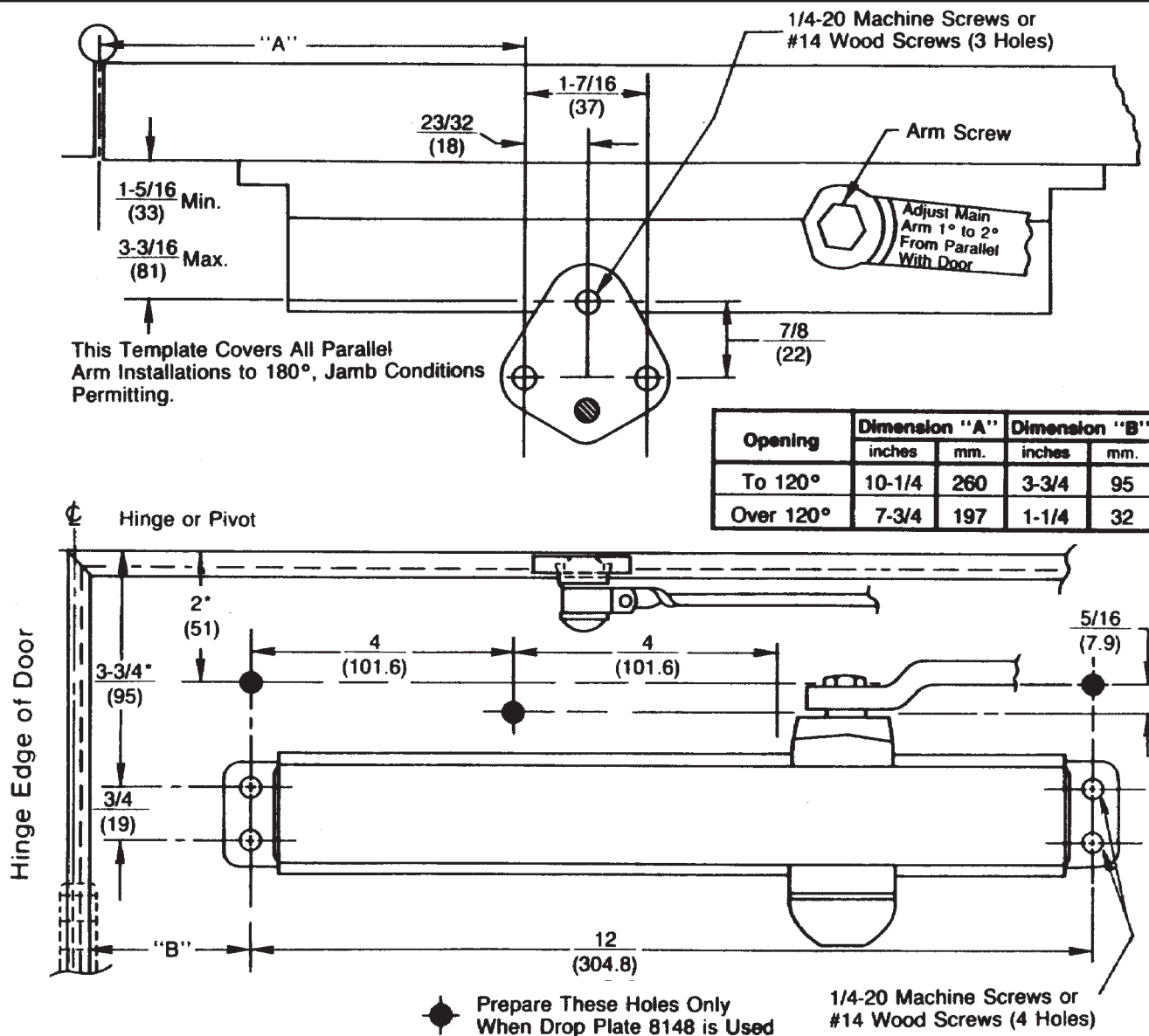
P8000 Series Door Closer
Parallel Arm With 2018B For Rabbet Application With or Without 8148 Drop Plate
P8100, P8300, and P8500 Sizes 1 Thru 6

**NORTON
 RIXSON**

ASSA ABLOY

TEMPLATE NUMBER	REV	DATE
7380-0204	3	12/21

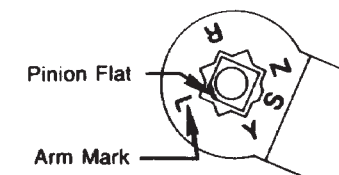
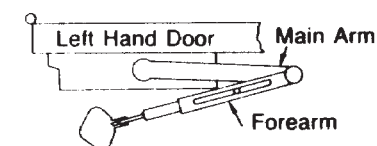
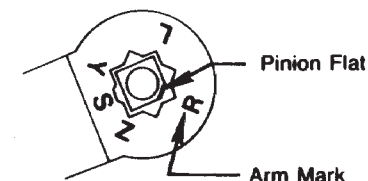
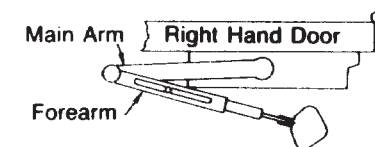
Approved 2022-02-26



Hinge Edge of Door

*This dimension must be measured from the same surface that the soffit bracket is mounted to.

Position of Arm Mark and Pinion Flat



- Do not scale drawing.
- Left hand door shown.
- Dimensions are in inches (mm.)
- Hollow metal doors require channel or box type reinforcement when thru bolt mount is specified.
- Sex bolt required for wood or plastic faced fire door mounting.
- Minimum thickness recommended for reinforcements in hollow metal doors and frames: .1046" (2.66 mm.) unless otherwise noted.



TRADEMARK
 HARDWARE

P8000 Series Door Closer Parallel Arm Application With 2018 For Between Doors With or Without 8148 Drop Plate P8100, P8300, and P8500 Sizes 1 Thru 6

NORTON
 RIXSON

ASSA ABLOY

TEMPLATE NUMBER

7380-0205

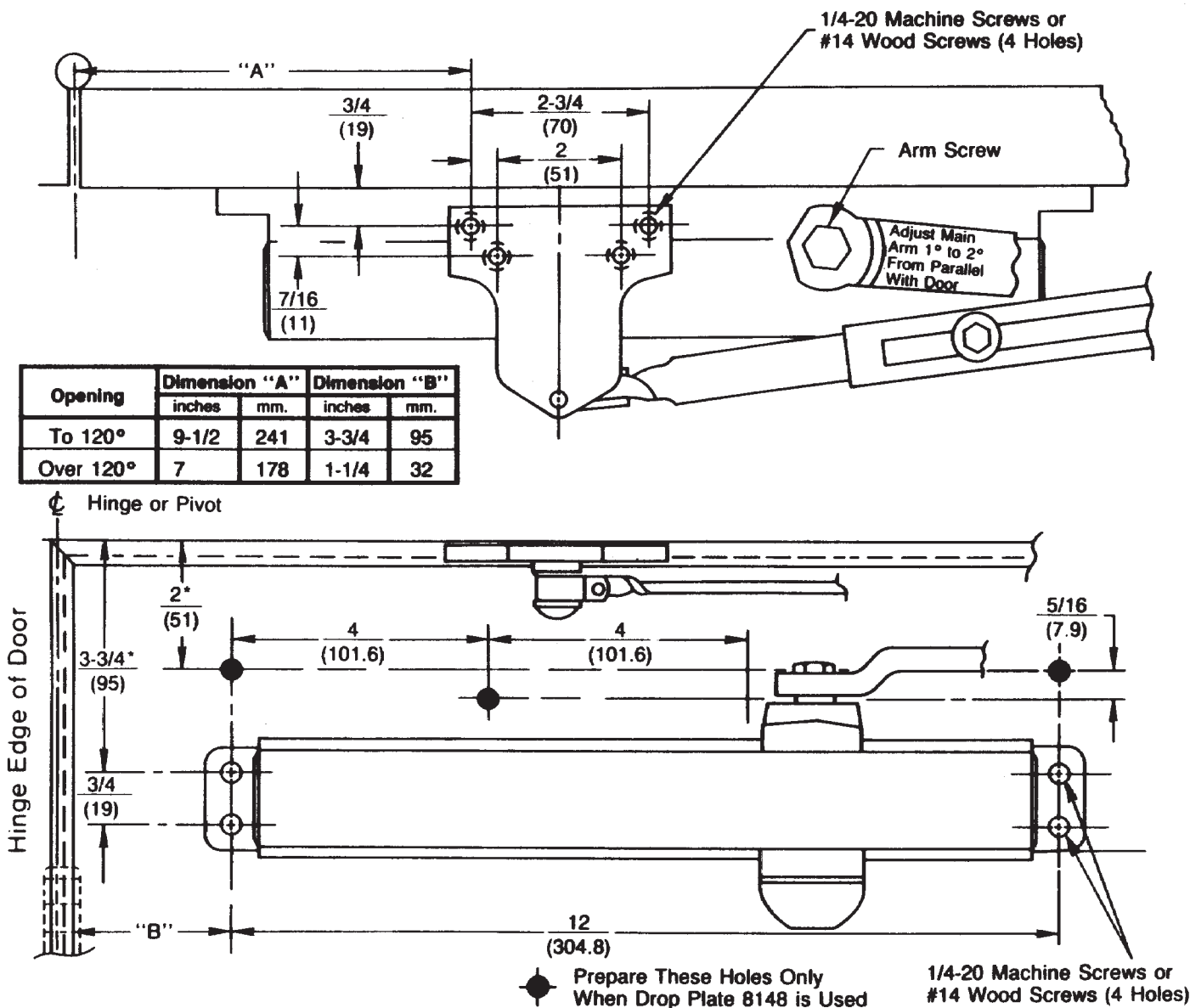
REV

3

DATE

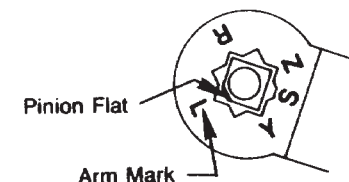
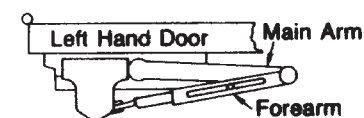
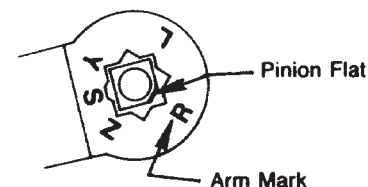
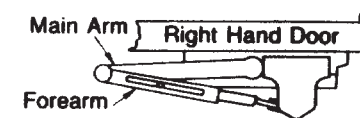
12/21

Approved 2022-02-26



Opening	Dimension "A"		Dimension "B"	
	inches	mm.	inches	mm.
To 120°	9-1/2	241	3-3/4	95
Over 120°	7	178	1-1/4	32

Position of Arm Mark and Pinion Flat



- Do not scale drawing.
- Left hand door shown.
- Dimensions are in inches (mm.)
- Hollow metal doors require channel or box type reinforcement when thru bolt mount is specified.
- Sex bolt required for wood or plastic faced fire door mounting.
- Minimum thickness recommended for reinforcements in hollow metal doors and frames: .1046" (2.66 mm.) unless otherwise noted.

*This dimension must be measured from the same surface that the soffit bracket is mounted to.



**TRADEMARK
HARDWARE**

P8000 Series Door Closer Parallel Arm With 2018D For Narrow or Blade Stop Application With or Without 8148 Drop Plate P8100, P8300, and P8500 Sizes 1 Thru 6

**NORTON
RIXSON**

ASSA ABLOY

TEMPLATE NUMBER

7380-0206

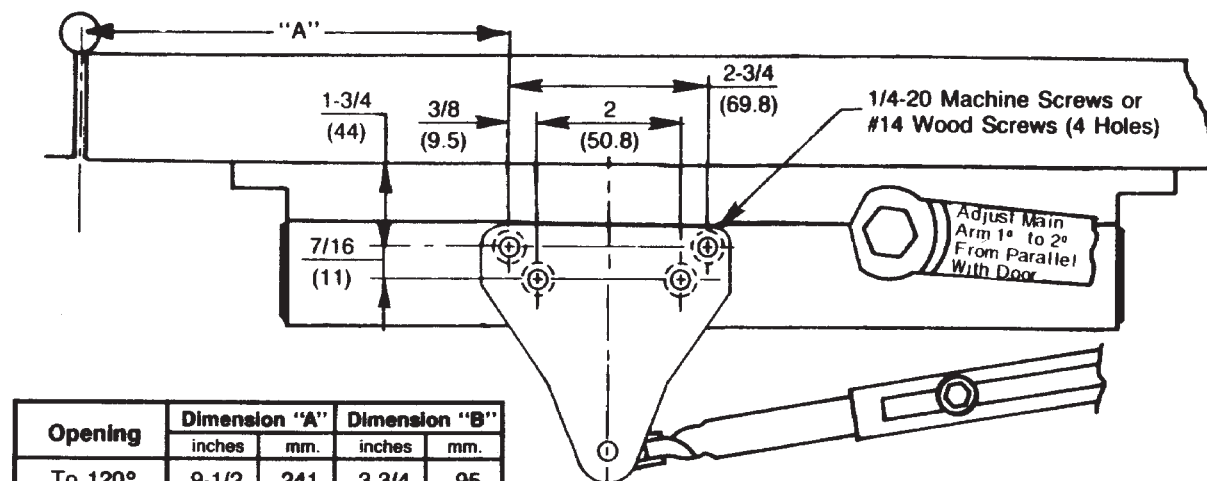
REV

3

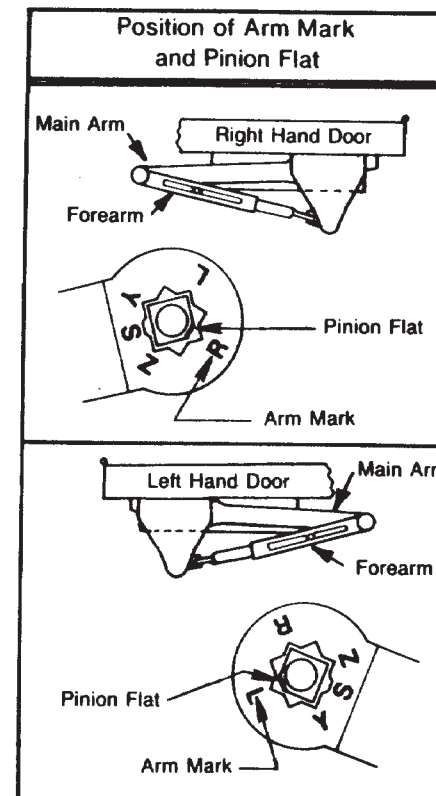
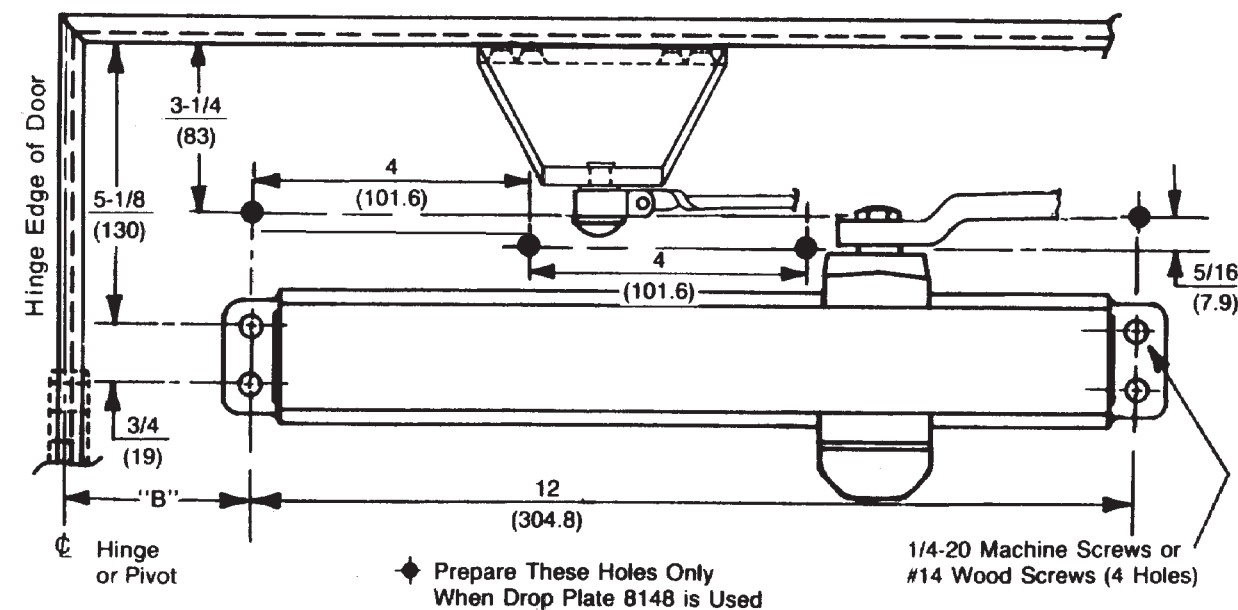
DATE

12/21

Approved 2022-02-26



Opening	Dimension "A"		Dimension "B"	
	inches	mm.	inches	mm.
To 120°	9-1/2	241	3-3/4	95
Over 120°	7	178	1-1/4	32



- Do not scale drawing.
- Left hand door shown.
- Dimensions are in inches (mm.).
- Hollow metal doors require channel or box type reinforcement when thru bolt mount is specified.
- Sex bolt required for wood or plastic faced fire door mounting.
- Minimum thickness recommended for reinforcements in hollow metal doors and frames: .1046" (2.66 mm.) unless otherwise noted.

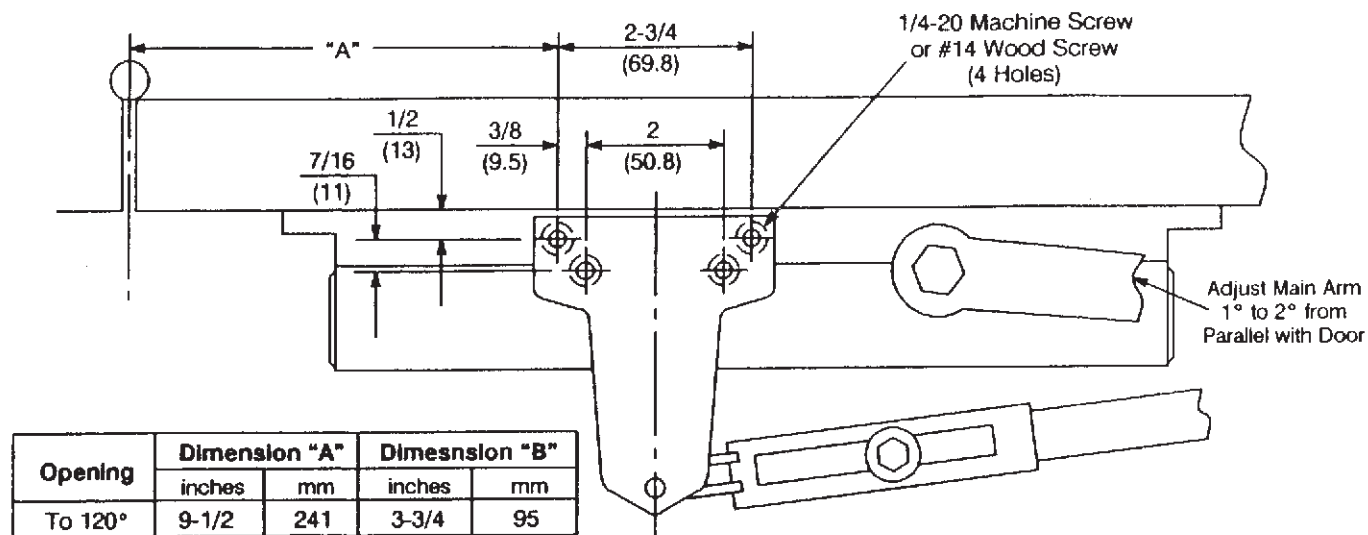


P8000 Series Door Closer
Parallel Arm With 2018S Bracket Application
With or Without 8148 Drop Plate
P8100, P8300, and P8500 Sizes 1 Thru 6



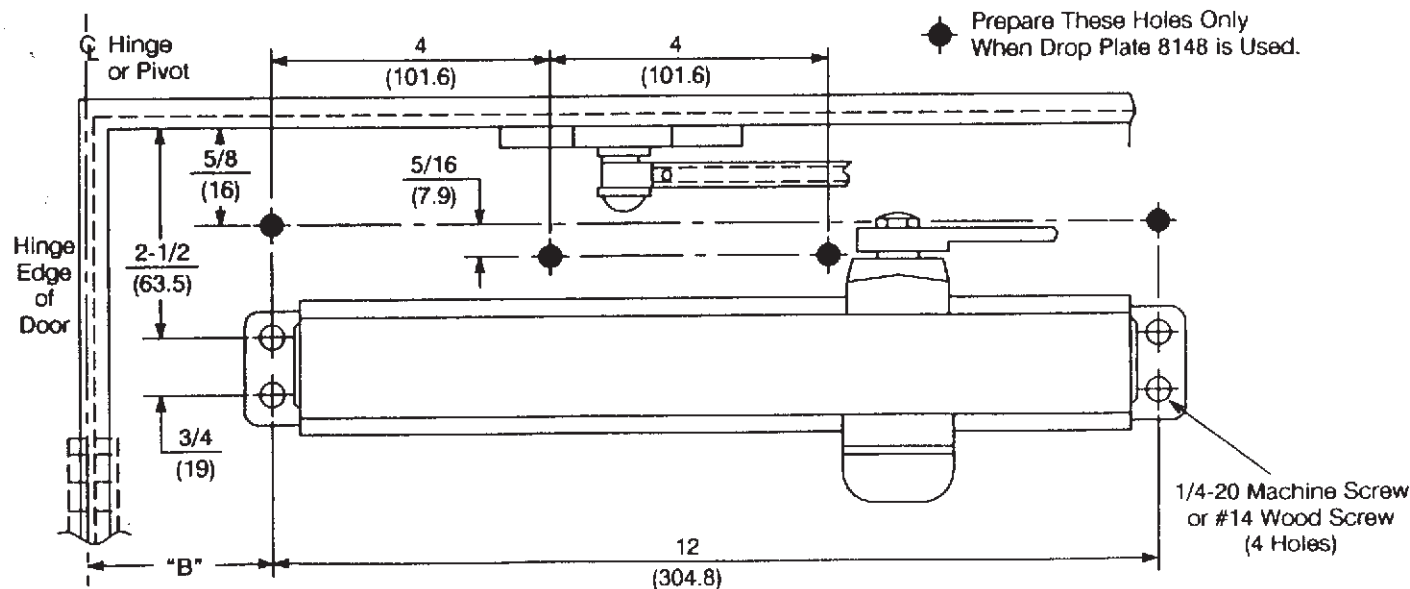
TEMPLATE NUMBER	REV	DATE
7380-0207	3	12/21

Approved 2022-02-26

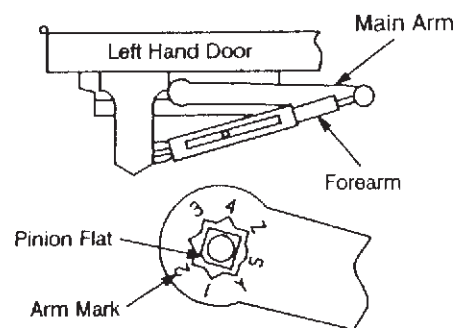
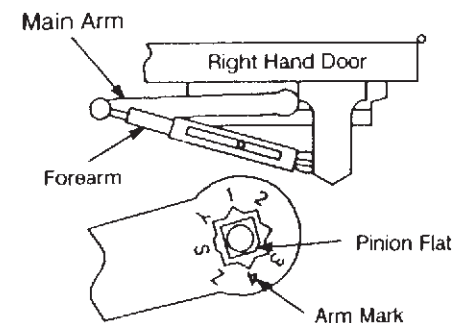


Opening	Dimension "A"		Dimension "B"	
	inches	mm	inches	mm
To 120°	9-1/2	241	3-3/4	95
Over 120°*	7	178	1-1/4	32

* Door openings to 180° conditions permitting.



Position of Arm Mark and Pinion Flat



- Do not scale drawing.
- Left hand door shown.
- Dimensions are in inches (mm).
- Hollow metal doors require channel or box type reinforcement when thru bolt mount is specified.
- Sex bolt 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.



TRADEMARK
 HARDWARE

P8000 Series Door Closer for Narrow Stile Door With or Without 8148 Drop Plate
Parallel Non-Hold Open Low Profile Arm Application
P8180, P8380, and P8580
Sizes 1 Thru 6

**NORTON
 RIXSON**

ASSA ABLOY

TEMPLATE NUMBER

7380-0209

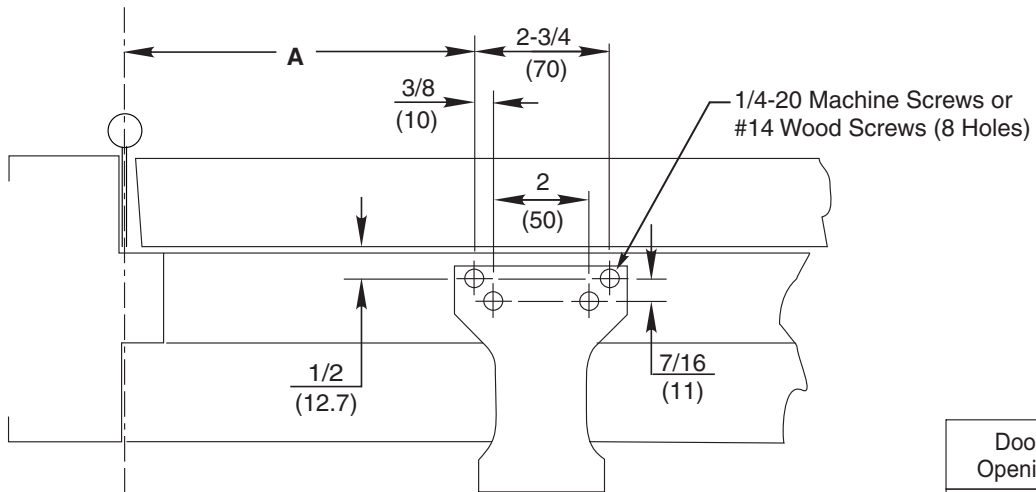
REV

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DATE

12/21

Approved 2022-02-26

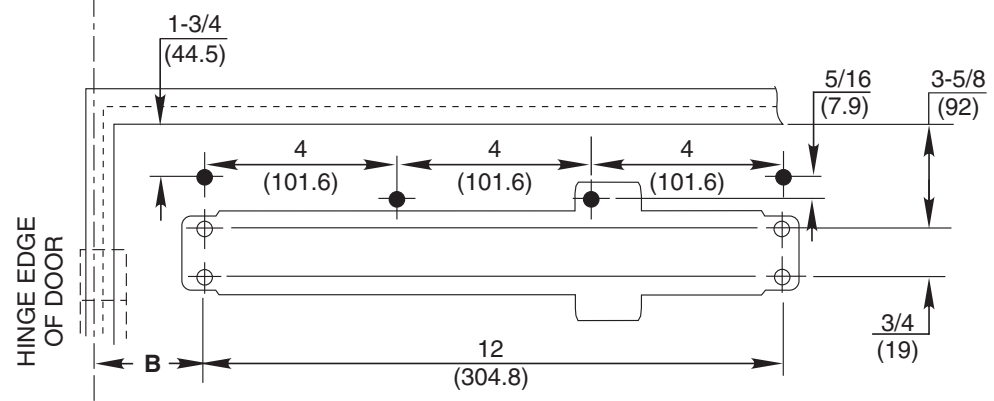


Hinge or Pivot

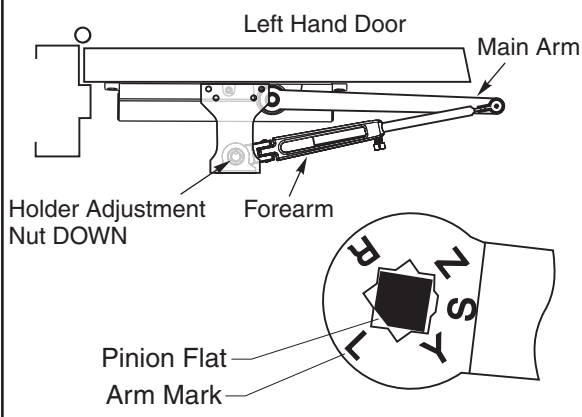
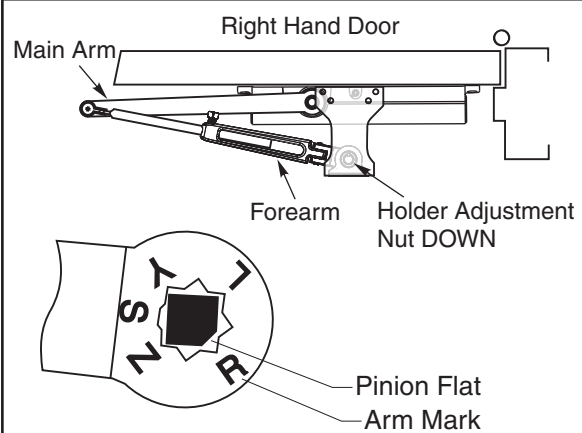
Prepare these holes when 8148 drop plate is used.

Door Opening	A	B
To 120°	9-1/2 (241)	3-3/4 (95)
* 121° to 180°	7 (178)	1-1/4 (32)

* Door/Wall/Hardware/Jamb conditions permitting



Position of Arm and Pinion Flat



- Notes:**
- 1. Do not scale drawing.
 - 2. Left hand door shown.
 - 3. Dimensions given in inches (millimeters).
 - 4. Hollow metal doors require channel or box type reinforcement when thru-bolt mount is specified.
 - 5. Sex bolts required for wood or plastic faced fire door mounting.
 - 6. Minimum thickness recommended for reinforcements in hollow metal doors and frames: .1046" (2.66mm) unless otherwise noted.

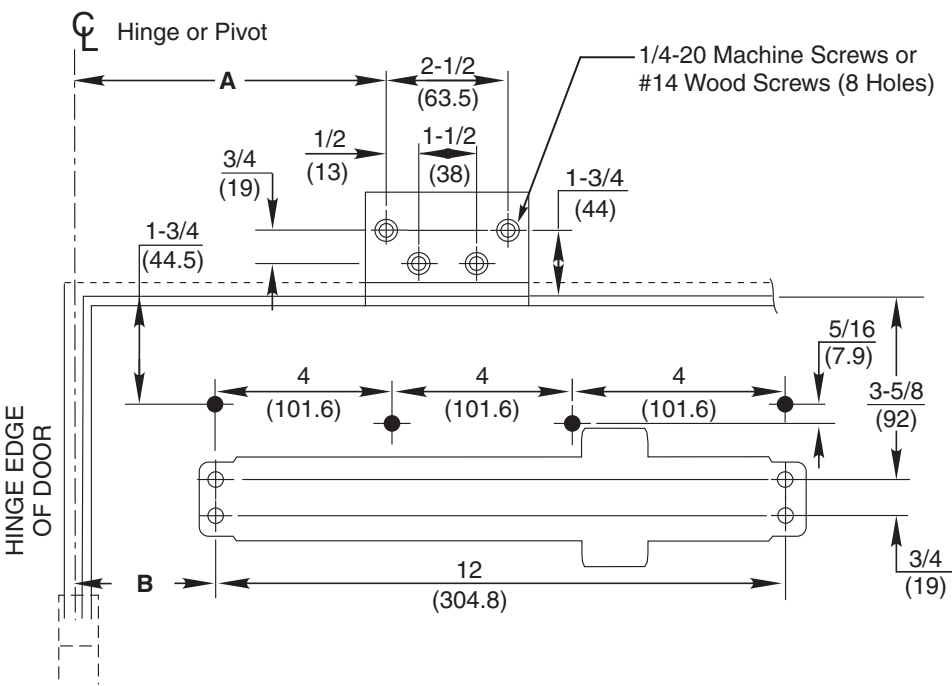


P8000H Series Door Closers
Parallel Hold Open
With or Without 8148 Drop Plate
P8100H, P8300H, and P8500H
Sizes 1 thru 6

Approved 2022-02-26



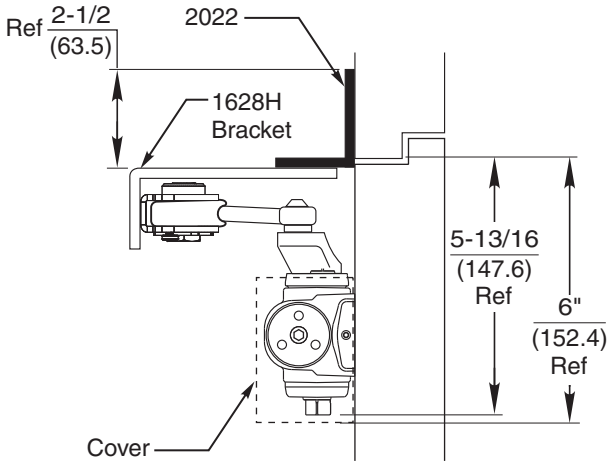
TEMPLATE NUMBER	REV	DATE
7380-0211	3	01/22



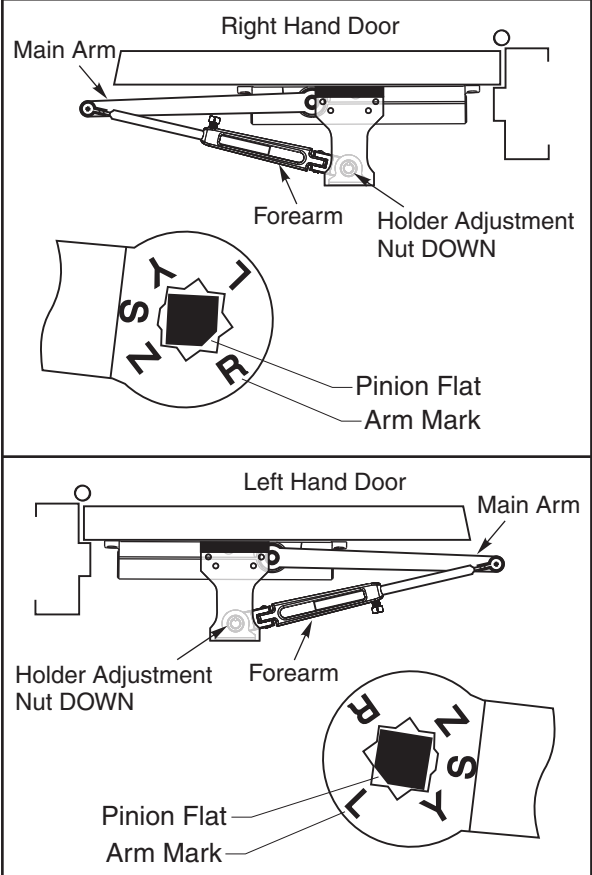
● Prepare these holes when 8148 drop plate is used.

Door Opening	A	B
To 120°	9-1/2 (241)	3-3/4 (95)
* 121° to 180°	7 (178)	1-1/4 (32)

* Door/Wall/Hardware/Jamb conditions permitting



Position of Arm and Pinion Flat



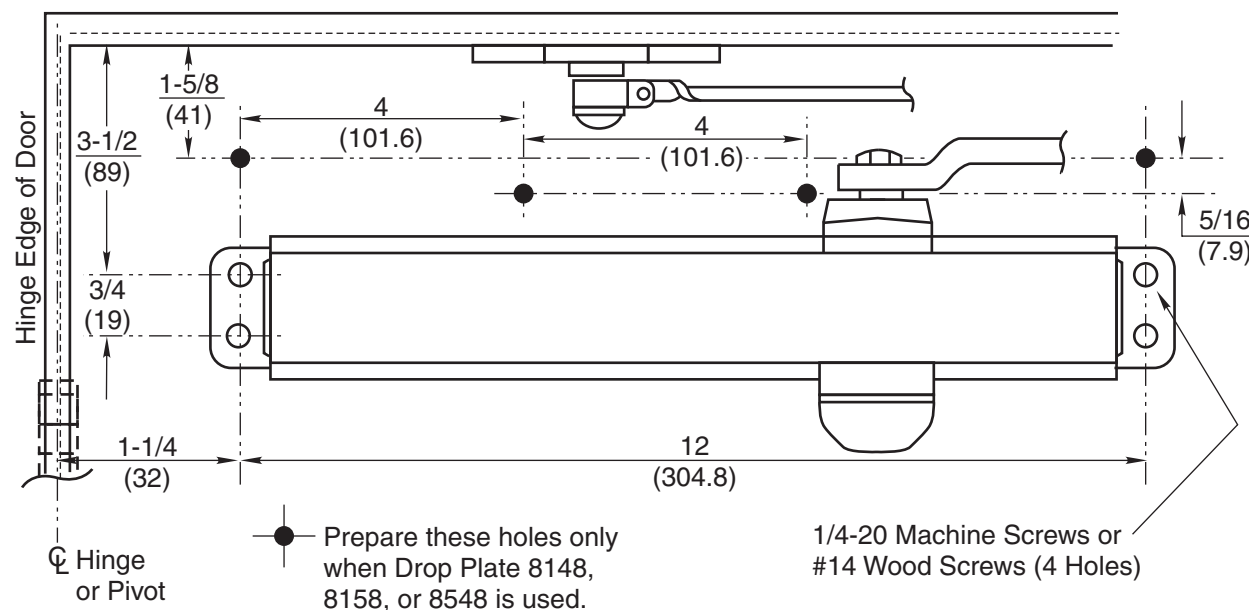
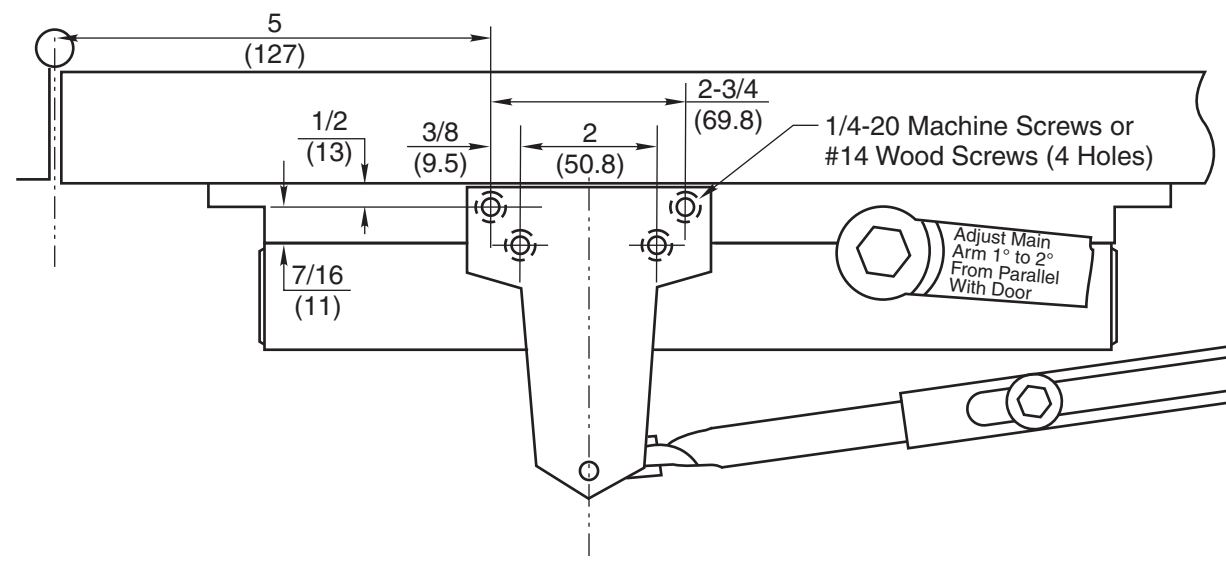
- Notes:**
1. Do not scale drawing.
 2. Left hand door shown.
 3. Dimensions given in inches (millimeters).
 4. Hollow metal doors require channel or box type reinforcement when thru-bolt mount is specified.
 5. Sex bolts required for wood or plastic faced fire door mounting.
 6. Minimum thickness recommended for reinforcements in hollow metal doors and frames: .1046" (2.66mm) unless otherwise noted.



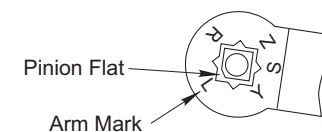
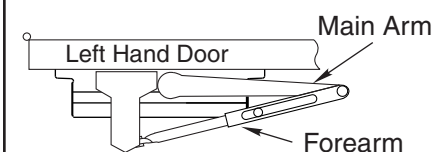
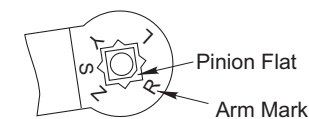
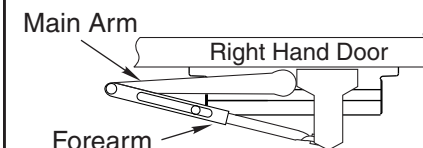
P8000H Series Door Closers
Parallel Hold Open
With 2022 x 1628H Bracket and With or Without 8148 Drop Plate
P8100H, P8300H, and P8500H



TEMPLATE NUMBER	REV	DATE
7380-0212	3	01/22



Position of Arm Mark and Pinion Flat



- Do not scale drawing.
- Left hand door shown.
- Dimensions are in inches (mm).
- Hollow metal doors require channel or box type reinforcement when thru bolt mount is specified.
- Sex bolt may be 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.



TRADEMARK
 HARDWARE

P8100, P8300 or P8500 Series Door Closers x 7701-6A Arm Assembly
For 180° Door Swing Using Wide Throw Hinges - 8" (200mm) Max.
With or Without 8148, 8158 or 8548 Drop Plate
Non Hold Open Parallel Arm Application
Door Closer Sizes 1 thru 6

Approved 2022-02-26

NORTON
 RIXSON

ASSA ABLOY

TEMPLATE NUMBER

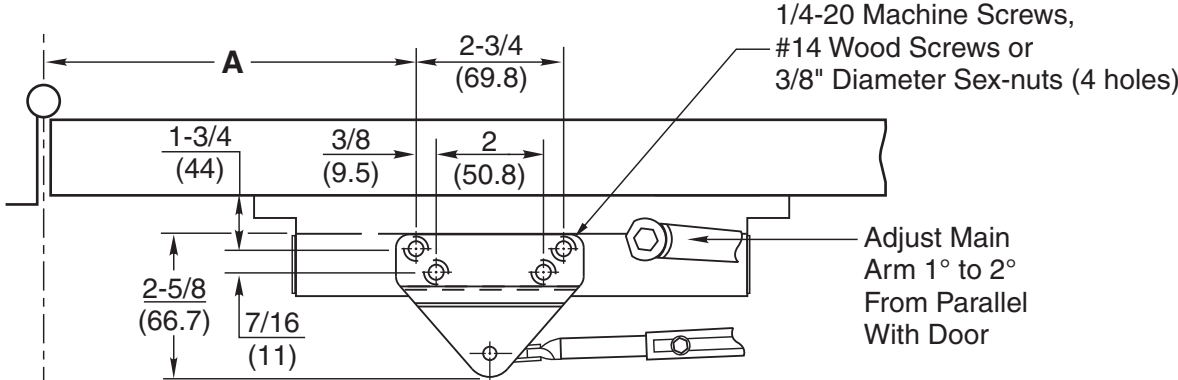
7380-0214

REV

3

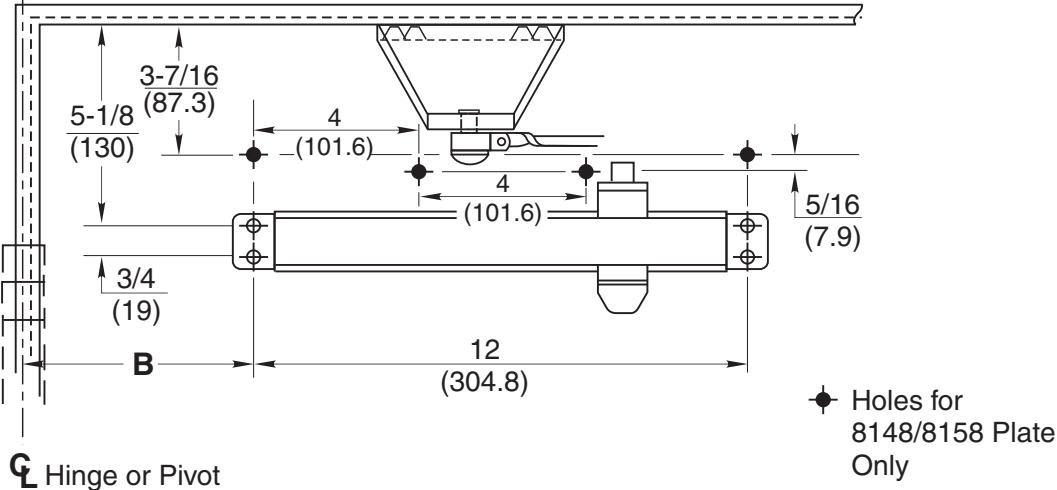
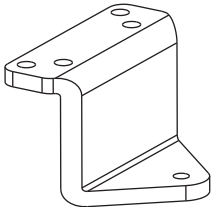
DATE

12/21

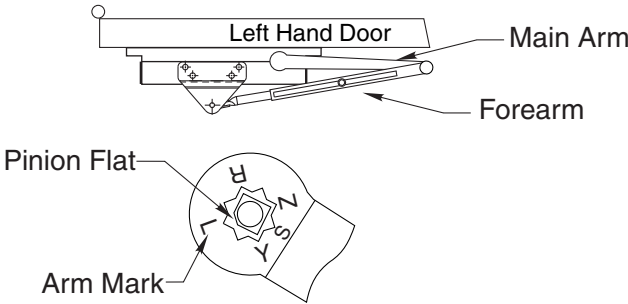
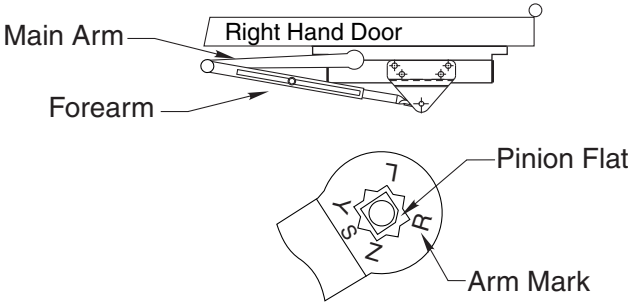


Opening	Dimension A		Dimension B	
	inches	mm	inches	mm
To 120°	9-1/2	241	3-3/4	95
Over 120° *	7	178	1-1/4	32

* Door openings to 180° conditions permitting



Position of Arm Mark and Pinion Flat



- Notes:**
- Do not scale drawing.
 - Left hand door shown.
 - Dimensions are in inches (mm).
 - Hollow-metal doors require channel or box-type reinforcement when thru-bolt mount is specified.
 - Sex-bolts may be 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.



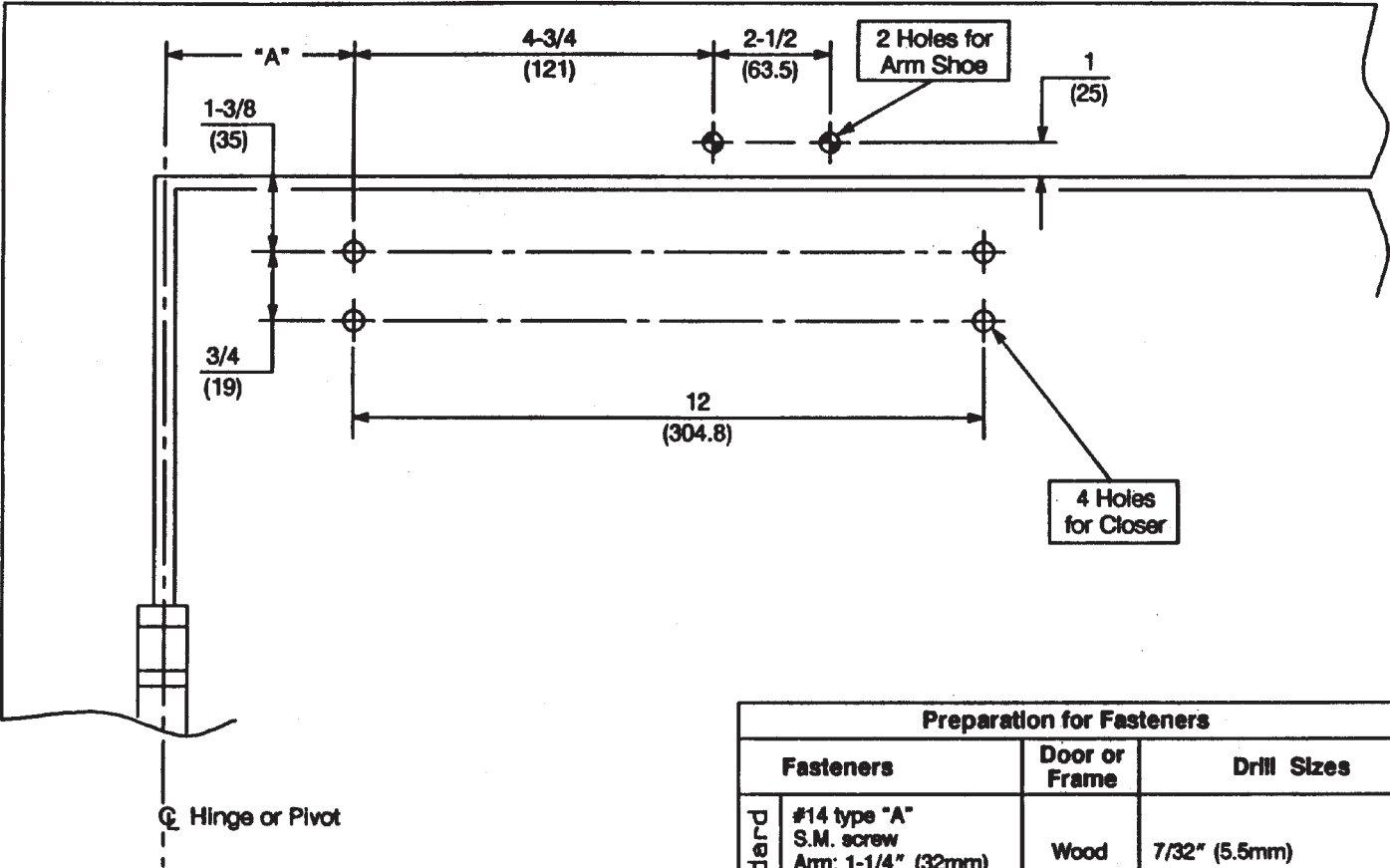
**P8000 Series Door Closer With SP2018S Special Bracket
And With Or Without 8148/8158 Drop Plate
Parallel Non Hold Open Arm With Offset Plate Application
Series P8100, P8300, And P8500**

Door Closer Size 1 (Multi-size 1 Thru 6) Or Individually Sized 2, 3, 4, 5 Or 6



TEMPLATE NUMBER	REV	DATE
7380-0215	3	12/21

Door Opening	Dim. "A"
To 100°	7-1/2 (191)
101° to 130°	6 (152)
Over 130°	4-1/2 (114)



Caution: Door swing may be limited by door, frame, wall or hardware conditions (including closer projection).

- Notes:**
1. Do not scale drawing.
 2. Right hand door shown.
 3. Dimensions are in inches (mm).
 4. Hollow metal doors require channel or box type reinforcement when thru bolt mount is specified.
 5. Sex bolts required for wood or plastic faced fire door mounting.
 6. Minimum thickness recommended for reinforcements in hollow metal doors and frames: .1046" (2.66mm) unless otherwise noted.

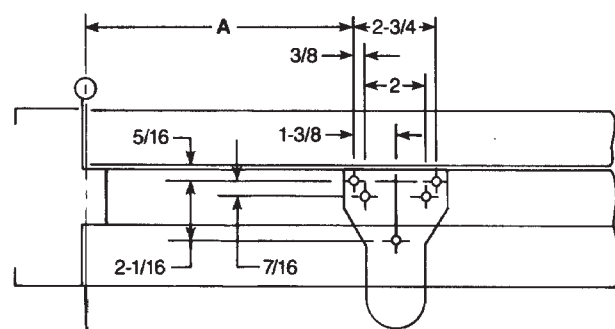
Preparation for Fasteners			
Fasteners		Door or Frame	Drill Sizes
Standard	#14 type "A" S.M. screw	Wood	7/32" (5.5mm)
	Arm: 1-1/4" (32mm) Closer: 2-3/4" (70mm)		
Optional	1/4-20 machine screw	Metal	drill: #7 (.201") tap: 1/4-20
	Sex nuts and bolts	Hollow Metal	9/32" (7.00mm) thru; 3/8" (9.50mm) on door opposite to closer
		Aluminum or Wood	3/8" (9.50mm) thru
	Thru bolts and grommet nuts	All	9/32" (7.00mm) thru; 3/8" (9.50mm) dia. x 3/8" (10mm) deep on door opposite to closer



R8000 Series Door Closer (R8100, R8300, R8500)
Regular Rigid Heavy Duty Arm Non-Hold Open Installation
Sizes 1 Thru 6



TEMPLATE NUMBER	REV	DATE
7380-0601	3	12/21

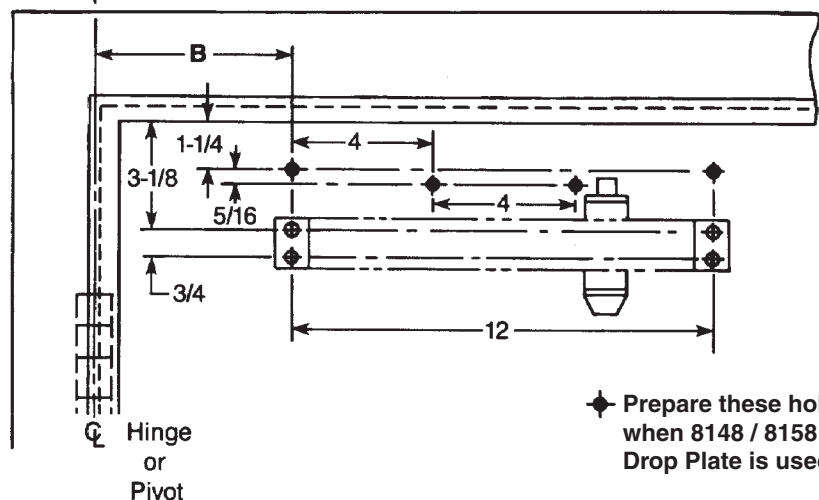


Door Opening ★	Dim A	Dim B
85°	11"	5-1/2"
90°	10-1/4"	4-3/4"
95°	9-1/2"	4"
100°	8-7/8"	3-3/8"
105°	8-1/4"	2-3/4"
110°	7-5/8"	2-1/8"

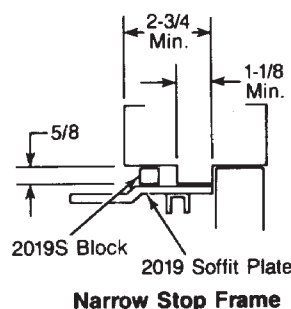
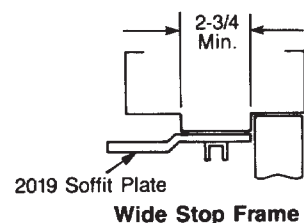
★ Template dimensions are for hold open/door stop within ±2° of charted door openings. Doors may overtravel up to 5° beyond the rest position.

NOTES:

1. Do not scale drawing.
2. Left hand door shown.
3. Dimensions are in inches.
4. Hollow-metal doors require channel or box-type reinforcement when thru-bolt mount is specified.
5. Sex-bolts required for wood or plastic faced fire-door mounting.
6. Minimum thickness recommended for reinforcements in hollow-metal doors and frames: .0146" (2.66mm).
7. Follow Conversion Chart for metric dimensions.
8. Hold Open function "T" Suffix, is not permitted in a fire-door assembly.
9. Maximum width hinges for this template are 5" (127mm)

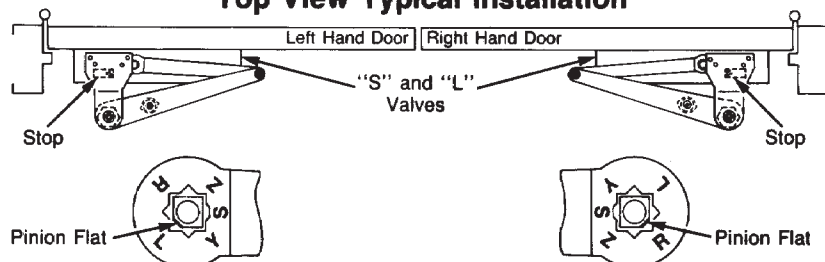


◆ Prepare these holes only when 8148 / 8158 / 8548 Drop Plate is used.



inches	mm.	inches	mm.	inches	mm.
5/16	8	2-1/16	52.5	5-5/8	143
3/8	9.5	2-1/4	57	7-7/8	200
7/16	11	2-3/4	70	8-3/8	212.5
5/8	16	2-7/8	73	9	228.5
3/4	19	3-1/8	79.5	9-5/8	244.5
1-1/8	28.5	3-1/2	89	10-3/8	263.5
1-1/4	31.5	4	101.5	11-1/8	282.5
1-3/8	35	4-1/8	104.5	12	305
2	51	4-7/8	124		

Top View Typical Installation



For Adjustment Instructions See Inside Closer Cover

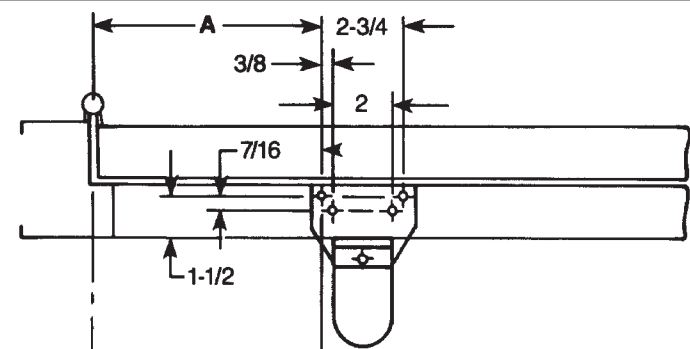
Fastener	Frame	Door	Drill
1/4-20 machine screw	metal	none	#7 (.201" dia.) or 5.10mm. drill. 1/4-20 tap
#14 type "A" sheet metal screw	wood	none	3/16" (4.30mm.)
SNB (optional)	none	hollow metal	9/32" (7.00mm.) thru 3/8" (9.50mm.) door face opposite to closer
		aluminum or wood	3/8" (9.50mm.) thru



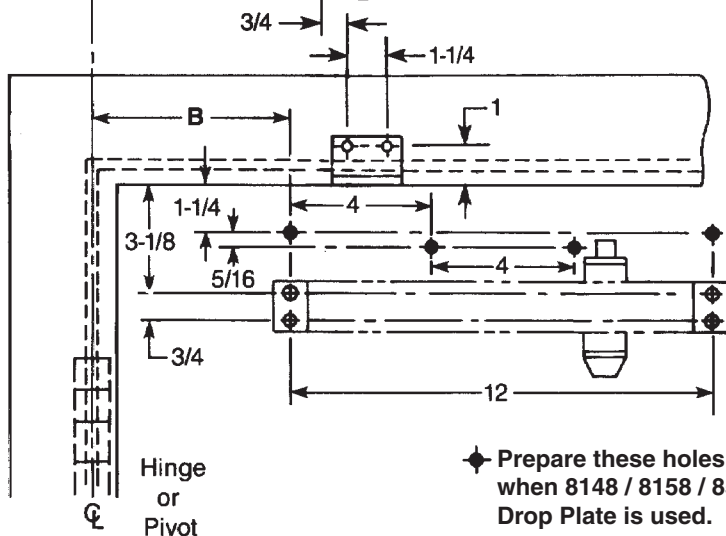
**CLP-8300, CLP-8500 Series with CloserPlus Arm or
CPS-8300 or CPS-8500 Series with CloserPlus Spring™ Arm**
Parallel Arm Standard Application With or Without 8148 / 8158 / 8548 Drop Plate
Arm Function; Stop Only or Stop & Hold Open ("T" or "R" Suffix)
Power Sizes 1, 2, 3, 4, 5 or 6



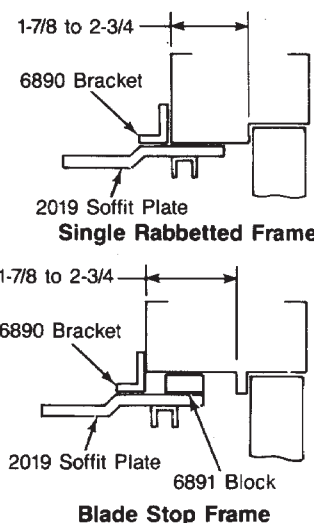
TEMPLATE NUMBER	REV	DATE
7380-1301	4	12/21



Door Opening ★	Dim A	Dim B
85°	11"	5-1/2"
90°	10-1/4"	4-3/4"
95°	9-1/2"	4"
100°	8-7/8"	3-3/8"
105°	8-1/4"	2-3/4"
110°	7-5/8"	2-1/8"



◆ Prepare these holes only
when 8148 / 8158 / 8548
Drop Plate is used.



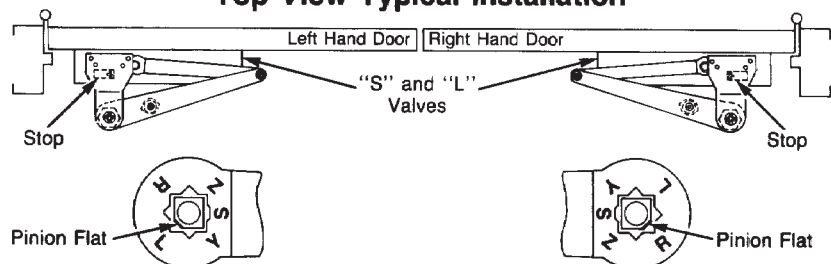
★Template dimensions are for hold open/door stop within ±2° of
charted door openings. Doors may overtravel up to 5° beyond
the rest position.

NOTES:

1. Do not scale drawing.
2. Left hand door shown.
3. Dimensions are in inches.
4. Hollow-metal doors require channel or box-type reinforcement
when thru-bolt mount is specified.
5. Sex-bolts required for wood or plastic faced fire-door mounting.
6. Minimum thickness recommended for reinforcements in hollow-
metal doors and frames: .0146" (2.66mm).
7. Follow Conversion Chart for metric dimensions.
8. Hold Open function "T" Suffix, is not permitted in a fire-door
assembly.
9. Maximum width hinges for this template are 5" (127mm)

inches	mm.	inches	mm.	inches	mm.
5/16	8	2-1/4	57	7-7/8	200
3/8	9.5	2-3/4	70	8-3/8	212.5
7/16	11	2-7/8	73	9	228.5
3/4	19	3-1/8	79.5	9-5/8	244.5
1	25.4	3-1/2	89	10-3/8	263.5
1-1/4	31.5	4	101.5	11-1/8	282.5
1-1/2	38	4-1/8	104.5	12	305
1-7/8	47.5	4-7/8	124		
2	51	5-5/8	143		

Top View Typical Installation



For Adjustment Instructions See Inside Closer Cover

Fastener	Frame	Door	Drill
1/4-20 machine screw	metal	none	#7 (.201" dia.) or 5.10mm. drill. 1/4-20 tap
#14 type "A" sheet metal screw	wood	none	3/16" (4.30mm.)
SNB (optional)	none	hollow metal	9/32" (7.00mm.) thru 3/8" (9.50mm.) door face opposite to closer
		aluminum or wood	3/8" (9.50mm.) thru



CLP-8300, CLP-8500 Series with CloserPlus[®] Arm or
CPS-8300 or CPS-8500 Series with CloserPlus Spring[™] Arm
Parallel Arm with 6890 Reinforcing Bracket With or Without 8148 / 8158 / 8458 Drop Plate
Arm Function; Stop Only or Stop & Hold Open ("T" or "R" Suffix)
Power Sizes 1, 2, 3, 4, 5 or 6



TEMPLATE NUMBER	REV	DATE
7380-1302	4	12/21

Door Opening ★	Dim A	Dim B
85°	11-1/8"	5-1/2"
90°	10-3/8"	4-3/4"
95°	9-5/8"	4"
100°	9"	3-3/8"
105°	8-3/8"	2-3/4"
110°	7-3/4"	2-1/8"

★ **Template dimensions are for hold open/door stop within ± 2° of charted door openings. Doors may overtravel up to 5° beyond the rest position.**

Notes:

Do not scale drawing.

Left hand door shown.

Dimensions are in inches.

Hollow-metal doors require channel or box-type reinforcement when thru-bolt mount is specified.

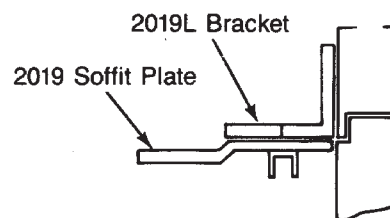
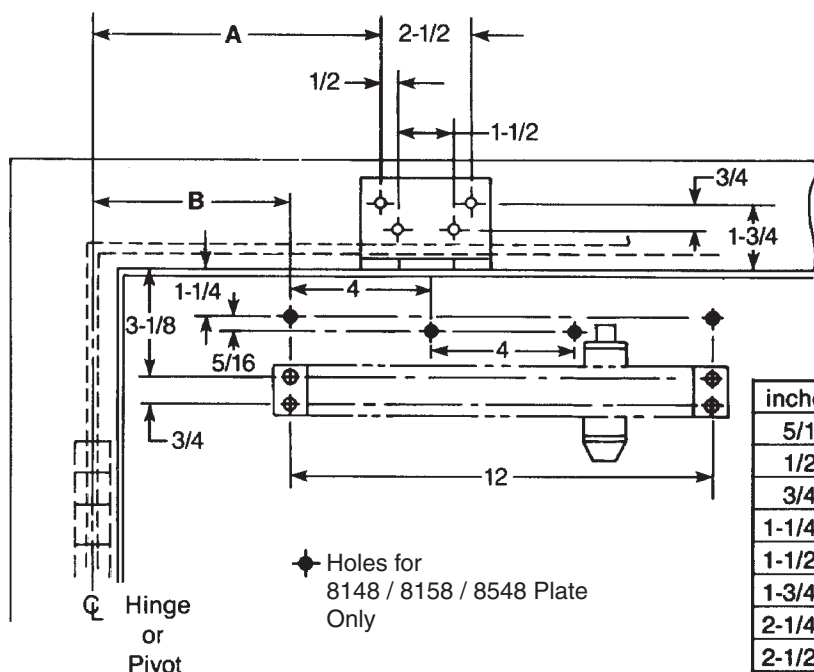
Sex-bolts required for wood or plastic faced fire-door mounting.

Minimum thickness recommended for reinforcements in hollow-metal doors and frames: .1046" (2.66mm.).

Follow Conversion Chart for metric dimensions.

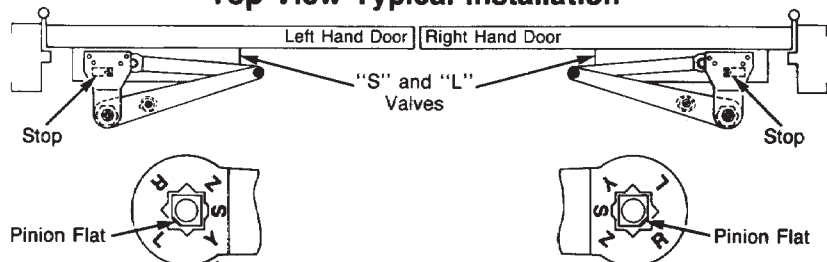
Hold Open function, "T" suffix, is not permitted in a fire-door assembly.

Maximum width hinges for this template are 5" (127mm)



inches	mm.	inches	mm.	inches	mm.
5/16	8	2-7/8	73	8-1/2	216
1/2	12.5	3-1/8	79.5	9-1/8	232
3/4	19	3-1/2	89	9-3/4	247.5
1-1/4	31.5	4	101.5	10-1/2	266
1-1/2	38	4-1/8	104.5	11-1/4	286
1-3/4	44.5	4-7/8	124	12	305
2-1/4	57	5-5/8	143		
2-1/2	63.5	8	203		

Top View Typical Installation



For Adjustment Instructions See Inside Closer Cover

Fastener	Frame	Door	Drill
1/4-20 machine screw	metal	none	#7 (.201" dia.) or 5.10mm. drill. 1/4-20 tap
#14 type "A" sheet metal screw	wood	none	3/16" (4.30mm.)
SNB (optional)	none	hollow metal	9/32" (7.00mm.) thru 3/8" (9.50mm.) door face opposite to closer
		aluminum or wood	3/8" (9.50mm.) thru



TRADEMARK
HARDWARE

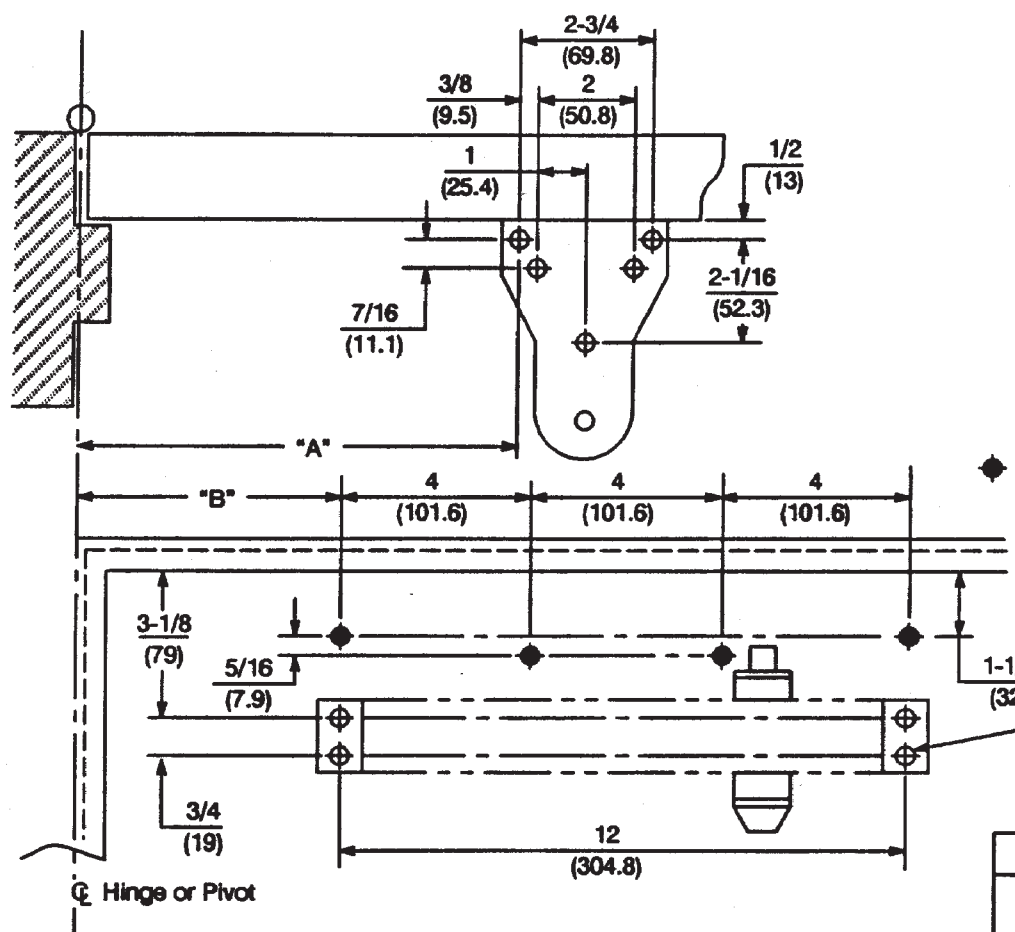
**CLP-8300, CLP-8500 Series Door Closer with CloserPlus® Arm or
CPS-8300, CPS-8500 Series Door Closer with CloserPlus Spring™ Arm
Parallel Arm x 2019L Bracket, with or without 8148 / 8158 / 8458 Drop Plate
Arm Function: Stop Only or Stop & Hold Open ("T" or "R" Suffix)
Power Sizes 1, 2, 3, 4, 5, or 6**

NORTON
RIXSON

ASSA ABLOY

TEMPLATE NUMBER	REV	DATE
7380-1303	4	12/21

Approved 2022-02-26



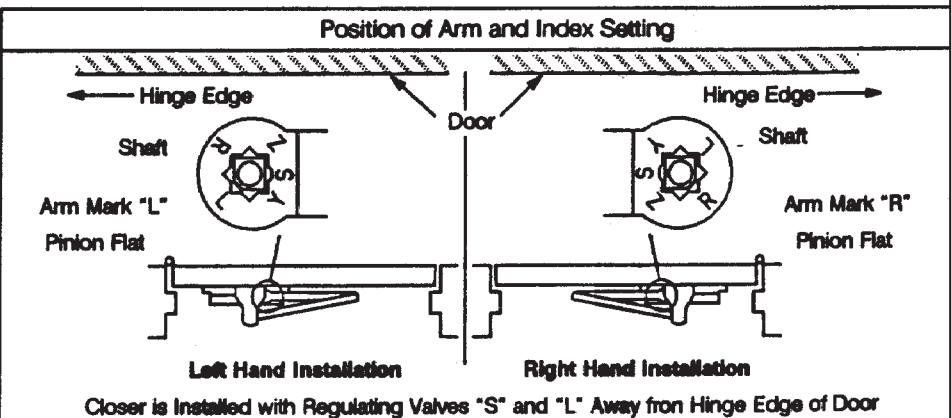
Opening	Dim. "A"	Dim. "B"
To 120°	9-1/2 (241)	3-3/4 (95)
Over 120°*	7 (178)	1-1/4 (32)

* Door openings to 180° conditions permitting.

Closer Size "1" Power Setting		
Max. Door Width		**Power Adjustment Required
Interior	Exterior	
3' 0"	—	3 turns
3' 6"	3' 0"	4 turns
4' 6"	3' 6"	7 turns
5' 0"	4' 0"	9 turns
Maximum		13 turns

**Units are supplied for adjustments as charted.

- NOTES:**
1. Do not scale drawing.
 2. Left hand door shown.
 3. Dimensions are in inches.
 4. Hollow-metal doors require channel or box-type reinforcement when thru-bolt mount is specified.
 5. Sex-bolts required for wood or plastic faced fire-door mounting.
 6. Minimum thickness recommended for reinforcements in hollow-metal doors and frames: .0146" (2.66mm) unless otherwise noted.
 7. Hold Open function "T" Suffix, is not permitted in a fire-door assembly.
 8. Maximum width hinges for this template are 5" (127mm)

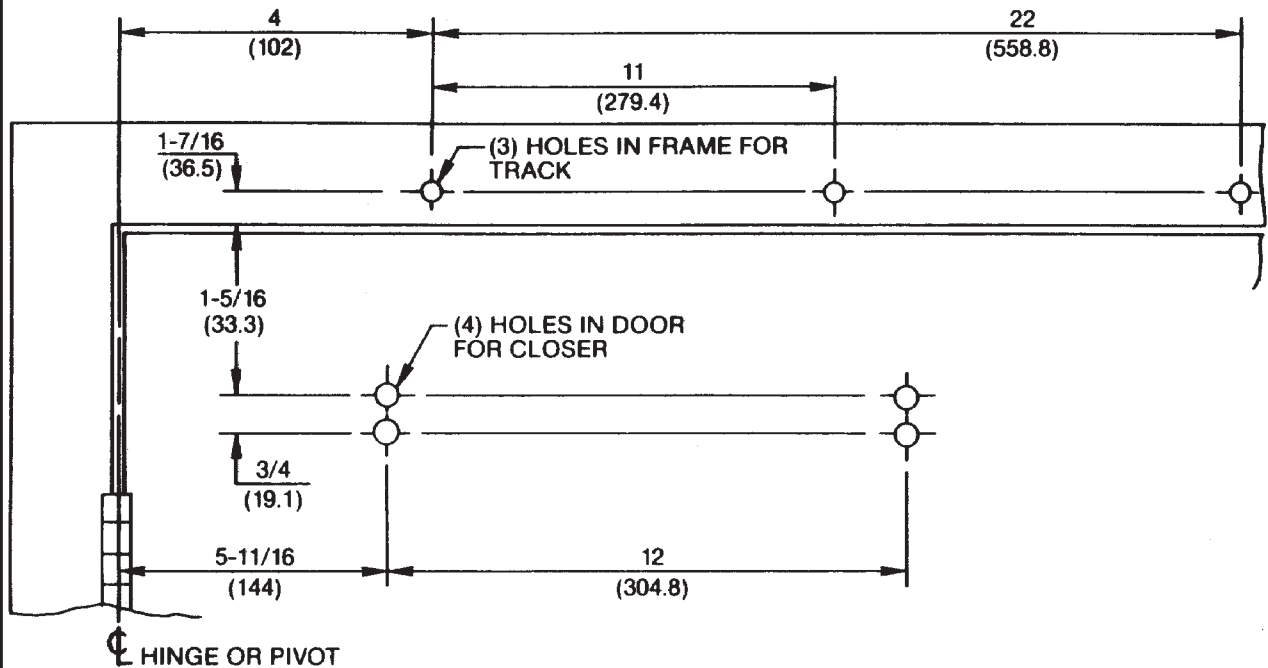


**PR8000 Series Non Hold Open or
PR8000H Series Hold Open**
Parallel Arm Application With or Without 8148 / 8158 / 8548 Drop Plate
Closer Series PR8100, PR8300 & PR8500
Power Sizes 1, 2, 3, 4, 5, or 6



TEMPLATE NUMBER	REV	DATE
7380-0251	3	12/21

**IMPORTANT: From centerline of
pivot point to end of track
is 26½" (673 mm)**



- Right hand door shown.
- Do not scale drawing.
- Dimensions are given in inches (mm.).
- Minimum ceiling clearance for unit is 2" (50mm.).
- Maximum door opening:
 - Non Hold Open with Spring Buffer - 110°
 - Non Hold Open without Spring Buffer - 180°
 - Hold Open - 110°

Preparation for Fasteners		
Fasteners	Door or Frame	Drill-Sizes
#14 type "A" S.M. screw	Wood	3/16" (4.30mm.)
¼"-20 machine-screw	Metal	drill: #7 (.201") tap: ¼"-20
Sex-nuts and bolts (Optional)	Hollow-Metal	9/32" (7.00mm.) through; 3/8" (9.50mm.) door-face opposite to closer
	Aluminum or Wood	3/8" (9.50mm.) through
Through-bolt and grommet-nuts (Optional)	All	9/32" (7.00mm.) through; 3/8" (9.50mm.) dia. x 3/8" (10mm.) deep door- face opposite to closer



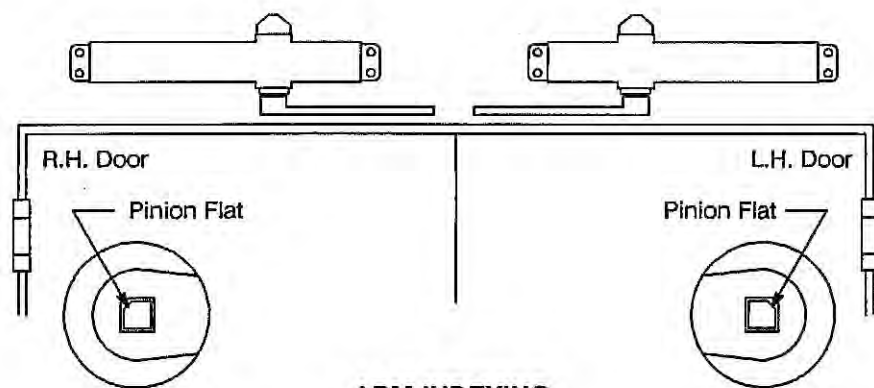
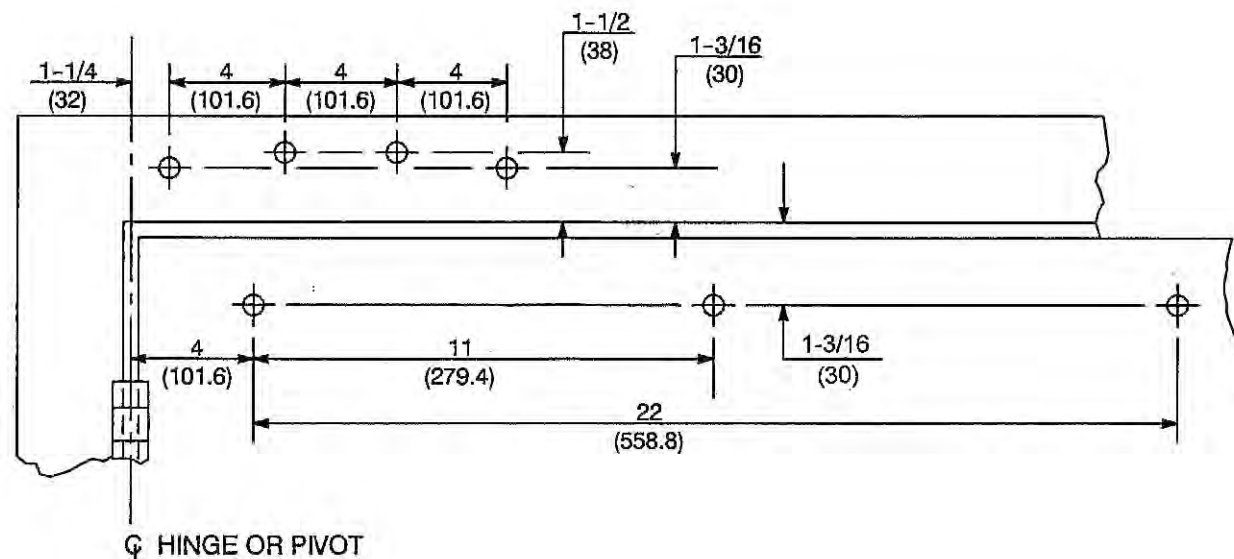
8300ST/8500ST Series Non Hold Open Door Closers
8300ST-H/8500ST-H Series Hold Open Door Closers
Hinge Side Slide Track Application



TEMPLATE NUMBER	REV	DATE
7380-0501	3	12/21

Notes:

- Do not scale drawing.
- Right hand door shown. Same dimensions apply for left hand door, measured from centerline of hinge or pivot.
- Template information based upon use of 4-1/2" hinges or 3/4" offset pivots.
- Dimensions are shown in inches and millimeters (mm.).
- Hollow metal doors require channel or box-type reinforcement when thru-bolt mount is specified.
- Sex-nuts are required for wood or plastic faced fire-door installations.
- Minimum thickness recommended for reinforcements in hollow metal doors and frames is .1046 (2.66) unless noted otherwise.
- Minimum ceiling clearance for closer unit is 4-1/16" (103).
- Maximum frame reveal is 1/8" (3).
- Maximum door swing:
 - Non Hold Open – 110° (With spring buffer in track).
 - Non Hold Open – 180° (Without spring buffer in track).
 - Hold Open – 110°.



ARM INDEXING

PREPARATION FOR FASTENERS

Fastener	Opening	Drill Sizes
1/4"-20 Machine Screw	Metal Door or Frame	#7 [.201" (5.10mm.) dia.] drill 1/4"-20 UNC Tap
Sex nuts and bolts	Wood or Composite Door	3/8" (9.50mm.) through; 9/16" (15.00mm.) diameter x 1/8" (3mm.) deep on face opposite to closer
Through bolts and grommet nuts		From face opposite to closer: 9/32" (7.00mm.) through; 3/8" (9.50mm.) diameter x 1/2" (13mm.) deep; 5/8" (16.00mm.) diameter x 1/8" (3mm.) deep



TRADEMARK
 HARDWARE

**J8000ST or J8000STH Series Door Closers with 8146 Back Plate
 Hinge (Pull) Side Slide Track Application
 Non-Hold Open or Hold Open Function
 Series 8300 or 8500, Sizes 1, 4, 5, or 6**

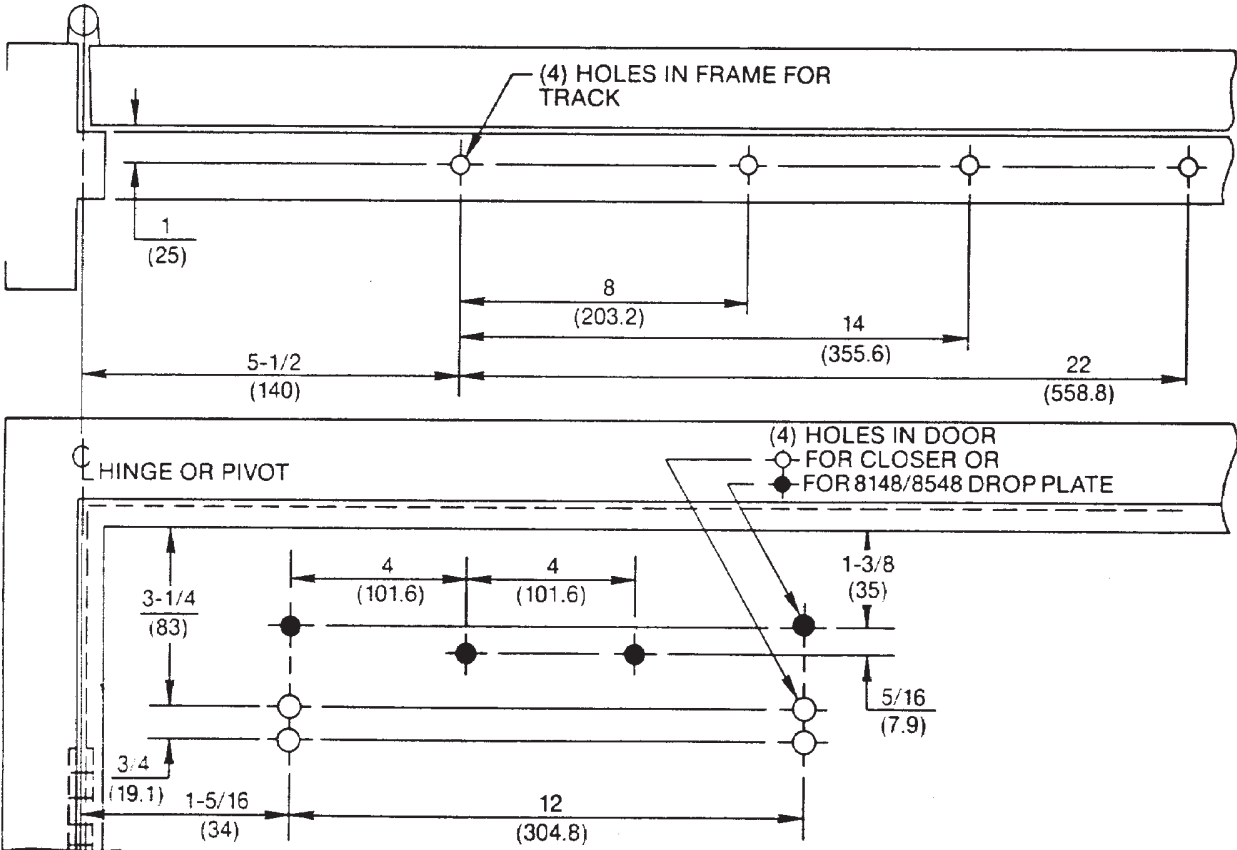
**NORTON
 RIXSON**

ASSA ABLOY

TEMPLATE NUMBER	REV	DATE
7380-0515	3	12/21

Approved 2022-06-06

**IMPORTANT: From centerline of
pivot point to end of track
is 28" (711 mm)**



- Left hand door shown.
- Do not scale drawing.
- Dimensions are given in inches .
(mm.)
- Maximum door opening:
 - Non Hold Open with buffer assembly in track - 100°
 - Non Hold Open without buffer assembly in track - 125°. Auxiliary stop required.
 - Hold Open - 100°

Preparation for Fasteners

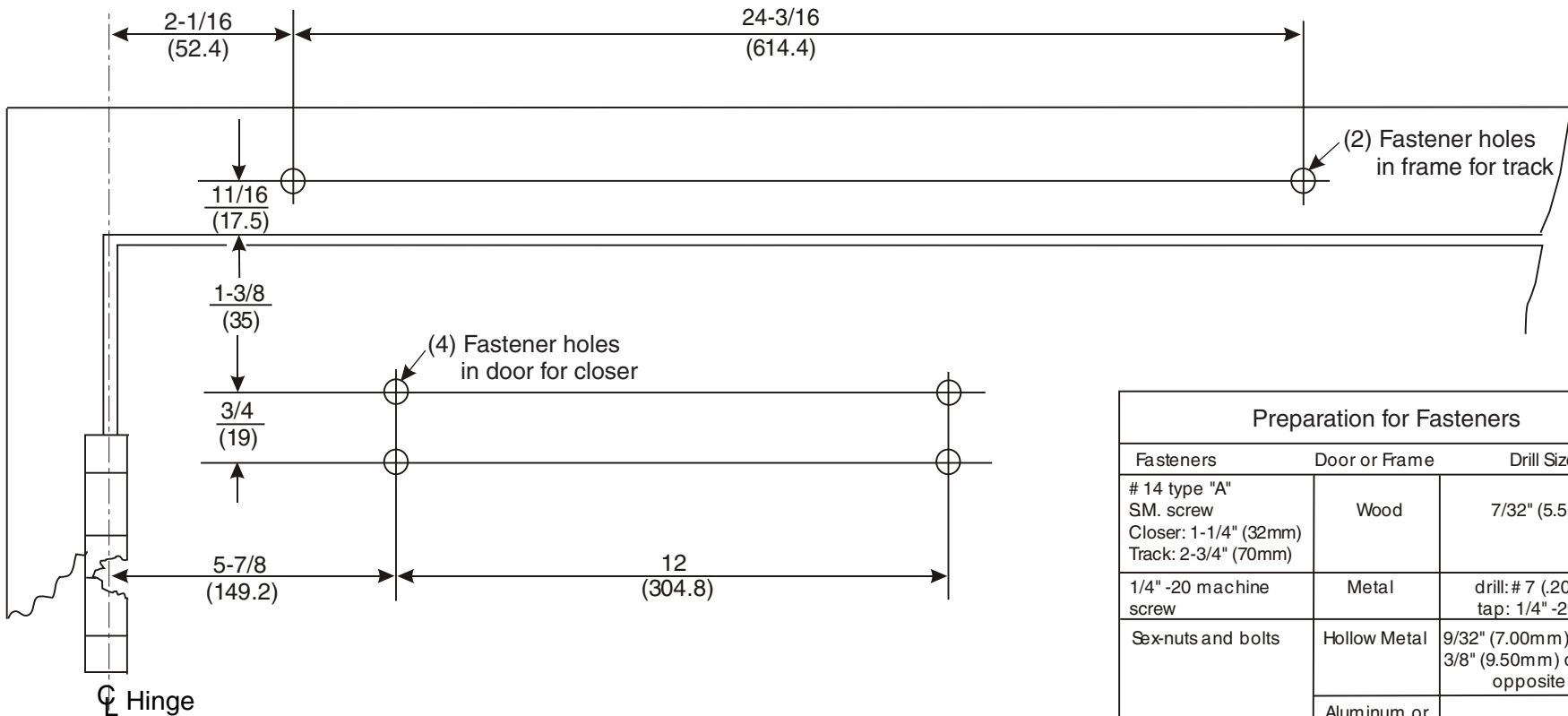
Fasteners	Door or Frame	Drill-Sizes
#14 type "A" S.M. screw	Wood	3/16" (4.30mm.)
1/4"-20 machine-screw	Metal	drill: #7 (.201") tap: 1/4"-20
Sex-nuts and bolts (Optional)	Hollow-Metal	9/32" (7.00mm.) through; 3/8" (9.50mm.) door-face opposite to closer
	Aluminum or Wood	3/8" (9.50mm.) through
Through-bolt and grommet-nuts (Optional)	All	9/32" (7.00mm.) through; 3/8" (9.50mm.) dia. x 3/8" (10mm.) deep door-face opposite to closer



PS8300ST / PS8500ST Series Non Hold Open Door Closers
PS8300ST-H / PS8500ST-H Series Hold Open Door Closers
Opposite to Hinge Side Slide Track Application
With or Without Drop Plate



TEMPLATE NUMBER	REV	DATE
7380-0520	3	12/21



- Notes:
- Right hand door is shown.
 - Do not scale drawing.
 - .1046 (2.7mm) minimum thickness recommended for hollow metal door and frame reinforcement.
 - From centerline of hinge to end of track 26-3/4" (679.5mm).
 - Minimum ceiling clearance for track is 1-1/2" (38.1mm).
 - Dimensions are given in inches (mm).
 - Maximum door opening:
110° recommended with cushion stop in track.
180° without cushion stop.
 - Use of auxiliary door stop may be required to prevent damage to door, frame, or hinges.

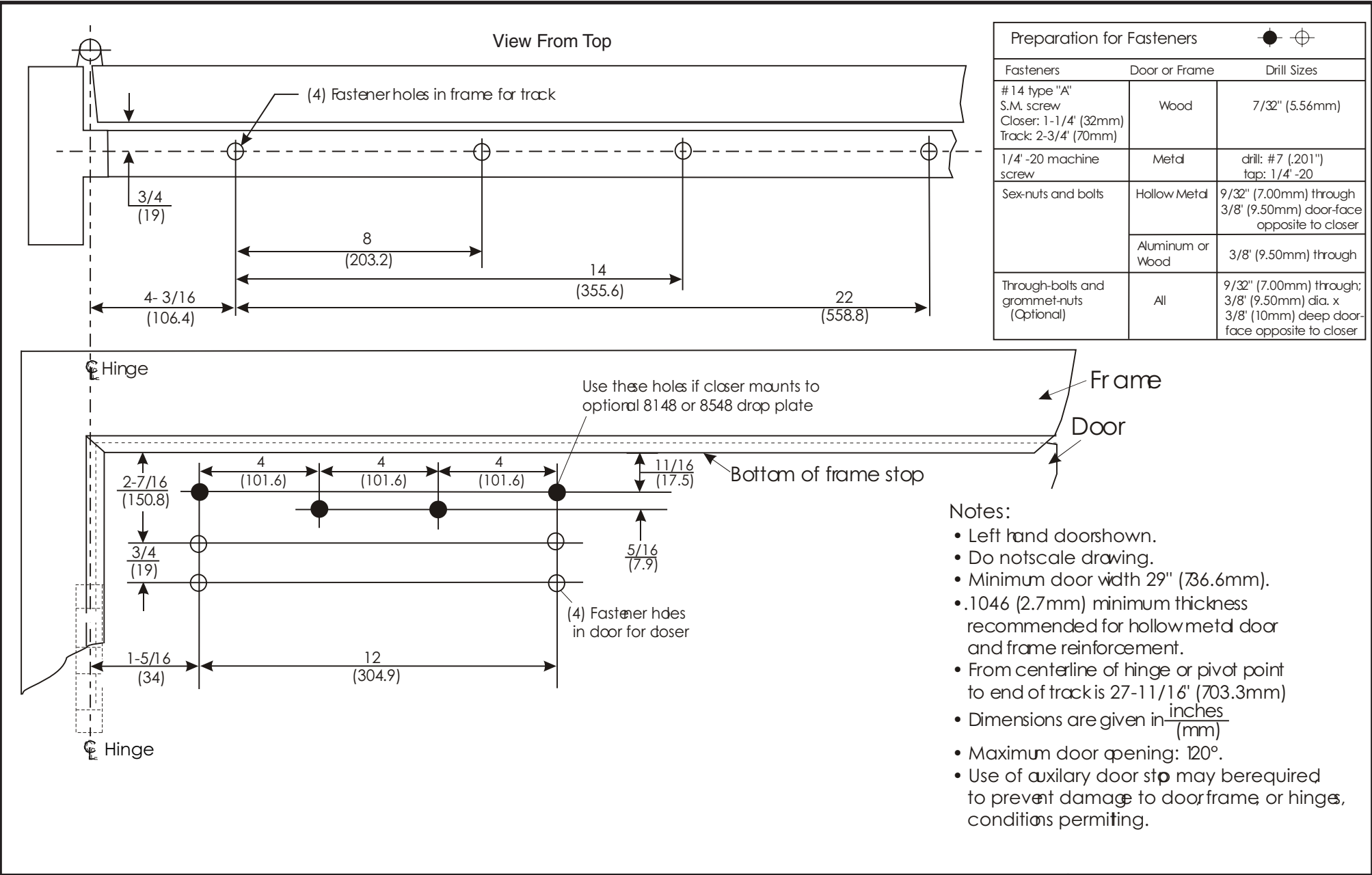
Preparation for Fasteners		
Fasteners	Door or Frame	Drill Sizes
# 14 type "A" SM. screw Closer: 1-1/4" (32mm) Track: 2-3/4" (70mm)	Wood	7/32" (5.56mm)
1/4" -20 machine screw	Metal	drill: # 7 (.201") tap: 1/4" -20
Sex-nuts and bolts	Hollow Metal	9/32" (7.00mm) through 3/8" (9.50mm) door-face opposite to closer
	Aluminum or Wood	3/8" (9.50mm) through
Through-bolts and grommet-nuts (Optional)	All	9/32" (7.00mm) through; 3/8" (9.50mm) dia. x 3/8" (10mm) deep door-face opposite to closer

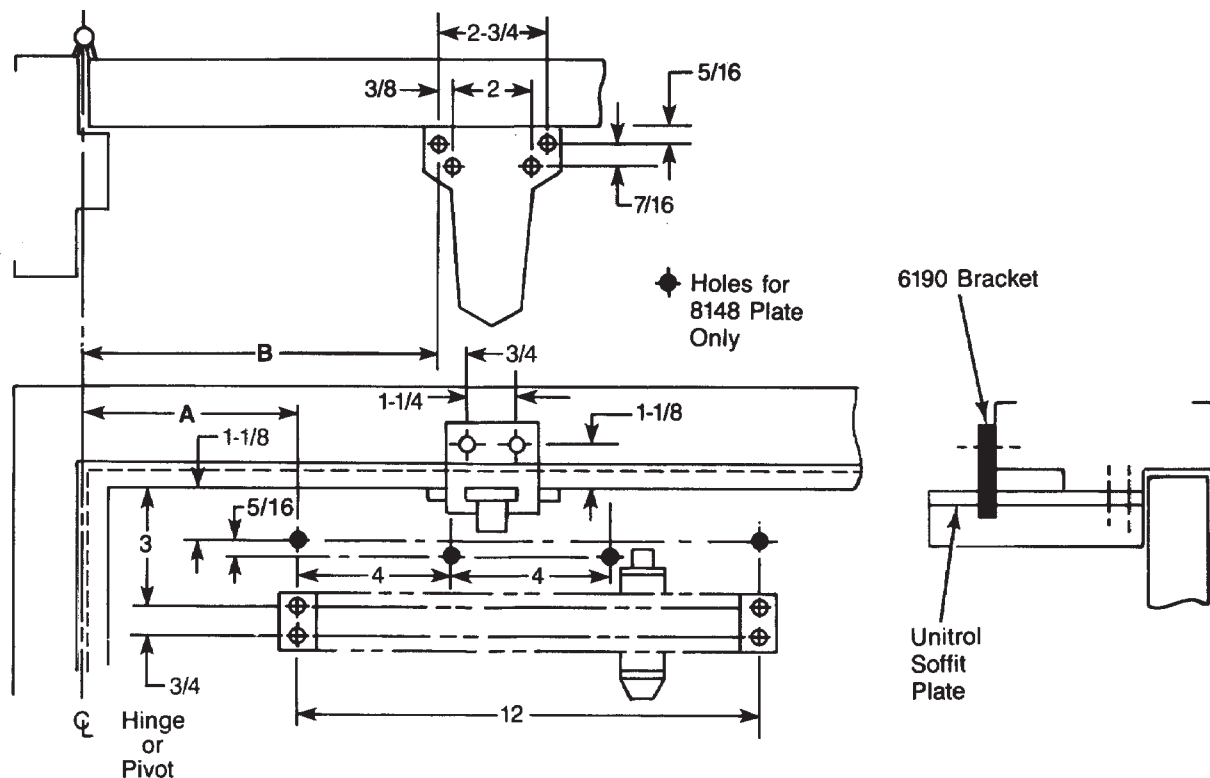


8340ST, 8540ST Series Non Hold Open Door Closer
8340STH, 8540STH Series Hold Open Door Closer
Pull (Hinge) Side Slide Track Application
Closer Sizes 1, 4, 5, or 6



TEMPLATE NUMBER	REV	DATE
7380-1501	3	12/21





Door Opening Angle		Dimensions			
Hold Open ★	Dead Stop	Butts and Offset Pivots		Center Pivots	
		A	B	A	B
85°	90°	5-1/8	10-3/8	5-3/4	11
90°	95°	4-1/2	9-3/4	5-1/8	10-3/8
95°	100°	4	9-1/4	4-5/8	9-7/8
100°	105°	3-5/8	8-7/8	4-1/4	9-1/2
105°	110°	3-1/4	8-1/2	3-7/8	9-1/8
110°	115°	2-7/8	8-1/8	3-5/8	8-7/8

★ Door must be free to swing 5° beyond hold-open position.

Notes:

Do not scale drawing.

Left hand door shown.

Dimensions are in inches.

Hollow-metal doors require channel or box-type reinforcement when thru-bolt mount is specified.

Sex-bolts required for wood or plastic faced fire-door mounting.

Minimum thickness recommended for reinforcements in hollow-metal doors and frames: .1046" (2.66mm).

Follow Conversion Chart for metric dimensions.

Preparation for Fasteners			
Fasteners	Application	Door or Frame	Drill Sizes
Sex nuts and bolts	Closer Drop Plate	Hollow Metal	9/32" (7.00mm) through 3/8" (9.50mm) door face opposite to closer
		Alluminum or Wood	3/8" (9.50mm) through
#14 x 1-1/4" (32mm) type "A" S.M. screws	Soffit plate 6190 Bracket	Wood	3/16" (4.30mm)
1/4-20 machine screw		Metal	drill: #7 (.201") tap: 1/4-20
Through bolts and grommet nuts	Optional	All	9/32" (7.00mm) through 3/8" (9.50mm) dia. x 3/8" (10mm) deep, door face opposite to closer



TRADEMARK
HARDWARE

inches	mm.	inches	mm.	inches	mm.
5/16	8	3-1/4	82.5	8-1/2	216
3/8	9.5	3-5/8	92	8-7/8	225.5
7/16	11	3-7/8	98.5	9-1/8	232
3/4	19	4	101.5	9-1/4	235
1-1/8	28.5	4-1/4	108	9-1/2	241.5
1-1/4	31.5	4-1/2	114	9-3/4	247.5
2	51	4-5/8	117.5	9-7/8	251
2-3/4	70	5-1/8	130	10-3/8	263.5
2-7/8	73	5-3/4	146	11	279.5
3	76	8-1/8	206	12	305

Unitrol® Standard Application
Series UNI-8300, UNI-8301,
UNI-8500, UNI-8501
Doors 28" - 32" (0.70-0.80m) Wide

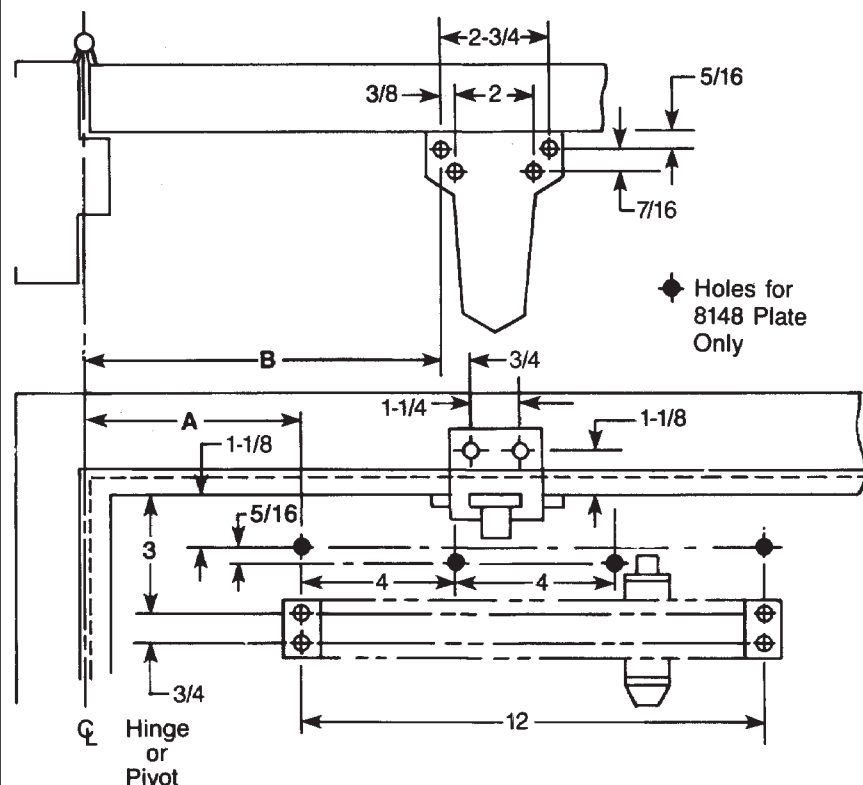
Parallel Arm Installation Template
Stop Only or Hold Open Unitrol®
Backcheck or Delayed Action Door Closer
With or Without 8148 Drop Plate

**NORTON
RIXSON**

ASSA ABLOY

TEMPLATE NUMBER	REV	DATE
7380-1351	3	12/21

Approved 2022-02-26



6190 Bracket

Unitrol
Soffit
Plate

Door Opening Angle		Dimensions			
Hold Open ★	Dead Stop	Butts and Offset Pivots		Center Pivots	
		A	B	A	B
85°	90°	7-1/2	12-3/4	8	13-1/4
90°	95°	6-3/4	12	7-3/8	12-5/8
95°	100°	6-1/4	11-1/2	6-3/4	12
100°	105°	5-3/4	11	6-1/4	11-1/2
105°	110°	5-1/4	10-1/2	5-7/8	11-1/8
110°	115°	4-7/8	10-1/8	5-1/2	10-3/4

★ Door must be free to swing 5° beyond hold-open position.

Notes:

Do not scale drawing.

Left hand door shown.

Dimensions are in inches.

Hollow-metal doors require channel or box-type reinforcement when thru-bolt mount is specified.

Sex-bolts required for wood or plastic faced fire-door mounting.

Minimum thickness recommended for reinforcements in hollow-metal doors and frames: .1046" (2.66mm).

Follow Conversion Chart for metric dimensions.

Preparation for Fasteners			
Fasteners	Application	Door or Frame	Drill Sizes
Sex nuts and bolts	Closer Drop Plate	Hollow Metal	9/32" (7.00mm) through 3/8" (9.50mm) door face opposite to closer
		Aluminum or Wood	3/8" (9.50mm) through
#14 x 1-1/4" (32mm) type "A" S.M. screws	Soffit plate 6190 Bracket	Wood	3/16" (4.30mm)
1/4-20 machine screw		Metal	drill: #7 (.201") tap: 1/4-20
Through bolts and grommet nuts	Optional	All	9/32" (7.00mm) through 3/8" (9.50mm) dia. x 3/8" (10mm) deep, door face opposite to closer



TRADEMARK
HARDWARE

inches	mm.	inches	mm.	inches	mm.
5/16	8	5-1/4	133	10-3/4	273
3/8	9.5	5-1/2	139.5	11	279.5
7/16	11	5-3/4	146	11-1/8	282.5
3/4	19	5-7/8	149	11-1/2	292
1-1/8	28.5	6-1/4	158.5	12	305
1-1/4	31.5	6-3/4	171.5	12-5/8	320.5
2	51	7-3/8	187.5	12-3/4	324
2-3/4	70	7-1/2	190.5	13-1/4	336.5
3	76	8	203		
4	101.5	10-1/8	257		
4-7/8	124	10-1/2	266.5		

Unitrol® Standard Application
Series UNI-8300, UNI-8301,
UNI-8500, UNI-8501
Doors 33" - 41" (0.85-1.00m) Wide

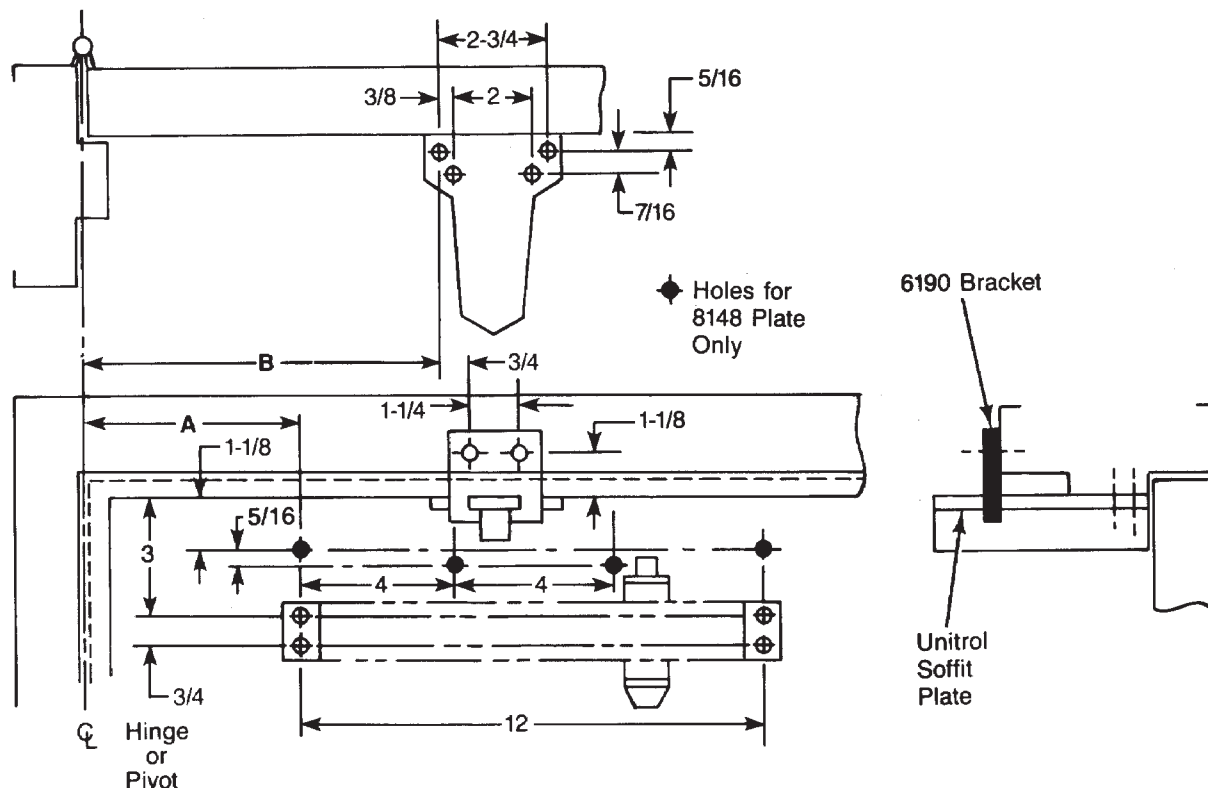
Parallel Arm Installation Template
Stop Only or Hold Open Unitrol®
Backcheck or Delayed Action Door Closer
With or Without 8148 Drop Plate
With or Without 6190 Bracket

**NORTON
RIXSON**

ASSA ABLOY

TEMPLATE NUMBER	REV	DATE
7380-1352	3	12/21

Approved 2022-02-26



Door Opening Angle		Dimensions			
Hold Open ★	Dead Stop	Butts and Offset Pivots		Center Pivots	
		A	B	A	B
85°	90°	9-3/4	15-1/8	10-1/8	15-1/2
90°	95°	8-7/8	14-1/4	9-3/8	14-3/4
95°	100°	8-1/4	13-5/8	8-5/8	14
100°	105°	7-5/8	13	8-1/8	13-1/2
105°	110°	7-1/8	12-1/2	7-5/8	13
110°	115°	6-3/4	12-1/8	7-1/8	12-1/2

★ Door must be free to swing 5° beyond hold-open position.

Notes:

Do not scale drawing.

Left hand door shown.

Dimensions are in inches.

Hollow-metal doors require channel or box-type reinforcement when thru-bolt mount is specified.

Sex-bolts required for wood or plastic faced fire-door mounting.

Minimum thickness recommended for reinforcements in hollow-metal doors and frames: .1046" (2.66mm).

Follow Conversion Chart for metric dimensions.

Preparation for Fasteners			
Fasteners	Application	Door or Frame	Drill Sizes
Sex nuts and bolts	Closer Drop Plate	Hollow Metal	9/32" (7.00mm) through 3/8" (9.50mm) door face opposite to closer
		Aluminum or Wood	3/8" (9.50mm) through
#14 x 1-1/4" (32mm) type "A" S.M. screws	Soffit plate 6190 Bracket	Wood	3/16" (4.30mm)
1/4-20 machine screw		Metal	drill: #7 (.201") tap: 1/4-20
Through bolts and grommet nuts	Optional	All	9/32" (7.00mm) through 3/8" (9.50mm) dia. x 3/8" (10mm) deep, door face opposite to closer



TRADEMARK
HARDWARE

inches	mm.	inches	mm.	inches	mm.
5/16	8	7-1/8	181	12-1/2	317.5
3/8	9.5	7-5/8	193.5	13	330
7/16	11	8-1/8	206	13-1/2	343
3/4	19	8-1/4	209.5	13-5/8	346
1-1/8	28.5	8-5/8	219	14	355.5
1-1/4	31.5	8-7/8	225.5	14-1/4	362
2	51	9-3/8	238	14-3/4	374.5
2-3/4	70	9-3/4	247.5	15-1/8	384
3	76	10-1/8	257	15-1/2	393.5
4	101.5	12	305		
6-3/4	171.5	12-1/8	308		

Unitrol® Standard Application
Series UNI-8300, UNI-8301,
UNI-8500, UNI-8501
Doors 42" - 48" (1.05-1.20m) Wide

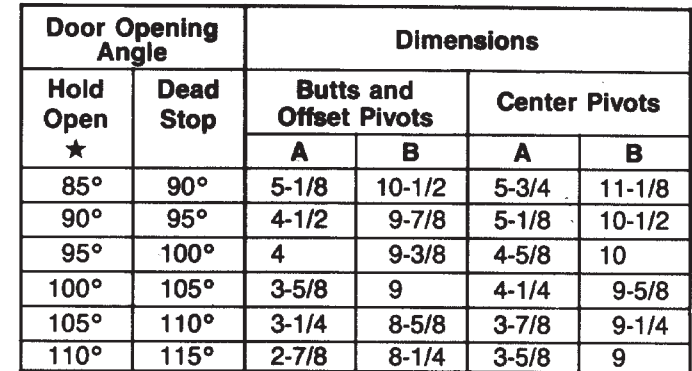
Parallel Arm Installation Template
Stop Only or Hold Open Unitrol®
Backcheck or Delayed Action Door Closer
With or Without 8148 Drop Plate
With or Without 6190 Bracket

NR NORTON
RIXSON

ASSA ABLOY

TEMPLATE NUMBER	REV	DATE
7380-1353	3	12/21

Approved 2022-02-26



Follow Conversion Chart for metric dimensions.



inches	mm.	inches	mm.	inches	mm.
5/16	8	3-5/8	92	9	228.5
1/2	12.5	3-7/8	98.5	9-1/4	235
3/4	19	4	101.5	9-3/8	238
1-1/8	28.5	4-1/4	108	9-5/8	244.5
1-1/2	38	4-1/2	114	9-7/8	251
1-3/4	44.5	4-5/8	117.5	10	254
2-1/2	63.5	5-1/8	130	10-1/2	266.5
2-7/8	73	5-3/4	146	11-1/8	282.5
3	76	8-1/4	209.5	12	305
3-1/4	82.5	8-5/8	219		

Parallel Arm Installation Template

Flush Partitions

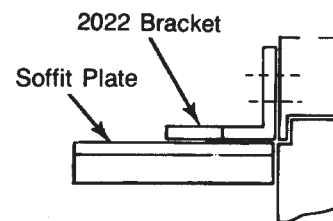
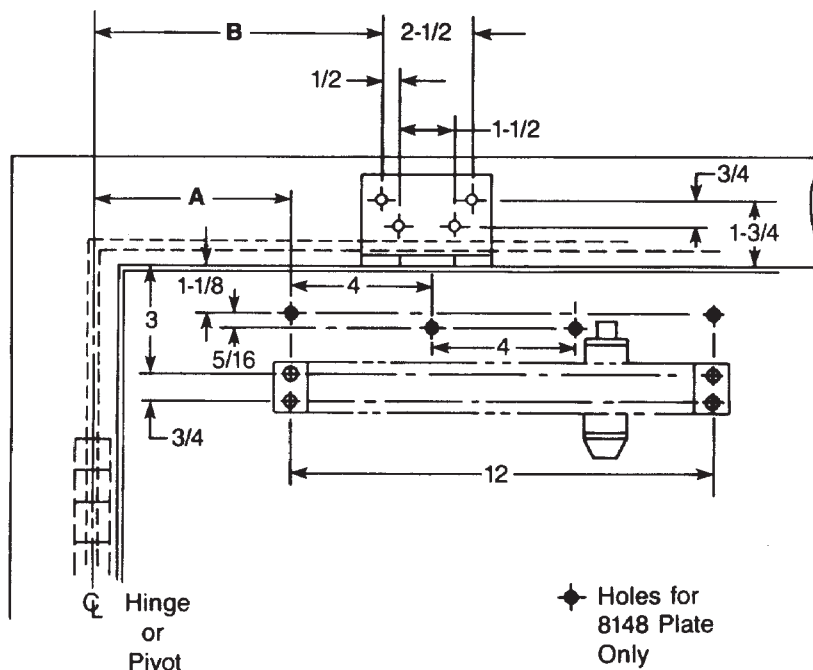
Stop Only or Hold Open Unitrol®

Backcheck or Delayed Action Door Closer

With or Without 8148 Drop Plate

ASSA ABLOY

12/21



Door Opening Angle		Dimensions			
Hold Open ★	Dead Stop	Butts and Offset Pivots		Center Pivots	
		A	B	A	B
85°	90°	7-1/2	12-7/8	8	13-3/8
90°	95°	6-3/4	12-1/8	7-3/8	12-3/4
95°	100°	6-1/4	11-5/8	6-3/4	12-1/8
100°	105°	5-3/4	11-1/8	6-1/4	11-5/8
105°	110°	5-1/4	10-5/8	5-7/8	11-1/4
110°	115°	4-7/8	10-1/4	5-1/2	10-7/8

★ Door must be free to swing 5° beyond hold-open position.

Notes:

Do not scale drawing.

Left hand door shown.

Dimensions are in inches.

Hollow-metal doors require channel or box-type reinforcement when thru-bolt mount is specified.

Sex-bolts required for wood or plastic faced fire-door mounting.

Minimum thickness recommended for reinforcements in hollow-metal doors and frames: .1046" (2.66mm).

Follow Conversion Chart for metric dimensions.

Preparation for Fasteners			
Fasteners	Application	Door or Frame	Drill Sizes
Sex nuts and bolts	Closer Drop Plate 2022 Bracket	Hollow Metal	9/32" (7.00mm) through 3/8" (9.50mm) door face opposite to closer
		Aluminum or Wood	3/8" (9.50mm) through
Through bolts and grommet nuts	Optional	All	9/32" (7.00mm) through 3/8" (9.50mm) dia. x 3/8" (10mm) deep, door face opposite to closer



inches	mm.	inches	mm.	inches	mm.
5/16	8	5-1/2	139.5	11-1/8	282.5
1/2	12.5	5-3/4	146	11-1/4	286
3/4	19	5-7/8	149	11-5/8	295.5
1-1/8	28.5	6-1/4	159	12	305
1-1/2	38	6-3/4	171.5	12-1/8	308
1-3/4	44.5	7-3/8	187.5	12-3/4	324
2-1/2	63.5	7-1/2	190.5	12-7/8	327
3	76	8	203	13-3/8	339.5
4	101.5	10-1/4	260.5		
4-7/8	124	10-5/8	270		
5-1/4	133	10-7/8	276		

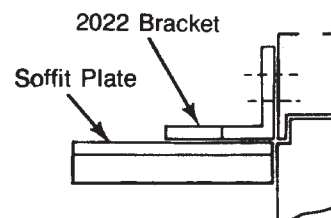
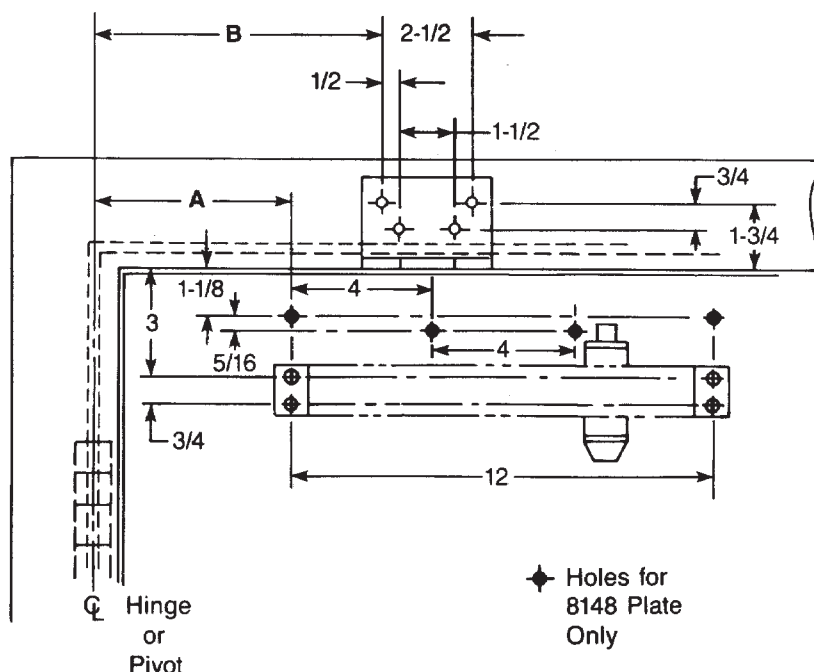
Unitrol® With 2022 Bracket
Series UNI-8300, UNI-8301,
UNI-8500, UNI-8501
Doors 33" - 41" (0.85-1.00m) Wide

Parallel Arm Installation Template
Flush Partitions
Stop Only or Hold Open Unitrol®
Backcheck or Delayed Action Door Closer
With or Without 8148 Drop Plate



TEMPLATE NUMBER	REV	DATE
7380-1355	3	12/21

Approved 2022-02-26



Door Opening Angle		Dimensions			
Hold Open ★	Dead Stop	Butts and Offset Pivots		Center Pivots	
		A	B	A	B
85°	90°	9-3/4	15-1/4	10-1/8	15-5/8
90°	95°	8-7/8	14-3/8	9-3/8	14-7/8
95°	100°	8-1/4	13-3/4	8-5/8	14-1/8
100°	105°	7-5/8	13-1/8	8-1/8	13-5/8
105°	110°	7-1/8	12-5/8	7-5/8	13-1/8
110°	115°	6-3/4	12-1/4	7-1/8	12-5/8

★ Door must be free to swing 5° beyond hold-open position.

Notes:

Do not scale drawing.

Left hand door shown.

Dimensions are in inches.

Hollow-metal doors require channel or box-type reinforcement when thru-bolt mount is specified.

Sex-bolts required for wood or plastic faced fire-door mounting.

Minimum thickness recommended for reinforcements in hollow-metal doors and frames: .1046" (2.66mm).

Follow Conversion Chart for metric dimensions.

Preparation for Fasteners			
Fasteners	Application	Door or Frame	Drill Sizes
Sex nuts and bolts	Closer Drop Plate 2022 Bracket	Hollow Metal	9/32" (7.00mm) through 3/8" (9.50mm) door face opposite to closer
		Aluminum or Wood	3/8" (9.50mm) through
Through bolts and grommet nuts	Optional	All	9/32" (7.00mm) through 3/8" (9.50mm) dia. x 3/8" (10mm) deep, door face opposite to closer



TRADEMARK
HARDWARE

inches	mm.	inches	mm.	inches	mm.
5/16	8	7-5/8	193.5	13-1/8	333.5
1/2	12.5	8-1/8	206.5	13-5/8	346
3/4	19	8-1/4	209.5	13-3/4	349.5
1-1/8	28.5	8-5/8	219	14-1/8	359
1-1/2	38	8-7/8	225.5	14-3/8	365
1-3/4	44.5	9-3/8	238	14-7/8	378
2-1/2	63.5	9-3/4	247.5	15-1/4	387.5
3	76	10-1/8	257	15-5/8	397
4	101.5	12	305		
6-3/4	171.5	12-1/4	311		
7-1/8	181	12-5/8	320.5		

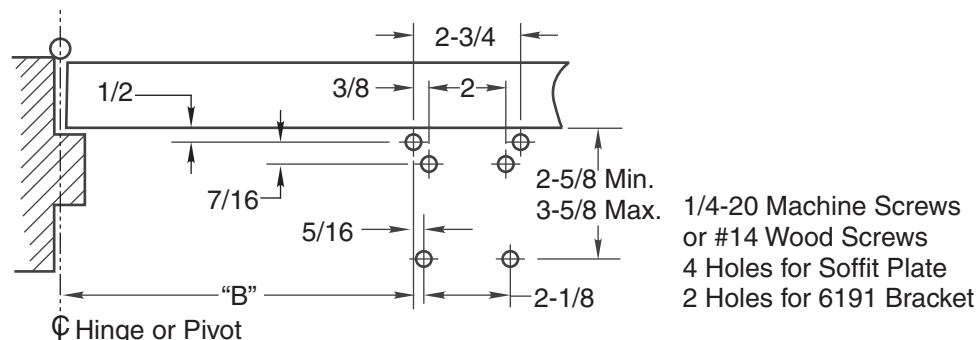
Unitrol® With 2022 Bracket
Series UNI-8300, UNI-8301,
UNI-8500, UNI-8501
Doors 42" - 48" (1.05-1.20m) Wide

Parallel Arm Installation Template
Flush Partitions
Stop Only or Hold Open Unitrol®
Backcheck or Delayed Action Door Closer
With or Without 8148 Drop Plate

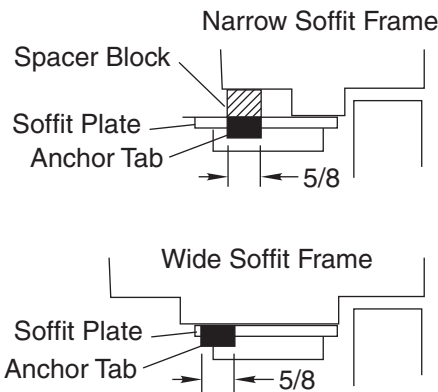
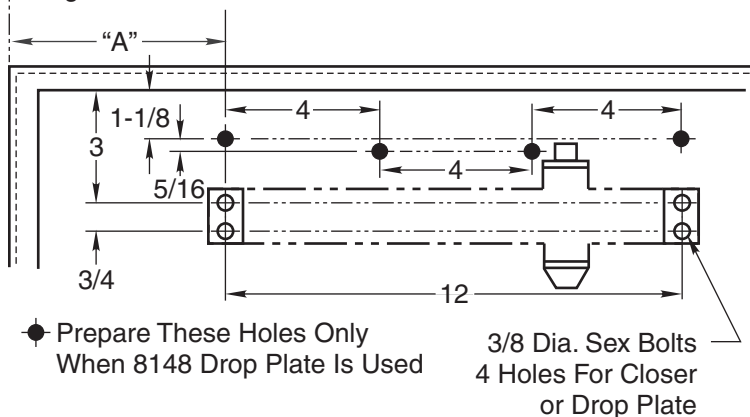
NORTON
RIXSON
ASSA ABLOY

TEMPLATE NUMBER	REV	DATE
7380-1356	3	12/21

Approved 2022-02-26



TRADEMARK
HARDWARE



Door Opening Angle		Dimensions			
Hold Open*	Dead Stop	Butts & Offset Pivots		Center Pivots	
		A	B	A	B
85°	90°	5-1/8	10-3/8	5-3/4	11
90°	95°	4-1/2	9-3/4	5-1/8	10-3/8
95°	100°	4	9-1/4	4-5/8	9-7/8
100°	105°	3-5/8	8-7/8	4-1/4	9-1/2
105°	110°	3-1/4	8-1/2	3-7/8	9-1/8
110°	115°	2-7/8	8-1/8	3-5/8	8-7/8

★Door must be free to swing 5° beyond hold-open position.

Notes:

Do not scale drawing.

Left hand door shown.

Dimensions are in inches.

Hollow-metal doors require channel or box-type reinforcement when thru-bolt mount is specified. Sex-bolts required for wood or plastic faced fire-door mounting.

Minimum thickness recommended for reinforcements in hollow-metal doors and frames: .1046" (2.66mm).

Follow Conversion Chart for metric dimensions.

Preparation for Fasteners

Fasteners	Application	Door or Frame	Drill-Sizes
Sex nuts and bolts	Closer Drop Plate	Hollow-Metal	9/32" (7.00 mm.) through; 3/8" (9.50 mm.) on door face opposite to closer
		Aluminum or Wood	3/8" (9.50 mm.) through
#14 x 1-1/4" (32mm) type "A" S.M. screw	Soffit plate 6190 Bracket	Wood	3/16" (4.30 mm.)
1/4" - 20 machine screw		Metal	drill: #7 (0.201" dia.) tap: 1/4" - 20
Through-bolts and grommet-nuts	Optional	All	9/32" (7.00 mm.) through; 3/8" (9.50 mm.) dia. x 3/8" (9.50 mm.) deep on door face opposite to closer

inches	mm	inches	mm	inches	mm	inches	mm
5/16	8	2-3/4	70	5-1/8	130	10-3/8	263.5
3/8	9.5	2-7/8	73	5-3/4	146	11	279.5
7/16	11	3	76	8-1/8	206	12	305
1/2	12.7	3-1/4	82.5	8-1/2	216		
5/8	16	3-5/8	92	8-7/8	225.5		
3/4	19	3-7/8	98.5	9-1/8	232		
1-1/8	28.5	4	101.5	9-1/4	235		
2	51	4-1/4	108	9-1/2	241.5		
2-1/8	54	4-1/2	114	9-3/4	247.5		
2-5/8	67	4-5/8	117	9-7/8	251		

Unitrol® With 6191 Reinforcing Kit
Series UNI-8300, UNI-8301,
UNI-8500, UNI-8501
Doors 28" - 32" (0.70 - 0.80m)

Parallel Arm Installation Template
Stop Only or Hold Open Unitrol®
Backcheck or Delayed Action Door Closer
With or Without 8148 Drop Plate

**NORTON
RIXSON**

ASSA ABLOY

TEMPLATE NUMBER

7380-1357

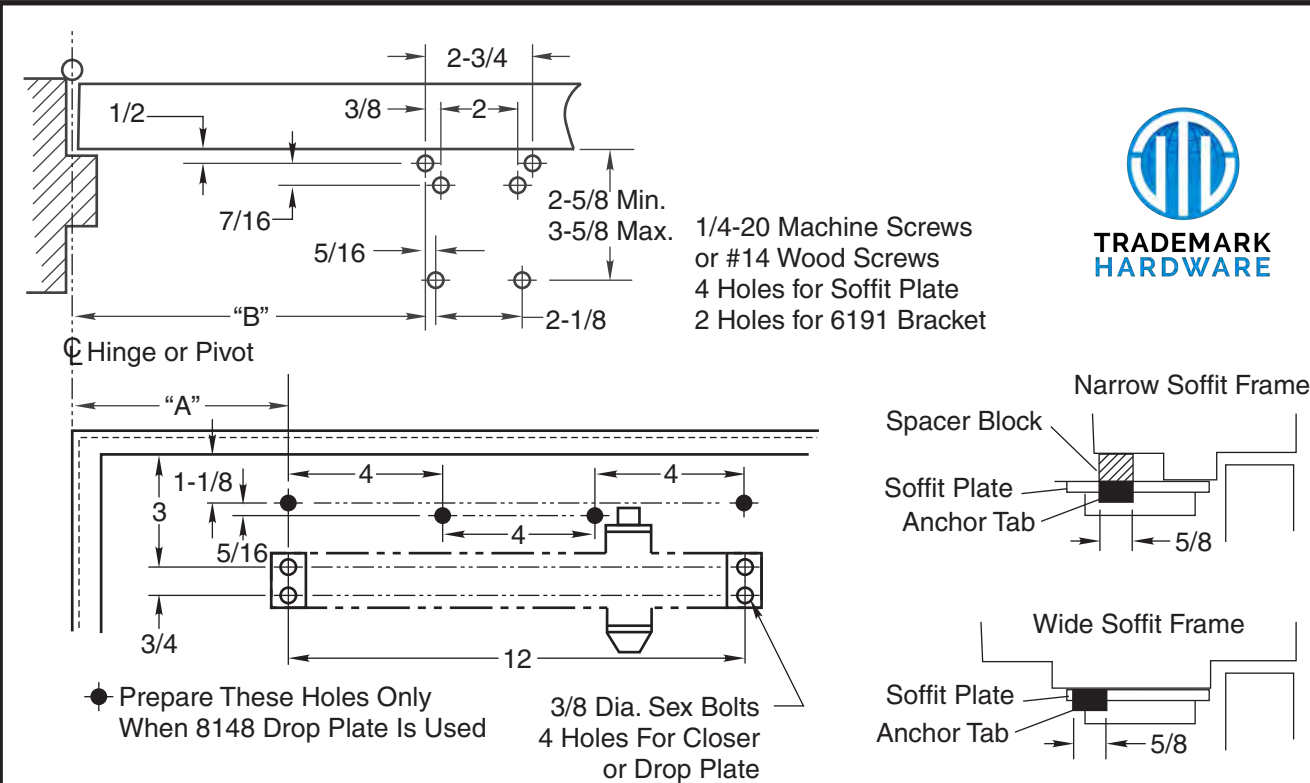
REV

3

DATE

12/21

Approved 2022-02-26



Door Opening Angle		Dimensions			
Hold Open*	Dead Stop	Butts & Offset Pivots		Center Pivots	
		A	B	A	B
85°	90°	7-1/2	12-3/4	8-1/8	13-3/8
90°	95°	6-3/4	12	7-3/8	12-5/8
95°	100°	6-1/4	11-1/2	6-7/8	12-1/8
100°	105°	5-3/4	11	6-3/8	11-5/8
105°	110°	5-1/4	10-1/2	5-7/8	11-1/8
110°	115°	4-7/8	10-1/8	5-1/2	10-3/4

★Door must be free to swing 5° beyond hold-open position.

Notes:
Do not scale drawing.
Left hand door shown.
Dimensions are in inches.
Hollow-metal doors require channel or box-type reinforcement when thru-bolt mount is specified.
Sex-bolts required for wood or plastic faced fire-door mounting.
Minimum thickness recommended for reinforcements in hollow-metal doors and frames: .1046" (2.66mm).
Follow Conversion Chart for metric dimensions.

Preparation for Fasteners			
Fasteners	Application	Door or Frame	Drill-Sizes
Sex nuts and bolts	Closer Drop Plate	Hollow-Metal	9/32" (7.00 mm.) through; 3/8" (9.50 mm.) on door face opposite to closer
		Aluminum or Wood	3/8" (9.50 mm.) through
#14 x 1-1/4" (32mm) type "A" S.M. screw	Soffit plate 6190 Bracket	Wood	3/16" (4.30 mm.)
1/4" - 20 machine screw		Metal	drill: #7 (0.201" dia.) tap: 1/4" - 20
Through-bolts and grommet-nuts	Optional	All	9/32" (7.00 mm.) through; 3/8" (9.50 mm.) dia. x 3/8" (9.50 mm.) deep on door face opposite to closer

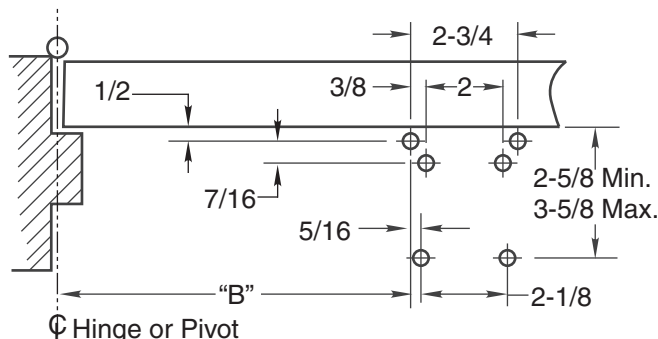
inches	mm	inches	mm	inches	mm	inches	mm
5/16	8	2-3/4	70	6-3/4	171	11-1/2	292
3/8	9.5	3-5/8	92	6-7/8	175	11-5/8	295
7/16	11	4	101.5	7-3/8	187	12	305
1/2	12.7	4-7/8	124	7-1/2	191	12-1/8	308
5/8	16	5-1/4	133	8-1/8	206	12-5/8	321
3/4	19	5-1/2	140	10-1/8	257	12-3/4	324
1-1/8	28.5	5-3/4	146	10-1/2	267	13-3/8	340
2	51	5-7/8	149	10-3/4	273		
2-1/8	54	6-1/4	159	11	279		
2-5/8	67	6-3/8	162	11-1/8	283		

Unitrol® With 6191 Reinforcing Kit
Series UNI-8300, UNI-8301,
UNI-8500, UNI-8501
Doors 33" - 41" (0.85 - 1.00m)

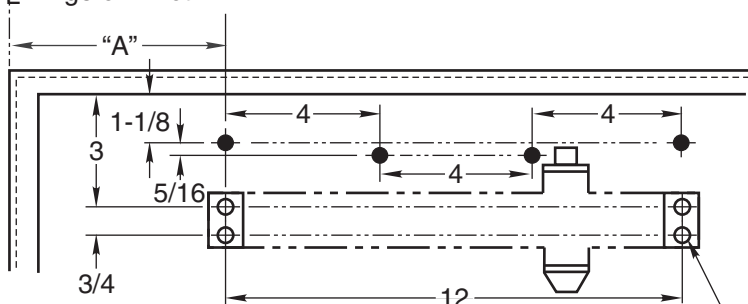
Parallel Arm Installation Template
Stop Only or Hold Open Unitrol®
Backcheck or Delayed Action Door Closer
With or Without 8148 Drop Plate



TEMPLATE NUMBER	REV	DATE
7380-1358	3	12/21

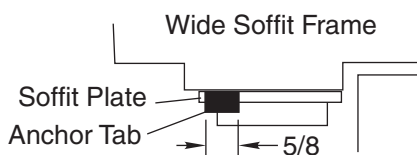
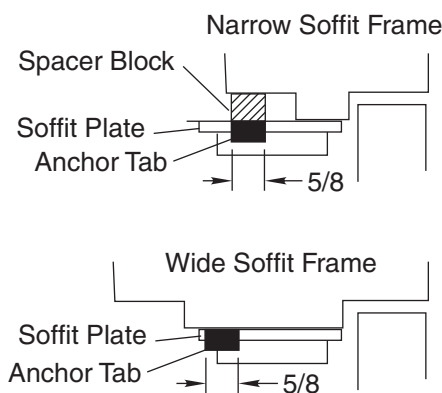


1/4-20 Machine Screws
or #14 Wood Screws
4 Holes for Soffit Plate
2 Holes for 6191 Bracket



● Prepare These Holes Only
When 8148 Drop Plate Is Used

3/8 Dia. Sex Bolts
4 Holes For Closer
or Drop Plate



Door Opening Angle		Dimensions			
Hold Open*	Dead Stop	Butts & Offset Pivots		Center Pivots	
		A	B	A	B
85°	90°	9-3/4	15-1/8	10-1/8	15-1/2
90°	95°	8-7/8	14-1/4	9-3/8	14-3/4
95°	100°	8-1/4	13-5/8	8-5/8	14
100°	105°	7-5/8	13	8-1/8	13-1/2
105°	110°	7-1/8	12-1/2	7-5/8	13
110°	115°	6-3/4	12-1/8	7-1/8	12-1/2

★Door must be free to swing 5° beyond hold-open position.

Notes:

Do not scale drawing.

Left hand door shown.

Dimensions are in inches.

Hollow-metal doors require channel or box-type reinforcement when thru-bolt mount is specified. Sex-bolts required for wood or plastic faced fire-door mounting.

Minimum thickness recommended for reinforcements in hollow-metal doors and frames: .1046" (2.66mm).

Follow Conversion Chart for metric dimensions.

Preparation for Fasteners

Fasteners	Application	Door or Frame	Drill-Sizes
Sex nuts and bolts	Closer Drop Plate	Hollow-Metal	9/32" (7.00 mm.) through; 3/8" (9.50 mm.) on door face opposite to closer
		Aluminum or Wood	3/8" (9.50 mm.) through
#14 x 1-1/4" (32mm) type "A" S.M. screw	Soffit plate 6190 Bracket	Wood	3/16" (4.30 mm.)
1/4" - 20 machine screw		Metal	drill: #7 (0.201" dia.) tap: 1/4" - 20
Through-bolts and grommet-nuts	Optional	All	9/32" (7.00 mm.) through; 3/8" (9.50 mm.) dia. x 3/8" (9.50 mm.) deep on door face opposite to closer

inches	mm	inches	mm	inches	mm	inches	mm
5/16	8	2-3/4	70	8-7/8	225	14-1/4	362
3/8	9.5	3-5/8	92	9-3/8	238	14-3/4	375
7/16	11	4	101.5	10-1/8	257	15-1/8	384
1/2	12.7	6-3/4	171	12	305	15-1/2	394
5/8	16	7-1/8	181	12-1/8	308		
3/4	19	7-5/8	194	12-1/2	318		
1-1/8	28.5	7-3/4	197	13	330		
2	51	8-1/8	206	13-1/2	343		
2-1/8	54	8-1/4	210	13-5/8	346		
2-5/8	67	8-5/8	219	14	356		

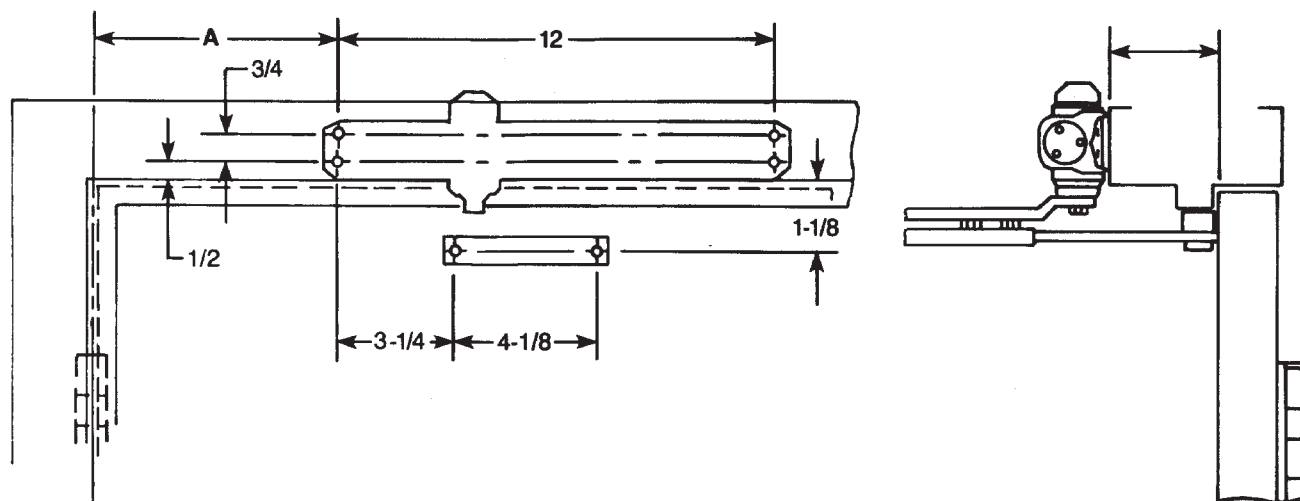
Unitrol® With 6191 Reinforcing Kit
Series UNI-8300, UNI-8301,
UNI-8500, UNI-8501
Doors 42" - 48" (1.05 - 1.20m)

Parallel Arm Installation Template
Stop Only or Hold Open Unitrol®
Backcheck or Delayed Action Door Closer
With or Without 8148 Drop Plate



TEMPLATE NUMBER	REV	DATE
7380-1359	3	12/21

Approved 2022-02-26



Door Opening Angle		Dimension "A"	
Hold Open ★	Dead Stop	Butts and Offset Pivots	Center Pivots
85°	90°	10	10-3/8
90°	95°	9-3/8	9-3/4
95°	100°	8-3/4	9-1/4
100°	105°	8-1/4	8-3/4
105°	110°	7-7/8	8-1/4
110°	115°	7-1/2	7-7/8

★ Door must be free to swing 5° beyond hold-open position.

Notes:

Do not scale drawing.

Left hand door shown.

Dimensions are in inches.

Hollow-metal doors require channel or box-type reinforcement when thru-bolt mount is specified.

Sex-bolts required for wood or plastic faced fire-door mounting.

Minimum thickness recommended for reinforcements in hollow-metal doors and frames: .1046" (2.66mm).

Follow Conversion Chart for metric dimensions.

Preparation for Fasteners			
Fasteners	Application	Door or Frame	Drill Sizes
Sex nuts and bolts	Arm-foot	Hollow Metal	9/32" (7.00mm) through 3/8" (9.50mm) door face opposite to closer
		Alluminum or Wood	3/8" (9.50mm) through
#14 x 1-1/4" (32mm) type "A" S.M. screws	Closer	Wood	3/16" (4.30mm)
1/4-20 machine screw		Metal	drill: #7 (.201") tap: 1/4-20
Through bolts and grommet nuts	Optional	All	9/32" (7.00mm) through 3/8" (9.50mm) dia. x 3/8" (10mm) deep, door face opposite to closer



TRADEMARK
HARDWARE

inches	mm.	inches	mm.
1/2	12.5	8-3/4	222.5
3/4	19	9-1/4	235
1-1/8	28.5	9-3/8	238
3-1/4	82.5	9-3/4	247.5
4-1/8	104.5	10	254
7-1/2	190.5	10-3/8	263.5
7-7/8	200	12	305
8-1/4	209.5		

Unitrol® Standard Application
Series UNI-J8300, UNI-J8301,
UNI-J8500, UNI-J8501

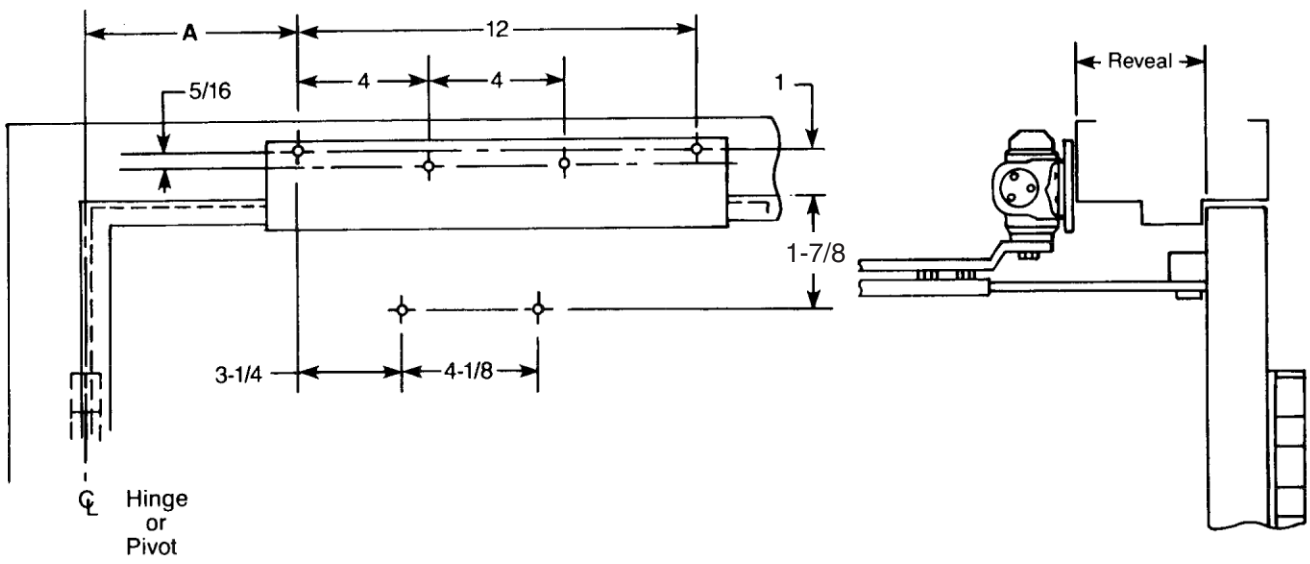
Top Jamb Installation Template
Stop Only or Hold Open Unitrol®
Backcheck or Delayed Action Door Closer

NORTON
RIXSON

ASSA ABLOY

TEMPLATE NUMBER	REV	DATE
7380-1401	3	12/21

Approved 2022-02-26



Door Opening Angle		Dimension "A"	
Hold Open ★	Dead Stop	Butts and Offset Pivots	Center Pivots
85°	90°	10	10-3/8
90°	95°	9-3/8	9-3/4
95°	100°	8-3/4	9-1/4
100°	105°	8-1/4	8-3/4
105°	110°	7-7/8	8-1/4
110°	115°	7-1/2	7-7/8

★ Door must be free to swing 5° beyond hold-open position.

Notes:
Do not scale drawing.
Left hand door shown.
Dimensions are in inches.
Hollow-metal doors require channel or box-type reinforcement when thru-bolt mount is specified.
Sex-bolts required for wood or plastic faced fire-door mounting.
Minimum thickness recommended for reinforcements in hollow-metal doors and frames: .1046" (2.66mm).

Follow Conversion Chart for metric dimensions.

Preparation for Fasteners			
Fasteners	Application	Door or Frame	Drill Sizes
Sex nuts and bolts	Arm-foot	Hollow Metal	9/32" (7.00mm) through 3/8" (9.50mm) door face opposite to closer
		Alluminum or Wood	3/8" (9.50mm) through
#14 x 1-1/4" (32mm) type "A" S.M. screws	Closer	Wood	3/16" (4.30mm)
1/4-20 machine screw		Metal	drill: #7 (.201") tap: 1/4-20
Through bolts and grommet nuts	Optional	All	9/32" (7.00mm) through 3/8" (9.50mm) dia. x 3/8" (10mm) deep, door face opposite to closer



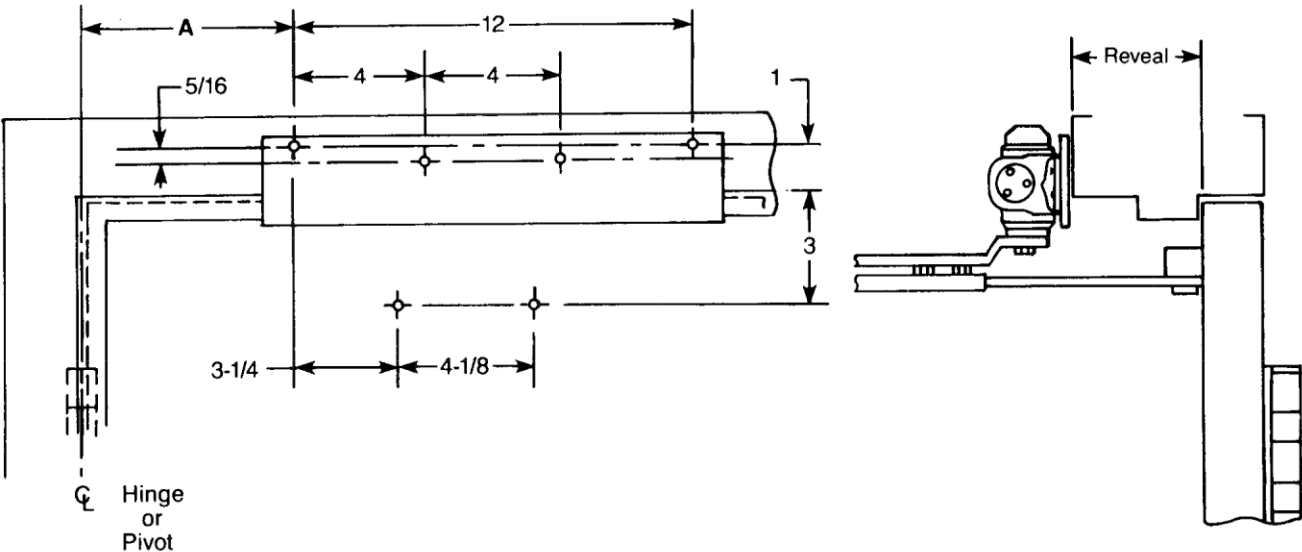
inches	mm.	inches	mm.
5/16	8	8-3/4	222.5
1	25.5	9-1/4	235
1-1/2	38	9-3/8	238
3-1/4	82.5	9-3/4	247.5
4	101.5	10	254
4-1/8	104.5	10-3/8	263.5
7-1/2	190.5	12	305
7-7/8	200		
8-1/4	209.5		

Unitrol® With 8146 Drop Plate
Series UNI-J8300, UNI-J8301,
UNI-J8500, UNI-J8501

Top Jamb Installation Template
Stop Only or Hold Open Unitrol®
Backcheck or Delayed Action Door Closer



TEMPLATE NUMBER	REV	DATE
7380-1406	3	12/21



Door Opening Angle		Dimension "A"	
Hold Open ★	Dead Stop	Butts and Offset Pivots	Center Pivots
85°	90°	10	10-3/8
90°	95°	9-3/8	9-3/4
95°	100°	8-3/4	9-1/4
100°	105°	8-1/4	8-3/4
105°	110°	7-7/8	8-1/4
110°	115°	7-1/2	7-7/8

★ Door must be free to swing 5° beyond hold-open position.

Notes:
Do not scale drawing.
Left hand door shown.
Dimensions are in inches.
Hollow-metal doors require channel or box-type reinforcement when thru-bolt mount is specified.
Sex-bolts required for wood or plastic faced fire-door mounting.
Minimum thickness recommended for reinforcements in hollow-metal doors and frames: .1046" (2.66mm).

Follow Conversion Chart for metric dimensions.

Preparation for Fasteners			
Fasteners	Application	Door or Frame	Drill Sizes
Sex nuts and bolts	Arm-foot	Hollow Metal	9/32" (7.00mm) through 3/8" (9.50mm) door face opposite to closer
		Alluminum or Wood	3/8" (9.50mm) through
#14 x 1-1/4" (32mm) type "A" S.M. screws	Closer	Wood	3/16" (4.30mm)
1/4-20 machine screw		Metal	drill: #7 (.201") tap: 1/4-20
Through bolts and grommet nuts	Optional	All	9/32" (7.00mm) through 3/8" (9.50mm) dia. x 3/8" (10mm) deep, door face opposite to closer



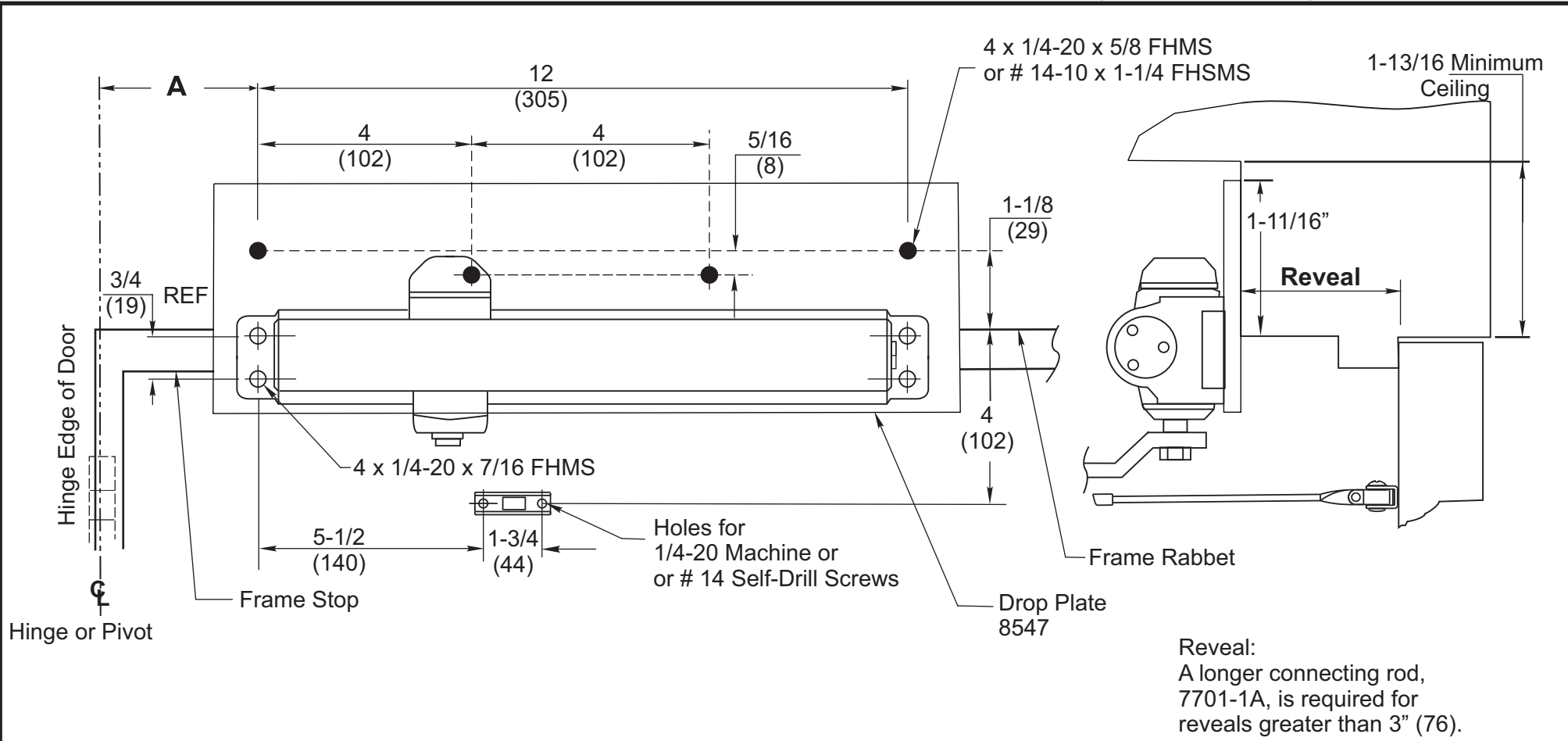
inches	mm.	inches	mm.
5/16	8	8-3/4	222.5
1	25.5	9-1/4	235
1-1/2	38	9-3/8	238
3-1/4	82.5	9-3/4	247.5
4	101.5	10	254
4-1/8	104.5	10-3/8	263.5
7-1/2	190.5	12	305
7-7/8	200		
8-1/4	209.5		

Unitrol® With 8148 Drop Plate
Series UNI-J8300, UNI-J8301,
UNI-J8500, UNI-J8501

Top Jamb Installation Template
Stop Only or Hold Open Unitrol®
Backcheck or Delayed Action Door Closer



TEMPLATE NUMBER	REV	DATE
7380-1408	3	12/21



Preparation for Fasteners		
Fasteners	Door or Frame	Drill Sizes
Self-Drilling Screw	Aluminum or Metal	No drill required
	Wood (see Note)	3/16" (4.3mm)
1/4"-20 machine screw	Metal	Drill #7 (.201" dia) Tap 1/4"-20
Note: Wood doors/frames MUST have pilot hole when using Self-Drilling Screws.		

Opening	Dimension "A"
	Inches (mm)
To 100°	7-1/2 (190.5)
100° to 130°	6-0 (152.4)
131° to 180°*	4-1/2 (114.3)

*Door/Frame/Hardware/Wall conditions permitting.

- Notes:**
- Do not scale drawing.
 - Left hand door shown from Push Side.
 - All dimensions are given in inches (mm).
 - Thickness recommended for reinforcements in hollow metal doors and frames should provide a combined material thickness of .164" MIN.
 - Always use frame or transom rabbet as reference plane, not bottom of stop.

	Dim	Up to 120°	120°-180°
PRO8000	A in. (mm)	3-3/4 (95)	1-1/4 (32)
	B in. (mm)	9-1/2 (241)	7 (178)

NOTES:

- Do not scale drawing.
- Left hand door shown.
- Dimensions are in inches (mm).
- Hollow-metal doors require channel or box-type reinforcement when thru-bolt mount is specified.
- Sex-bolts required for wood or plastic faced fire-door mounting.
- Minimum thickness recommended for reinforcements in hollow-metal doors and frames: .1046" (2.66mm).
- For **closer installation and adjustments**, refer to standard PR installation instruction provided with product.

CAUTION: Door swing may be limited by door, frame, wall, or hardware conditions.

NOTE: Pilot hole **MUST** be drilled when installing on wood doors/frames.

● Prepare These Holes Only When No. 8148/8158/8548 Drop Plate is Used

⊕ Prepare These Holes When Not Using Drop Plate

⊙ Prepare These Holes For Soffit Plate

Fasteners	Door or Frame	Drill-Sizes
Self-Drilling Screw	Aluminum or Metal	No drill required
	Wood (see Note)	3/16" (4.30 mm)
1/4" - 20 machine screw	Metal	Drill: #7 (0.201" dia.) Tap: 1/4" - 20
Sleeve nuts and bolts	Hollow Metal	9/32" (7 mm) through; 3/8" (9.5 mm) door face opposite to closer
	Aluminum or Wood	3/8" (9.5 mm) through

Dimensions (inches / millimeters):

- Top view: B (See Chart Right), 2-3/4 (70), 3/8 (10), 2 (51), 1-1/2 (38), 1-1/32 (26), 1-3/8 (35), 7/16 (11), 12-3/4 (324), 3 (76).
- Front view: 4-7/8 (124), 4 (102), 4 (102), 4 (102), 5/16 (8), 12 (305), 3/4 (19), A (See Chart Right).

	Dim		Up to 120°	120°-180°
PRO8000	A	in. (mm)	3-3/4 (95)	1-1/4 (32)
	B	in. (mm)	9-1/2 (241)	7 (178)

6891 Spacer Block

2-1/2 (63) Min.

NOTES:

- Do not scale drawing.
- Left hand door shown.
- Dimensions are in inches (mm).
- Hollow-metal doors require channel or box-type reinforcement when thru-bolt mount is specified.
- Sex-bolts required for wood or plastic faced fire-door mounting.
- Minimum thickness recommended for reinforcements in hollow-metal doors and frames: .1046" (2.66mm).
- For **closer installation and adjustments**, refer to standard PR installation instruction provided with product.

CAUTION: Door swing may be limited by door, frame, wall, or hardware conditions.

NOTE: Pilot hole **MUST** be drilled when installing on wood doors/frames.

● Prepare These Holes Only When No. 8148 Drop Plate is Used

⊕ Prepare These Holes When Not Using No. 8148 Drop Plate

⊙ Prepare These Holes For Soffit Plate

Fasteners	Door or Frame	Drill-Sizes
Self-Drilling Screw	Aluminum or Metal	No drill required
	Wood (see Note)	3/16" (4.30 mm)
1/4" - 20 machine screw	Metal	Drill: #7 (0.201" dia.) Tap: 1/4" - 20
Sleeve nuts and bolts	Hollow Metal	9/32" (7 mm) through; 3/8" (9.5 mm) door face opposite to closer
	Aluminum or Wood	3/8" (9.5 mm) through