

Do not scale drawing

Hand of door as noted

Dimensions are in inches  
(mm.)

All dimensions from face of stop.

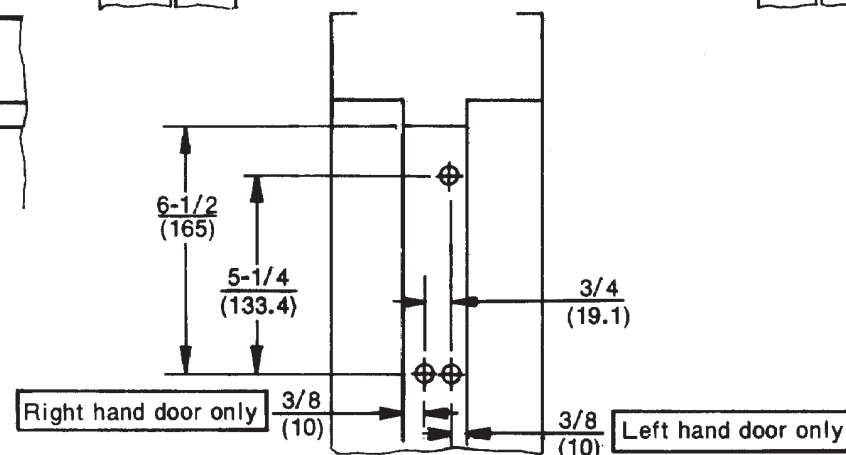
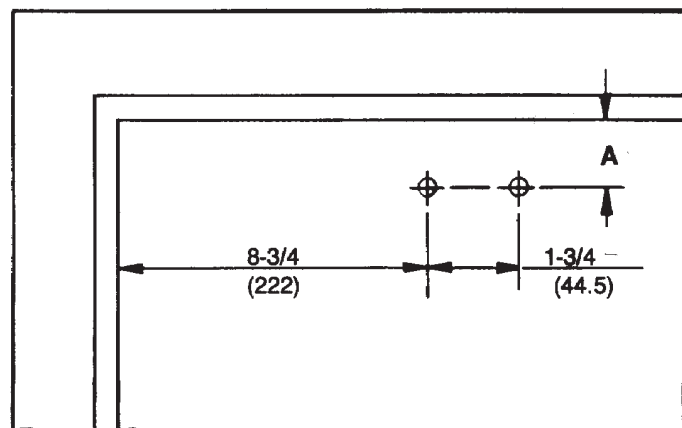
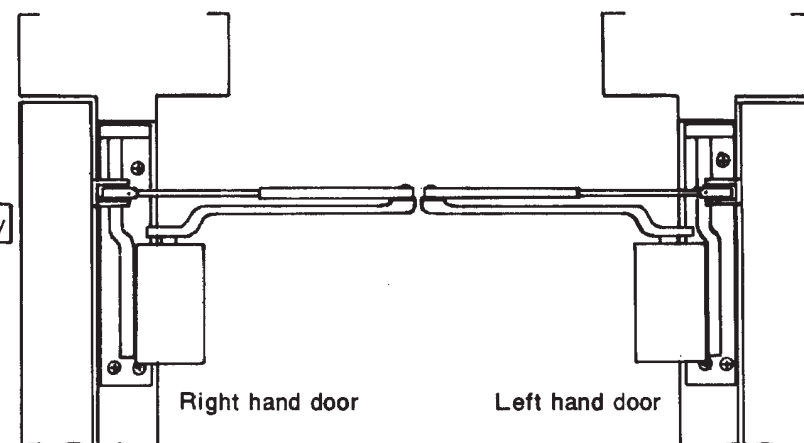
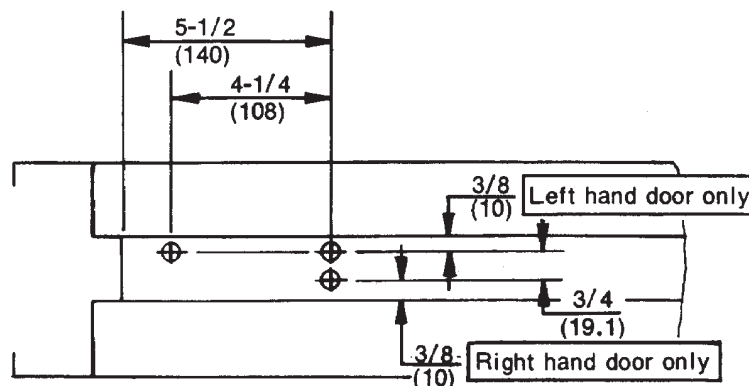
Product application as  
charted only.

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

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

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

Minimum thickness recom-  
mended for reinforcements  
in hollow-metal doors and  
frames: .1046" (2.66mm.)  
unless otherwise noted.



Corner Bracket	Closer Series	Dimension A	
		inches	mm.
7798	7500-7700	3/4	19
7797	7500-7700	1-7/8	48
	7580-7780	2-3/8	60
	7500H-7700H	1-3/4	44

Preparation for Fasteners		
Fasteners	Door or Frame	Drill-Size
#14 x 1/4" (32mm.) type "A" S.M. screw (Std.)	Wood	3/16" (4.30mm.)
	Aluminum	7/32" (5.50mm.)
1/4"-20 machine screw (Standard)	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-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

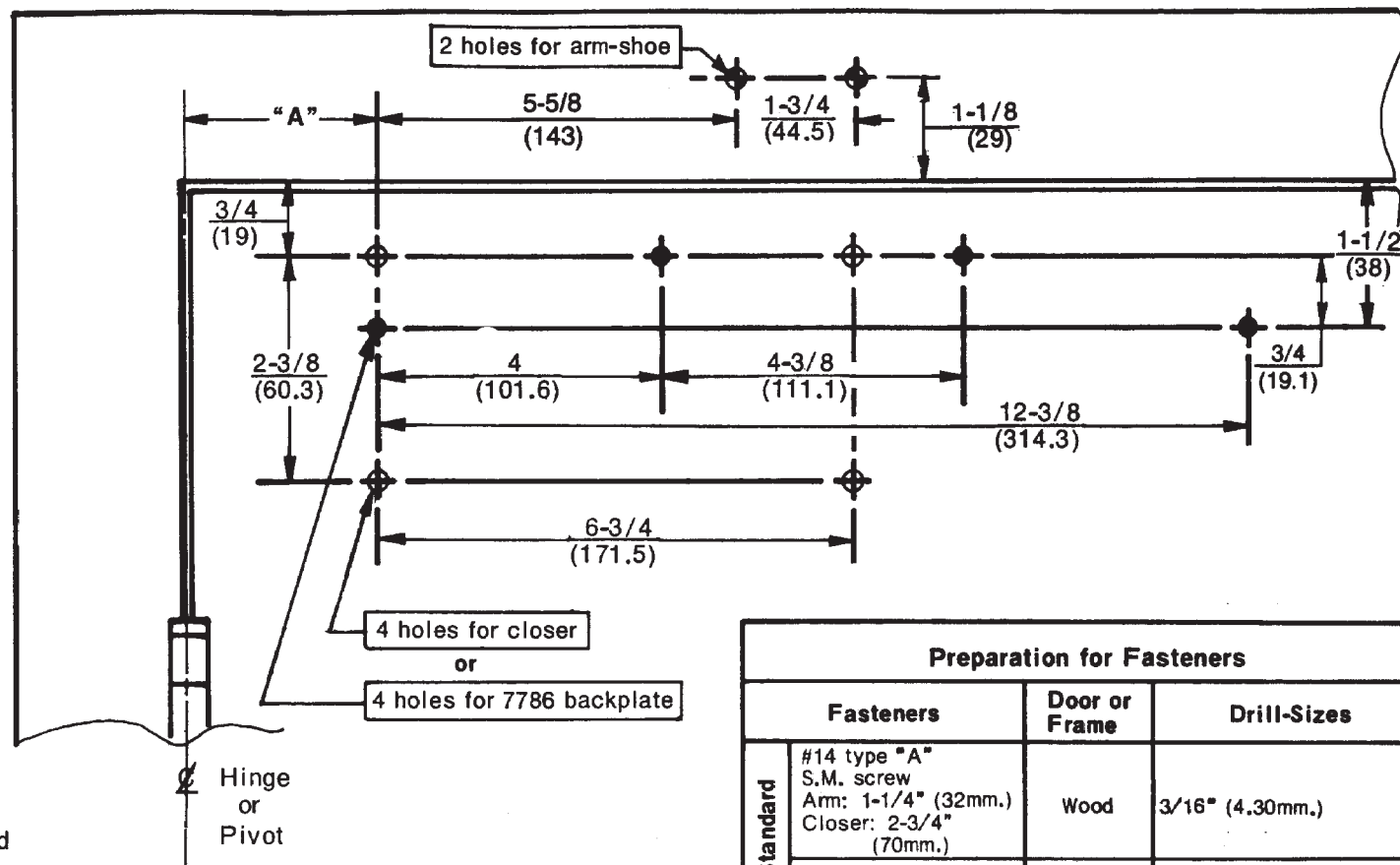
**7500, 7500H, 7580, 7700, 7700H, and 7780 Series Door Closers  
 With 7797 or 7798 Corner Bracket  
 Corner Bracket Installation With Non Hold Open or Hold Open Arm**

**NORTON  
 RIXSON**  
**ASSA ABLOY**

TEMPLATE NUMBER **7377-0149** REV **3** DATE **12/21**

Approved 2022-02-25

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



Do not scale drawing

Right hand door shown  
 Dimensions are in  $\frac{\text{inches}}{\text{mm.}}$

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

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.) unless otherwise noted.

Preparation for Fasteners			
Fasteners		Door or Frame	Drill-Sizes
Standard	#14 type "A" S.M. screw Arm: 1-1/4" (32mm.) Closer: 2-3/4" (70mm.)	Wood	3/16" (4.30mm.)
	1/4-20 machine-screw	Metal	drill: #7 (.201" dia.) tap: 1/4-20
Optional	Sex-nuts and bolts	Hollow- Metal	9/32" (7.00mm.) through; 3/8" (9.50mm.) on door or transom-face opposite to closer
		Aluminum or Wood	3/8" (9.50mm.) through
	Through-bolts and grommet-nuts	All	9/32" (7.00mm.) through; 3/8" (9.50mm.) dia. x 3/8" (10mm.) deep on door or transom-face opposite to closer

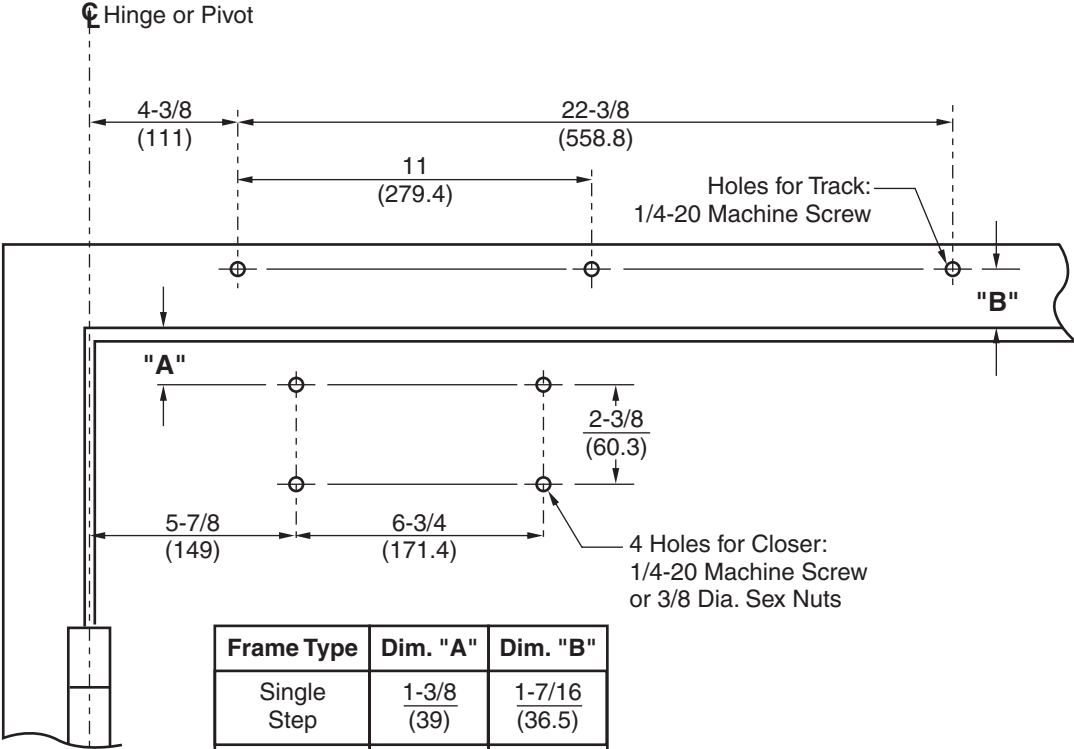
**7500, 7700, 7700COU, 7700TEL  
 7500H, 7700H, and 7700HOSP Series Door Closers  
 With or Without 7786 Backplate  
 Regular Arm Installation With Non Hold Open or Hold Open Arm**

**NORTON  
 RIXSON**

**ASSA ABLOY**

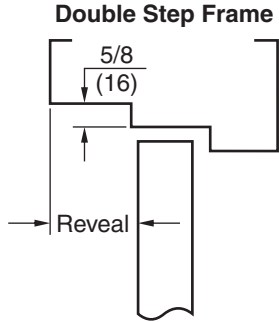
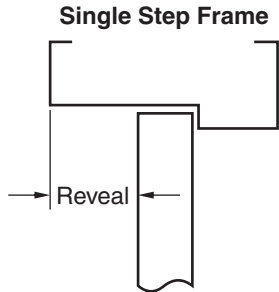
TEMPLATE NUMBER	REV	DATE
<b>7377-0101</b>	<b>3</b>	<b>12/21</b>

Approved 2022-02-25



Frame Type	Dim. "A"	Dim. "B"
Single Step	$\frac{1-3}{8}$ (39)	$\frac{1-7}{16}$ (36.5)
Double Step	$\frac{1-1}{4}$ (32)	$\frac{1-5}{8}$ (41.3)

Preparation for Fasteners		
Fasteners	Opening	Fastener Preparation
8-32 Machine Screw	Metal Frame	#29 Drill, .136" (3.50mm) Dia. Tap #8-32 UNC
1/4-20 Machine Screw	Metal Door or Frame	#7 Drill, .201" (5.10mm) Dia. Tap 1/4-20 UNC
3/8 Dia. Sex Nut	Wood or Composite Door	3/8 Drill, .375" (9.50mm) Dia. Thru

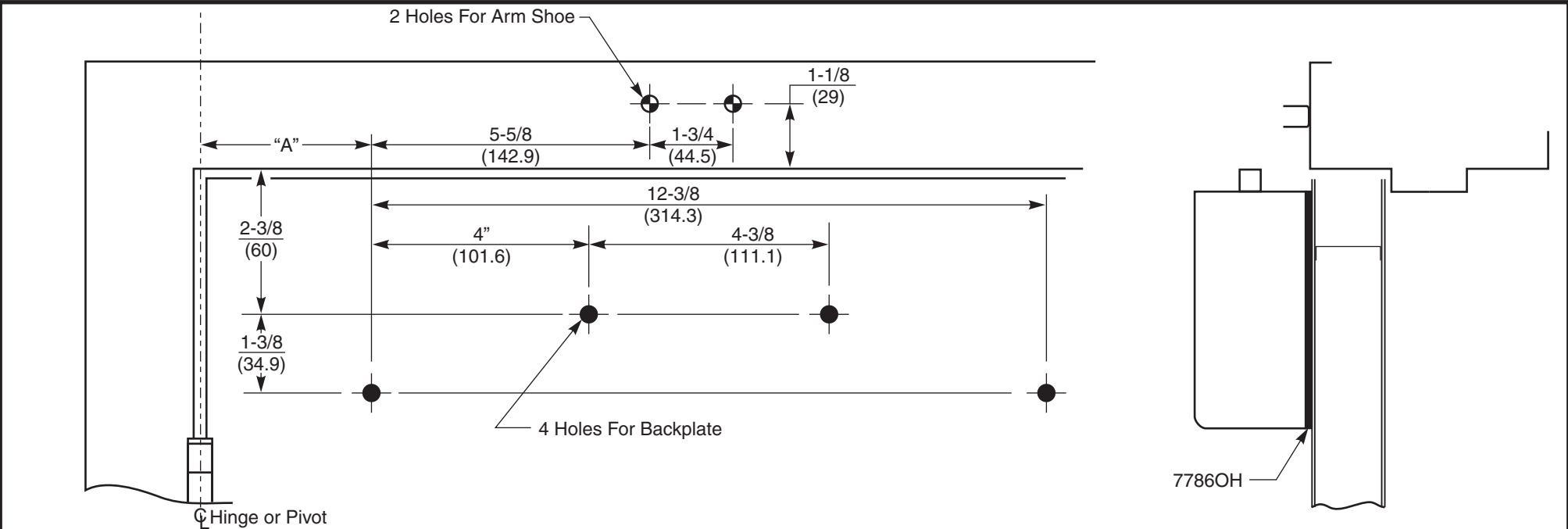


- NOTES**
- 1. Do not scale drawing.
  - 2. Right hand door shown.
  - 3. Dimensions are in inches (mm).
  - 4. **Important:** From centerline of pivot to end of track 26-7/8" (683mm).
  - 5. Charted dimensions measured from door rabbet.
  - 6. Minimum ceiling clearance for unit is 2-1/8" (54mm).
  - 7. Maximum door opening is 105°.
  - 8. Hollow-metal doors require channel or box-type reinforcement when thru-bolt mount is specified.
  - 9. Minimum thickness recommended for reinforcements in hollow-metal doors and frames:  
.1046 (2.66mm) unless otherwise noted.

7700ST-DE/7500ST-DE Series Non-Hold Open Door Closers  
7700STH-DE/7500STH-DE Series Hold Open Door Closers  
Hinge Side Slide Track Application For Double Egress Frame  
Hinge Side Frame Reveals 1/8" to 3" (3 to 76mm)



TEMPLATE NUMBER	REV	DATE
7377-0511	3	12/21



Installer may have to counterbore backplate for sex-nut head clearance

- NOTES:**
- 1. Do not scale drawing.
  - 2. Right hand door shown.
  - 3. All dimensions given in inches (mm).

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

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.

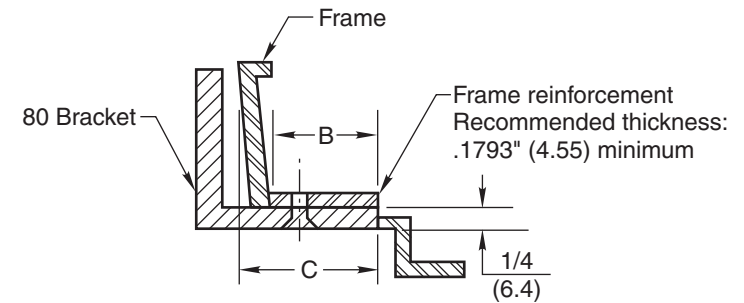
Minimum thickness recommended for reinforcements in hollow-metal doors and frames: .1046" (2.66mm) unless otherwise noted.

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

Preparation for Fasteners			
Fasteners		Door or Frame	Drill Sizes
Standard	Self-Drilling screw	Aluminum or Metal	No drill required
		Wood (see Note)	Pilot hole required 3/16" (4.30 mm)
	1/4"-20 machine screw	Metal	Drill: #7 (0.201" dia.) Tap: 1/4"-20
Optional	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
	Through-bolts and grommet nuts	All	9/32" (7 mm); 3/8" (9.5 mm) dia. x 3/8" (9.5 mm) deep on door opposite to closer







Bracket	Dimension "B"				Dimension "C"	
	Maximum		Minimum		Maximum	
	inches	mm	inches	mm	inches	mm
80	2	51	1-1/2	38	2-1/4	57



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

Preparation for Fasteners			
Fasteners		Door or Frame	Drill Sizes
Standard	#14 type "A" S.M. screw Arm: 1-1/4" (32mm) Closer: 2-3/4 (70mm)	Wood	3/16" (4.30mm)
		Aluminum	7/32" (5.50mm)
	1/4-20 machine-screw	Metal	drill: #7 (.201" dia) tap: 1/4-20
Optional	Sex-nuts and bolts	Hollow-Metal	9/32" (7.00mm) through; 3/8" (9.50mm) on door or transom-face opposite to closer
		Aluminum or Wood	3/8" (9.50mm) through
	Through-bolts and grommet-nuts	All	9/32" (7.00mm) through; 3/8" (9.50mm) dia. x 3/8" (9.50mm) deep on door or transom-face opposite to closer

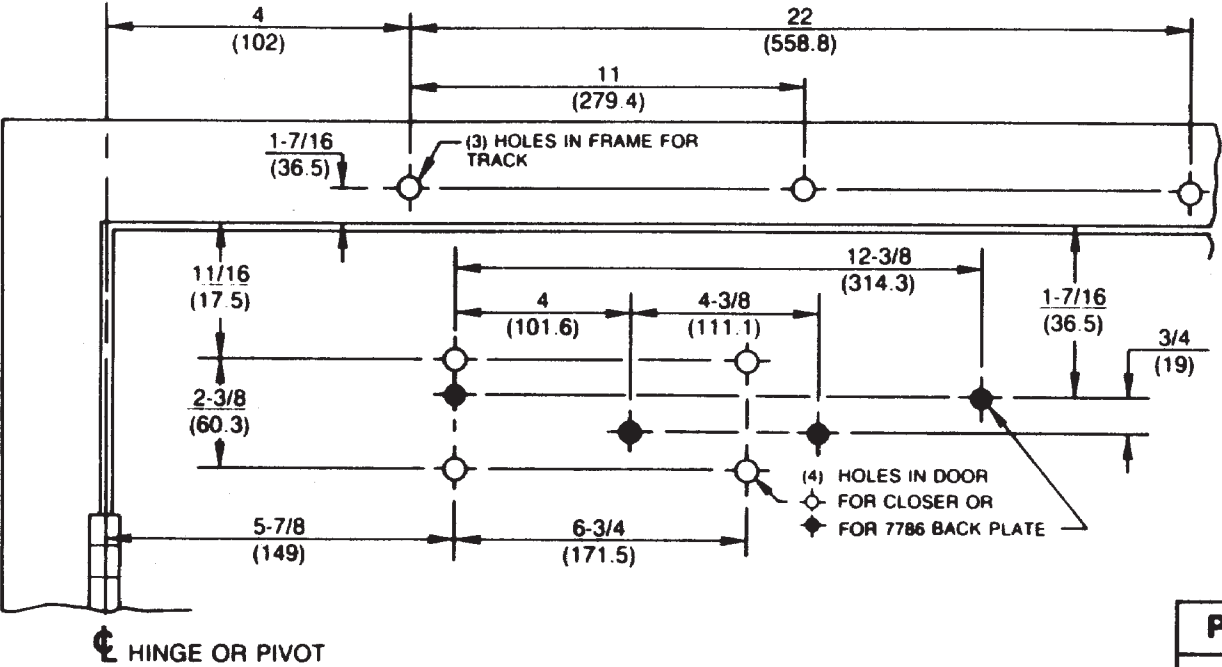
**NORTON  
RIXSON**

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**ASSA ABLOY**

TEMPLATE NUMBER	REV	DATE
<b>7377-0107</b>	<b>3</b>	<b>12/21</b>

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



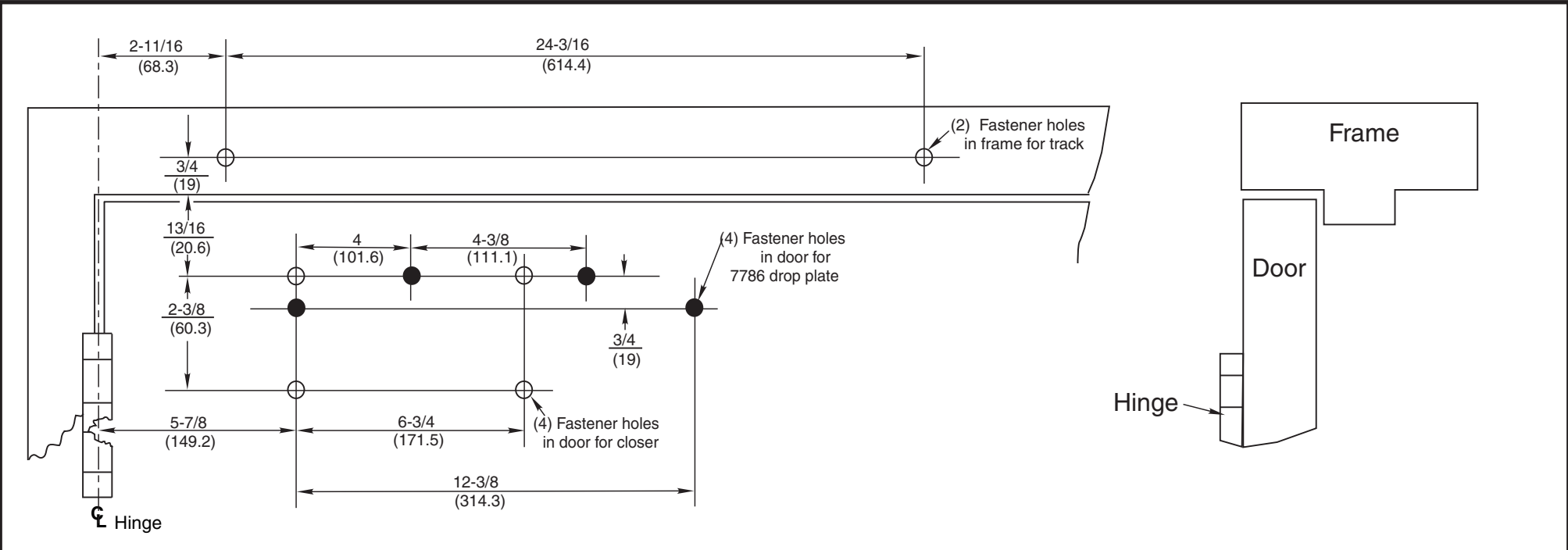
- Right hand door shown.
- Do not scale drawing.
- Dimensions are given in inches (mm.)
- Closer mounted with sex nuts requires that door silencers or 7786 back plate be used.
- Minimum ceiling clearance for unit is 2" (50mm.).
- Maximum door opening
  - Non Hold Open with Spring Buffer - 110°
  - Non 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-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

**7700ST/7500ST Series Non Hold Open Door Closer**  
**7700ST-H/7500ST-H Series Hold Open Door Closer**  
**Hinge Side Slide Track Application**  
**With or Without 7786 Backplate**



TEMPLATE NUMBER	REV	DATE
7377-0501	3	12/21

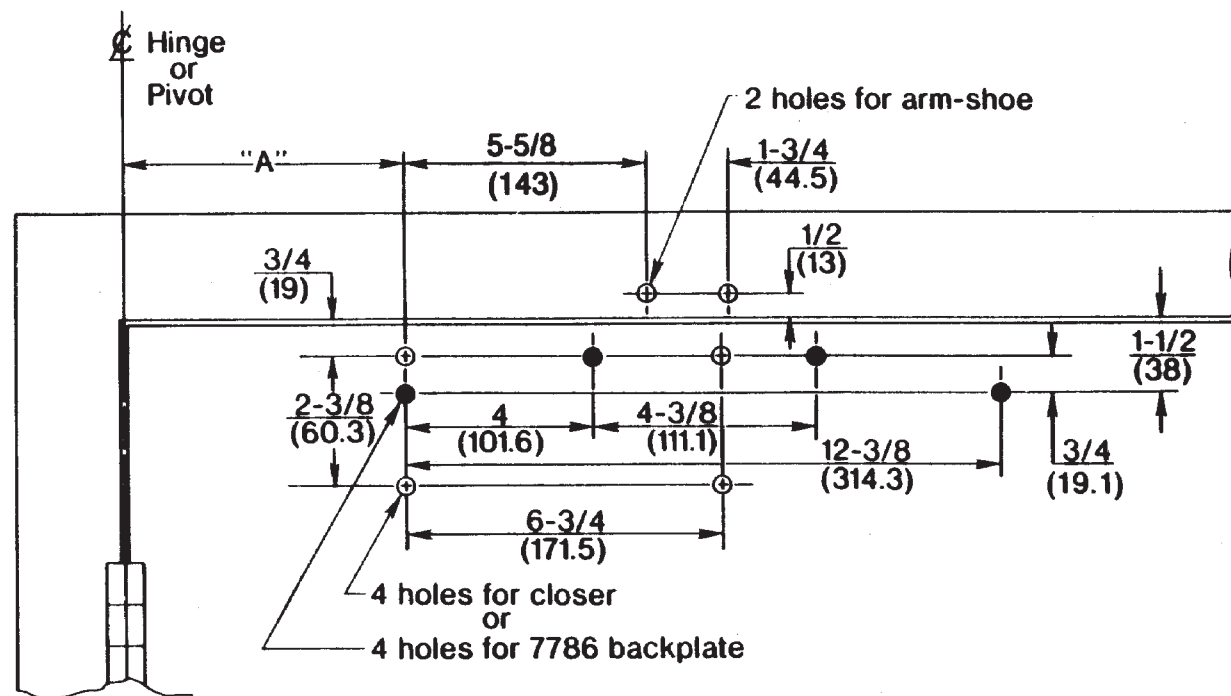


Preparation for Fasteners		
Fasteners	Door or Frame	Drill Sizes
#14 type "A" S.M. screw	Wood	7/32"(5.56mm)
1/4" -20 machine screw	Metal	drill: #7 (.201") tap: 1/4"-20
Sex-nuts and bolts	Hollow Metal	9/32" (7.00mm) through 3/8" (9.50mm) door-face opposite to closer
	Aluminum or Wood	3/8" (9.50mm) through
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

- Notes:**
- Right hand door is shown.
  - Do not scale drawing.
  - Minimum door width 26" (660.4mm).
  - .1046 (2.7mm) minimum thickness recommended for hollow metal door and frame reinforcement.
  - From centerline of hinge to end of track 27-3/8" (695.3mm).
  - Minimum ceiling clearance for track is 1-1/8" (26.6mm).
  - Closer mounted with sex nuts requires the use of door silencers.
  - Dimensions are given in  $\frac{\text{inches}}{\text{mm}}$
  - Maximum frame reveal is 1/8" (3mm).

- Maximum door opening:
  - Non-Hold Open**
    - 110°- recommended with cushion stop in track.
    - 180°- without cushion stop.
  - Hold Open**
    - 110°- recommended with cushion stop in track.
    - 135°-without cushion stop.
- Use of auxillary door stop is recommended to prevent damage to door, frame, and hinge when severe or abusive conditions are expected.

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.

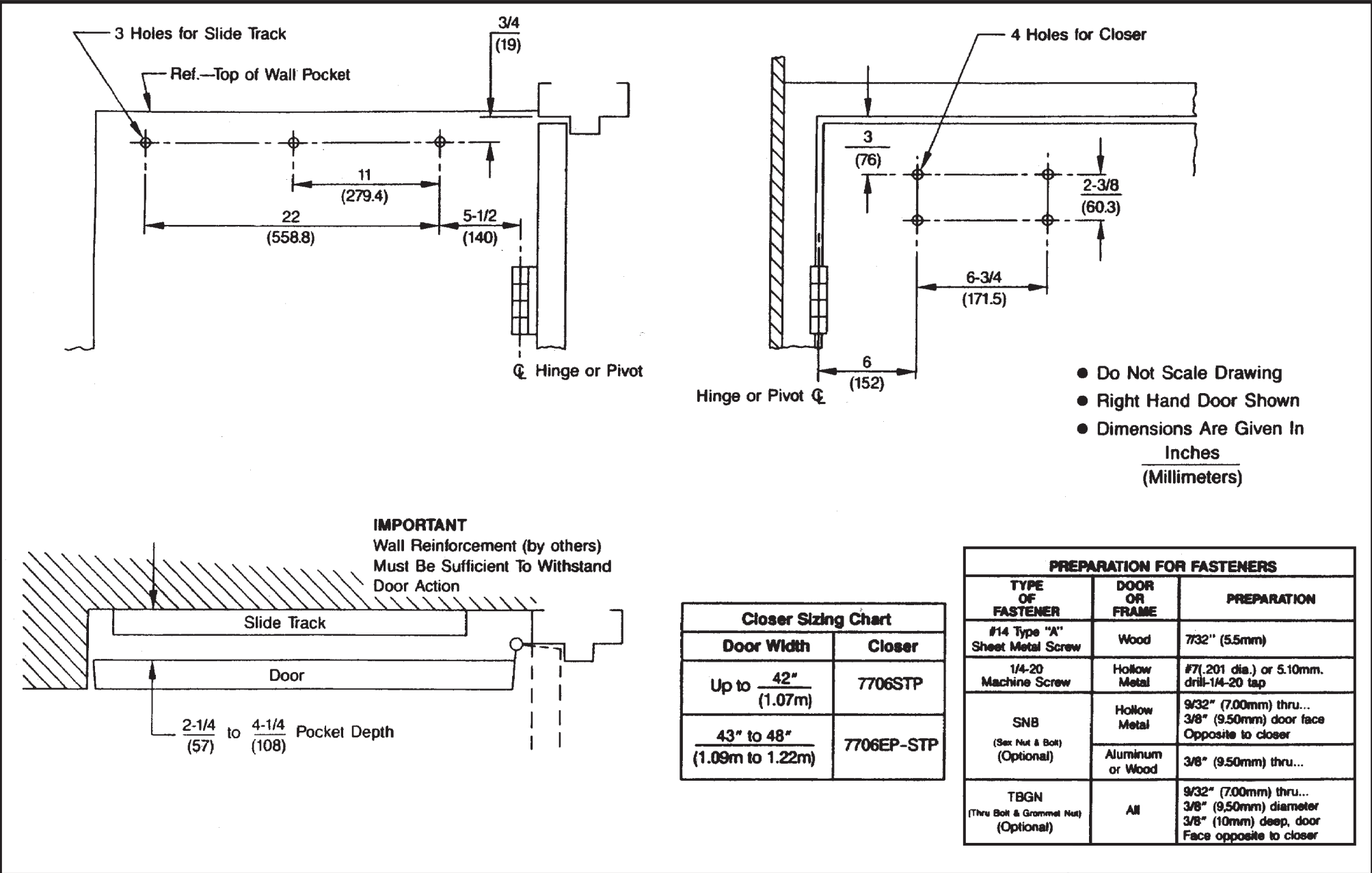
**7580 and 7780 Series Door Closers**  
**With or Without 7786 Backplate**  
**Regular Arm Installation With Non Hold Open Arm**

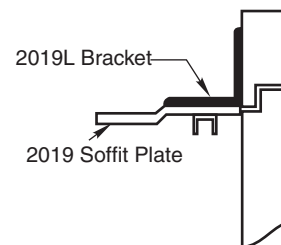
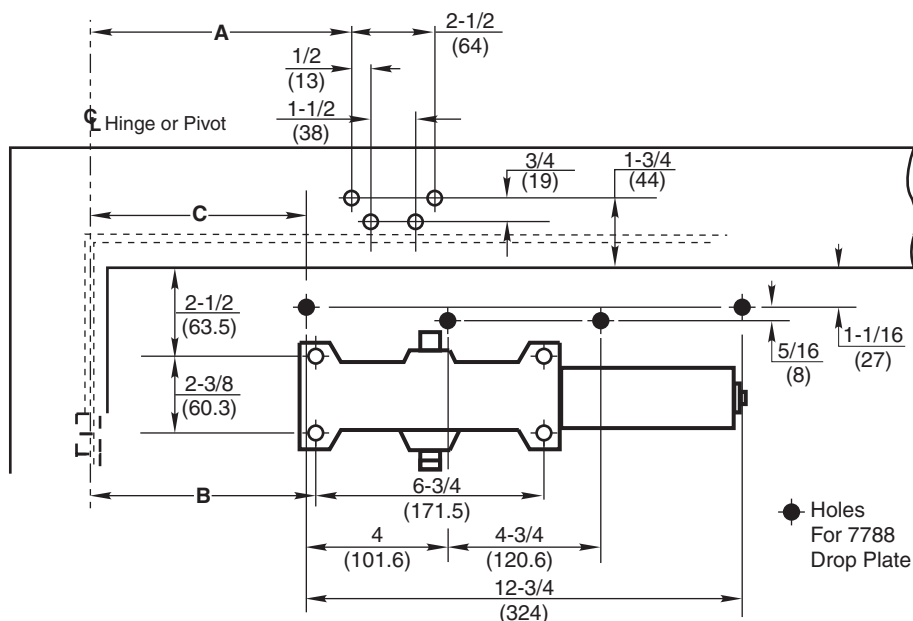
**NORTON RIXSON**

**ASSA ABLOY**

TEMPLATE NUMBER	REV	DATE
<b>7377-0110</b>	<b>3</b>	<b>12/21</b>

Approved 2022-02-25





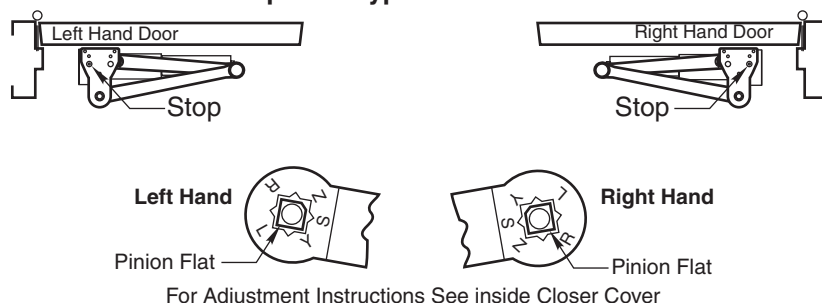
### NOTES:

1. Do not scale drawing.
2. Left 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: .0146" (2.66mm).
7. Hold Open function "T" Suffix, is not permitted in a fire-door assembly.
8. Maximum width hinges for this template are 5" (127mm).

Opening ★	Dim. "A"		Dim. "B"		Dim. "C"	
	inches	mm	inches	mm	inches	mm
85°	10-3/4	273	10-1/4	260.5	10	254
90°	9-7/8	251	9-3/8	238	9-1/8	232
95°	9-1/4	235	8-3/4	222.5	8-1/2	216
100°	8-1/2	216	8	203	7-3/4	197
105°	8	203	7-1/2	190.5	7-1/4	184
110°	7-3/8	187.5	6-7/8	174.5	6-5/8	168

★ Template dimensions are for hold open/door stop within  $\pm 2^\circ$  of charted door openings. Doors may overtravel up to  $5^\circ$  beyond the rest position.

### Top View Typical Installation



Fasteners	Frame	Door	Drill-Sizes
#14 Type A Sheet Metal Screw	Wood	none	3/16" (4.8 mm) Pilot Hole Required
1/4" - 20 machine screw	Metal	none	Drill: #7 (0.201" dia.) or 5.1mm Tap: 1/4" - 20
Sleeve nuts and bolts	none	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

**CLP-7500, CLP-7700 CloserPlus Arm or  
CPS-7500, CPS-7700 CloserPlus Spring™ Arm**  
**Parallel Arm Application x 2019L Flush Transom Bracket With or Without 7788 Drop Plate**  
**Arm Function: Stop Only or Stop & Hold Open ("T" or "R" Suffix)**  
**Power Size 1-6 for 7500; 2-6 for 7700**

**NORTON  
RIXSON**  
**ASSA ABLOY**

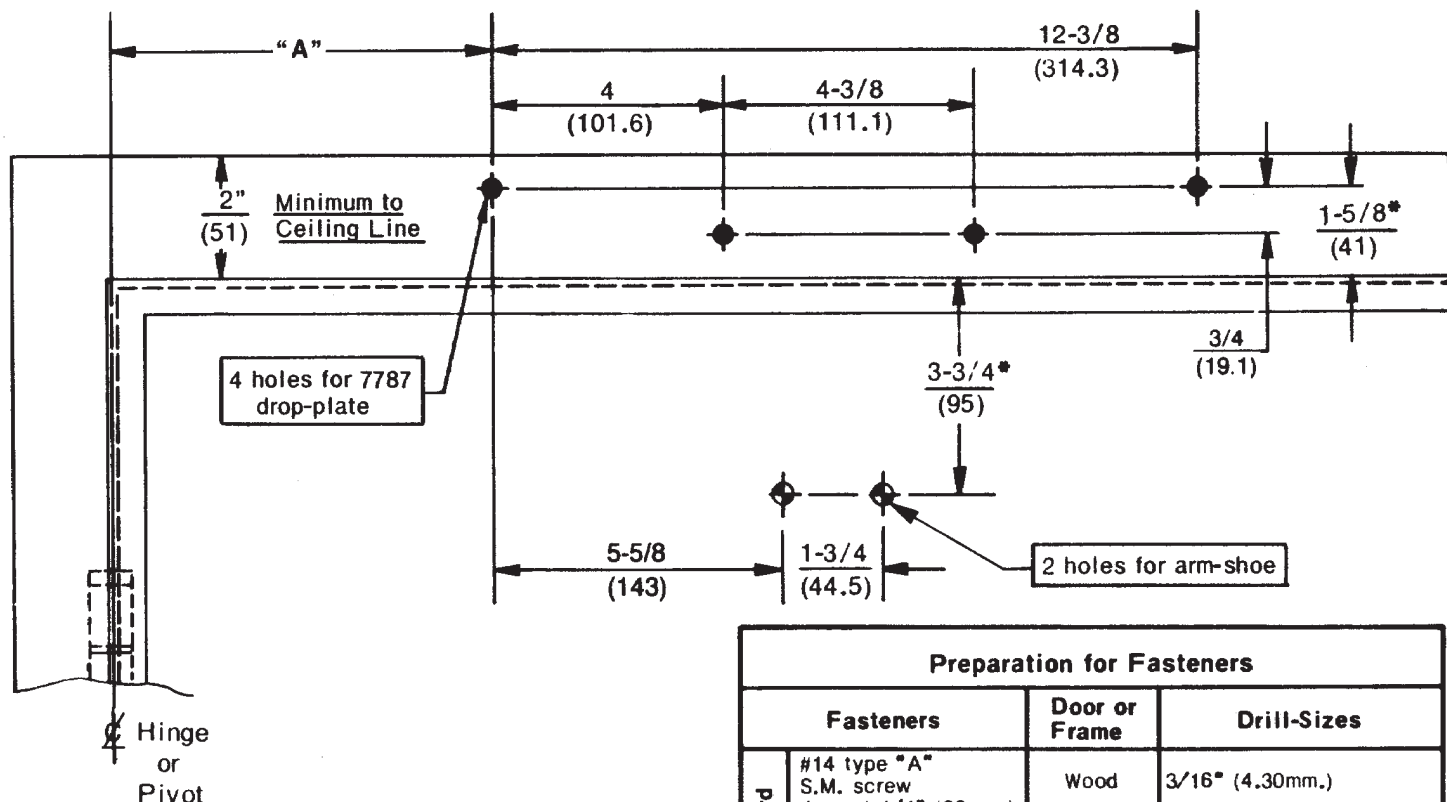
TEMPLATE NUMBER  
**7377-1303**

REV  
**4**

DATE  
**12/21**



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



Do not scale drawing

Left hand door shown

Dimensions are in inches  
 (mm.)

\*Always use frame or transom-rabbit  
 as reference plane, not bottom of stop.

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

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.) unless otherwise noted.

Preparation for Fasteners			
Fasteners		Door or Frame	Drill-Sizes
Standard	#14 type "A" S.M. screw Arm: 1-1/4" (32mm.) Closer: 2-3/4" (70mm.)	Wood	3/16" (4.30mm.)
		Aluminum	7/32" (5.50mm.)
	1/4-20 machine-screw	Metal	drill: #7 (.201" dia.) tap: 1/4-20
Optional	Sex-nuts and bolts	Hollow-Metal	9/32" (7.00mm.) through; 3/8" (9.50mm.) on door or transom-face opposite to closer
		Aluminum or Wood	3/8" (9.50mm.) through
	Through-bolts and grommet-nuts	All	9/32" (7.00mm.) through; 3/8" (9.50mm.) dia. x 3/8" (10mm.) deep on door or transom-face opposite to closer

(J)7500, (J)7500H, JL7500, JL7500H, (J)7700, (J)7700H, JL7700, JL7700H,  
 J7730, and J7730H Series Door Closers  
 With 7787 Drop Plate  
 Top Jamb Installation With Non Hold Open or Hold Open

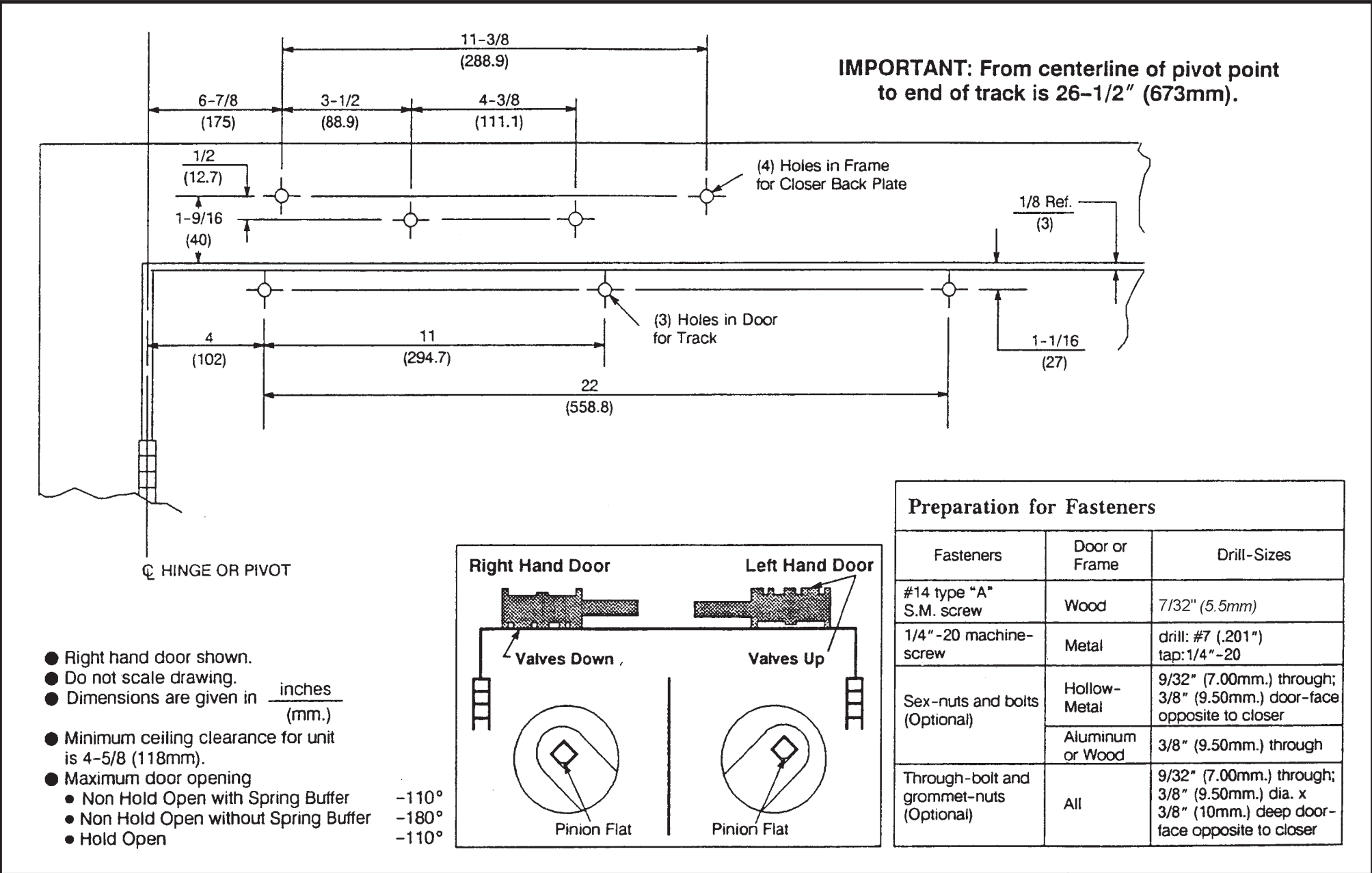
**NORTON  
 RIXSON**

**ASSA ABLOY**

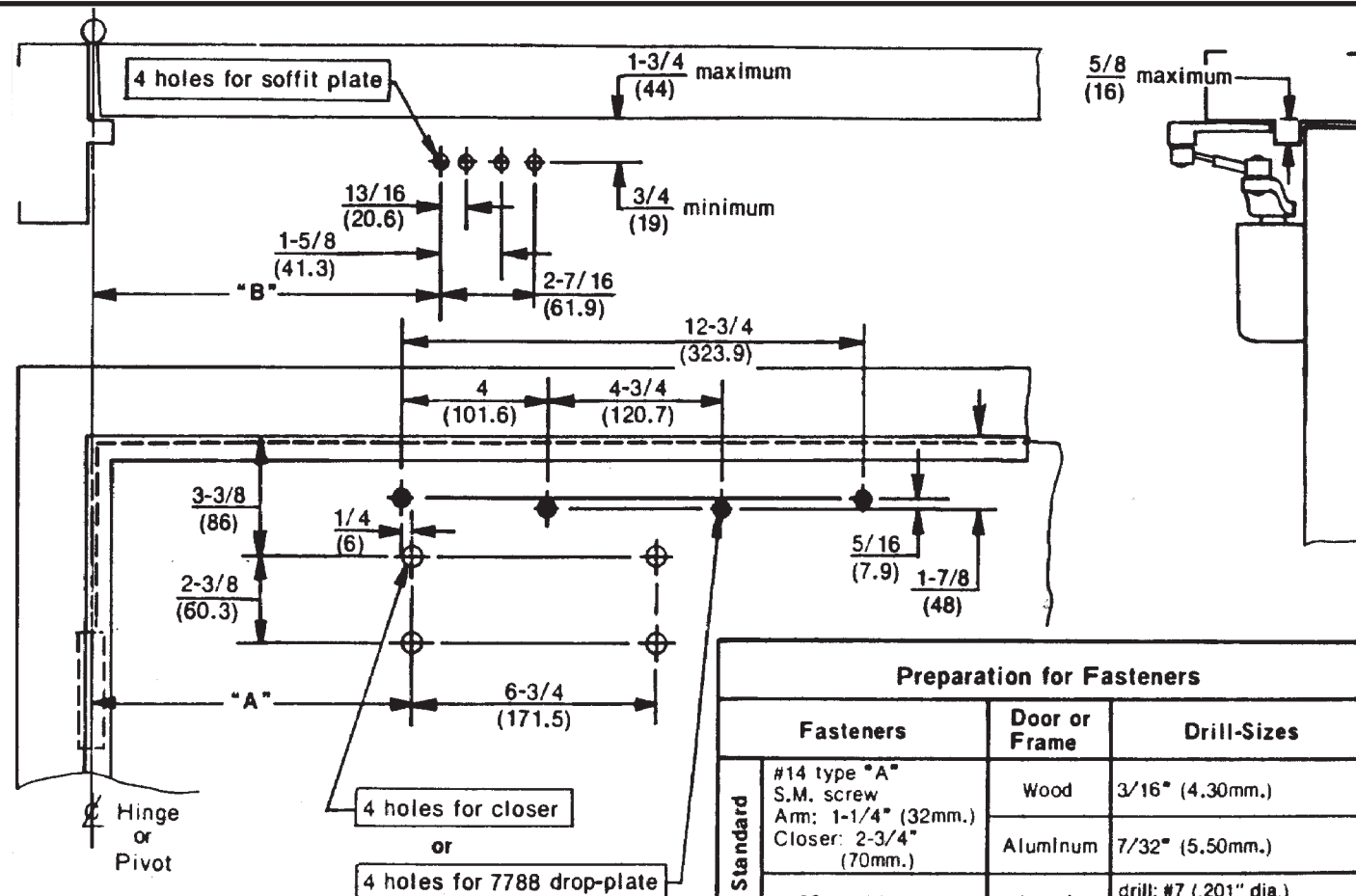
TEMPLATE NUMBER	REV	DATE
<b>7377-0152</b>	<b>3</b>	<b>12/21</b>

Approved 2022-02-25





Opening	Dim. "A"		Dim. "B"	
	inches	mm	inches	mm
To 100°	8-3/4	222	9-1/4	235
101° to 130°	7-1/4	184	7-3/4	197
131° to 150°	6-1/4	159	6-3/4	171
151° to 180°	5-1/4	133	5-3/4	146



Do not scale drawing

Left hand door shown

Dimensions are in inches  
(mm.)

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

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.) unless otherwise noted.

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.)	Aluminum	7/32" (5.50mm.)
	Closer: 2-3/4" (70mm.)		
Optional	1/4-20 machine-screw	Metal	drill: #7 (.201" dia.) tap: 1/4-20
	Sex-nuts and bolts	Hollow-Metal	9/32" (7.00mm.) through; 3/8" (9.50mm.) on door or transom-face opposite to closer
		Aluminum or Wood	3/8" (9.50mm.) through
	Through-bolts and grommet-nuts	All	9/32" (7.00mm.) through; 3/8" (9.50mm.) dia. x 3/8" (10mm.) deep on door or transom-face opposite to closer

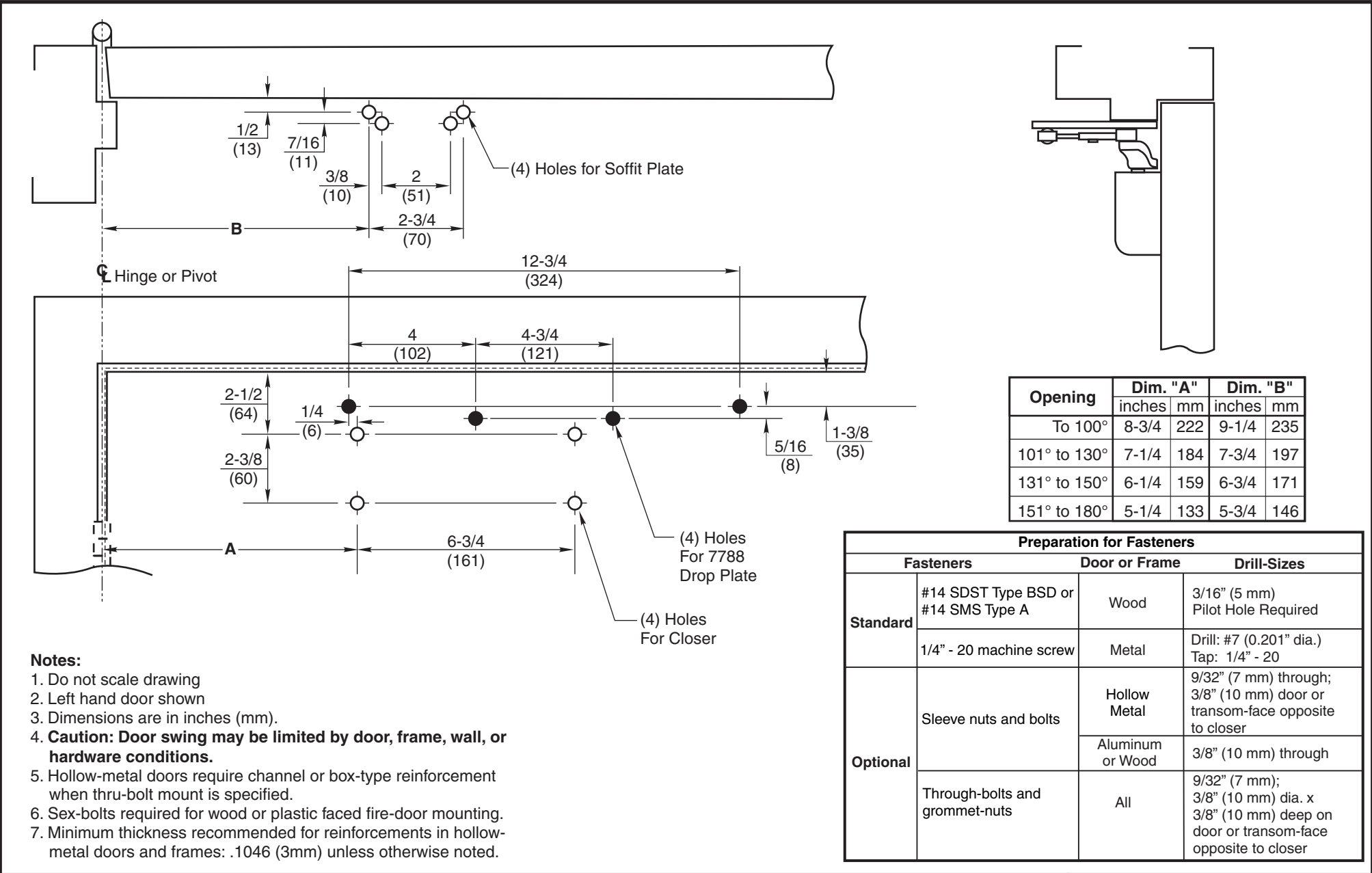
**P7500 and P7700 Series Door Closers  
 With 2018B Soffit Plate  
 With or Without 7788 Drop Plate  
 Parallel Arm Installation With Non-Hold Open Arm**

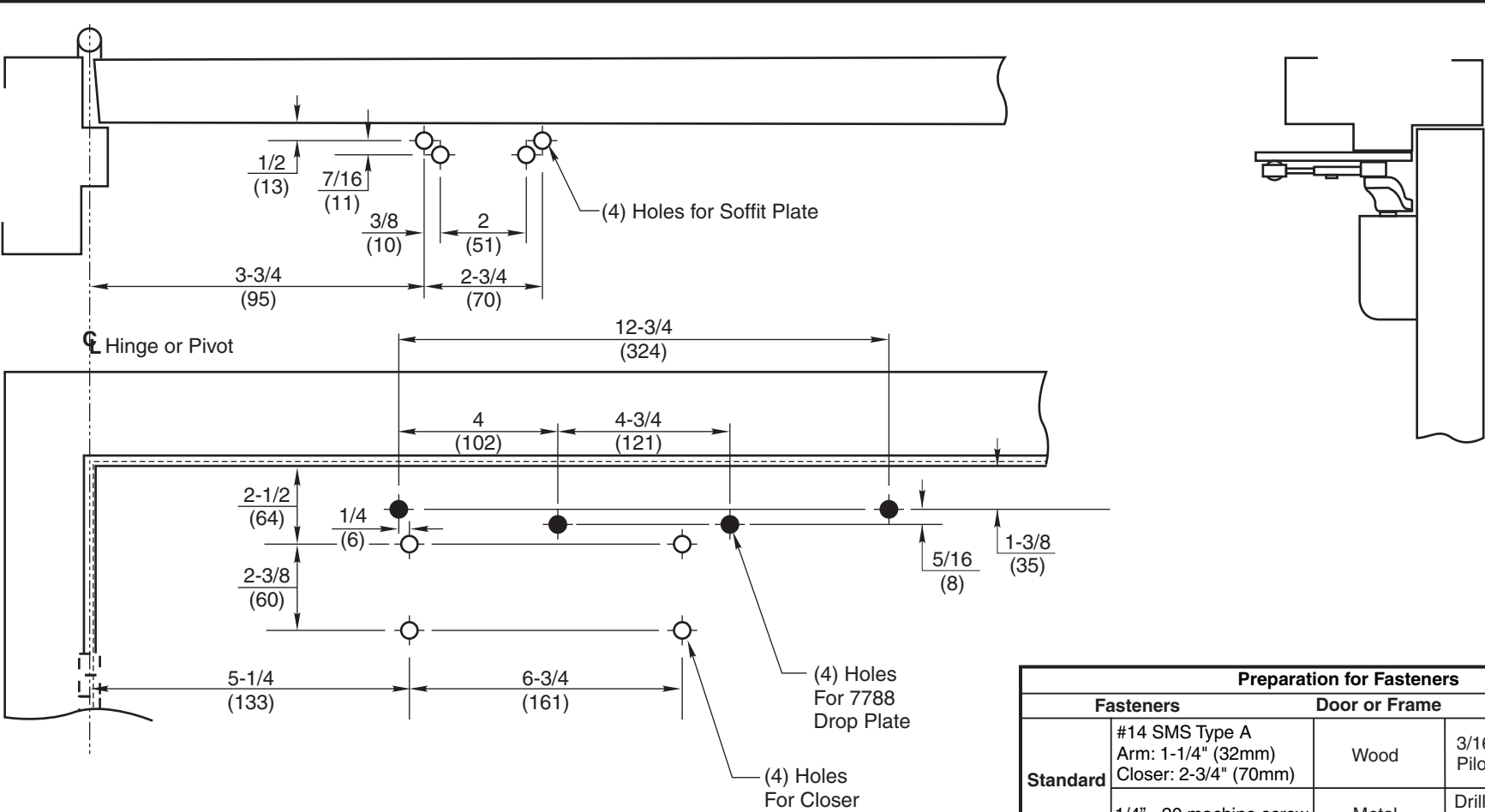
**NORTON  
RIXSON**

**ASSA ABLOY**

TEMPLATE NUMBER	REV	DATE
<b>7377-0204</b>	<b>3</b>	<b>12/21</b>

Approved 2022-02-25





- Notes:**
- 1. Do not scale drawing
  - 2. Left hand door shown
  - 3. Dimensions are in inches (mm).
  - 4. **Caution: Door swing may be limited by door, frame, wall, or hardware conditions.**
  - 5. Hollow-metal doors require channel or box-type reinforcement when thru-bolt mount is specified.
  - 6. Sex-bolts required for wood or plastic faced fire-door mounting.
  - 7. Minimum thickness recommended for reinforcements in hollow-metal doors and frames: .1046 (2.66mm) unless otherwise noted.

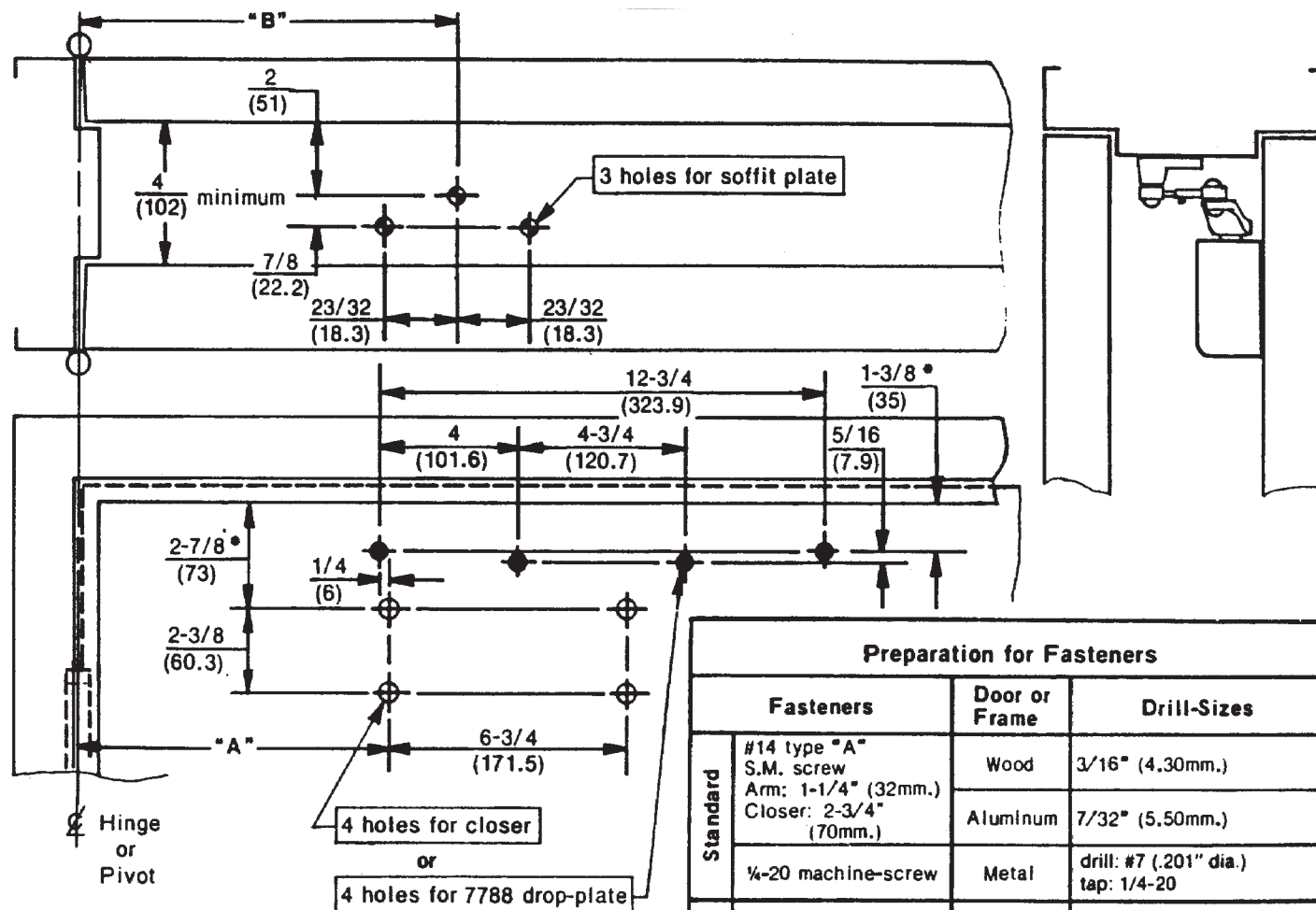
Preparation for Fasteners			
Fasteners		Door or Frame	Drill-Sizes
Standard	#14 SMS Type A Arm: 1-1/4" (32mm) Closer: 2-3/4" (70mm)	Wood	3/16" (4.8 mm) Pilot Hole Required
	1/4" - 20 machine screw	Metal	Drill: #7 (0.201" dia.) Tap: 1/4 - 20
Optional	Sex nuts and bolts	Hollow Metal	9/32" (7 mm) through; 3/8" (9.5 mm) door or transom-face opposite to closer
		Aluminum or Wood	3/8" (9.5 mm) through
	Through-bolts and grommet-nuts	All	9/32" (7 mm) thru; 3/8" (9.5 mm) dia. x 3/8" (9.5 mm) deep on door or transom-face opposite to closer

**P7500 or P7700 Series Door Closers x 7701-5A Arm Assembly**  
**For 180° Door Swing Using Wide Throw Hinges - 8" (200mm) Max.**  
**With or Without 7788 Drop Plate**  
**Non-Hold Open Parallel Arm Application**  
**Door Closer Sizes: 7500 (1 thru 6); 7700 (2, 3, 4, 5, or 6)**



TEMPLATE NUMBER	REV	DATE
<b>7377-0214</b>	<b>3</b>	<b>12/21</b>

Opening	Dim. "A"		Dim. "B"	
	inches	mm	inches	mm
To 100°	8-3/4	222	9-1/4	235
101° to 130°	7-1/4	184	7-3/4	197
131° to 150°	6-1/4	159	6-3/4	171
151° to 180°	5-1/4	133	5-3/4	146



Do not scale drawing

Left hand door shown

Dimensions are in  $\frac{\text{inches}}{\text{(mm.)}}$

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

\*Measure from soffit-plate mounting surface. 2018 soffit-plate may be applied onto frame-rabbit when frame-stop-height does not exceed 5/8" (16mm.).

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.) unless otherwise noted.

Preparation for Fasteners			
Fasteners		Door or Frame	Drill-Sizes
Standard	#14 type "A" S.M. screw Arm: 1-1/4" (32mm.) Closer: 2-3/4" (70mm.)	Wood	3/16" (4.30mm.)
		Aluminum	7/32" (5.50mm.)
	1/4-20 machine-screw	Metal	drill: #7 (.201" dia.) tap: 1/4-20
Optional	Sex-nuts and bolts	Hollow-Metal	9/32" (7.00mm.) through; 3/8" (9.50mm.) on door or transom-face opposite to closer
		Aluminum or Wood	3/8" (9.50mm.) through
	Through-bolts and grommet-nuts	All	9/32" (7.00mm.) through; 3/8" (9.50mm.) dia.-x 3/8" (10mm.) deep on door or transom-face opposite to closer

**P7500 and P7700 Series Door Closers  
 With 2018 Soffit Plate  
 With or Without 7788 Drop Plate  
 Parallel Arm Installation With Non-Hold Open Arm**

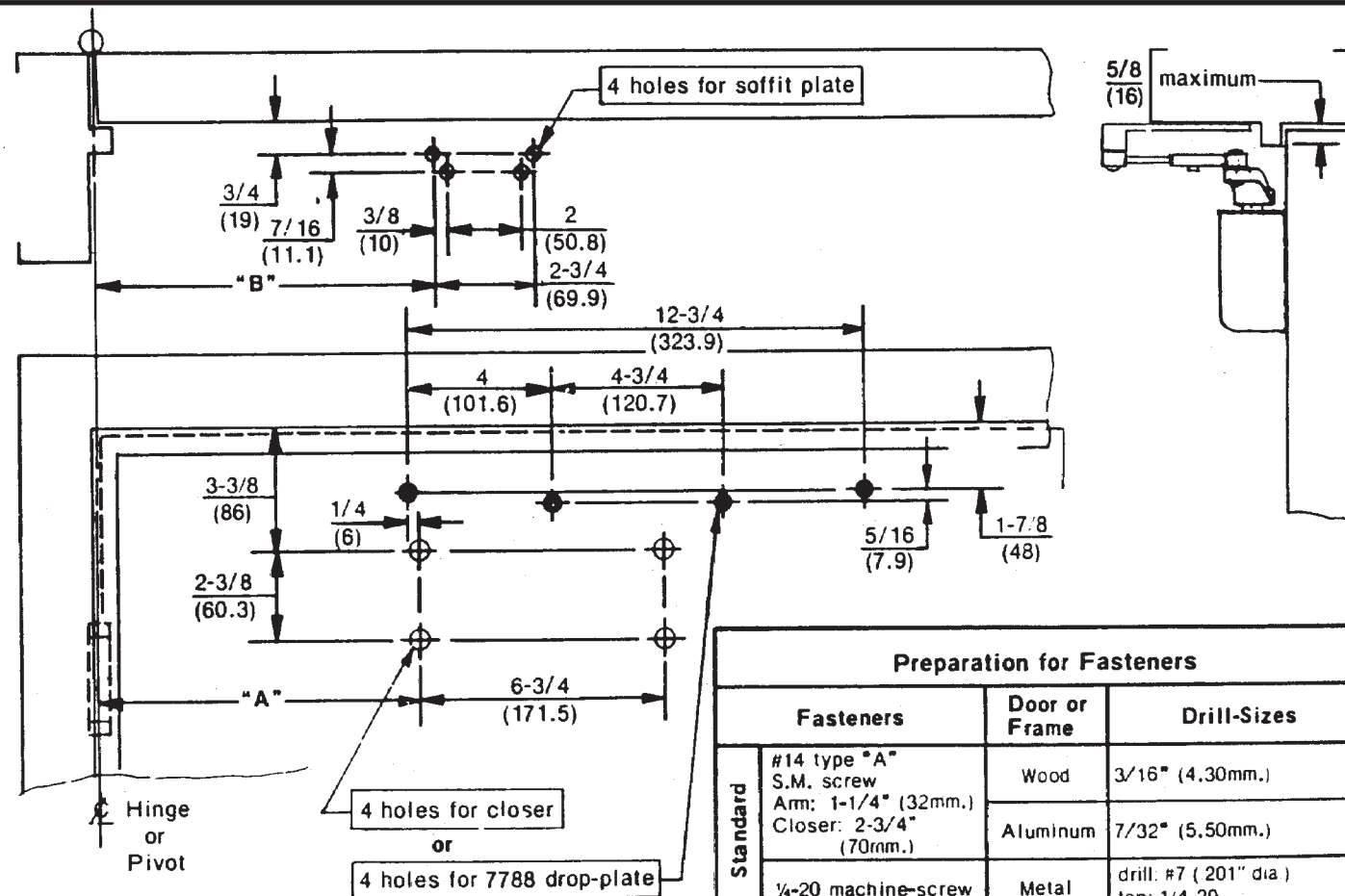
**NORTON  
RIXSON**

**ASSA ABLOY**

TEMPLATE NUMBER	REV	DATE
<b>7377-0203</b>	<b>3</b>	<b>12/21</b>

Approved 2022-02-25

Opening	Dim. "A"		Dim. "B"	
	inches	mm	inches	mm
To 100°	8-3/4	222	9-1/4	235
101° to 130°	7-1/4	184	7-3/4	197
131° to 150°	6-1/4	159	6-3/4	171
151° to 180°	5-1/4	133	5-3/4	146



Do not scale drawing

Left hand door shown

Dimensions are in inches  
(mm.)

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

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.) unless otherwise noted.

Preparation for Fasteners			
Fasteners		Door or Frame	Drill-Sizes
Standard	#14 type "A" S.M. screw Arm: 1-1/4" (32mm.) Closer: 2-3/4" (70mm.)	Wood	3/16" (4.30mm.)
		Aluminum	7/32" (5.50mm.)
	1/4-20 machine-screw	Metal	drill: #7 (201" dia) tap: 1/4-20
Optional	Sex-nuts and bolts	Hollow-Metal	9/32" (7.00mm.) through; 3/8" (9.50mm.) on door or transom-face opposite to closer
		Aluminum or Wood	3/8" (9.50mm.) through
	Through-bolts and grommet-nuts	All	9/32" (7.00mm.) through; 3/8" (9.50mm.) dia. x 3/8" (10mm.) deep on door or transom-face opposite to closer

**P7500 and P7700 Series Door Closers  
 With 2018D Soffit Plate  
 With or Without 7788 Drop Plate  
 Parallel Arm Installation With Non-Hold Open Arm**

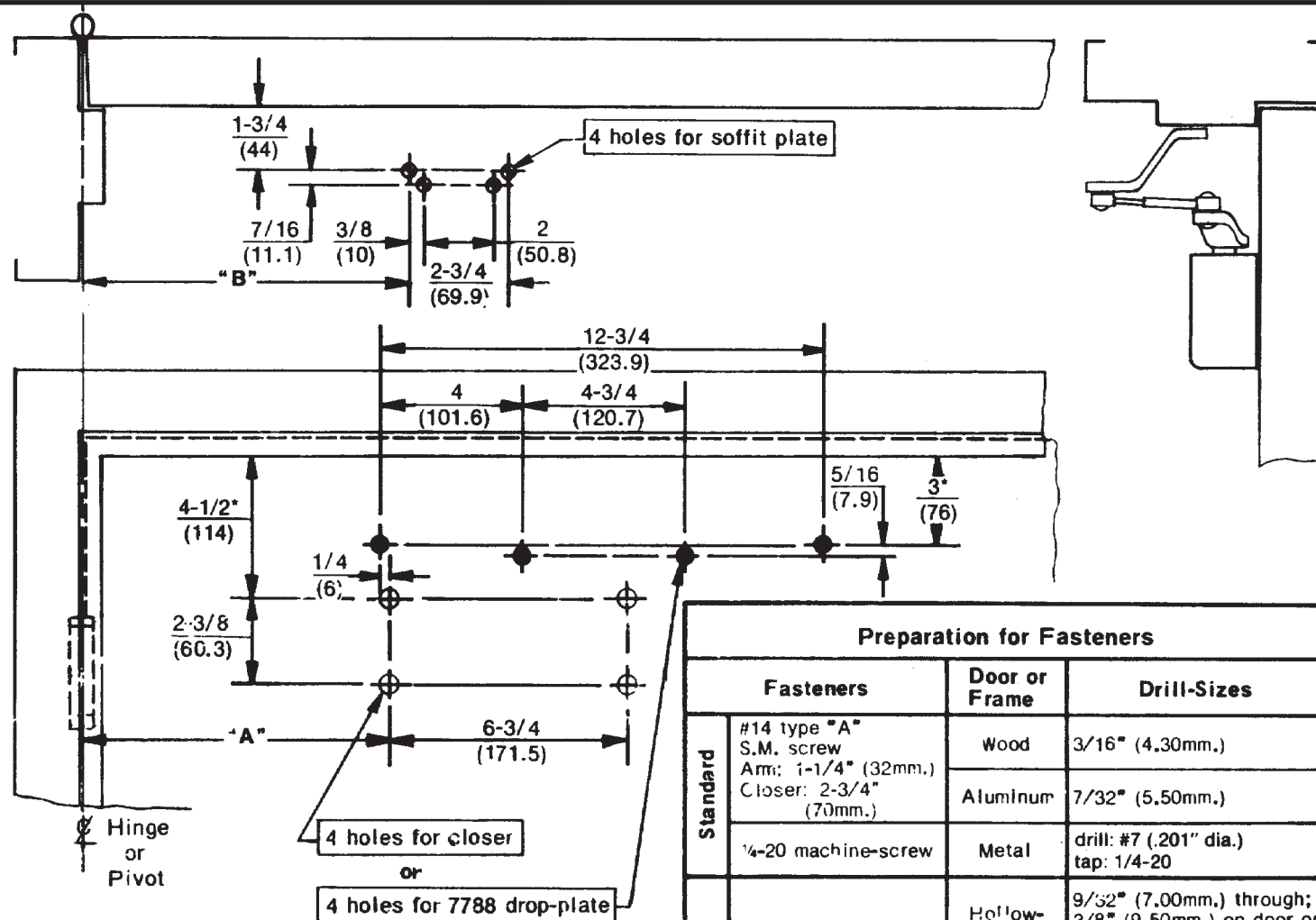
**NORTON  
RIXSON**

**ASSA ABLOY**

TEMPLATE NUMBER	REV	DATE
<b>7377-0205</b>	<b>3</b>	<b>12/21</b>

Approved 2022-02-25

Opening	Dim. "A"		Dim. "B"	
	inches	mm	inches	mm
To 100°	8-3/4	222	9-1/4	235
101° to 130°	7-1/4	184	7-3/4	197
131° to 150°	6-1/4	159	6-3/4	171
151° to 180°	5-1/4	133	5-3/4	146



Do not scale drawing

Left hand door shown

Dimensions are in inches  
(mm.)

**Caution:** Door swing or closer mounting may be limited by door, frame, wall, or hardware conditions.

\*Measure from soffit-plate mounting surface. This soffit plate can be applied to frame-rabbit in opening with narrow, blade or removable stop.

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.) unless otherwise noted.

Preparation for Fasteners			
Fasteners		Door or Frame	Drill-Sizes
Standard	#14 type "A" S.M. screw Arm: 1-1/4" (32mm.) Closer: 2-3/4" (70mm.)	Wood	3/16" (4.30mm.)
		Aluminum	7/32" (5.50mm.)
	1/4-20 machine-screw	Metal	drill: #7 (.201" dia.) tap: 1/4-20
Optional	Sex-nuts and bolts	Hollow-Metal	9/32" (7.00mm.) through; 3/8" (9.50mm.) on door or transom-face opposite to closer
		Aluminum or Wood	3/8" (9.50mm.) through
	Through-bolts and grommet-nuts	All	9/32" (7.00mm.) through; 3/8" (9.50mm.) dia. x 3/8" (10mm.) deep on door or transom-face opposite to closer

**P7500 and P7700 Series Door Closers  
 With 2018S Soffit Plate  
 With or Without 7788 Drop Plate  
 Parallel Arm Installation With Non-Hold Open Arm**

**NORTON  
RIXSON**

**ASSA ABLOY**

TEMPLATE NUMBER

**7377-0207**

REV

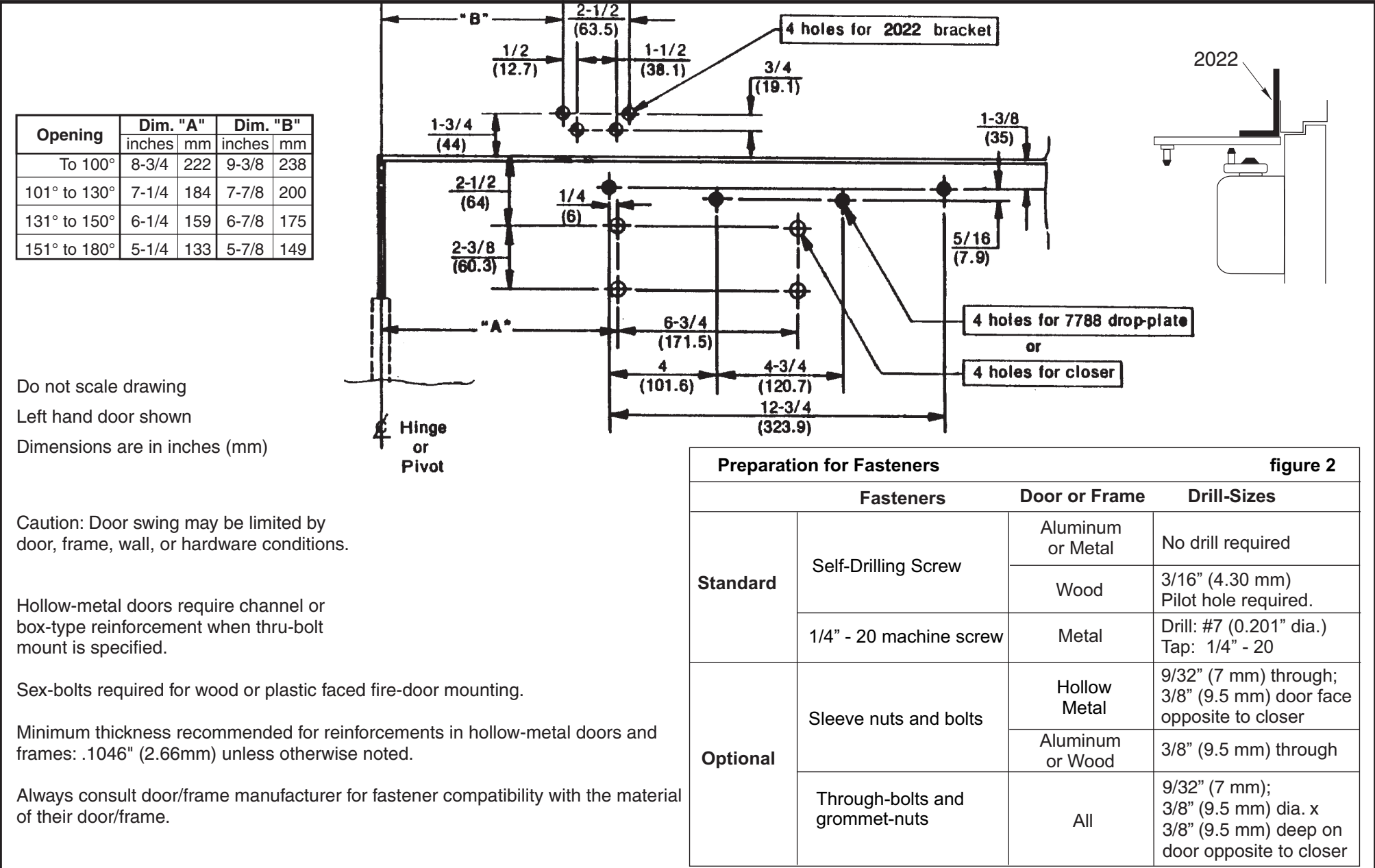
**3**

DATE

**12/21**

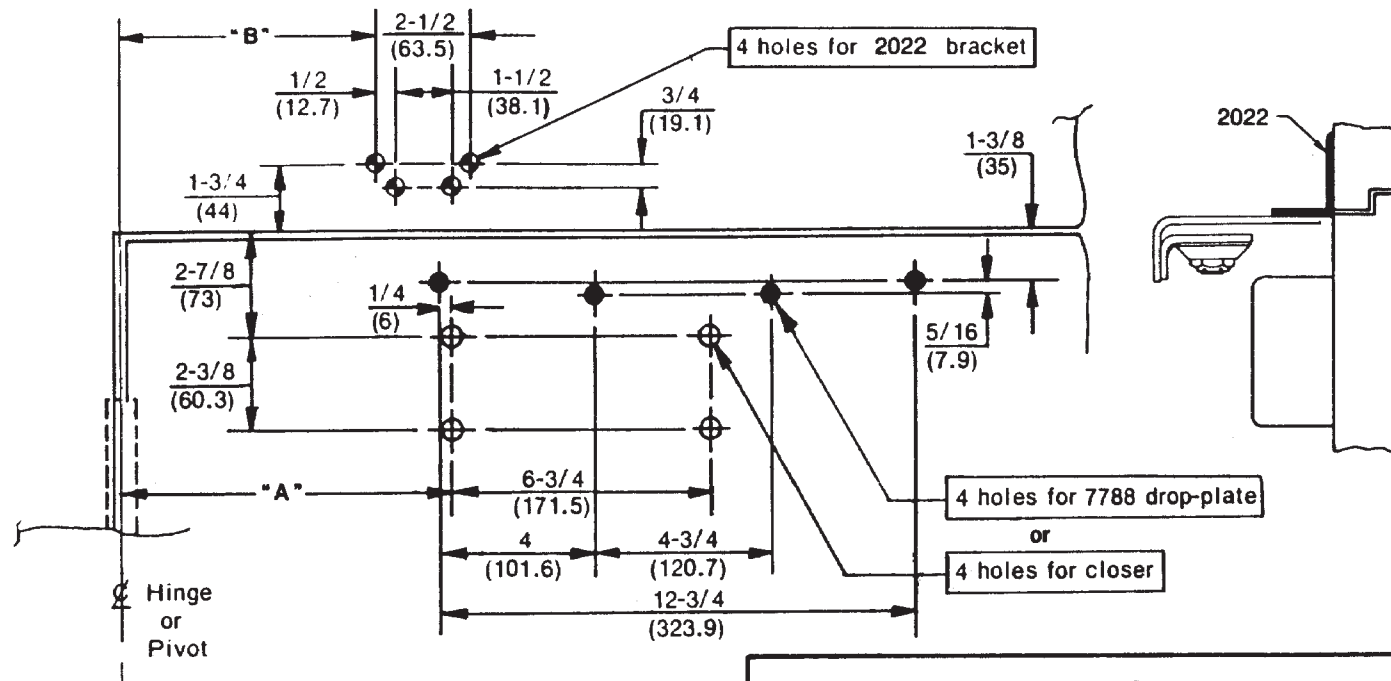
Approved 2022-02-25







Opening	Dim. "A"		Dim. "B"	
	inches	mm	inches	mm
To 100°	8-3/4	222	9-3/8	238
101° to 130°	7-1/4	184	7-7/8	200
131° to 150°	6-1/4	159	6-7/8	175
151° to 180°	5-1/4	133	5-7/8	149



(opposite to hinge side mounting).

Do not scale drawing

Left hand door shown

Dimensions are in  $\frac{\text{inches}}{\text{(mm.)}}$

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

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.) unless otherwise noted.

Preparation for Fasteners			
Fasteners		Door or Frame	Drill-Sizes
Standard	#14 type "A" S.M. screw Arm: 1-1/4" (32mm.) Closer: 2-3/4" (70mm.)	Wood	3/16" (4.30mm.)
		Aluminum	7/32" (5.50mm.)
		Metal	drill: #7 (.201" dia.) lap: 1/4-20
Optional	Sex-nuts and bolts	Hollow-Metal	9/32" (7.00mm.) through; 3/8" (9.50mm.) on door or transom-face opposite to closer
		Aluminum or Wood	3/8" (9.50mm.) through
	Through-bolts and grommet-nuts	All	9/32" (7.00mm.) through; 3/8" (9.50mm.) dia. x 3/8" (10mm.) deep on door or transom-face opposite to closer

**P7500H or P7700H Series Door Closers  
With 1628H x 2022 Brackets  
With or Without 7788 Drop Plate  
Parallel Arm Installation With Hold Open**

**NORTON  
RIXSON**

**ASSA ABLOY**

TEMPLATE NUMBER

**7377-0212**

REV

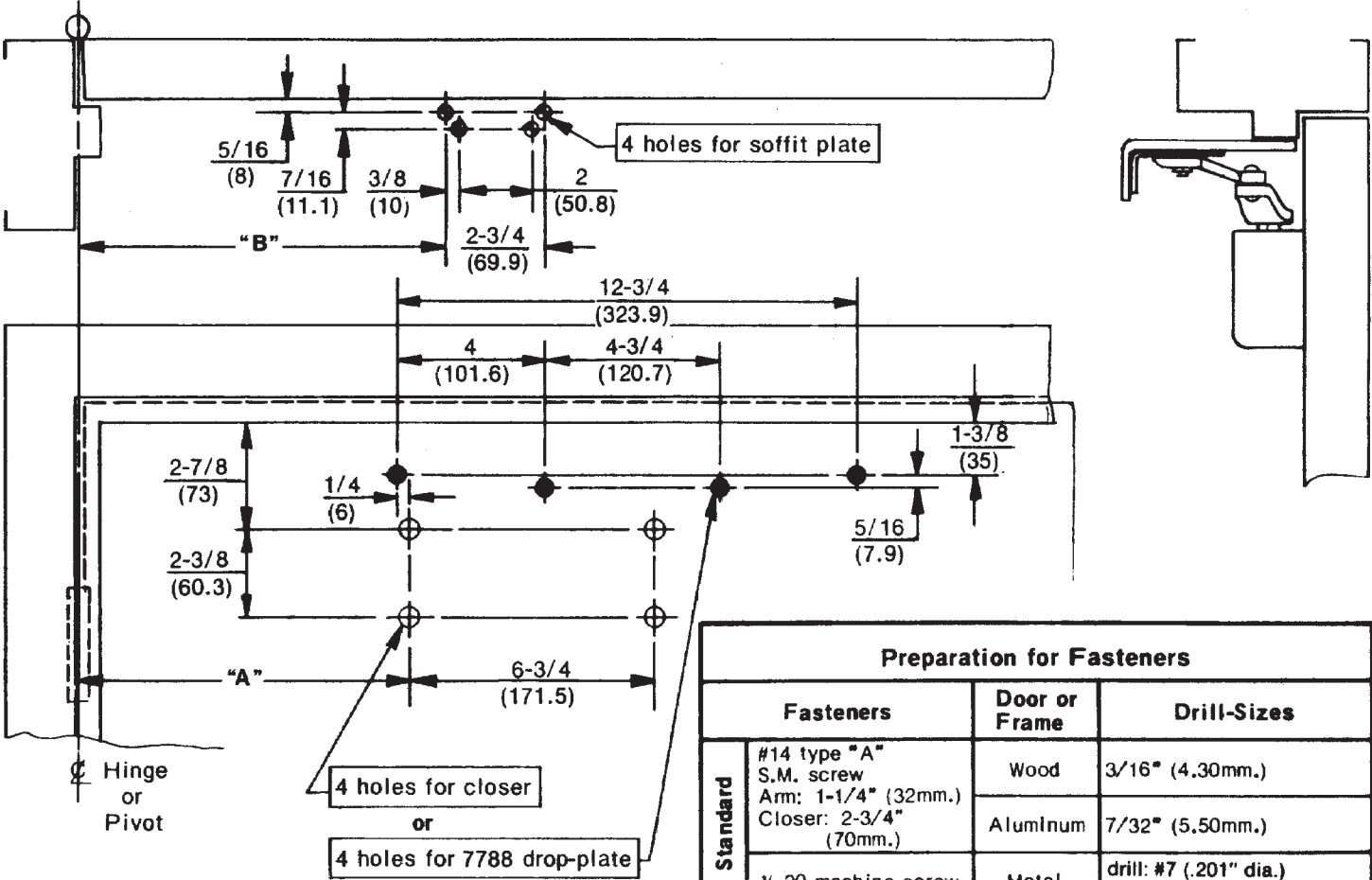
**3**

DATE

**12/21**

**Approved 2022-02-25**

Opening	Dim. "A"		Dim. "B"	
	inches	mm	inches	mm
To 100°	8-3/4	222	9-1/4	235
101° to 130°	7-1/4	184	7-3/4	197
131° to 150°	6-1/4	159	6-3/4	171
151° to 180°	5-1/4	133	5-3/4	146



Do not scale drawing  
Left hand door shown  
Dimensions are in inches  
(mm.)

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

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.

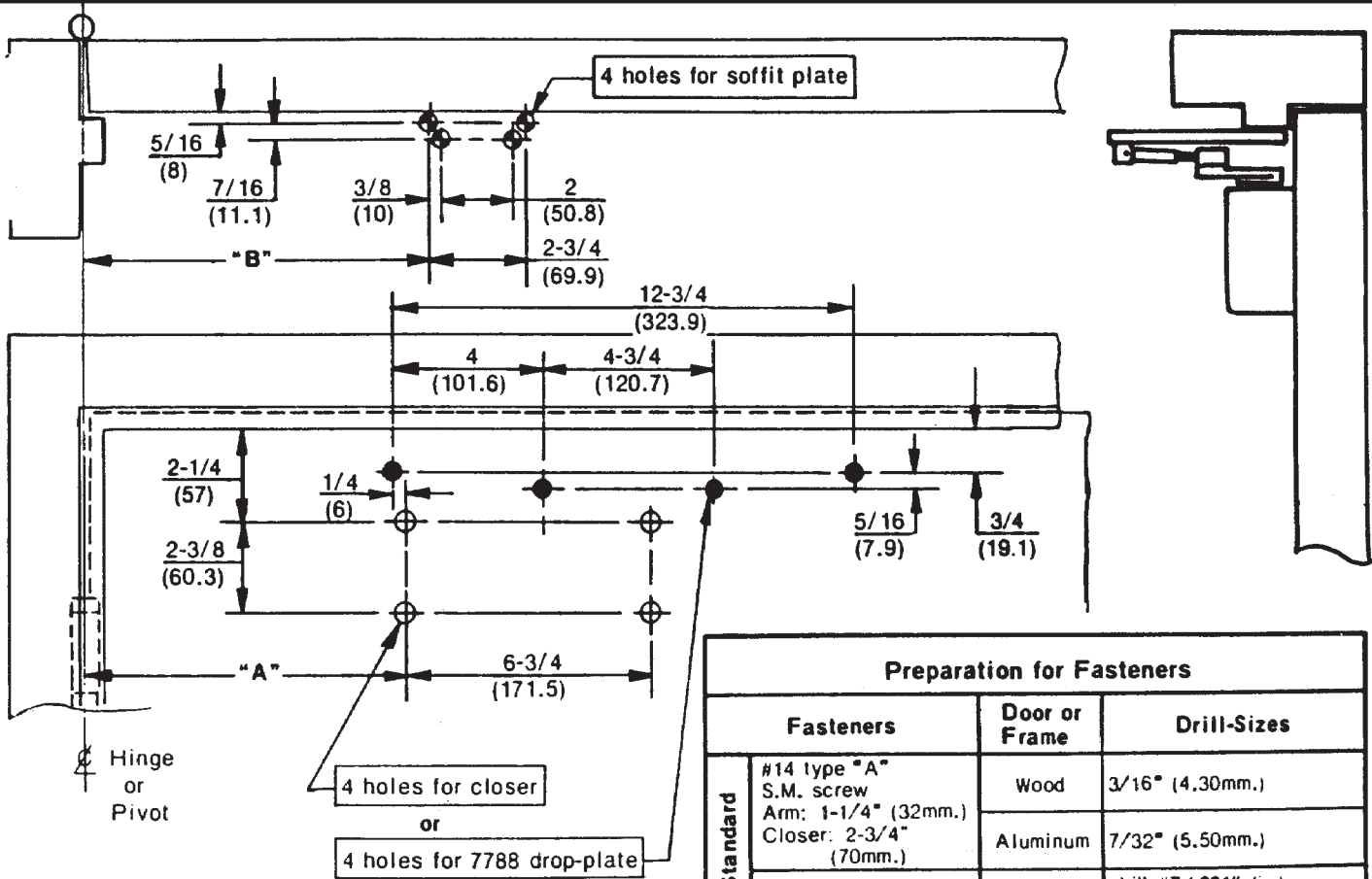
Minimum thickness recommended for reinforcements in hollow-metal doors and frames: .1046" (2,66mm.) unless otherwise noted.

**P7500H or P7700H Series Door Closers  
With or Without 7788 Drop Plate  
Parallel Arm Installation With Hold Open**



TEMPLATE NUMBER	REV	DATE
7377-0211	3	12/21

Opening	Dim. "A"		Dim. "B"	
	inches	mm	inches	mm
To 100°	8-3/4	222	9-1/4	235
101° to 130°	7-1/4	184	7-3/4	197
131° to 150°	6-1/4	159	6-3/4	171
151° to 180°	5-1/4	133	5-3/4	146



Do not scale drawing

Left hand door shown

Dimensions are in inches  
(mm.)

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

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

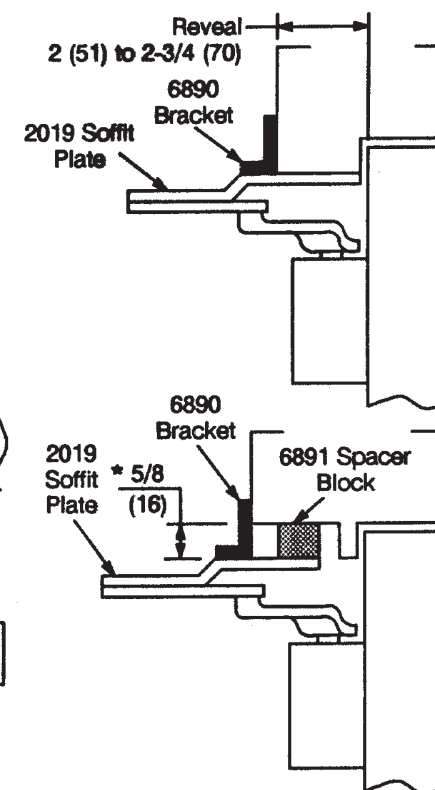
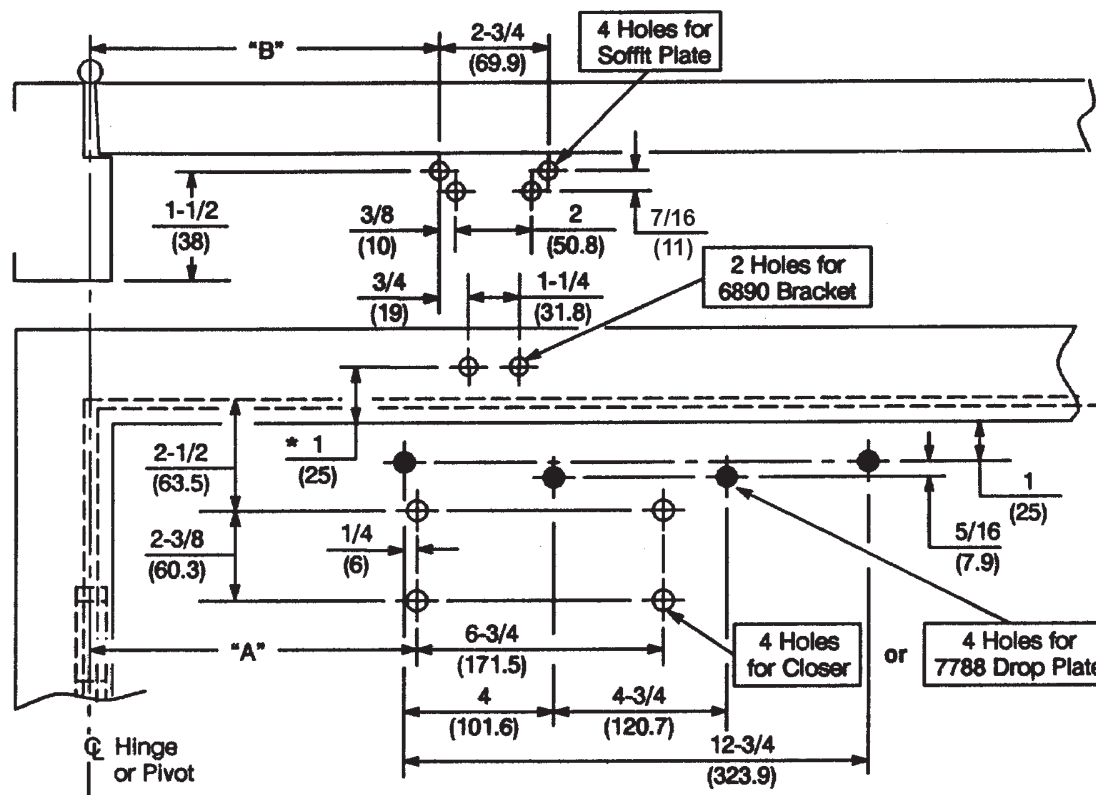
Sex-bolts required for wood or plastic faced fire-door mounting.

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

P7580 and P7780 Series Door Closers  
With or Without 7788 Drop Plate  
Parallel Arm Installation With Non-Hold Open Arm



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



**Notes:**

1. Do not scale drawing.
2. Left 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. Minimum thickness recommended for reinforcements in hollow metal doors and frames: .1046" (2.66mm) unless otherwise noted.

\* This dimension must be located from the same surface that the 2019 soffit plate is mounted to.

Door Opening	Dim. "A"	Dim. "B"
To 100°	8-3/4 (222)	9-1/4 (235)
101° to 130°	7-1/4 (184)	7-3/4 (197)
131° to 150°	6-1/4 (159)	6-3/4 (171)
151° to 180°	5-1/4 (133)	5-3/4 (146)

**Preparation for Fasteners**

Fasteners	To Apply	Door or Frame	Drill Sizes
#14 x 1-1/4 (32mm) type "A" Sheet Metal screw	Soffit Plate	Wood	7/32" (5.50mm)
		Aluminum	7/32" (5.50mm)
1/4-20 machine screw		Metal	drill: #7 (.201" dia.) tap: 1/4-20
Sex nuts and bolts	Closer or Drop Plate	Hollow Metal	9/32" (7.00mm) thru; 3/8" (9.50mm) door face opposite to closer
		Aluminum or Wood	3/8" (9.50mm) thru
Thru bolts and grommet nuts	Optional	All	9/32" (7.00mm) thru; 3/8" (9.50mm) dia. x 3/8" (10mm) deep, door face opposite to closer

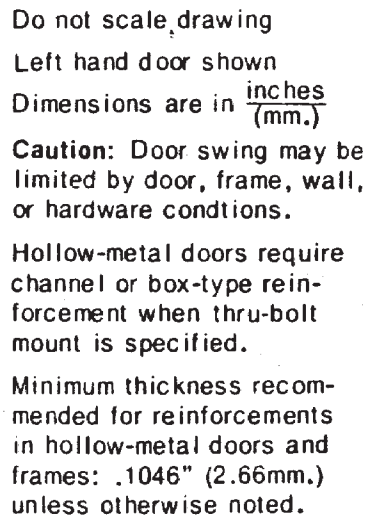
**PR7500, PR7500H, PR7700 or PR7700H Series Door Closers  
With 6890 Bracket  
With or Without 7788 Drop Plate  
Parallel Rigid Installation With Non Hold Open or Hold Open**

**NORTON  
RIXSON**

**ASSA ABLOY**

TEMPLATE NUMBER	REV	DATE
<b>7377-0253</b>	<b>3</b>	<b>12/21</b>

Approved 2022-02-25



Opening	Dim. "A"		Dim. "B"	
	inches	mm	inches	mm
To 100°	8-3/4	222	9-3/8	238
101° to 130°	7-1/4	184	7-7/8	200
131° to 150°	6-1/4	159	6-7/8	175
151° to 180°	5-1/4	133	5-7/8	149

Preparation for Fasteners			
Fasteners	To Apply	Door or Frame	Drill Sizes
Sex-nuts and bolts	Closer, drop-plate, 2019L 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
#14 x 1 1/4" (32mm.) type "A" S.M. screws	Special Application Optional	Wood	3/16" (4.30mm.)
		Aluminum	7/32" (5.50mm.)
1/4-20 machine screw		Metal	drill: #7 (201" dia.) 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.

**NORTON  
RIXSON**

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**ASSA ABLOY**

TEMPLATE NUMBER	REV	DATE
<b>7377-0252</b>	<b>3</b>	<b>12/21</b>

Do not scale drawing.

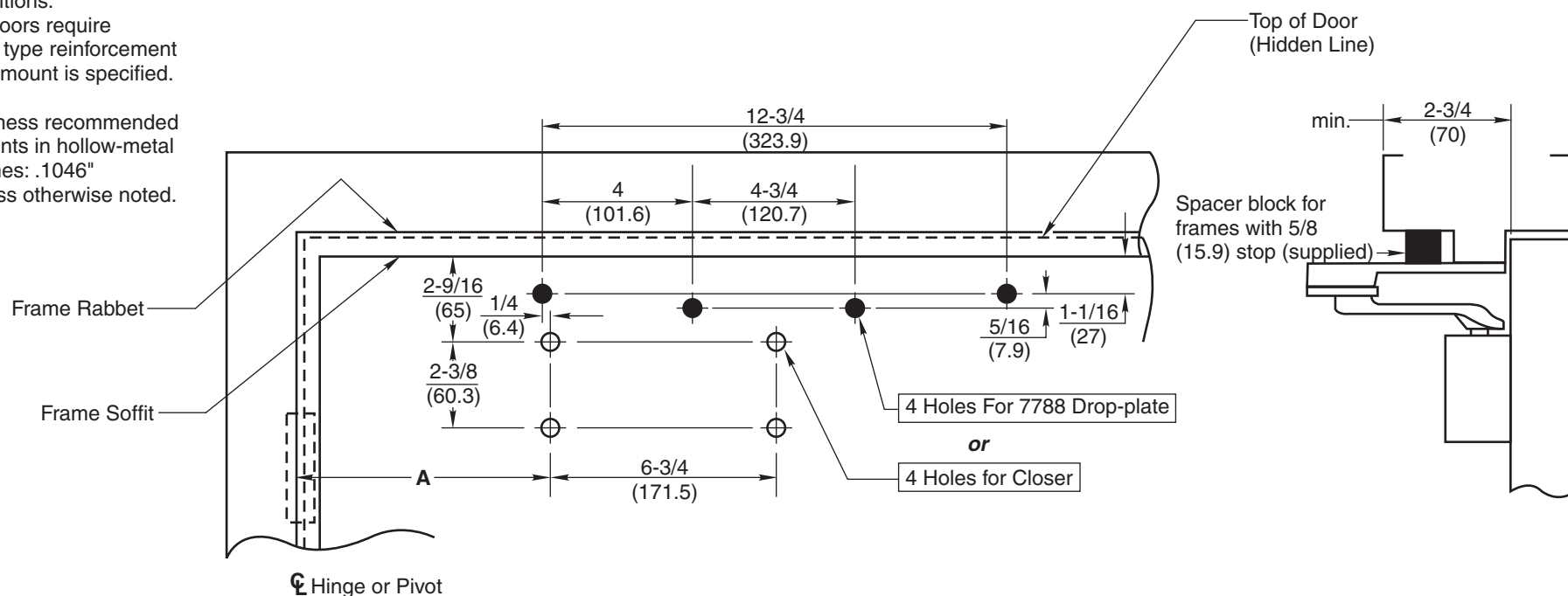
Left hand door shown.

Dimensions are in inches (mm).

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

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

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



**PR7500, PR7500H, PR7700, or PR7700H Series Door Closers**  
**With or Without 7788 Drop Plate**  
**Parallel Rigid Installation With Non Hold Open or Hold Open**  
**Approved 2022-02-25**

**NORTON RIXSON**  
**ASSA ABLOY**

TEMPLATE NUMBER

**7377-0251**

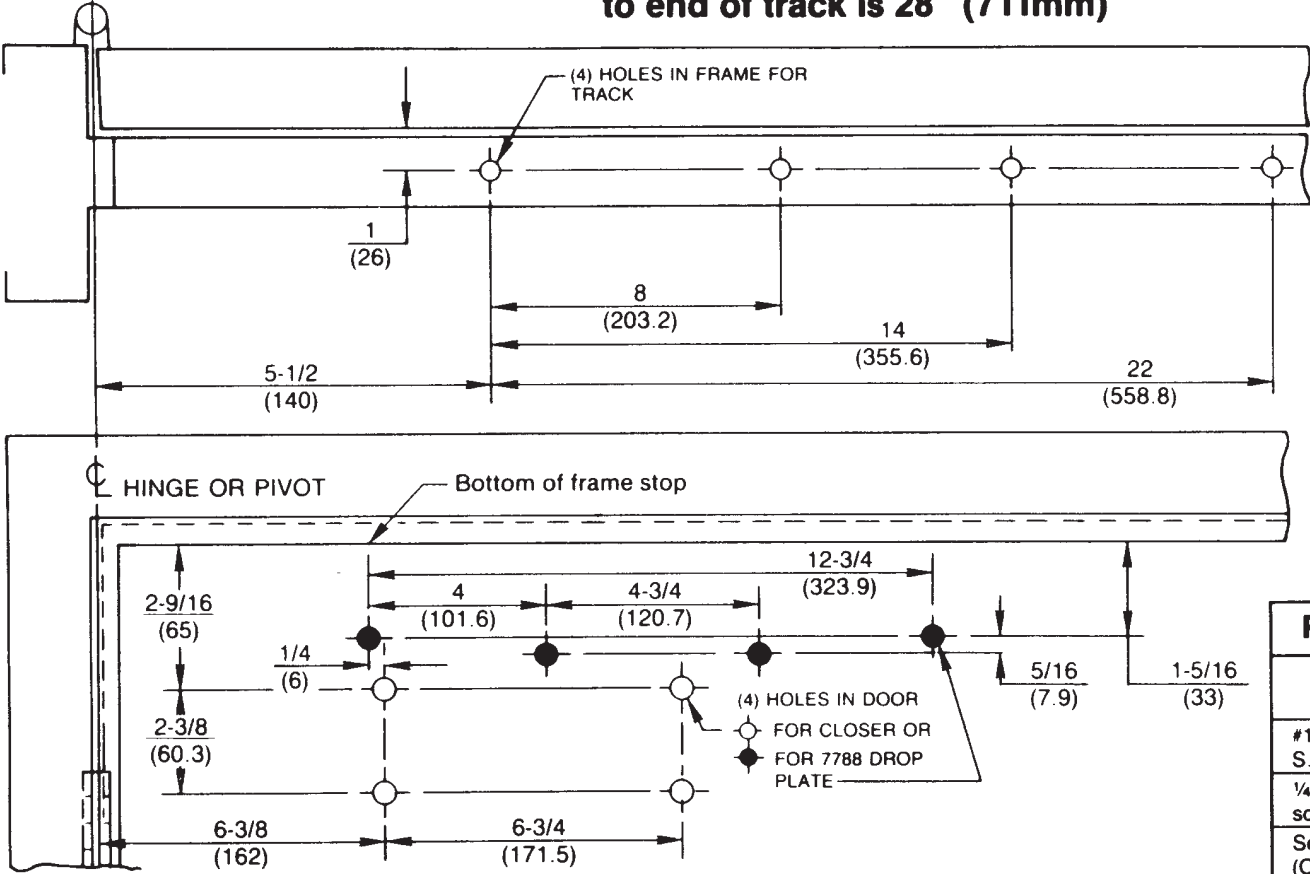
REV

**3**

DATE

**12/21**

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



- 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°**.  
Auxilliary stop required.
  - **Hold Open** - **100°**

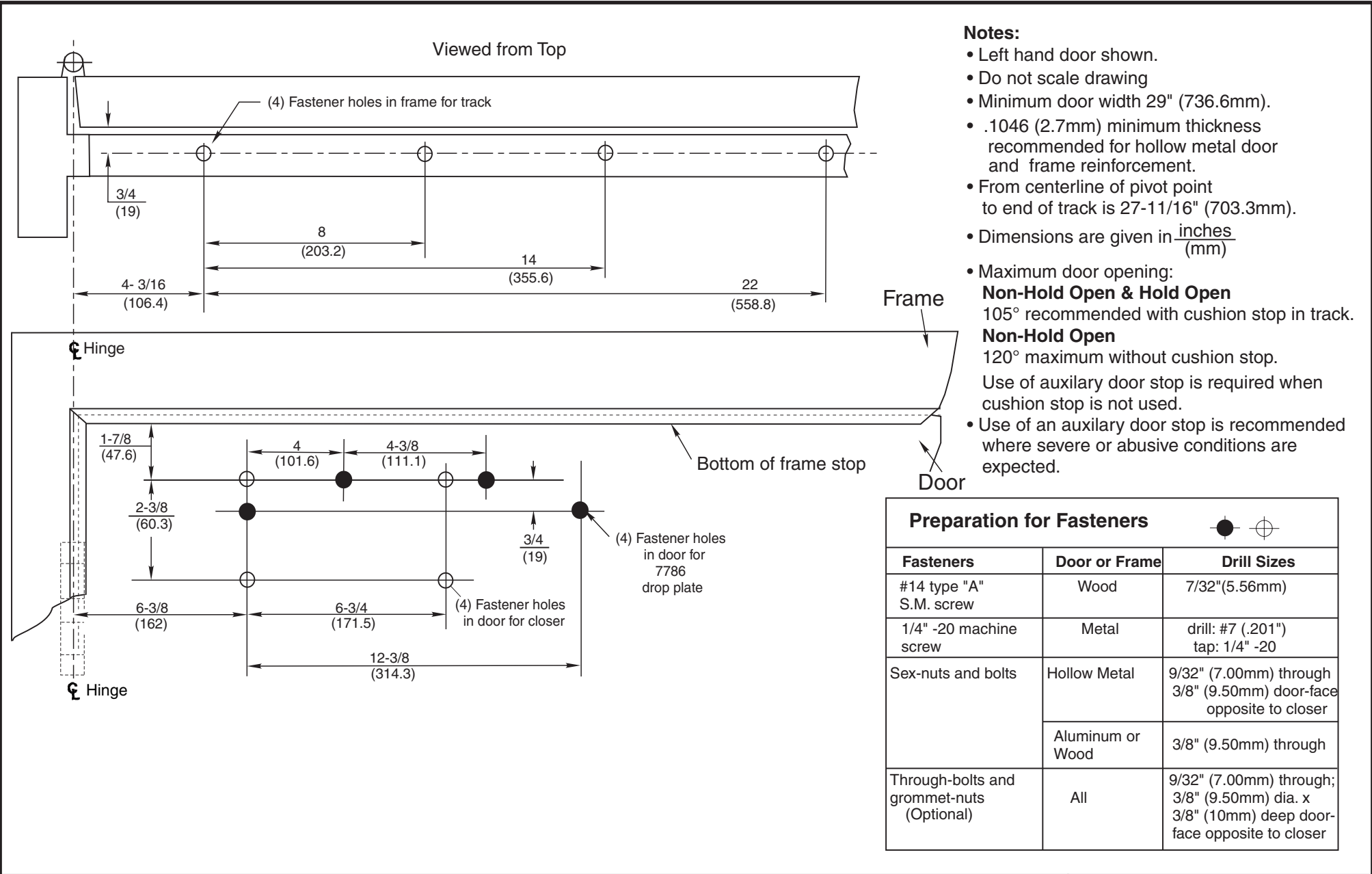
Preparation for Fasteners		
Fasteners	Door or Frame	Drill-Sizes
#14 type "A" S.M. screw	Wood	7/32" (5.5mm)
1/4"-20 machine-screw	Metal	drill: #7 (.201") tap: 1/4"-20
Sex-nuts and bolts (Optional)	Hollow-Metal	9/32" (7.00mm.) through; 3/8" (9.50mm.) door-face opposite to closer
	Aluminum or Wood	3/8" (9.50mm.) through
Through-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

**PS7700ST/PS7500ST Series Non Hold Open Door Closer**  
**PS7700ST-H/PS7500ST-H Series Hold Open Door Closer**  
**Push Side Slide Track Application**  
**With or Without 7788 Drop Plate**



TEMPLATE NUMBER	REV	DATE
<b>7377-0520</b>	<b>3</b>	<b>12/21</b>







Door Opening	Dimension "A"	
	inches	mm.
To 100°	7-5/8	194
101° to 120°	6-5/8	168
121° to 150°	4-5/8	117
151° to 180°	4-1/8	105

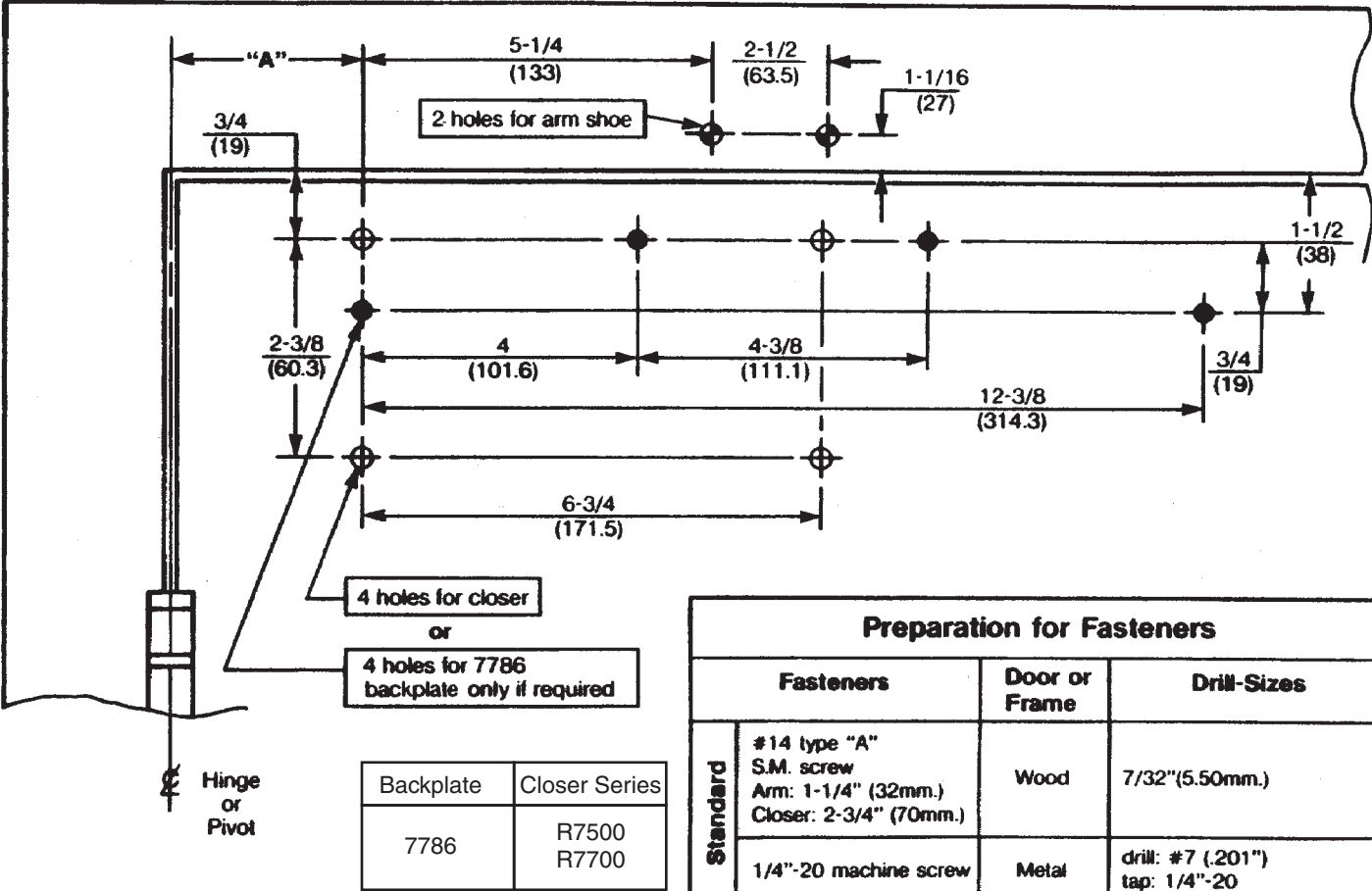
**SPECIAL NOTE:**  
Hinge side frame reveal must not exceed 1/8 (3) or 5/16 (8) if 7786 backplate is used.

Do Not Scale Drawing  
Right Hand Door Shown  
Dimensions are in inches  
(mm.)

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

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

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

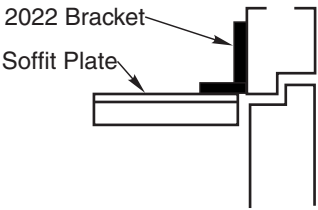
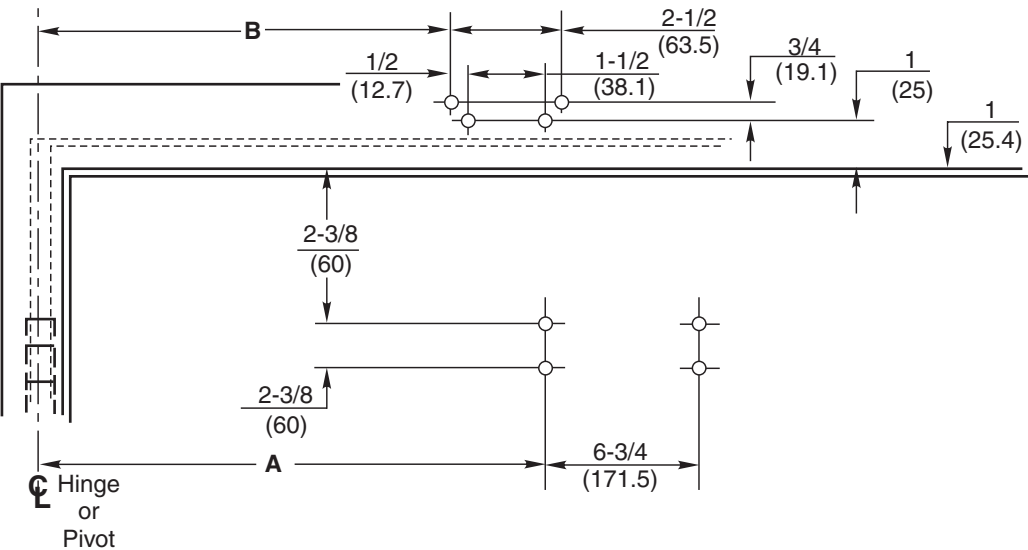


Preparation for Fasteners			
Fasteners		Door or Frame	Drill-Sizes
Standard	#14 type "A" S.M. screw Arm: 1-1/4" (32mm.) Closer: 2-3/4" (70mm.)	Wood	7/32"(5.50mm.)
	1/4"-20 machine screw	Metal	drill: #7 (.201") tap: 1/4"-20
Optional	Sex nuts and bolts	Hollow-Metal	9/32" (7.00mm.) through; 3/8" (9.50mm.) on door or transom-face opposite to closer
		Aluminum or Wood	3/8" (9.50mm.) through
	Through-bolts and grommet-nuts	All	9/32" (7.00mm.) through; 3/8" (9.50mm.) dia. X 3/8" (10mm.) deep on door or transom-face opposite to closer

**R7500 Series Rigid Arm, 7570 Series Security Door Closer or  
R7700 Series Rigid Arm, 7770 Security Door Closer  
Regular Arm Application With or Without 7786 Back Plate  
Power Sizes 0 for R7500 & 7570; 2, 3, 4, 5 or 6 for R7700 & 7770**



TEMPLATE NUMBER	REV	DATE
7377-0601	3	12/21



Notes:

- Do not scale drawing.
- All dimensions shown in inches (mm) .
- Left hand door shown.
- Caution: Hollow metal doors require channel or box type reinforcement.
- Series UNI-7500H, UNI-7500BF-H, UNI-7700H door closers are furnished with a hold open arm function and are not permitted to be used on fire door assemblies.

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

Door Opening Angle		Dimensions★							
Hold Open ★★	Dead Stop	Butts and Offset Pivots				Center Pivots			
		Dimension A		Dimension B		Dimension A		Dimension B	
		Inches	mm	Inches	mm	Inches	mm	Inches	mm
85°	90°	12-3/4	324	13	330	13-3/4	349	14	356
90°	95°	12	305	12-1/4	311	12-7/8	327	13-1/8	333
95°	100°	11-1/2	292	11-3/4	298	12-1/4	311	12-1/2	318
100°	105°	10-7/8	276	11-1/8	283	11-5/8	295	11-7/8	302
105°	110°	10-1/2	267	10-3/4	273	11-1/8	283	11-3/8	289
110°	115°	10	254	10-1/4	260	10-3/4	273	11	279

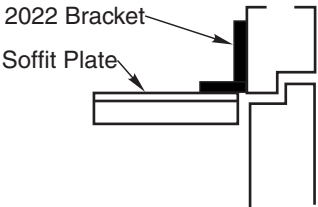
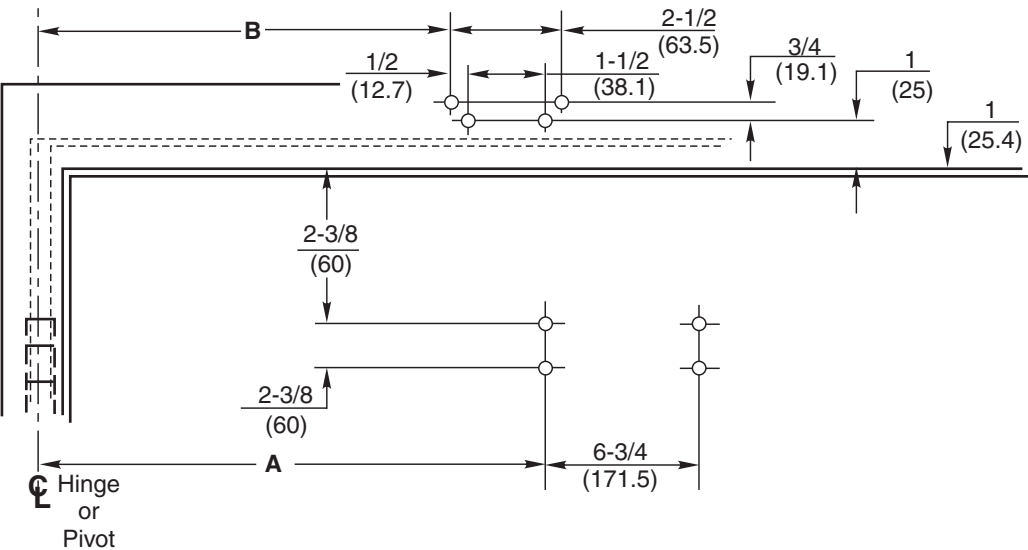
★ "A" and "B" dimensions measured from centerline of hinge or pivot.  
★★ Door must be free to swing up to 5° beyond hold open position.

Unitrol® with 2022 Bracket  
Series UNI-7500, UNI-7700 or  
Series UNI-7500H, UNI-7700H  
Doors 33"-41" (0.85-1.00m) Wide

Parallel Arm Installation Template —  
Flush Partitions  
Stop Only or Stop and Hold Open  
Unitrol® Door Closer



TEMPLATE NUMBER	REV	DATE
7377-1355	3	12/21



Notes:

- Do not scale drawing.
- All dimensions shown in inches (mm) .
- Left hand door shown.
- Caution: Hollow metal doors require channel or box type reinforcement.
- Series UNI-7500H, UNI-7500BF-H, UNI-7700H door closers are furnished with a hold open arm function and are not permitted to be used on fire door assemblies.

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

Door Opening Angle		Dimensions★							
Hold Open ★★	Dead Stop	Butts and Offset Pivots				Center Pivots			
		Dimension A		Dimension B		Dimension A		Dimension B	
		Inches	mm	Inches	mm	Inches	mm	Inches	mm
85°	90°	10-1/4	260	10-5/8	270	11-1/4	286	11-5/8	295
90°	95°	9-5/8	244	10	254	10-1/2	267	10-7/8	276
95°	100°	9-1/8	232	9-1/2	241	10	254	10-3/8	264
100°	105°	8-3/4	222	9-1/8	232	9-1/2	241	9-7/8	251
105°	110°	8-3/8	213	8-3/4	222	9-1/8	232	9-1/2	241
110°	115°	8	203	8-3/8	213	8-3/4	222	9-1/8	232

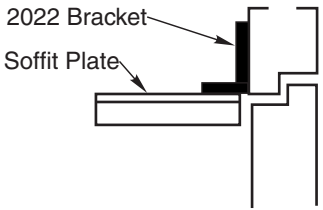
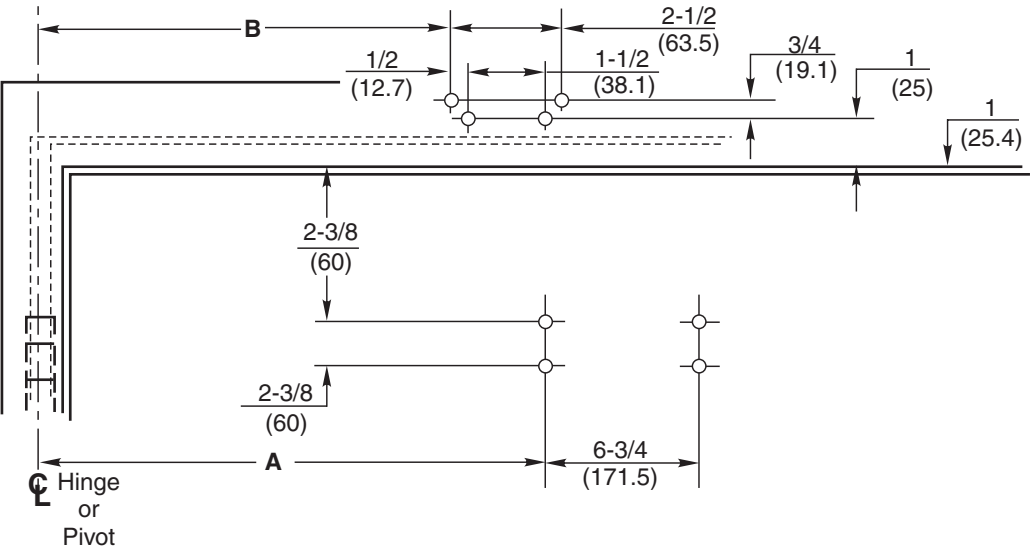
★ "A" and "B" dimensions measured from centerline of hinge or pivot.  
★★ Door must be free to swing up to 5° beyond hold open position.

Unitrol® with 2022 Bracket  
Series UNI-7500, UNI-7700 or  
Series UNI-7500H, UNI-7700H  
Doors 28"-32" (0.70-0.80m) Wide

Parallel Arm Installation Template —  
Flush Partitions  
Stop Only or Stop and Hold Open  
Unitrol® Door Closer



TEMPLATE NUMBER	REV	DATE
7377-1354	3	12/21



Notes:

- Do not scale drawing.
- All dimensions shown in inches (mm) .
- Left hand door shown.
- Caution: Hollow metal doors require channel or box type reinforcement.
- Series UNI-7500H, UNI-7500BF-H, UNI-7700H door closers are furnished with a hold open arm function and are not permitted to be used on fire door assemblies.

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

Door Opening Angle		Dimensions★							
Hold Open ★★	Dead Stop	Butts and Offset Pivots				Center Pivots			
		Dimension A		Dimension B		Dimension A		Dimension B	
		Inches	mm	Inches	mm	Inches	mm	Inches	mm
85°	90°	14-7/8	378	15-1/4	387	15-7/8	403	16-1/4	413
90°	95°	14	356	14-3/8	365	15	381	15-3/8	391
95°	100°	13-3/8	340	13-3/4	349	14-1/4	362	14-5/8	371
100°	105°	12-3/4	324	13-1/8	333	13-5/8	346	14	356
105°	110°	12-1/4	311	12-5/8	321	13	330	13-3/8	340
110°	115°	11-7/8	302	12-1/4	311	12-1/2	318	12-7/8	327

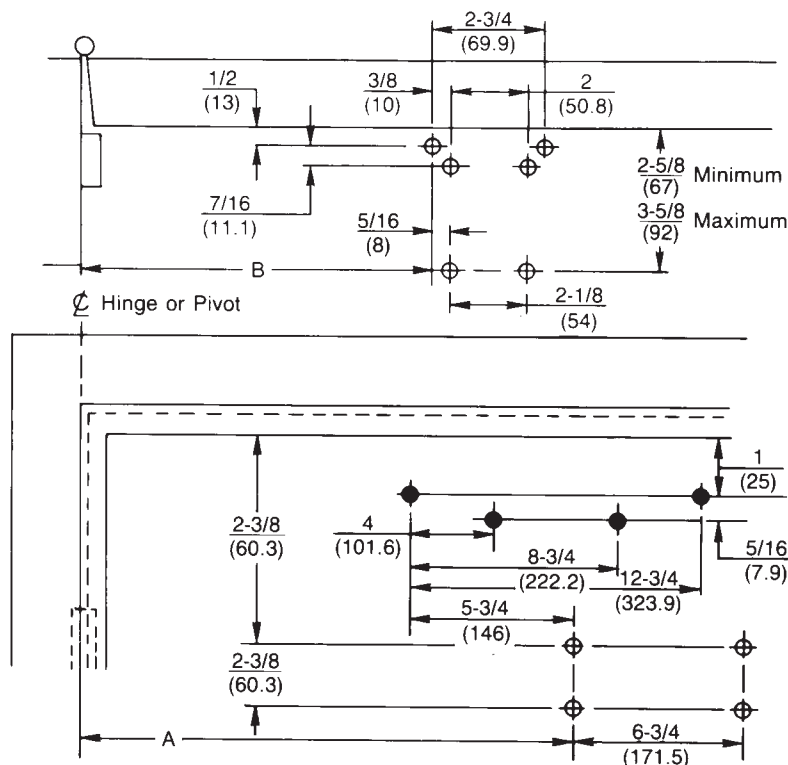
★ "A" and "B" dimensions measured from centerline of hinge or pivot.  
★★ Door must be free to swing up to 5° beyond hold open position.

Unitrol® with 2022 Bracket  
Series UNI-7500, UNI-7700 or  
Series UNI-7500H, UNI-7700H  
Doors 42"-48" (1.05-1.20m) Wide

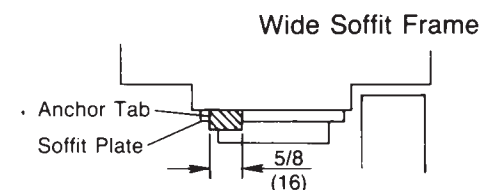
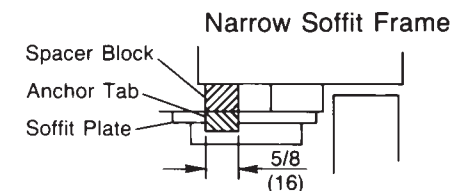
Parallel Arm Installation Template —  
Flush Partitions  
Stop Only or Stop and Hold Open  
Unitrol® Door Closer



TEMPLATE NUMBER	REV	DATE
7377-1356	3	12/21



◆ 7788 drop plate mounting holes only



#### Notes:

- Do not scale drawing.
- All dimensions shown in inches (mm.).
- Left hand door shown.
- Caution: Hollow metal doors require channel or box type reinforcement.

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"dia.) 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

Door Opening Angle		Dimensions*							
Hold Open**	Dead Stop	Butts and Offset Pivots				Center Pivots			
		Dimension A		Dimension B		Dimension A		Dimension B	
		Inches	mm.	Inches	mm.	Inches	mm.	Inches	mm.
85°	90°	10 1/4	260	10 1/2	267	11 1/4	286	11 1/2	292
90°	95°	9 5/8	244	9 7/8	251	10 1/2	267	10 3/4	273
95°	100°	9 1/8	232	9 3/8	238	10	254	10 1/4	260
100°	105°	8 3/4	222	9	229	9 1/2	241	9 3/4	248
105°	110°	8 5/8	213	8 5/8	219	9 1/8	232	9 5/8	238
110°	115°	8	203	8 1/4	210	8 3/4	222	9	229

\* "A" and "B" dimensions measured from centerline of hinge or pivot.  
\*\* Door must be free to swing up to 5° beyond hold open position.

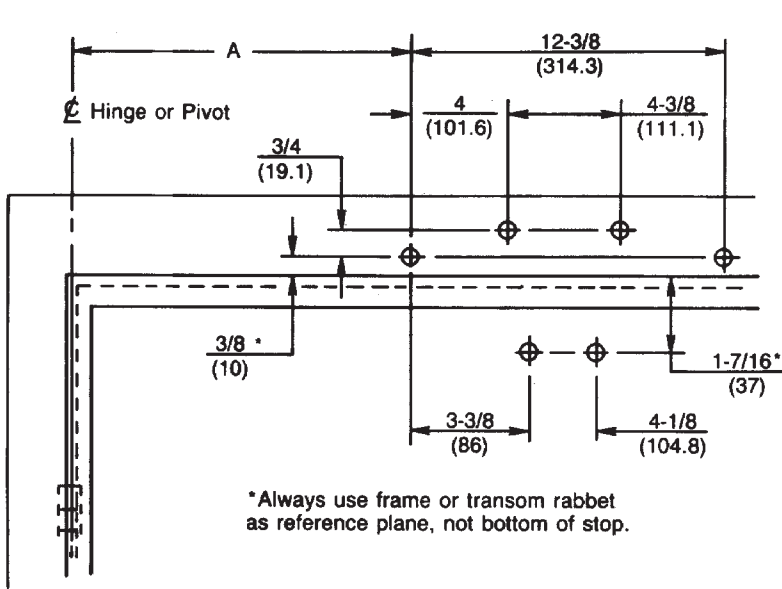
**Unitrol® with 6191 Reinforcing Kit**  
**Series UNI-7500 & UNI-7700**  
**Doors 28"-32" (0.70-0.80m) Wide**

**Parallel Arm Installation Template**  
**Stop Only or Hold Open Unitrol®**  
**Backcheck or Delayed Action Door Closer**  
**With or Without 7788 Drop Plate**

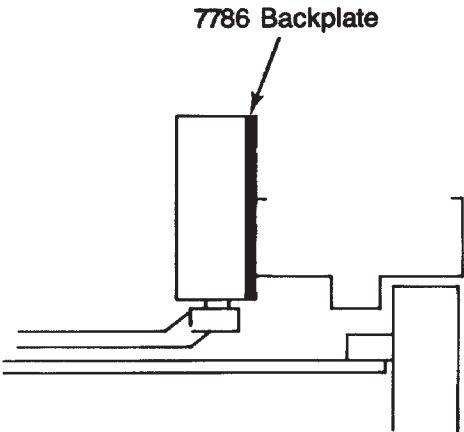
**NORTON RIXSON**  
**ASSA ABLOY**

TEMPLATE NUMBER	REV	DATE
<b>7377-1357</b>	<b>3</b>	<b>12/21</b>

Approved 2022-02-25

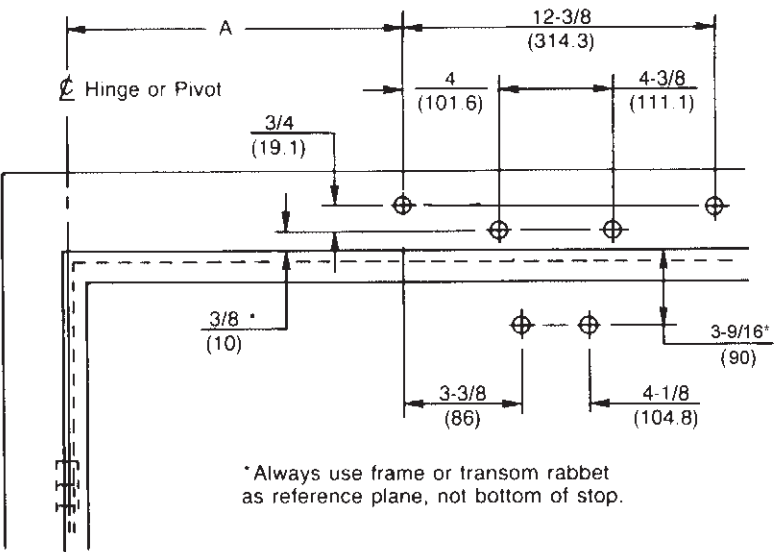


- Notes:
- Do not scale drawing.
  - All dimensions shown in inches (mm.).
  - Left hand door shown.
  - Caution: Hollow metal doors require channel or box type reinforcement. Hollow metal frames require full width header reinforcement.

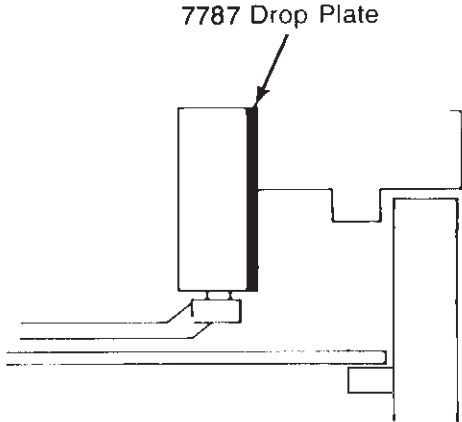


Preparation for Fasteners		Figure 6.	
Fasteners	Application	Door or Frame	Drill Sizes
Sex-nuts and bolts	Arm-foot	Hollow Metal	9/32" (7.00mm.) through 3/8" (9.50mm.) door face opposite to closer
		Aluminum or Wood	3/8" (9.50mm.) through
#14 x 1-1/4" (32mm.) type "A" S.M. screws	7786 closer-backplate	Wood	3/16" (4.30mm.)
1/4-20 machine screw		Metal	drill: #7 (.201"dia.) 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

Door Opening Angle		Dimensions			
Hold Open	Dead Stop	Butts and Offset Pivots		Center Pivots	
		Dimension A		Dimension A	
		Inches	mm.	Inches	mm.
85°	90°	9¾	248	10¼	260
90°	95°	9⅞	232	9⅝	244
95°	100°	8½	216	9⅛	232
100°	105°	8	203	8⅝	219
105°	110°	7¾	197	8⅞	206
110°	115°	7⅞	187	7⅞	200



- Notes:
- Do not scale drawing.
  - All dimensions shown in inches (mm.).
  - Left hand door shown.
  - Caution: Hollow metal doors require channel or box type reinforcement. Hollow metal frames require full width header reinforcement.



Preparation for Fasteners		Figure 6.	
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
		Aluminum or Wood	3/8" (9.50mm.) through
#14 x 1-1/4" (32mm.) type "A" S.M. screws	Drop plate	Wood	3/16" (4.30mm.)
1/4-20 machine screw		Metal	drill: #7 (.201" dia.) 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

Door Opening Angle		Dimensions			
Hold Open	Dead Stop	Butts and Offset Pivots		Center Pivots	
		Dimension A		Dimension A	
		Inches	mm.	Inches	mm.
85°	90°	9¾	248	10¼	260
90°	95°	9⅛	232	9⅝	244
95°	100°	8½	216	9⅛	232
100°	105°	8	203	8⅝	219
105°	110°	7¾	197	8⅛	206
110°	115°	7⅝	187	7⅞	200



**Installation Dimensions Chart**

	Dim	Up to 100°	100°-130°	130°-150°	150°-180°
PRO7500	A in.	8-3/4	7-1/4	6-1/4	5-1/4
PRO7700	B in.	9-1/4	7-3/4	6-3/4	5-3/4
	(mm)	(222)	(184)	(159)	(133)
	(mm)	(235)	(197)	(171)	(146)

**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.

**Preparation for Fasteners**

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

- Prepare These Holes Only When No. 7788 Drop Plate is Used
- ⊕ Prepare These Holes When Not Using No. 7788 Drop Plate
- ⊙ Prepare These Holes For Soffit Plate