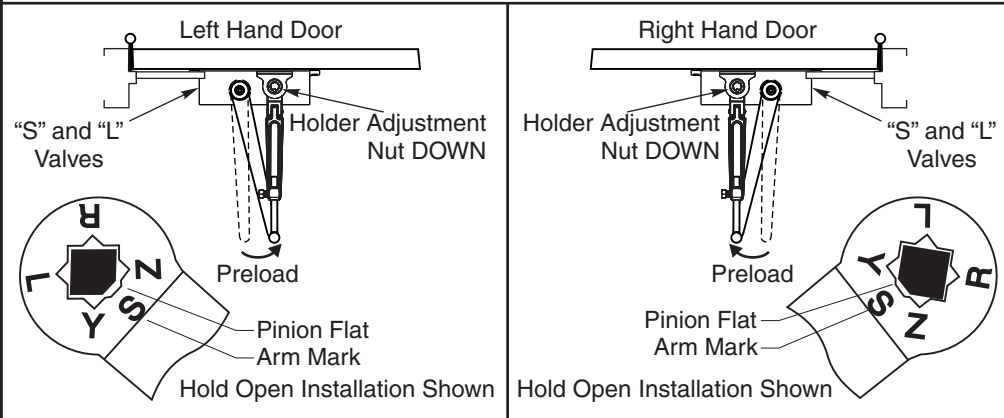


- Notes:
- 1. Do not scale drawing.
 - 2. Left hand door shown.
 - 3. Dimensions given in inches (millimeters).
 - 4. Door swing may be limited by door, frame, wall or hardware conditions.
 - 5. Hollow metal doors require channel or box type reinforcement when thru-bolt mount is specified.
 - 6. Sleeve nuts and bolts may be 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.
 - 8. Hold open arm door closers without fusible-link release are not permitted to be used on fire doors.

Position of Arm and Pinion Flat

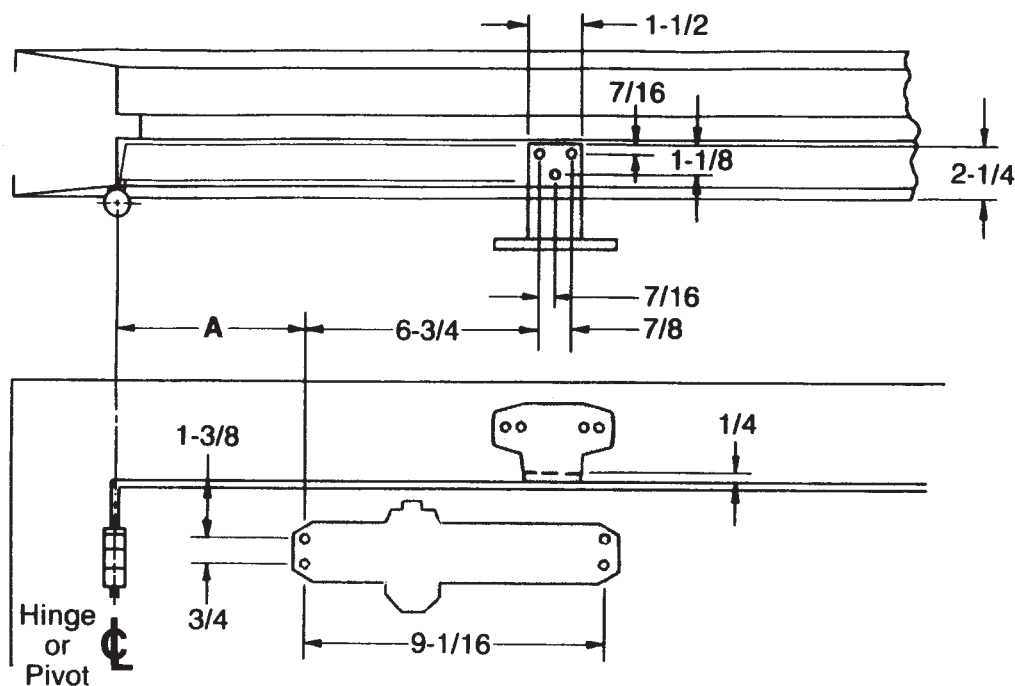


Fastener	Door or Frame	Drill
#14 type "A" sheet metal screw	wood	7/32" (5.5mm)
1/4-20 machine screw	metal	#7 (.201 dia.) or 5.10mm. drill 1/4"-20 tap
SNB (optional)	hollow-metal	9/32" (7.00mm.) thru 3/8" (9.50mm.) door face opposite to closer
	aluminum or wood	3/8" (9.50mm.) thru
TBGN (optional)	all	9/32" (7.00mm.) thru 3/8" (9.50mm.) diameter x 3/8" (10mm.) deep, door face opposite to closer

1600 or 1600H Series Door Closers
Corner Bracket Application With 1647 Corner Bracket
Non Hold Open or Hold Open Arm
Individually Sized Units 3 and 4 & Multi-size Unit 1-6



TEMPLATE NUMBER	REV	DATE
7316-1149	4	01/22



NOTES:

- Do not scale drawing.
- Right hand door shown.
- Dimensions shown in inches. Metric equivalents charted.
- .1046" (2.7mm.) minimum recommended for hollow-metal door and frame reinforcements.
- Hollow-metal doors require channel or box-type reinforcements when TBGN mount is specified for closers.

OPENING	DIM. A
To 100°	7
100° to 120°	6
Over 120°	3-1/2

METRIC CONVERSION					
inches	mm.	inches	mm.	inches	mm.
1/4	6.4	1-1/8	28.6	3-1/2	89
7/16	11.1	1-3/8	35	6	152
3/4	19.1	1-1/2	38.1	6-3/4	171
7/8	22.2	2-1/4	57.2	7	178
				9-1/16	230.2

PREPARATION FOR FASTENERS		
FASTENER	DOOR or FRAME	DRILL
#14 type "A" sheet metal screw	wood	7/32" (5.5mm)
1/4-20 machine screw	metal	#7 (.201" dia.) or 5.10mm. drill . . . 1/4-20 tap
SNB (optional)	hollow-metal	9/32" (7.00mm.) thru . . . 3/8" (9.50mm.) door face opposite to closer
	aluminum or wood	3/8" (9.50mm.) thru
TBGN (optional)	all	9/32" (7.00mm.) thru . . . 3/8" (9.50mm.) diameter x 3/8" (10mm.) deep, door face opposite to closer



TRADEMARK
HARDWARE

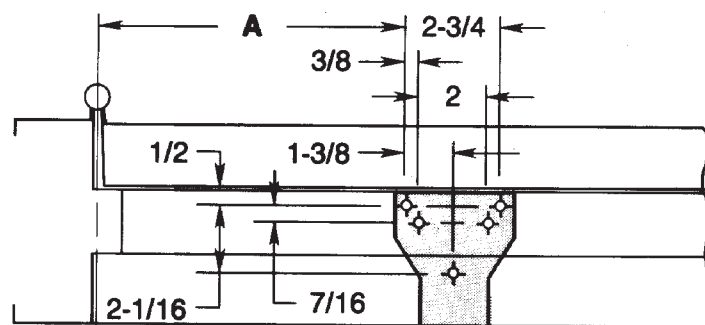
1600H Series Door Closers
Regular Arm Application With 80 Bracket for Molded or Bullnose Frame
Hold Open Arm
Individually Sized Units 3 and 4 & Multi-size Unit 1-6

**NORTON
RIXSON**

ASSA ABLOY

TEMPLATE NUMBER	REV	DATE
7316-1112	4	12/21

Approved 2022-02-25



Door Opening ★	DIM. A	DIM. B	DIM. C
85°	11-1/8	9-1/8	10-1/8
90°	10-3/8	8-3/8	9-3/8
95°	9-5/8	7-5/8	8-5/8
100°	9	7	8
105°	8-3/8	6-3/8	7-3/8
110°	7-3/4	5-3/4	6-3/4

★ 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.

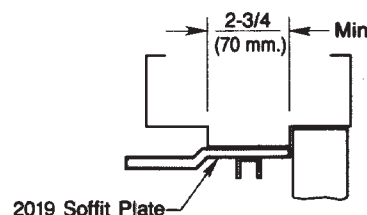
Hold Open Arm door closers are not permitted to be used on fire doors.

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

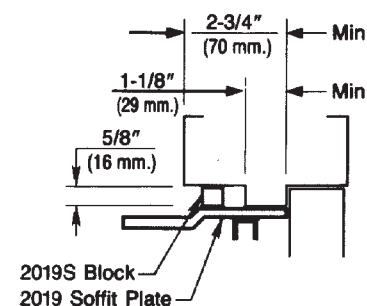
Minimum thickness recommended for reinforcements in hollow-metal doors and frames: .1046" (2.66mm.).

Follow Conversion Chart for metric dimensions.

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

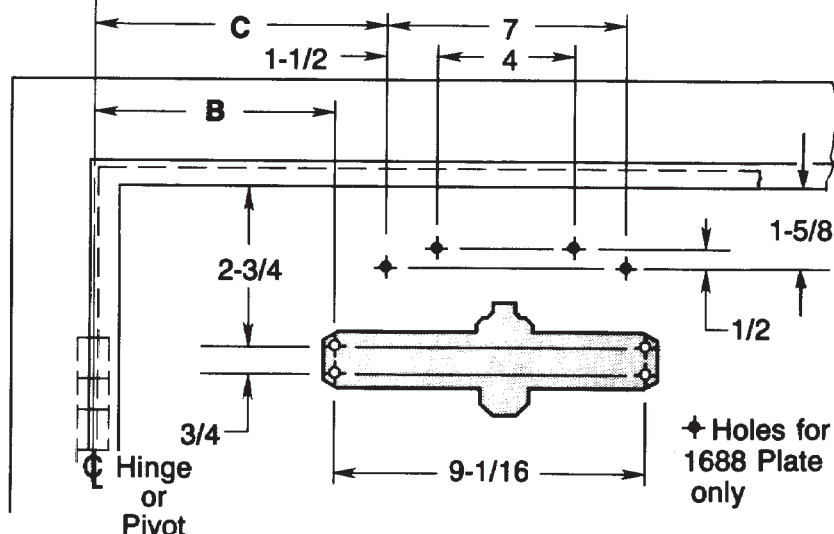


Wide Stop Frame

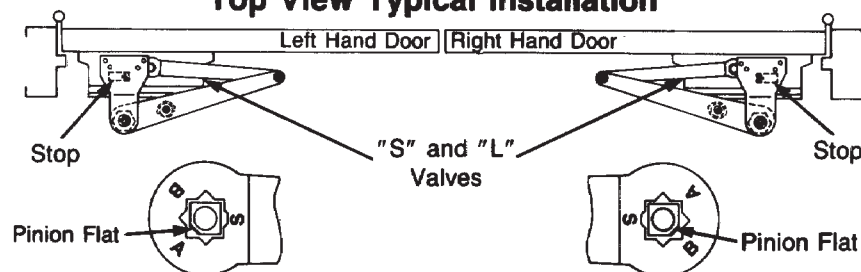


Narrow Stop Frame

in.	mm.	in.	mm.	in.	mm.	in.	mm.
		2	50.8	7-3/8	187	9-1/16	230.2
3/8	9.5	2-1/16	52.4	7-5/8	194	9-1/8	232
7/16	11.1	2-3/4	69.9	7-3/4	197	9-3/8	238
1/2	12.7	4	101.6	8	203	9-5/8	244
3/4	19.1	5-3/4	146	8-3/8	213	10-1/8	257
1-3/8	34.9	6-3/8	162	8-5/8	219	10-3/8	264
1-1/2	38.1	6-3/4	171	9	229	11-1/8	283
1-5/8	41	7	177.8				



Top View Typical Installation



Fastener	Frame	Door	Drill
#14 type "A" sheet metal screw	wood	none	7/32" (5.5mm)
1/4-20 machine screw	metal	none	#7 (.201 dia.) or 5.10mm. drill 1/4"-20 tap
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-1600(BC) Series CloserPlus®
CPS-1600 (BC) Series CloserPlus™ Spring™ Arm
Parallel Arm Application With or Without 1688 Drop Plate
Arm Function: Stop Only or Stop & Hold Open Arm ("T" Suffix)
Power Sizes 1-6, 3BC, 4BC

Approved 2022-02-25

NORTON
RIXSON

ASSA ABLOY

TEMPLATE NUMBER	REV	DATE
7316-2302	4	12/21

1/2 (13) 1-1/2 (38) 7/8 (22) 5-1/2 (140) 1-3/4 (44.5) 2-1/4 (57) 4 (105) 7 (177.8) A

Reveal

⊕ Hinge or Pivot

Notes:

- Do not scale drawing.
- Left hand door shown.
- Dimensions given in inches (millimeters).
- 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.
- Sleeve nuts and 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.
- Hold open arm door closers without fusible-link release are not permitted to be used on fire doors.

Opening	Dimension "A"
To 100°	8" (203)
101° to 120°	6-1/2" (165)
over 120°	4" (105)

Reveal	Closer Series
0 to 3" (0 to 76)	1600
3" to 7" (76 to 178)	J1600
0 to 2-1/4" (0 to 57)	1600H/1600HFL
2-1/4" to 5" (57 to 127)	J1600H/J1600HFL

Position of Arm and Pinion Flat

Left Hand Door

"S" and "L" Valves
Holder Adjustment Nut DOWN
Preload
Pinion Flat
Arm Mark
Hold Open Installation Shown

Right Hand Door

"S" and "L" Valves
Holder Adjustment Nut DOWN
Preload
Pinion Flat
Arm Mark
Hold Open Installation Shown

Fastener	Door or Frame	Drill
#14 type "A" sheet metal screw	wood	7/32" (5.5mm)
1/4-20 machine screw	metal	#7 (.201 dia.) or 5.10mm. drill 1/4"-20 tap
SNB (optional)	hollow-metal	9/32" (7.00mm.) thru 3/8" (9.50mm.) door face opposite to closer
	aluminum or wood	3/8" (9.50mm.) thru
TBGN (optional)	all	9/32" (7.00mm.) thru 3/8" (9.50mm.) diameter x 3/8" (10mm.) deep, door face opposite to closer

TRADEMARK
HARDWARE

(J)1600 and (J)1600H Series Door Closers
Top Jamb Application With 1687 Drop Plate
Non Hold Open or Hold Open Arm
Individually Sized Units 3 and 4 & Multi-size Unit 1-6

ASSA ABLOY

TEMPLATE NUMBER	REV	DATE
7316-1158	4	01/22

Approved 2022-02-25

Hinge or Pivot

Opening	Dimension "A"
To 100°	8" (203)
101° to 120°	6-1/2" (165)
over 120°	4" (105)

Reveal	Closer Series
0 to 3" (0 to 76)	1600
2-7/8" to 7" (73 to 178)	J1600
0 to 2-3/4" (0 to 70)	1600H/1600HFL
2-3/4" to 6-3/4" (70 to 171)	J1600H/J1600HFL

Notes:

- Do not scale drawing.
- Left hand door shown.
- Dimensions given in inches (millimeters).
- 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.
- Sleeve nuts and 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.
- Hold open arm door closers without fusible-link release are not permitted to be used on fire doors.

Position of Arm and Pinion Flat

Left Hand Door

"S" and "L" Valves
Holder Adjustment Nut DOWN
Preload
Pinion Flat
Arm Mark
Hold Open Installation Shown

Right Hand Door

"S" and "L" Valves
Holder Adjustment Nut DOWN
Preload
Pinion Flat
Arm Mark
Hold Open Installation Shown

Fastener	Door or Frame	Drill
#14 type "A" sheet metal screw	wood	7/32" (5.5mm)
1/4-20 machine screw	metal	#7 (.201 dia.) or 5.10mm. drill 1/4"-20 tap
SNB (optional)	hollow-metal	9/32" (7.00mm.) thru 3/8" (9.50mm.) door face opposite to closer
	aluminum or wood	3/8" (9.50mm.) thru
TBGN (optional)	all	9/32" (7.00mm.) thru 3/8" (9.50mm.) diameter x 3/8" (10mm.) deep, door face opposite to closer

TRADEMARK
HARDWARE

(J)1600 and (J)1600H Series Door Closers
Top Jamb Application With 1688 Drop Plate
Non Hold Open or Hold Open Arm
Individually Sized Units 3 and 4 & Multi-size Unit 1-6

NORTON
RIXSON

ASSA ABLOY

TEMPLATE NUMBER	REV	DATE
7316-1160	4	01/22

Approved 2022-02-25

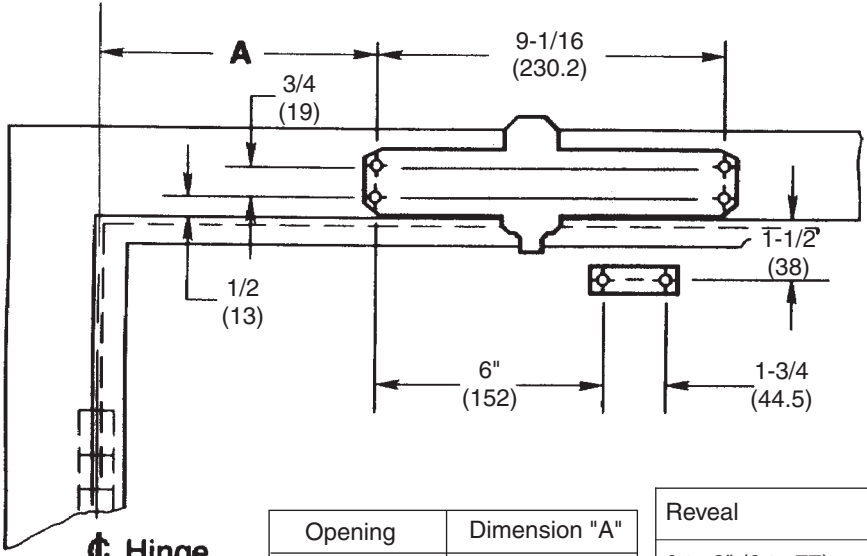


Diagram showing the main components and dimensions of the door closer arm and pinion assembly. Dimensions include: A (overall length), 3/4 (19), 9-1/16 (230.2), 1-1/2 (38), 1/2 (13), 6" (152), and 1-3/4 (44.5). A label 'Hinge or Pivot' points to the pivot point.

Notes:

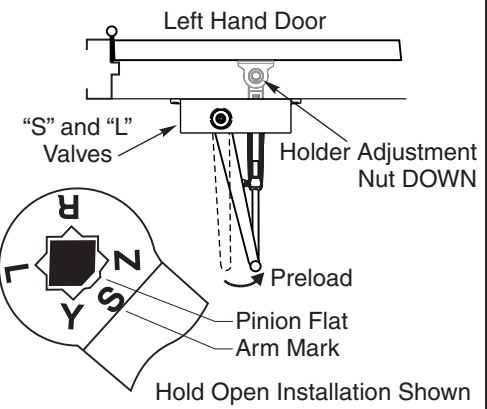
1. Do not scale drawing.
2. Left hand door shown.
3. Dimensions given in inches (millimeters).
4. Door swing may be limited by door, frame, wall or hardware conditions.
5. Hollow metal doors require channel or box type reinforcement when thru-bolt mount is specified.
6. Sleeve nuts and bolts may be required 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.
8. Hold open arm door closers are not permitted to be used on fire doors.

Opening	Dimension "A"
To 100°	7-1/2 (191)
101° to 120°	6" (152)
over 120°	3-1/2 (89)

Reveal	Closer Series
0 to 3" (0 to 77)	1600
2-7/8" to 7" (73 to 178)	J1600
0 to 2-3/4" (0 to 70)	1600H
2-3/4" to 6-3/4" (70 to 171)	J1600H

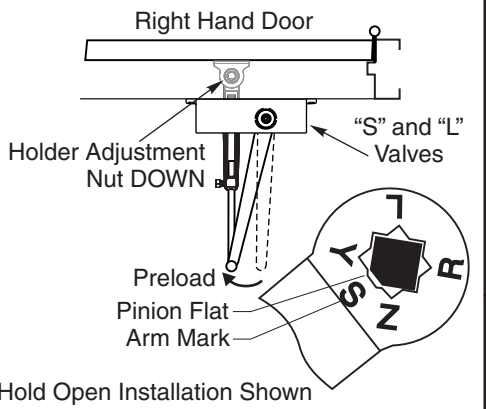
Position of Arm and Pinion Flat

Left Hand Door




"S" and "L" Valves
Holder Adjustment Nut DOWN
Preload
Pinion Flat
Arm Mark
Hold Open Installation Shown

Right Hand Door




"S" and "L" Valves
Holder Adjustment Nut DOWN
Preload
Pinion Flat
Arm Mark
Hold Open Installation Shown

Fastener	Door or Frame	Drill
#14 type "A" sheet metal screw	wood	7/32" (5.5mm)
1/4-20 machine screw	metal	#7 (.201 dia.) or 5.10mm. drill 1/4"-20 tap
SNB (optional)	hollow-metal	9/32" (7.00mm.) thru 3/8" (9.50mm.) door face opposite to closer
	aluminum or wood	3/8" (9.50mm.) thru
TBGN (optional)	all	9/32" (7.00mm.) thru 3/8" (9.50mm.) diameter x 3/8" (10mm.) deep, door face opposite to closer



TRADEMARK
HARDWARE

(J)1600 and (J)1600H Series Door Closers
Top Jamb Application
Non Hold Open or Hold Open Arm
Individually Sized Units 3 and 4 & Multi-size Units 1-6

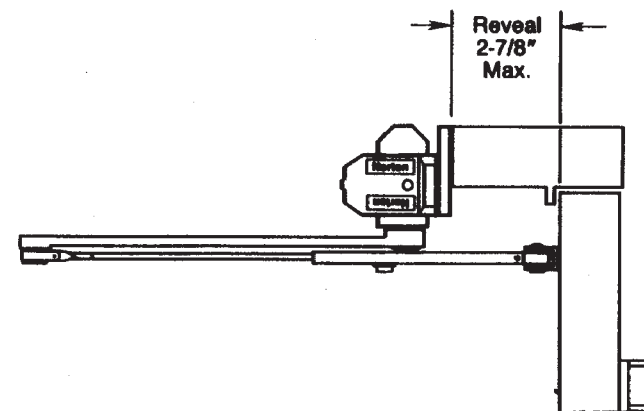
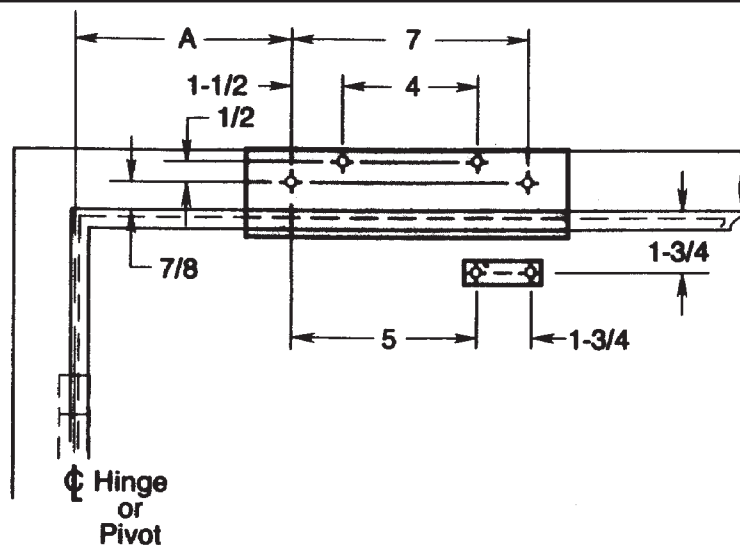


NORTON
RIXSON

ASSA ABLOY

TEMPLATE NUMBER	REV	DATE
7316-1152	4	01/22

Approved 2022-02-25



Notes:

- Do not scale drawing.
- Left hand door shown.
- Maximum reveal in 2-7/8 inches.
- Dimensions are in inches. See conversion chart for metric dimensions.

Opening	Dim. A
To 100°	8-1/2
100° to 120°	7
Over 120°	4-1/2

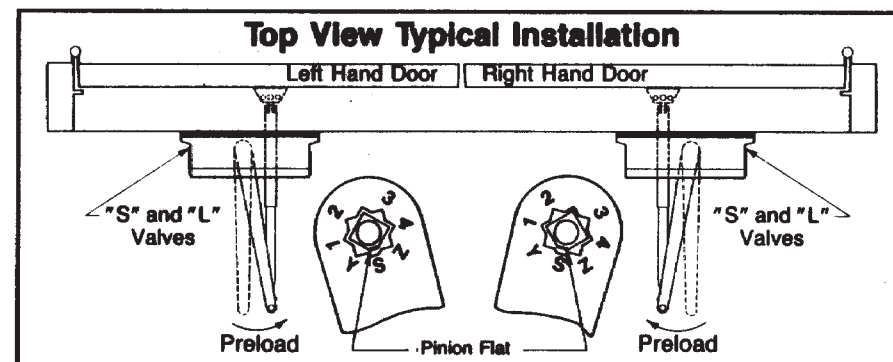
inches	mm.	inches	mm.
1/2	12.7	4-1/2	114
7/8	19.1	5	127
1-1/2	38.1	7	177.8
1-3/4	44.5	8-1/2	216
4	101.6		

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 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.



Fastener	Door or Frame	Drill
#14 type "A" sheet metal screw	wood	7/32" (5.5mm)
1/4-20 machine screw	metal	#7 (.201 dia.) or 5.10mm. drill 1/4"-20 tap
SNB (optional)	hollow-metal	9/32" (7.00mm.) thru 3/8" (9.50mm.) door face opposite to closer
	aluminum or wood	3/8" (9.50mm.) thru
TBGN (optional)	all	9/32" (7.00mm.) thru 3/8" (9.50mm.) diameter x 3/8" (10mm.) deep, door face opposite to closer



TRADEMARK
 HARDWARE

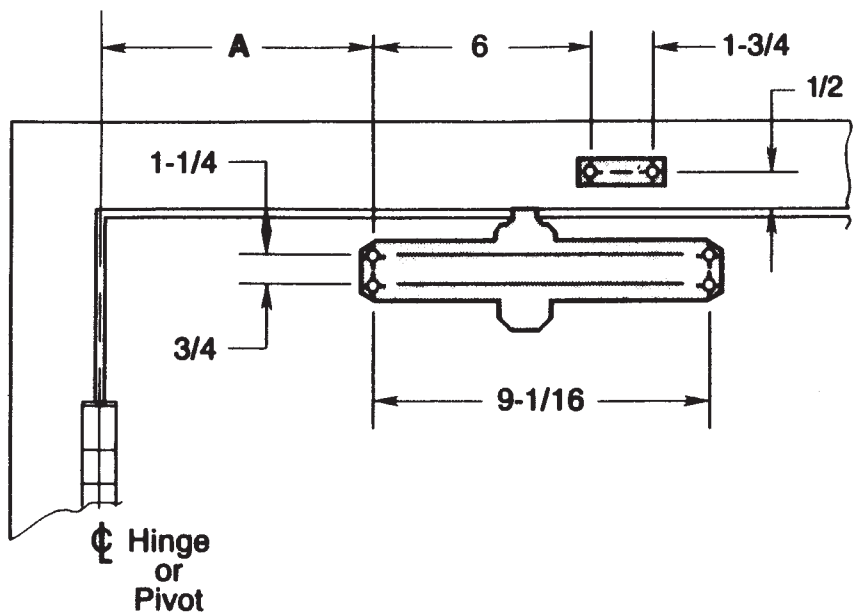
(J)1680 Series Door Closers With Low Profile Arm
 Top Jamb Application With 1687 Drop Plate
 Non Hold Open Arm
 Individually Sized Units 3 and 4 & Multi-size Unit 1-6

NORTON
 RIXSON

ASSA ABLOY

TEMPLATE NUMBER	REV	DATE
7316-1162	4	12/21

Approved 2022-02-25

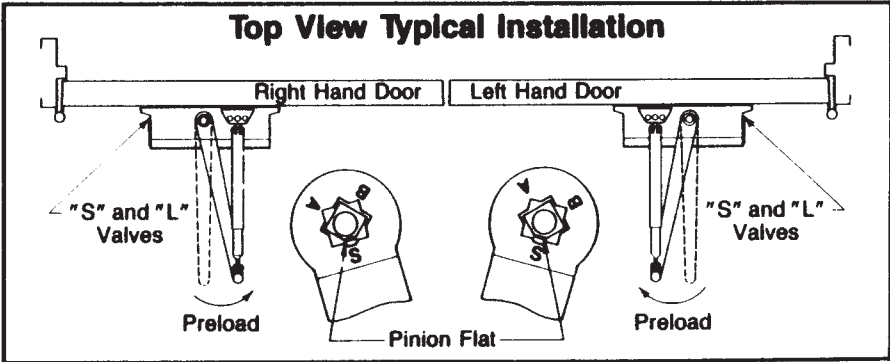
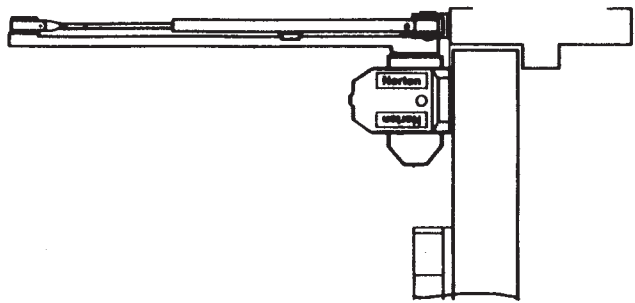


Opening	Dim. A
To 100°	7
100° to 120°	6
Over 120°	3-1/2

- Notes:**
- Do not scale drawing.
 - Right hand door shown.
 - Dimensions are in inches. See conversion chart for metric dimensions.

inches	mm.	inches	mm.
1/2	13	3-1/2	89
3/4	19.1	6	152
1-1/4	32	7	178
1-3/4	44.5	9-1/16	230.2

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 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.



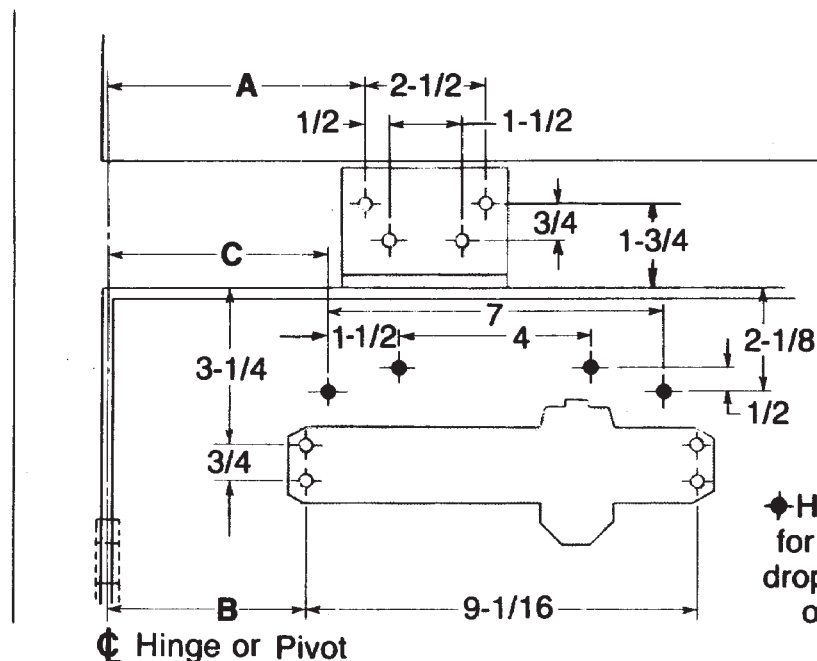
Fastener	Door or Frame	Drill
#14 type "A" sheet metal screw	wood	7/32" (5.5mm)
1/4-20 machine screw	metal	#7 (.201 dia.) or 5.10mm. drill 1/4"-20 tap
SNB (optional)	hollow-metal	9/32" (7.00mm.) thru 3/8" (9.50mm.) door face opposite to closer
	aluminum or wood	3/8" (9.50mm.) thru
TBGN (optional)	all	9/32" (7.00mm.) thru 3/8" (9.50mm.) diameter x 3/8" (10mm.) deep, door face opposite to closer



1600 Series Door Closers With Low Profile Arm
Regular Arm Application
Non Hold Open Arm
Individually Sized Units 3 and 4 & Multi-size Unit 1-6



TEMPLATE NUMBER	REV	DATE
7316-1106	4	12/21



NOTES:

- Do not scale drawing.
- Left hand door shown.
- Dimensions shown in inches. Metric equivalents charted.

- .1046" (2.7mm.) minimum recommended for hollow-metal door and frame reinforcements.
- SNB required to mount closer on steel covered composite type, sheet metal type, or hollow-metal type fire doors provided without reinforcements.
- Hold Open Arm door closers without Fusible-link release are not permitted to be used on fire doors.
- SNB or TBGN may be required to mount closer on wood or plastic faced composite type fire doors.
- Hollow-metal doors require channel or box-type reinforcements when TBGN mount is specified for closers.

OPENING	DIM. A	DIM. B	DIM. C
To 100°	9-3/8	7-5/8	8-5/8
100° to 130°	7-7/8	6-1/8	7-1/8
Over 130°	5-7/8	4-1/8	5-1/8

METRIC CONVERSION					
inches	mm.	inches	mm.	inches	mm.
1/2	12.7	4	101.6	7-1/8	181
3/4	19.1	4-1/8	105	7-5/8	194
1-1/2	38.1	5-1/8	130	7-7/8	200
1-3/4	44	5-7/8	149	8-5/8	219
2-1/8	54	6-1/8	156	9-1/16	230.2
2-1/2	63.5	7	177.8	9-3/8	238
3-1/4	83				

PREPARATION FOR FASTENERS		
FASTENER	DOOR or FRAME	DRILL
#14 type "A" sheet metal screw	wood	7/32" (5.5mm)
1/4-20 machine screw	metal	#7 (.201" dia.) or 5.10mm. drill . . . 1/4-20 tap
SNB (optional)	hollow-metal	9/32" (7.00mm.) thru . . . 3/8" (9.50mm.) door face opposite to closer
	aluminum or wood	3/8" (9.50mm.) thru
TBGN (optional)	all	9/32" (7.00mm.) thru . . . 3/8" (9.50mm.) diameter x 3/8" (10mm.) deep, door face opposite to closer



TRADEMARK
HARDWARE

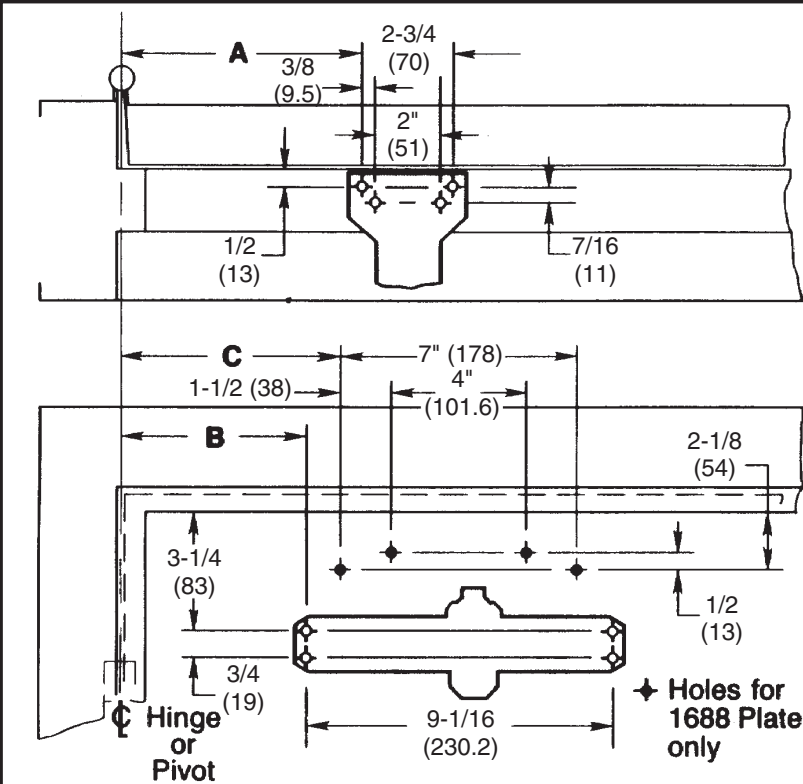
(P)1600 and (P)1600H Series Door Closers
Parallel Arm Applications with 2022 Flush Transom Bracket
and with or without 1688 Drop Plate
Non Hold Open or Hold Open Arm
Individually Sized Units 3 and 4 & Multi-sized Unit 1-6

NORTON
RIXSON

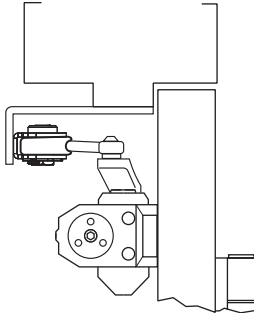
ASSA ABLOY

TEMPLATE NUMBER	REV	DATE
7316-1208	4	12/21

Approved 2022-02-25



Opening	Dim. "A"	Dim. "B"	Dim. "C"
To 100°	9-1/4" (235)	7-5/8" (194)	8-5/8" (219)
101° to 130°	7-3/4" (197)	6-1/8" (156)	7-1/8" (181)
over 130°	5-3/4" (146)	4-1/8" (105)	5-1/8" (130)



- Notes:
1. Do not scale drawing.
 2. Left hand door shown.
 3. Dimensions given in inches (millimeters).
 4. 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. Sleeve nuts and bolts may be 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.
 8. Hold open arm door closers are not permitted to be used on fire doors.

Position of Arm and Pinion Flat

Left Hand Door

Holder Adjustment Nut DOWN

Pinion Flat Arm Mark

Hold Open Installation Shown

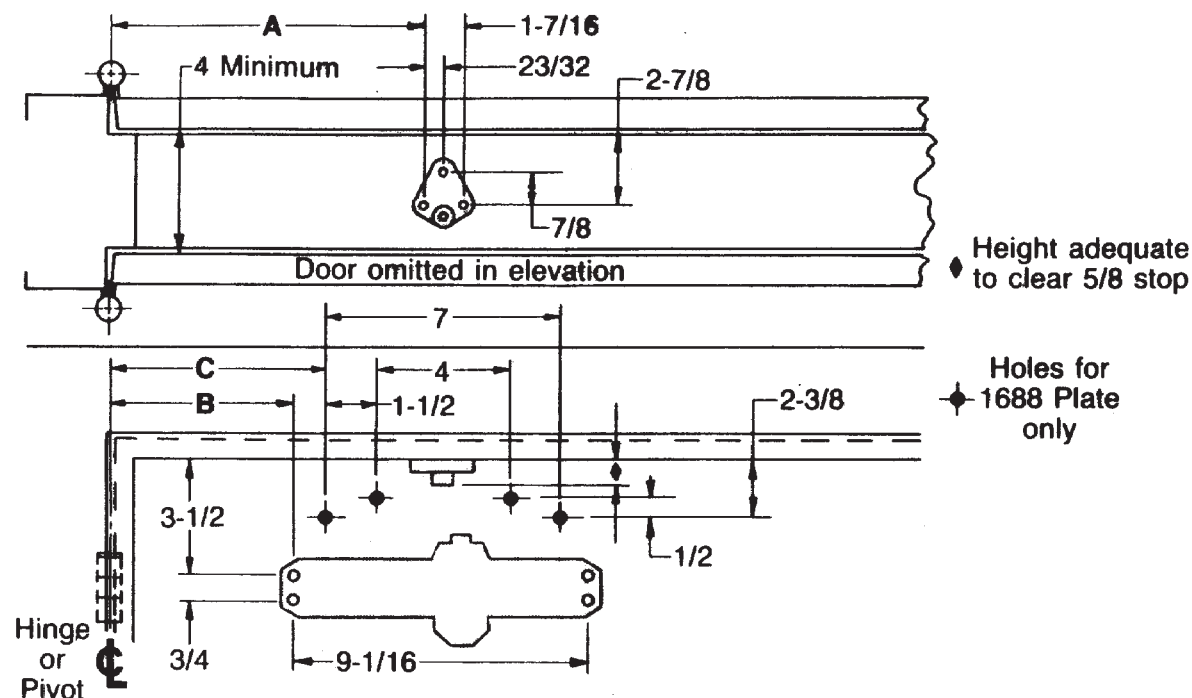
Right Hand Door

Holder Adjustment Nut DOWN

Pinion Flat Arm Mark

Hold Open Installation Shown

Fastener	Door or Frame	Drill
#14 type "A" sheet metal screw	wood	7/32" (5.5mm)
1/4-20 machine screw	metal	#7 (.201 dia.) or 5.10mm. drill 1/4"-20 tap
SNB (optional)	hollow-metal	9/32" (7.00mm.) thru 3/8" (9.50mm.) door face opposite to closer
	aluminum or wood	3/8" (9.50mm.) thru
TBGN (optional)	all	9/32" (7.00mm.) thru 3/8" (9.50mm.) diameter x 3/8" (10mm.) deep, door face opposite to closer



NOTES:

- Do not scale drawing.
- Left hand door shown.
- Dimensions shown in inches. Metric equivalents charted.
- .1046" (2.7mm.) minimum recommended for hollow-metal door and frame reinforcements.
- SNB required to mount closer on steel covered composite type, sheet metal type, or hollow-metal type fire doors provided without reinforcements.
- SNB or TBGN may be required to mount closer on wood or plastic faced composite type fire doors.
- Hollow-metal doors require channel or box-type reinforcements when TBGN mount is specified for closers.

OPENING	DIM. A	DIM. B	DIM. C
To 100°	9-7/8	7-5/8	8-5/8
100° to 130°	8-3/8	6-1/8	7-1/8
Over 130°	6-3/8	4-1/8	5-1/8

METRIC CONVERSION					
inches	mm.	inches	mm.	inches	mm.
1/2	12.7	2-3/8	60	6-3/8	162
5/8	16	2-7/8	73	7	177.8
23/32	18.3	3-1/2	89	7-1/8	181
3/4	19.1	4	101.6	7-5/8	194
7/8	22.2	4-1/8	105	8-3/8	213
1-7/16	36.5	5-1/8	130	8-5/8	219
1-1/2	38.1	6-1/8	156	9-1/16	230.2
				9-7/8	251

PREPARATION FOR FASTENERS		
FASTENER	DOOR or FRAME	DRILL
#14 type "A" sheet metal screw	wood	7/32" (5.5mm)
1/4-20 machine screw	metal	#7 (.201" dia.) or 5.10mm. drill ... 1/4-20 tap
SNB (optional)	hollow-metal	9/32" (7.00mm.) thru ... 3/8" (9.50mm.) door face opposite to closer
	aluminum or wood	3/8" (9.50mm.) thru
TBGN (optional)	all	9/32" (7.00mm.) thru ... 3/8" (9.50mm.) diameter x 3/8" (10mm.) deep, door face opposite to closer



TRADEMARK
 HARDWARE

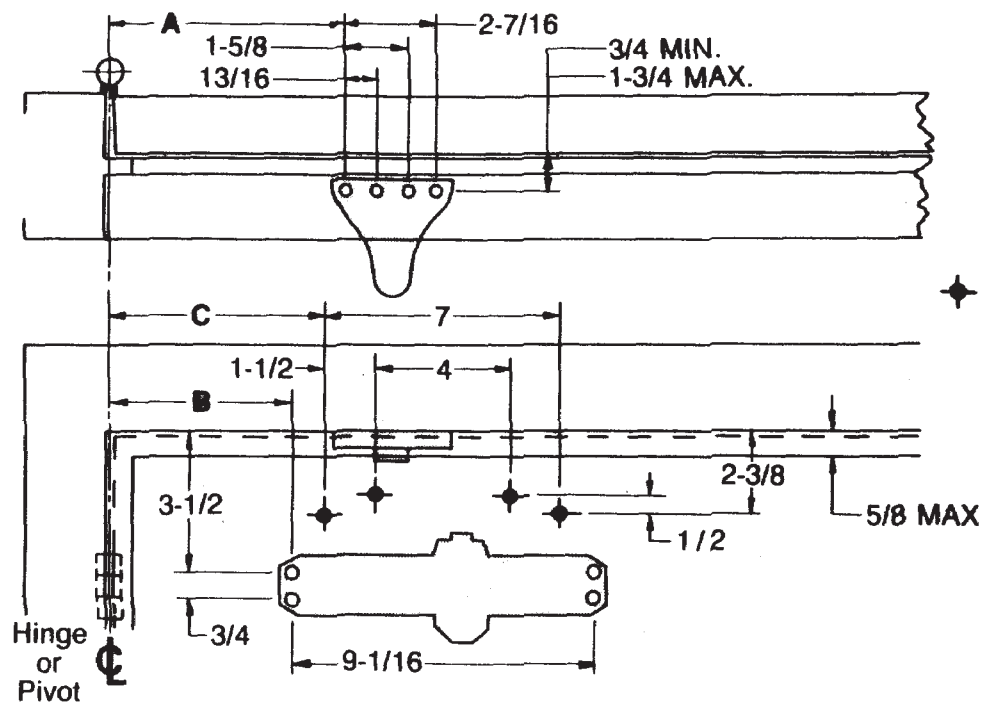
(P)1600 Series Door Closers
 Parallel Arm Application With 2018 Soffit Plate & With or Without 1688 Drop Plate
 Non Hold Open Arm
 Individually Sized Units 3 and 4 & Multi-size Unit 1-6

Approved 2022-02-25

NORTON
 RIXSON

ASSA ABLOY

TEMPLATE NUMBER	REV	DATE
7316-1214	4	12/21



NOTES:

- Do not scale drawing.
- Left hand door shown.
- Dimensions shown in inches. Metric equivalents charted.
- .1046" (2.7mm.) minimum recommended for hollow-metal door and frame reinforcements.
- SNB required to mount closer on steel covered composite type, sheet metal type, or hollow-metal type fire doors provided without reinforcements.
- SNB or TBGN may be required to mount closer on wood or plastic faced composite type fire doors.
- Hollow-metal doors require channel or box-type reinforcements when TBGN mount is specified for closers.

OPENING	DIM. A	DIM. B	DIM. C
To 100°	9-1/4	7-5/8	8-5/8
100° to 130°	7-3/4	6-1/8	7-1/8
Over 130°	5-3/4	4-1/8	5-1/8

METRIC CONVERSION					
inches	mm.	inches	mm.	inches	mm.
1/2	12.7	2-7/16	61.9	7	177.8
5/8	16	3-1/2	89	7-1/8	181
3/4	19.1	4	101.6	7-5/8	194
13/16	20.6	4-1/8	105	7-3/4	197
1-1/2	38.1	5-1/8	130	8-5/8	219
1-5/8	41.3	5-3/4	146	9-1/16	230.2
1-3/4	45	6-1/8	156	9-1/4	235
2-3/8	60				

PREPARATION FOR FASTENERS		
FASTENER	DOOR or FRAME	DRILL
#14 type "A" sheet metal screw	wood	7/32" (5.5mm)
1/4-20 machine screw	metal	#7 (.201" dia.) or 5.10mm. drill ... 1/4-20 tap
SNB (optional)	hollow-metal	9/32" (7.00mm.) thru ... 3/8" (9.50mm.) door face opposite to closer
	aluminum or wood	3/8" (9.50mm.) thru ...
TBGN (optional)	all	9/32" (7.00mm.) thru ... 3/8" (9.50mm.) diameter x 3/8" (10mm.) deep, door face opposite to closer



TRADEMARK
HARDWARE

(P)1600 Series Door Closers
Parallel Arm Application With 2018B Soffit Plate & With or Without 1688 Drop Plate
Non Hold Open Arm
Individually Sized Units 3 and 4 & Multi-size Unit 1-6

NORTON
RIXSON

ASSA ABLOY

TEMPLATE NUMBER

7316-1212

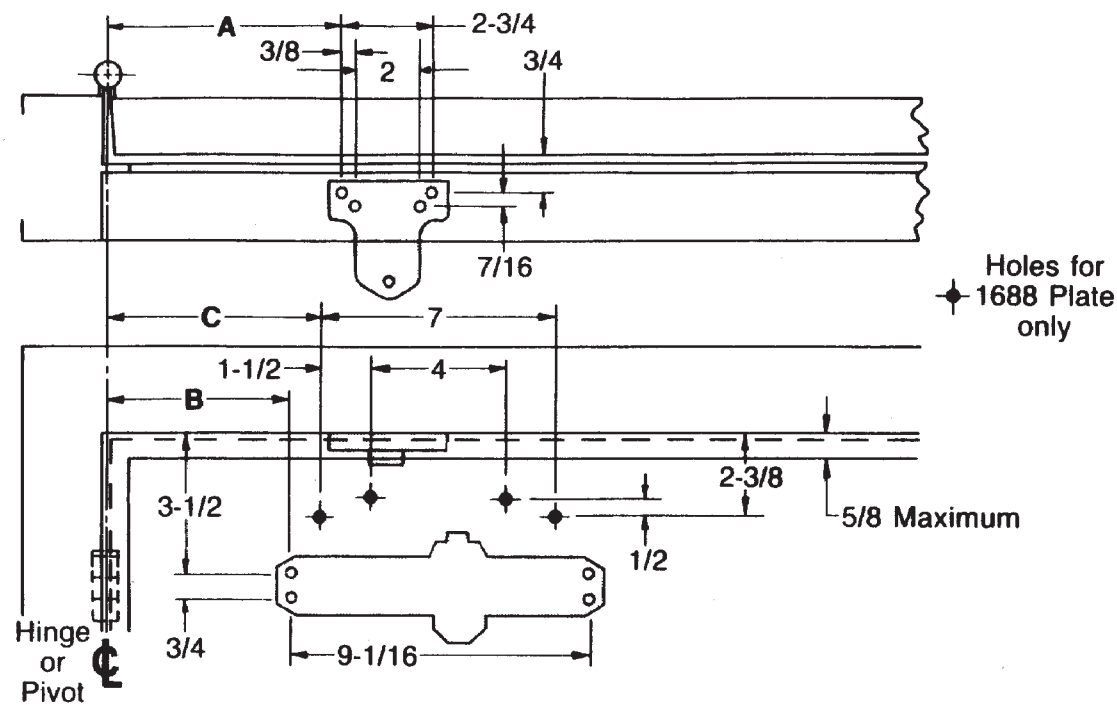
REV

4

DATE

12/21

Approved 2022-02-25



NOTES:

- Do not scale drawing.
- Left hand door shown.
- Dimensions shown in inches. Metric equivalents charted.
- 1046" (2.7mm.) minimum recommended for hollow-metal door and frame reinforcements.
- SNB required to mount closer on steel covered composite type, sheet metal type, or hollow-metal type fire doors provided without reinforcements.
- SNB or TBGN may be required to mount closer on wood or plastic faced composite type fire doors.
- Hollow-metal doors require channel or box-type reinforcements when TBGN mount is specified for closers.

OPENING	DIM. A	DIM. B	DIM. C
To 100°	9-1/4	7-5/8	8-5/8
100° to 130°	7-3/4	6-1/8	7-1/8
Over 130°	5-3/4	4-1/8	5-1/8

METRIC CONVERSION					
inches	mm.	inches	mm.	inches	mm.
3/8	9.5	2-3/8	60	6-1/8	156
7/16	11.1	2-3/4	69.9	7	177.8
1/2	12.7	3-1/2	89	7-1/8	181
5/8	16	4	101.6	7-5/8	194
3/4	19.1	4-1/8	105	7-3/4	197
1-1/2	38.1	5-1/8	130	8-5/8	219
2	50.8	5-3/4	146	9-1/16	230.2
				9-1/4	235

PREPARATION FOR FASTENERS		
FASTENER	DOOR or FRAME	DRILL
#14 type "A" sheet metal screw	wood	7/32" (5.5mm)
1/4-20 machine screw	metal	#7 (.201" dia.) or 5.10mm. drill . . . 1/4-20 tap
SNB (optional)	hollow-metal	9/32" (7.00mm.) thru . . . 3/8" (9.50mm.) door face opposite to closer
	aluminum or wood	3/8" (9.50mm.) thru
TBGN (optional)	all	9/32" (7.00mm.) thru . . . 3/8" (9.50mm.) diameter x 3/8" (10mm.) deep, door face opposite to closer



TRADEMARK
HARDWARE

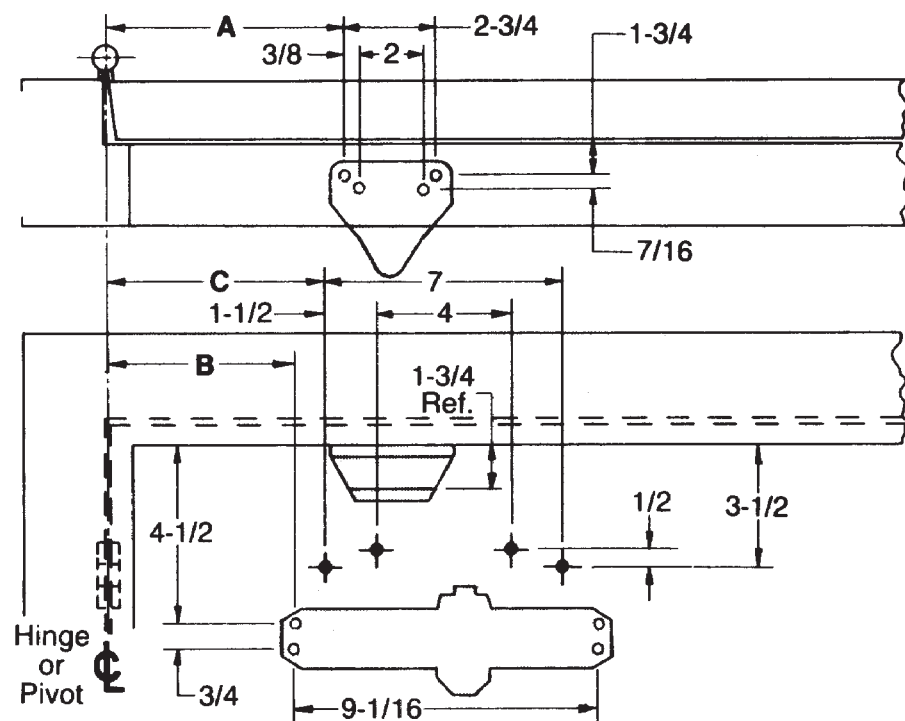
(P)1600 Series Door Closers
Parallel Arm Application With 2018D Soffit Plate & With or Without 1688 Drop Plate
Non Hold Open Arm
Individually Sized Units 3 and 4 & Multi-size Unit 1-6

Approved 2022-02-25

NORTON
RIXSON

ASSA ABLOY

TEMPLATE NUMBER	REV	DATE
7316-1216	4	12/21



Holes for 1688 plate only.

NOTES:

- Do not scale drawing.
- Left hand door shown.
- Dimensions shown in inches. Metric equivalents charted.
- .1046" (2.7mm.) minimum recommended for hollow-metal door and frame reinforcements.
- SNB required to mount closer on steel covered composite type, sheet metal type, or hollow-metal type fire doors provided without reinforcements.
- SNB or TBGN may be required to mount closer on wood or plastic faced composite type fire doors.
- Hollow-metal doors require channel or box-type reinforcements when TBGN mount is specified for closers.

OPENING	DIM. A	DIM. B	DIM. C
To 100°	9-1/4	7-5/8	8-5/8
100° to 130°	7-3/4	6-1/8	7-1/8
Over 130°	5-3/4	4-1/8	5-1/8

METRIC CONVERSION					
inches	mm.	inches	mm.	inches	mm.
3/8	9.5	2-3/4	69.9	6-1/8	156
7/16	11.1	3-1/2	89	7	177.8
1/2	12.7	4	101.6	7-1/8	181
3/4	19.1	4-1/8	105	7-5/8	194
1-1/2	38.1	4-1/2	114	7-3/4	197
1-3/4	45	5-1/8	130	8-5/8	219
2	50.8	5-3/4	146	9-1/16	230.2
				9-1/4	235

PREPARATION FOR FASTENERS		
FASTENER	DOOR or FRAME	DRILL
#14 type "A" sheet metal screw	wood	7/32" (5.5mm)
1/4-20 machine screw	metal	#7 (.201" dia.) or 5.10mm. drill ... 1/4-20 tap
SNB (optional)	hollow-metal	9/32" (7.00mm.) thru ... 3/8" (9.50mm.) door face opposite to closer
	aluminum or wood	3/8" (9.50mm.) thru
TBGN (optional)	all	9/32" (7.00mm.) thru ... 3/8" (9.50mm.) diameter x 3/8" (10mm.) deep, door face opposite to closer



TRADEMARK
HARDWARE

(P)1600 Series Door Closers
Parallel Arm Application With 2018S Offset Soffit Plate & With or Without 1688 Drop Plate
Non Hold Open Arm
Individually Sized Units 3 and 4 & Multi-size Unit 1-6

Norton

ASSA ABLOY

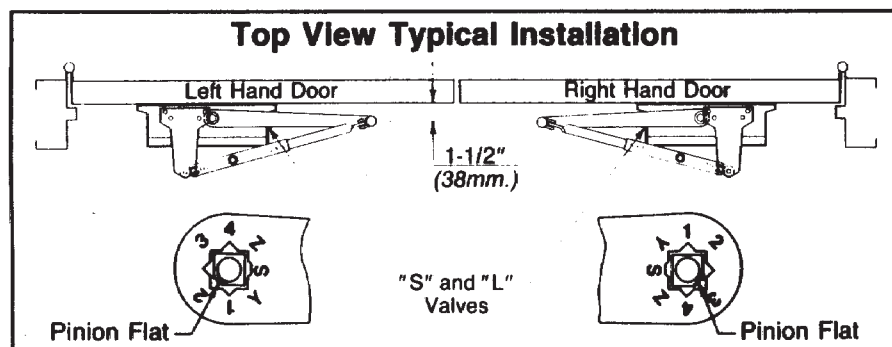
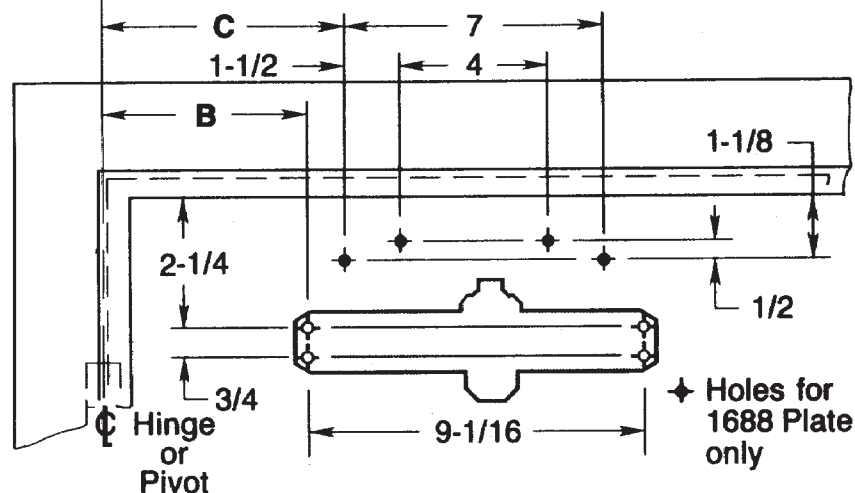
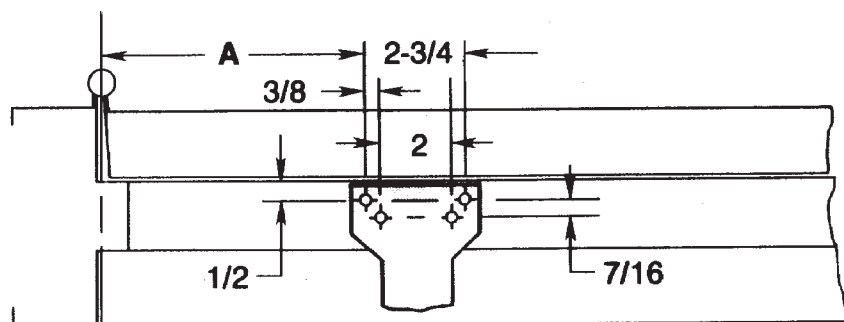
www.nortondoorcontrols.com

TEMPLATE NUMBER

7316-1210

REV

2



Opening	Dim. A	Dim. B	Dim. C
To 100°	9-1/4	7-5/8	8-5/8
100° to 130°	7-3/4	6-1/8	7-1/8
Over 130°	5-3/4	4-1/8	5-1/8

inches	mm.	inches	mm.	inches	mm.
		2-1/4	57	7	177.8
3/8	9.5	2-3/4	69.9	7-1/8	181
7/16	11.1	4	101.6	7-5/8	194
1/2	12.7	4-1/8	105	7-3/4	197
1-1/8	28.6	5-1/8	130	8-5/8	219
1-1/2	38.1	5-3/4	146	9-1/16	230.2
2	50.8	6-1/8	156	9-1/4	235

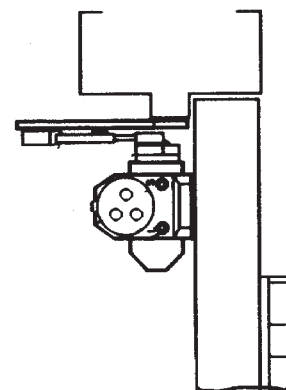
Notes:

- Do not scale drawing.
- Left hand door shown.
- Dimensions are in inches.
See conversion chart for metric dimensions.
- Minimum top rail with 5/8" (16mm.) frame stop — 4" (102mm.).

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 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.



Fastener	Door or Frame	Drill
#14 type "A" sheet metal screw	wood	7/32" (5.5mm)
1/4-20 machine screw	metal	#7 (.201 dia.) or 5.10mm. drill 1/4"20 tap
SNB (optional)	hollow-metal	9/32" (7.00mm.) thru 3/8" (9.50mm.) door face opposite to closer
	aluminum or wood	3/8" (9.50mm.) thru
TBGN (optional)	all	9/32" (7.00mm.) thru 3/8" (9.50mm.) diameter x 3/8" (10mm.) deep, door face opposite to closer



TRADEMARK
HARDWARE

(P)1680 Series Door Closers With Low Profile Arm
Parallel Arm Application With or Without 1688 Drop Plate
Non Hold Open Arm
Individually Sized Units 3 and 4 & Multi-size Unit 1-6

NORTON
RIXSON

ASSA ABLOY

TEMPLATE NUMBER

7316-1206

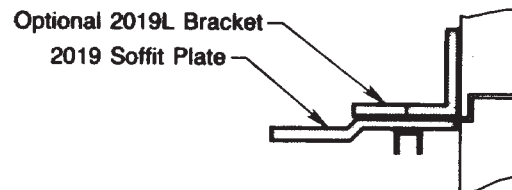
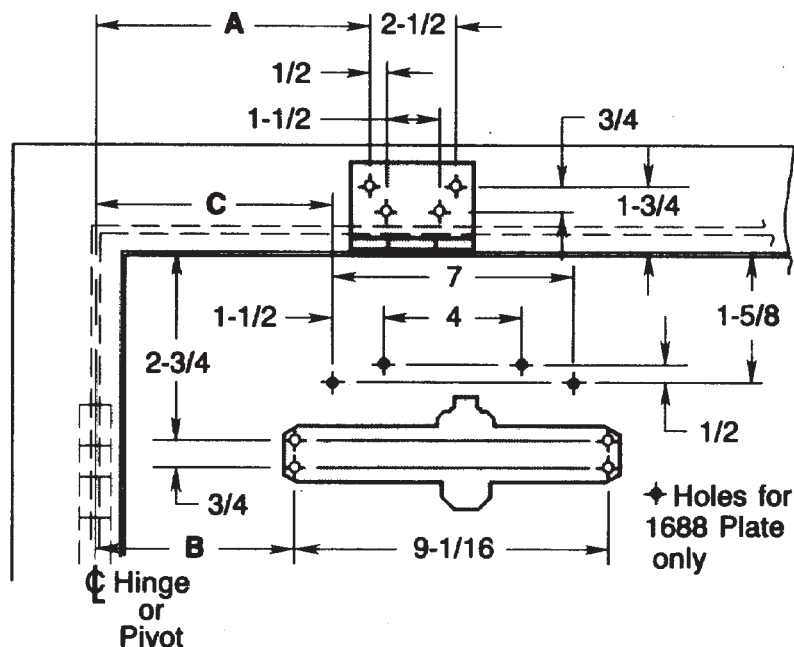
REV

4

DATE

12/21

Approved 2022-02-25



Opening	Dim. A	Dim. B	Dim. C
To 100°	9-3/4	7-5/8	8-5/8
100° to 130°	8-1/4	6-1/8	7-1/8
Over 130°	6-1/4	4-1/8	5-1/8

inches	mm.	inches	mm.	inches	mm.
1/2	12.7	2-3/4	69.9	7-1/8	181
3/4	19.1	4	101.6	7-5/8	194
1-1/2	38.1	4-1/8	105	8-1/4	210
1-5/8	41	5-1/8	130	8-5/8	219
1-3/4	44	6-1/8	156	9-1/16	230.2
2-1/2	63.5	6-1/4	159	9-3/4	248
		7	177.8		

Notes:

- Do not scale drawing.
- Left hand door shown.
- Dimensions are in inches.
 See conversion chart for metric dimensions.

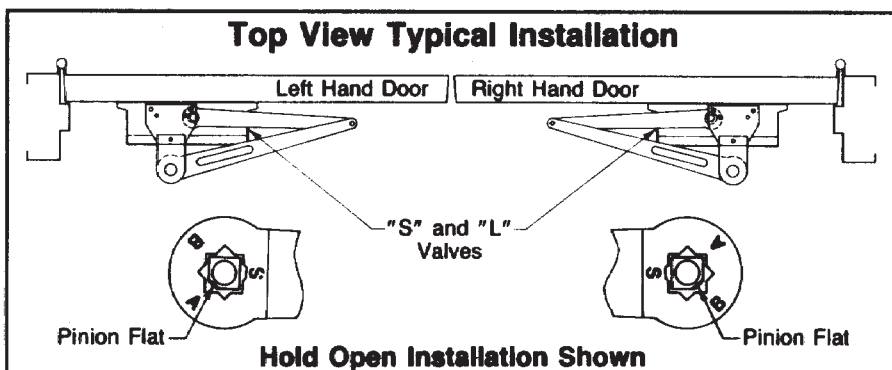
Door swing may be limited by door, frame, wall or hardware conditions.

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

Hold Open Arm door closers without Fusible-link release are not permitted to be used on fire doors.

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.



Fastener	Frame	Door	Drill
#14 type "A" sheet metal screw	wood	none	7/32" (5.5mm)
1/4-20 machine screw	metal	none	#7 (.201 dia.) or 5.10mm. drill 1/4"-20 tap
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



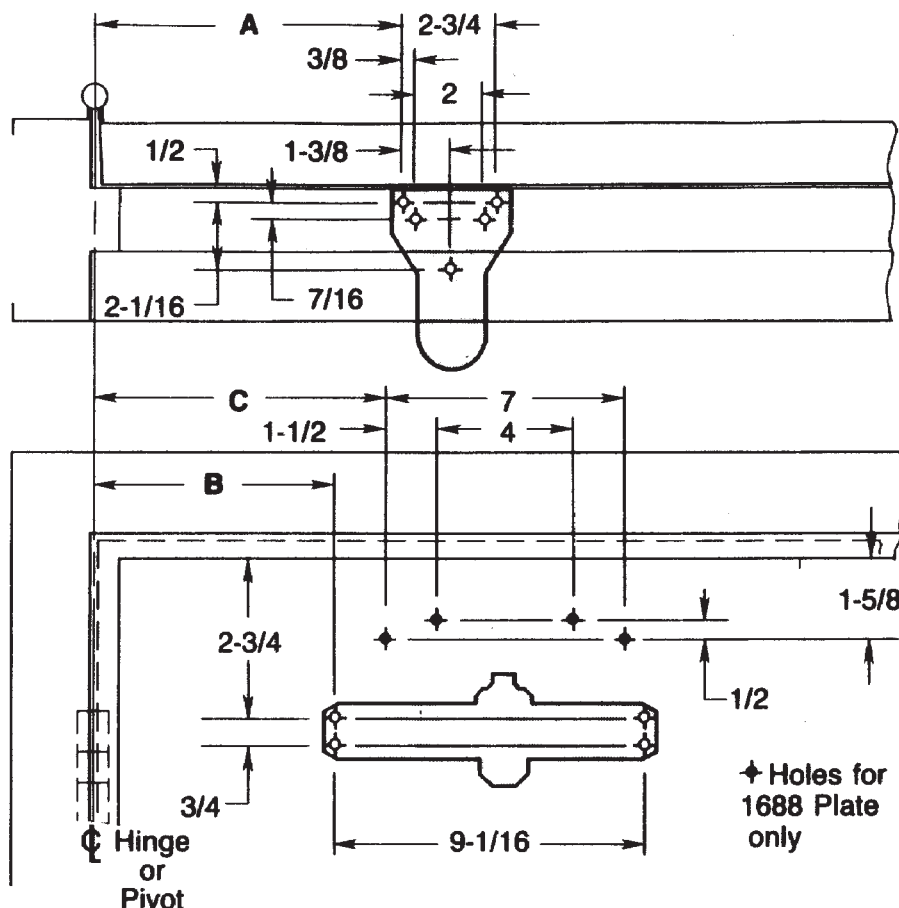
Pr1600 or PR1600H Series Door Closers
Parallel Rigid Arm Application With 2019L Flush Transom Bracket and
With or Without 1688 Drop Plate
Non Hold Open or Hold Open Arm
Individually Sized Units 3 and 4 & Multi-size Unit 1-6



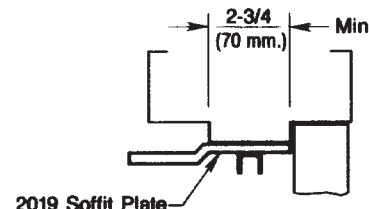
ASSA ABLOY

TEMPLATE NUMBER	REV	DATE
7316-1256	4	12/21

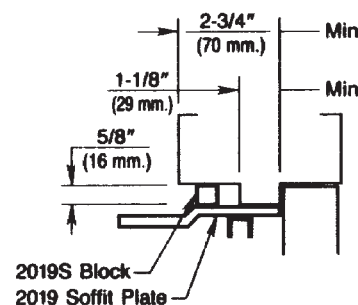
Approved 2022-02-25



Opening	Dim. A	Dim. B	Dim. C
To 100°	9-5/8	7-5/8	8-5/8
100° to 130°	8-1/8	6-1/8	7-1/8
Over 130°	6-1/8	4-1/8	5-1/8



Wide Stop Frame



Narrow Stop Frame

inches	mm.	inches	mm.	inches	mm.
1-5/8	41	7	177.8		
3/8	9.5	2	50.8	7-1/8	181
7/16	11.1	2-1/16	52.4	7-5/8	194
1/2	12.7	2-3/4	69.9	8-1/8	206
3/4	19.1	4	101.6	8-5/8	219
1-3/8	34.9	4-1/8	105	9-1/16	230.2
1-1/2	38.1	5-1/8	130	9-5/8	244
		6-1/8	156		

Notes:

- Do not scale drawing.
- Left hand door shown.
- Dimensions are in inches.
See conversion chart for metric dimensions.

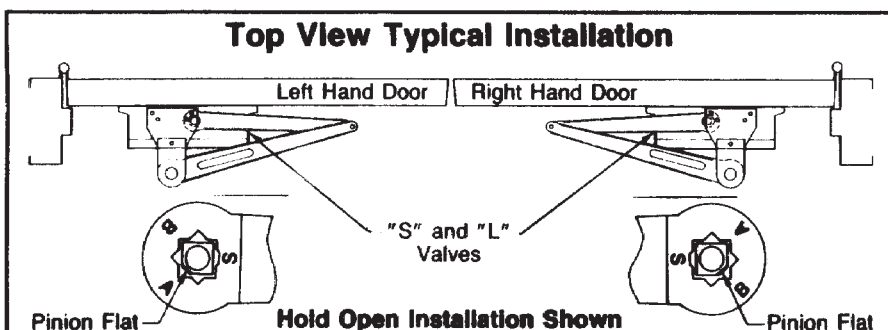
Door swing may be limited by door, frame, wall or hardware conditions.

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

Hold Open Arm door closers without Fusible-link release are not permitted to be used on fire doors.

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.



Fastener	Frame	Door	Drill
#14 type "A" sheet metal screw	wood	none	7/32" (5.5mm)
1/4-20 machine screw	metal	none	#7 (.201 dia.) or 5.10mm. drill 1/4"-20 tap
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



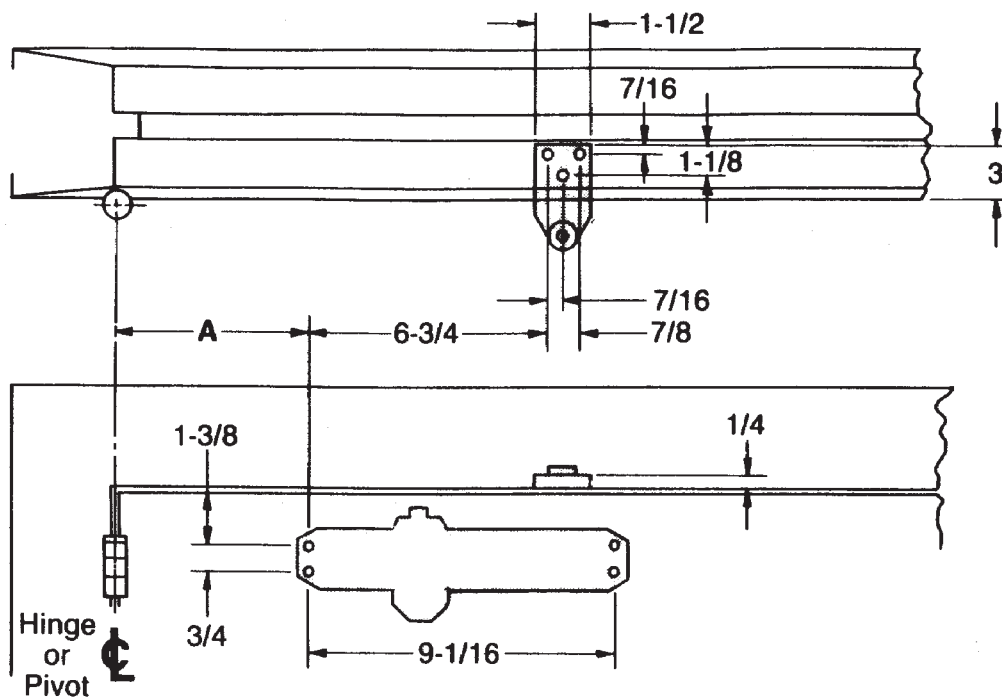
TRADEMARK
HARDWARE

PR1600 or PR1600H Series Door Closers
Parallel Rigid Arm Applications with or without 1688 Drop Plate
Non Hold Open or Hold Open Arm
Individually Sized Units 3 and 4 & Multi-sized Unit 1-6

**NORTON
RIXSON**

ASSA ABLOY

TEMPLATE NUMBER	REV	DATE
7316-1252	4	12/21



NOTES:

- Do not scale drawing.
- Right hand door shown.
- Dimensions shown in inches. Metric equivalents charted.
- .1046" (2.7mm.) minimum recommended for hollow-metal door and frame reinforcements.
- SNB required to mount closer on steel covered composite type, sheet metal type, or hollow-metal type fire doors provided without reinforcements.
- SNB or TBGN may be required to mount closer on wood or plastic faced composite type fire doors.
- Hollow-metal doors require channel or box-type reinforcements when TBGN mount is specified for closers.

OPENING	DIM. A
To 100°	7
100° to 120°	6
Over 120°	3-1/2

METRIC CONVERSION					
inches	mm.	inches	mm.	inches	mm.
1/4	6.4	1-1/8	28.6	3-1/2	89
7/16	11.1	1-3/8	35	6	152
3/4	19.1	1-1/2	38.1	6-3/4	171
7/8	22.2	3	76.2	7	178
				9-1/16	230.2

PREPARATION FOR FASTENERS

FASTENER	DOOR or FRAME	DRILL
#14 type "A" sheet metal screw	wood	7/32" (5.5mm)
1/4-20 machine screw	metal	#7 (.201" dia.) or 5.10mm. drill . . . 1/4-20 tap
SNB (optional)	hollow-metal	9/32" (7.00mm.) thru . . . 3/8" (9.50mm.) door face opposite to closer
	aluminum or wood	3/8" (9.50mm.) thru
TBGN (optional)	all	9/32" (7.00mm.) thru . . . 3/8" (9.50mm.) diameter x 3/8" (10mm.) deep, door face opposite to closer



TRADEMARK
HARDWARE

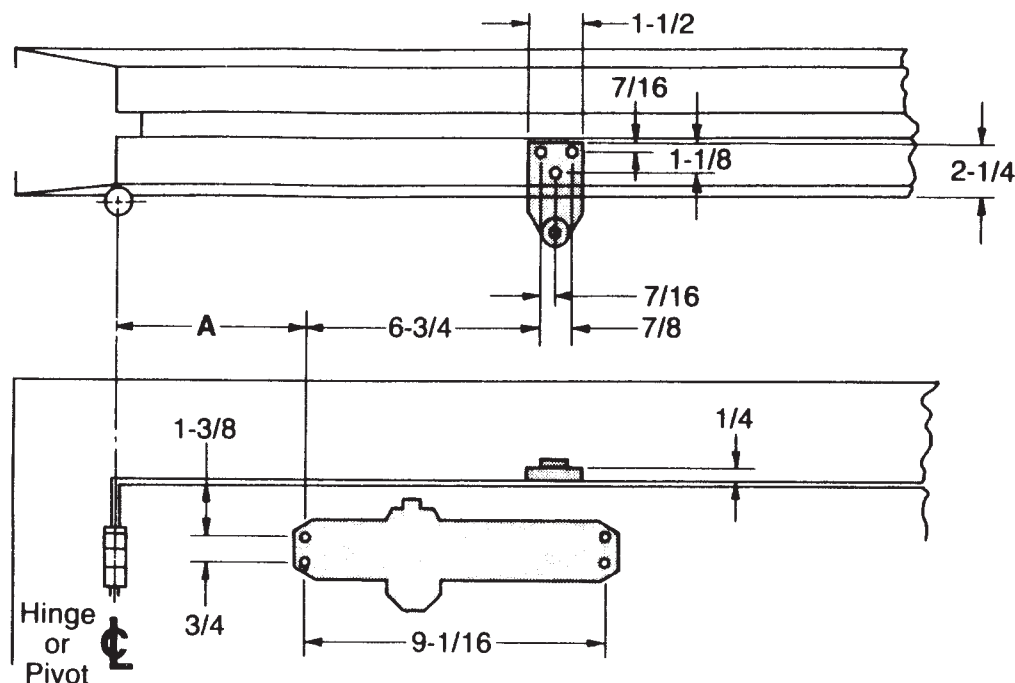
1600 Series Door Closers
Regular Arm Application With 2403 3/4 Bracket
Non Hold Open Arm for Molded or Bullnose Frame
Individually Sized Units 3 and 4 & Multi-size Unit 1-6

**NORTON
RIXSON**

ASSA ABLOY

TEMPLATE NUMBER	REV	DATE
7316-1110	4	12/21

Approved 2022-02-25



NOTES:

- Do not scale drawing.
- Right hand door shown.
- Dimensions shown in inches. Metric equivalents charted.
- .1046" (2.7mm.) minimum recommended for hollow-metal door and frame reinforcements.
- SNB required to mount closer on steel covered composite type, sheet metal type, or hollow-metal type fire doors provided without reinforcements.
- SNB or TBGN may be required to mount closer on wood or plastic faced composite type fire doors.
- Hollow-metal doors require channel or box-type reinforcements when TBGN mount is specified for closers.

OPENING	DIM. A
To 100°	7
100° to 120°	6
Over 120°	3-1/2

METRIC CONVERSION					
inches	mm.	inches	mm.	inches	mm.
1/4	6.4	1-1/8	28.6	3-1/2	89
7/16	11.1	1-3/8	35	6	152
3/4	19.1	1-1/2	38.1	6-3/4	171
7/8	22.2	2-1/4	57.2	7	178
				9-1/16	230.2

PREPARATION FOR FASTENERS		
FASTENER	DOOR or FRAME	DRILL
#14 type "A" sheet metal screw	wood	7/32" (5.5mm)
1/4-20 machine screw	metal	#7 (.201" dia.) or 5.10mm. drill ... 1/4-20 tap
SNB (optional)	hollow-metal	9/32" (7.00mm.) thru ... 3/8" (9.50mm.) door face opposite to closer
	aluminum or wood	3/8" (9.50mm.) thru
TBGN (optional)	all	9/32" (7.00mm.) thru ... 3/8" (9.50mm.) diameter x 3/8" (10mm.) deep, door face opposite to closer



TRADEMARK
HARDWARE

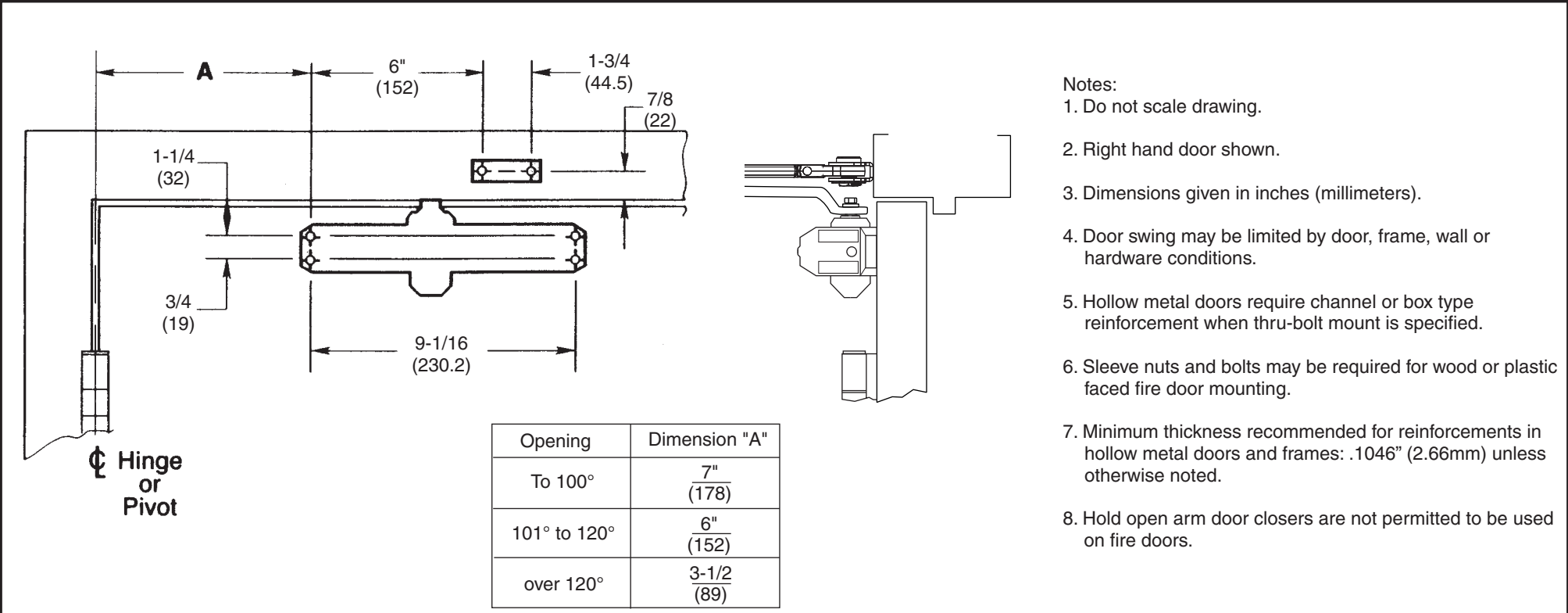
1600 Series Door Closers
Regular Arm Application With 2403 Bracket
Non Hold Open Arm for Molded or Bullnose Frame
Individually Sized Units 3 and 4 & Multi-size Unit 1-6

**NORTON
RIXSON**

ASSA ABLOY

TEMPLATE NUMBER	REV	DATE
7316-1108	4	12/21

Approved 2022-02-25



Position of Arm and Pinion Flat

Right Hand Door

R

N

L

S

Y

Left Hand Door

L

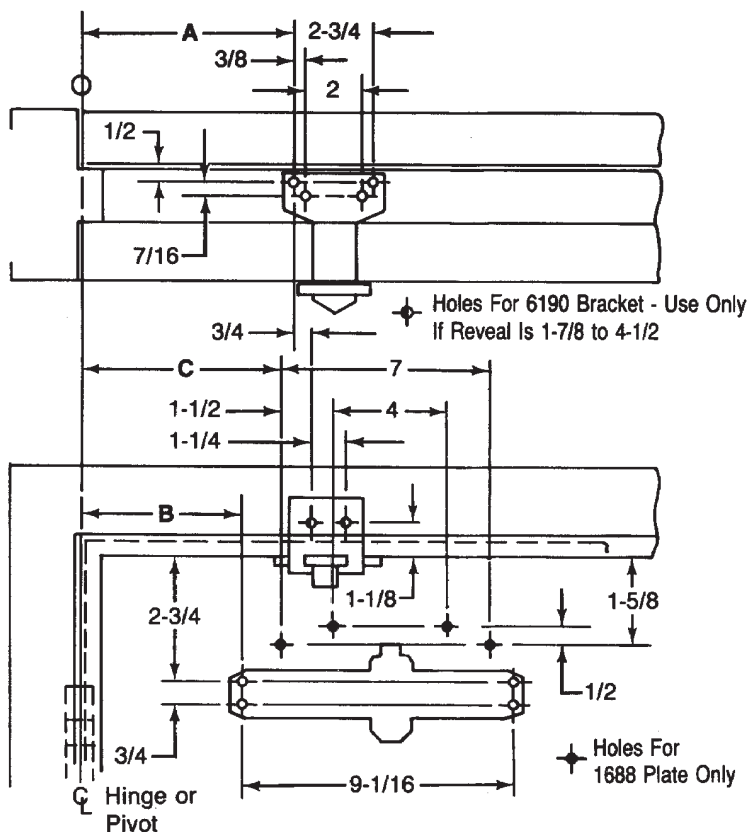
N

R

S

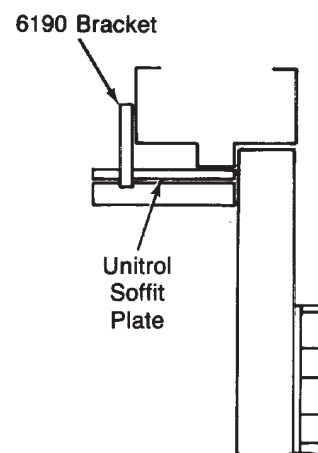
Y

Fastener	Door or Frame	Drill
#14 type "A" sheet metal screw	wood	7/32" (5.5mm)
1/4-20 machine screw	metal	#7 (.201 dia.) or 5.10mm. drill 1/4"-20 tap
SNB (optional)	hollow-metal	9/32" (7.00mm.) thru 3/8" (9.50mm.) door face opposite to closer
	aluminum or wood	3/8" (9.50mm.) thru
TBGN (optional)	all	9/32" (7.00mm.) thru 3/8" (9.50mm.) diameter x 3/8" (10mm.) deep, door face opposite to closer



Opening		Dim. A	Dim. B	Dim. C
Hold Open ★	Stop			
85°	90°	10-1/2	8-5/8	9-5/8
90°	95°	9-3/4	8	9
95°	100°	9-1/4	7-1/2	8-1/2
100°	105°	8-7/8	7-1/8	8-1/8
105°	110°	8-1/2	6-3/4	7-3/4
110°	115°	8-1/8	6-3/8	7-3/8

★ 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.

Models with a Hold Open arm suffix are not permitted to be used on fire doors.

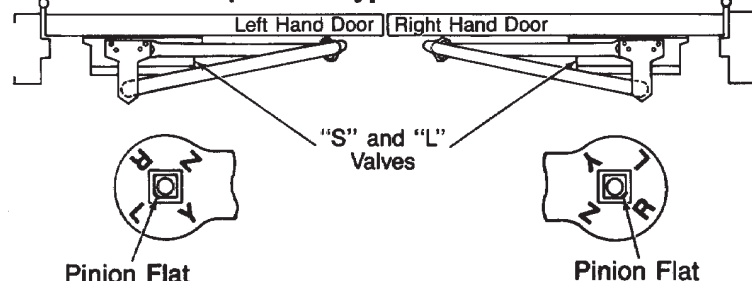
Sex bolts may be required for wood or plastic faced fire-door mounting.

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

Follow Conversion Chart for metric dimensions.

inches	mm.	inches	mm.	inches	mm.
		2-3/4	70	8-1/8	206
3/8	9.5	4	101.5	8-1/2	215.5
7/16	11	4-1/2	114	8-5/8	219
1/2	13	6-3/8	162	8-7/8	225
3/4	19	6-3/4	171.5	9	228.5
1-1/8	28.5	7	178	9-1/16	230
1-1/4	31.5	7-1/8	181	9-1/4	235
1-1/2	38	7-3/8	187	9-5/8	244.5
1-5/8	41	7-1/2	190.5	9-3/4	247.5
1-7/8	47.5	7-3/4	196.5	10-1/2	266.5
2	51	8	203		

Top View Typical Installation



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	7/32" (5.5mm)
SNB	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

UNI-1600 or UNI-1600H Series Unitrol Door Closers
Parallel Arm Application for Doors 28" to 32" (0.70-0.80m) Wide
With Standard 6190 Bracket & With or Without 1688 Drop Plate
Non Hold Open or Hold Open Arm - All Arms With Spring Cushioned Stop
Individually Sized Units 3 and 4 & Multi-size Unit 1-6

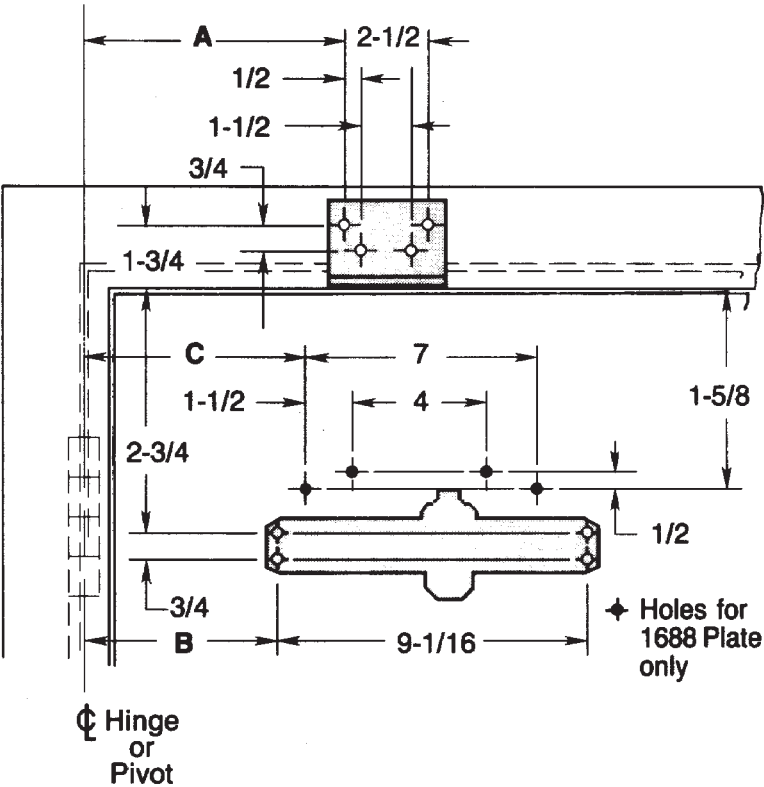
Approved 2022-02-25



ASSA ABLOY

TEMPLATE NUMBER	REV	DATE
7316-2354	4	12/21

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

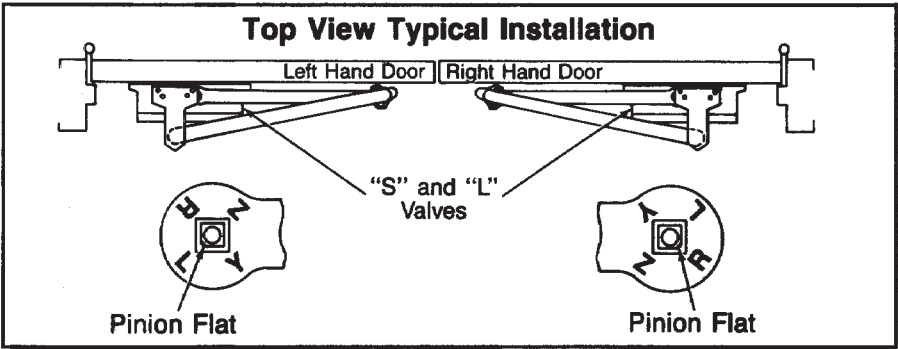


Opening		Dim. A	Dim. B	Dim. C
Hold Open ★	Stop			
85°	90°	15-1/8	13-1/4	14-1/4
90°	95°	14-3/8	12-1/2	13-1/2
95°	100°	13-3/4	11-7/8	12-7/8
100°	105°	13-1/8	11-1/4	12-1/4
105°	110°	12-5/8	10-3/4	11-3/4
110°	115°	12-1/8	10-1/4	11-1/4


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.
Models with a Hold Open arm suffix are not permitted to be used on fire doors.
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).

For metric dimensions follow Conversion Chart.

inches	mm.	inches	mm.	inches	mm.
1/2	13	9-1/16	230	12-7/8	327
3/4	19	10-1/4	260	13-1/8	333
1-1/2	38	10-3/4	273	13-1/4	337
1-5/8	41	11-1/4	286	13-1/2	343
1-3/4	44.5	11-3/4	298	13-3/4	349
2-1/2	63.5	11-7/8	302	14-1/4	362
2-3/4	70	12-1/8	308	14-3/8	365
4	101.5	12-1/2	318	15-1/8	384
7	178	12-5/8	321		




Fastener	Door or Frame	Drill
SNB	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

UNI-1600 or UNI-1600H Series Unitrol Door Closers
Parallel Arm Application for Doors 42" to 48" (1.05-1.20m) Wide
With 2022 Flush Transom Bracket & With or Without 1688 Drop Plate
Non Hold Open or Hold Open Arm - All Arms With Spring Cushioned Stop
Individually Sized Units 3 and 4 & Multi-size Unit 1-6



NORTON
RIXSON

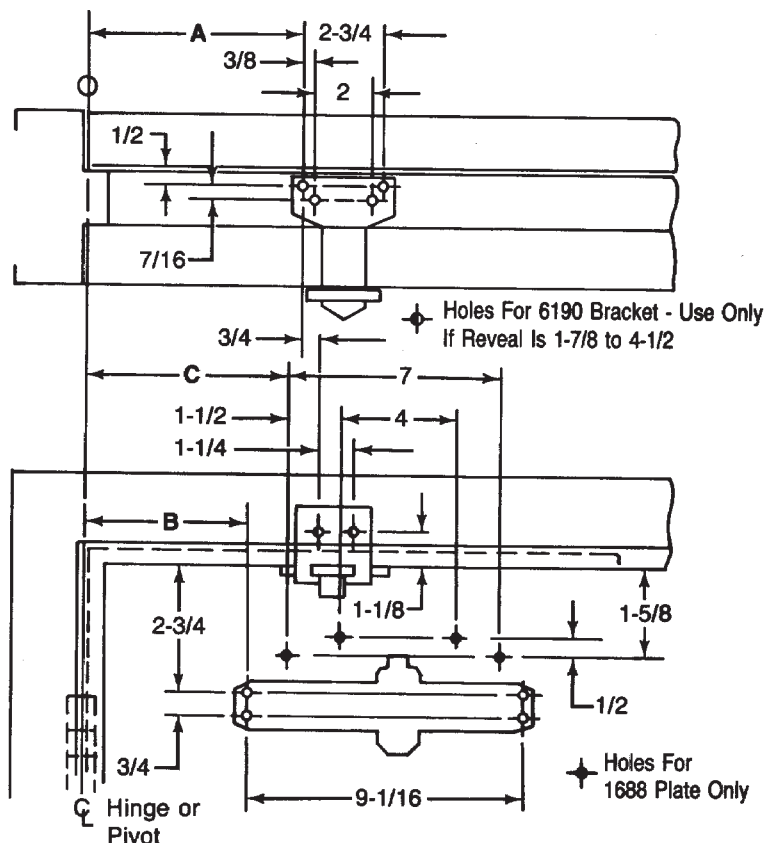
ASSA ABLOY

TEMPLATE NUMBER
7316-2362

REV
4

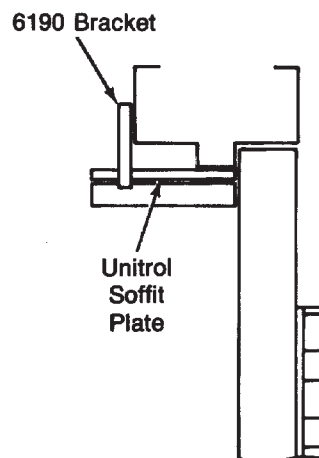
DATE
12/21

Approved 2022-02-25



Opening		Dim. A	Dim. B	Dim. C
Hold Open ★	Stop			
85°	90°	15	13-1/4	14-1/4
90°	95°	14-1/4	12-1/2	13-1/2
95°	100°	13-5/8	11-7/8	12-7/8
100°	105°	13	11-1/4	12-1/4
105°	110°	12-1/2	10-3/4	11-3/4
110°	115°	12	10-1/4	11-1/4

★ 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.

Models with a Hold Open arm suffix are not permitted to be used on fire doors.

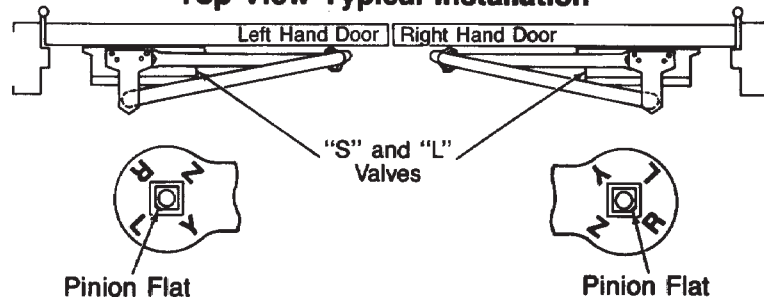
Sex bolts may be required for wood or plastic faced fire-door mounting.

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

Follow Conversion Chart for metric dimensions.

inches	mm.	inches	mm.	inches	mm.
		2-3/4	70	12-1/4	311
3/8	9.5	4	101.5	12-1/2	317.5
7/16	11	4-1/2	114	12-7/8	327
1/2	13	7	178	13	330
3/4	19	9-1/16	230	13-1/4	336.5
1-1/8	28.5	10-1/4	260	13-1/2	342.5
1-1/4	31.5	10-3/4	273	13-5/8	346
1-1/2	38	11-1/4	285.5	14-1/4	361.5
1-5/8	41	11-3/4	298	15	380.5
1-7/8	47.5	11-7/8	301.5		
2	51	12	304.5		

Top View Typical Installation



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	7/32" (5.5mm)
SNB	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

UNI-1600 or UNI-1600H Series Unitrol Door Closers
Parallel Arm Application for Doors 42" to 48" (1.05-1.02m) Wide
With Standard 6190 Bracket & With or Without 1688 Drop Plate
Non Hold Open or Hold Open Arm - All Arms With Spring Cushioned Stop
Individually Sized Units 3 and 4 & Multi-size Unit 1-6

NORTON
RIXSON

ASSA ABLOY

TEMPLATE NUMBER

7316-2356

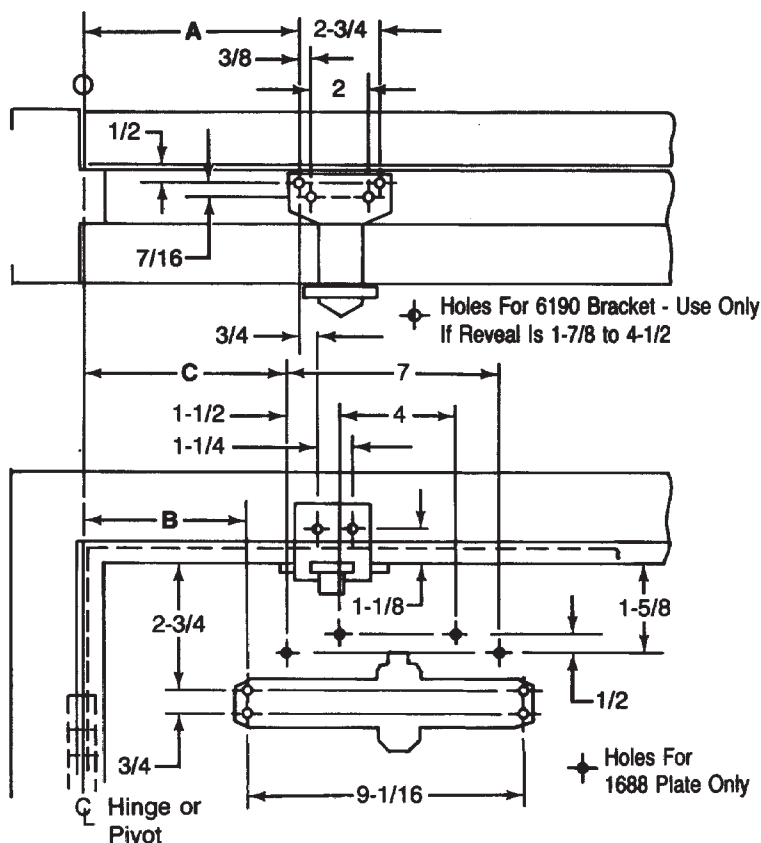
REV

4

DATE

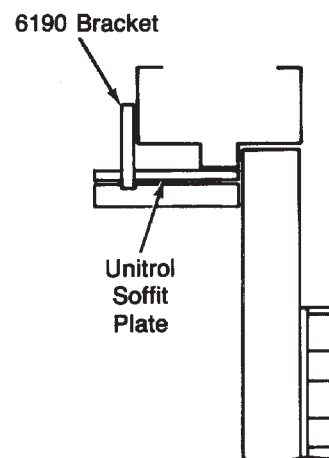
12/21

Approved 2022-02-25



Opening		Dim. A	Dim. B	Dim. C
Hold Open ★	Stop			
85°	90°	12-5/8	11	12
90°	95°	12	10-3/8	11-3/8
95°	100°	11-3/8	9-3/4	10-3/4
100°	105°	10-7/8	9-1/4	10-1/4
105°	110°	10-3/8	8-3/4	9-3/4
110°	115°	10	8-3/8	9-3/8

★ 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.

Models with a Hold Open arm suffix are not permitted to be used on fire doors.

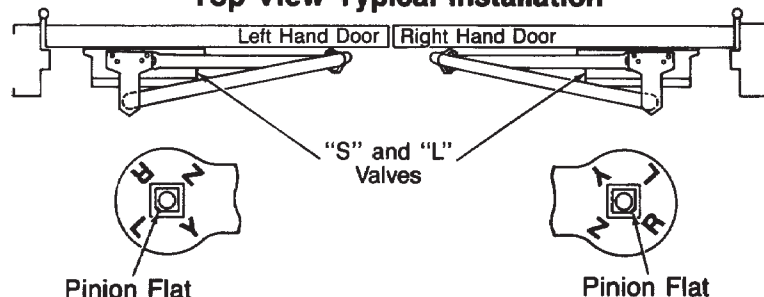
Sex bolts may be required for wood or plastic faced fire-door mounting.

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

Follow Conversion Chart for metric dimensions.

inches	mm.	inches	mm.	inches	mm.
		2-3/4	70	10-1/4	260
3/8	9.5	4	101.5	10-3/8	263.5
7/16	11	4-1/2	114	10-3/4	273
1/2	13	7	178	10-7/8	276
3/4	19	8-3/8	212.5	11	279.5
1-1/8	28.5	8-3/4	222	11-3/8	288.5
1-1/4	31.5	9-1/16	230	12	304.5
1-1/2	38	9-1/4	235	12-5/8	320.5
1-5/8	41	9-3/8	238		
1-7/8	47.5	9-3/4	247.5		
2	51	10	254		

Top View Typical Installation



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	7/32" (5.5mm)
SNB	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

UNI-1600 or UNI-1600H Series Unitrol Door Closers
Parallel Arm Application for Doors 33" to 41" (0.85-1.0m) Wide
With Standard 6190 Bracket & With or Without 1688 Drop Plate
Non Hold Open or Hold Open Arm - All Arms With Spring Cushioned Stop
Individually Sized Units 3 and 4 & Multi-size Unit 1-6

**NORTON
RIXSON**

ASSA ABLOY

TEMPLATE NUMBER

7316-2355

REV

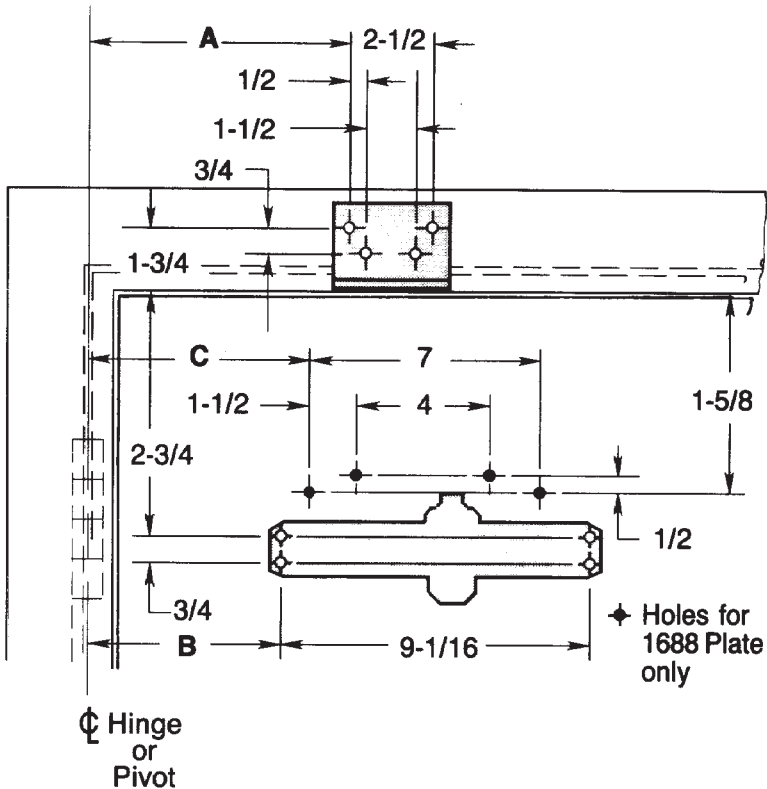
4

DATE

12/21

Approved 2022-02-25

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



Opening		Dim. A	Dim. B	Dim. C
Hold Open ★	Stop			
85°	90°	10-5/8	8-5/8	9-5/8
90°	95°	9-7/8	8	9
95°	100°	9-3/8	7-1/2	8-1/2
100°	105°	9	7-1/8	8-1/8
105°	110°	8-5/8	6-3/4	7-3/4
110°	115°	8-1/4	6-3/8	7-3/8

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.

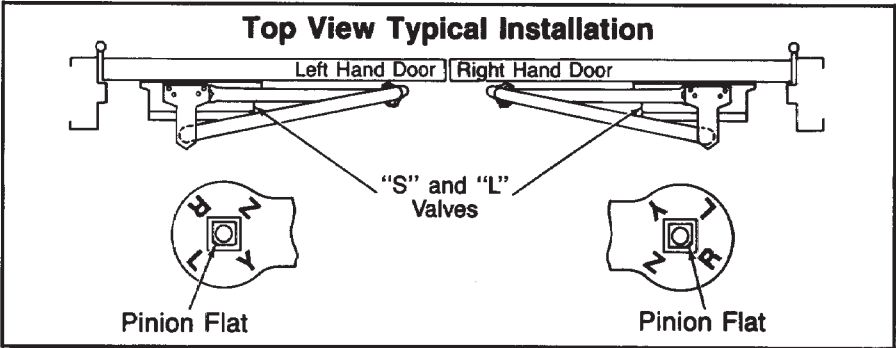
Models with a Hold Open arm suffix are not permitted to be used on fire doors.

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).

For metric dimensions follow Conversion Chart.

inches	mm.	inches	mm.	inches	mm.
1/2	13	6-3/4	171	8-1/2	216
3/4	19	7	178	8-5/8	219
1-1/2	38	7-1/8	181	9	228.5
1-5/8	41	7-3/8	187	9-1/16	230
1-3/4	44.5	7-1/2	191	9-3/8	238
2-1/2	63.5	7-3/4	197	9-5/8	244
2-3/4	70	8	203	9-7/8	251
4	101.5	8-1/8	206	10-5/8	270
6-3/8	162	8-1/4	209.5		



Fastener	Door or Frame	Drill
SNB	hollow-metal	9/32" (7.00mm.) thru 3/8" (9.50mm.) door face opposite to closer
	aluminum or wood	3/8" (9.50mm.) thru

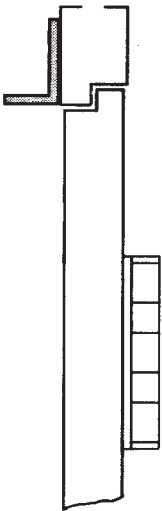
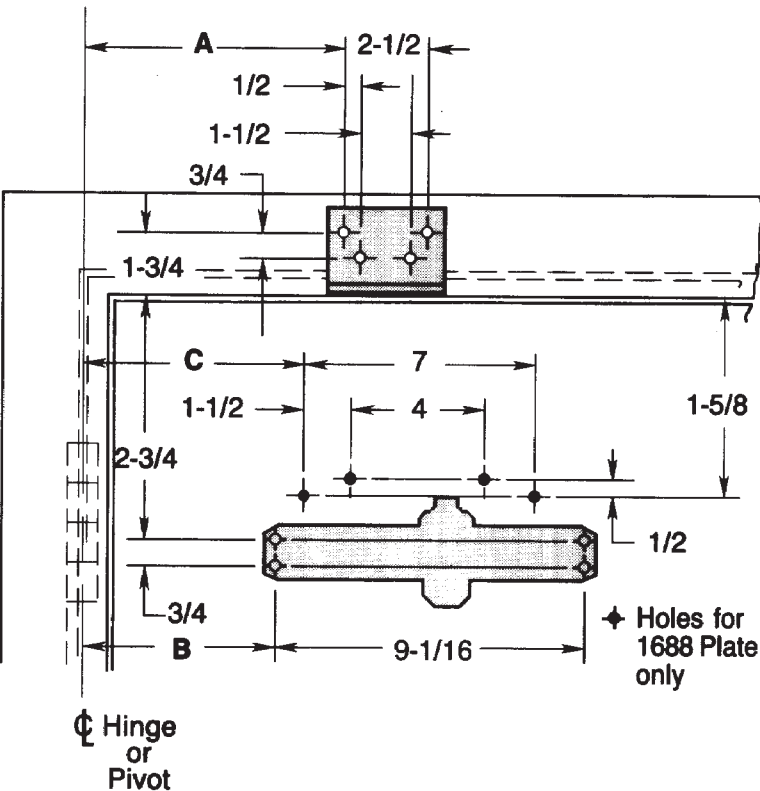


UNI-1600 or UNI-1600H Series Nitrol Door Closers
Parallel Arm Application for Doors 28" to 32" (0.70-0.80m) Wide
With 2022 Flush Transom Bracket & With or Without 1688 Drop Plate
Non Hold Open or Hold Open Arm - All Arms With Spring Cushioned Stop
Individually Sized Units 3 and 4 & Multi-size Unit 1-6



TEMPLATE NUMBER	REV	DATE
7316-2360	4	12/21

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



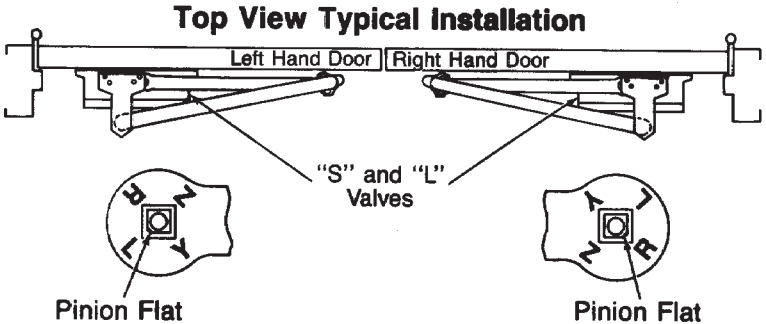
Opening		Dim. A	Dim. B	Dim. C
Hold Open ★	Stop			
85°	90°	12-3/4	11	12
90°	95°	12-1/8	10-3/8	11-3/8
95°	100°	11-1/2	9-3/4	10-3/4
100°	105°	11	9-1/4	10-1/4
105°	110°	10-1/2	8-3/4	9-3/4
110°	115°	10-1/8	8-3/8	9-3/8

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.
Models with a Hold Open arm suffix are not permitted to be used on fire doors.
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).

For metric dimensions follow Conversion Chart.

inches	mm.	inches	mm.	inches	mm.
1/2	13	8-3/8	213	10-1/2	267
3/4	19	8-3/4	222	10-3/4	273
1-1/2	38	9-1/16	230	11	279
1-5/8	41	9-1/4	235	11-3/8	289
1-3/4	44.5	9-3/8	238	11-1/2	292
2-1/2	63.5	9-3/4	248	12	305
2-3/4	70	10-1/8	257	12-1/8	308
4	101.5	10-1/4	260	12-3/4	324
7	178	10-3/8	263.5		



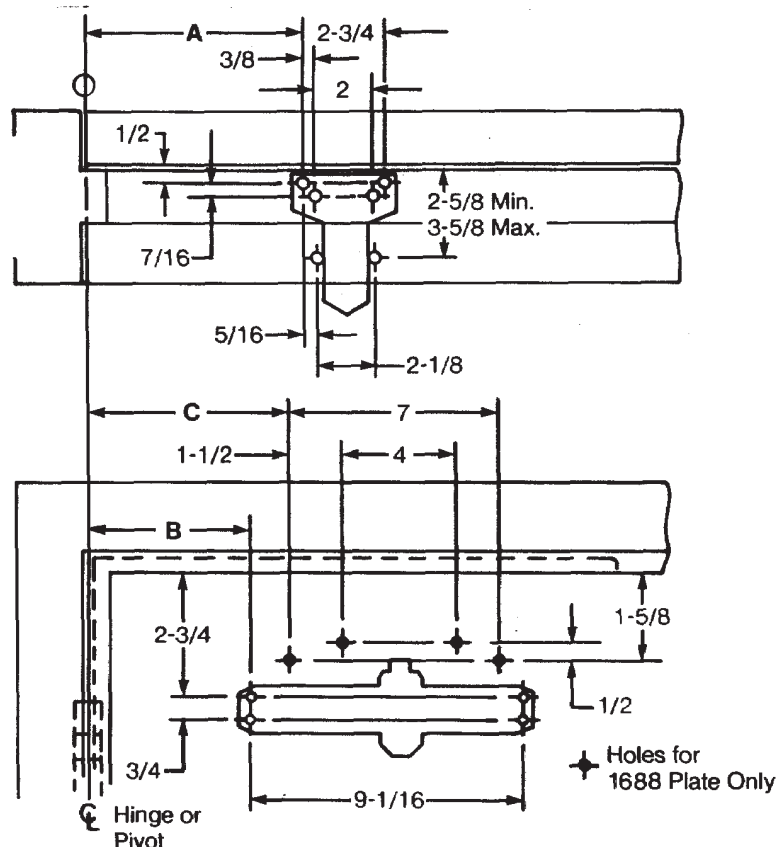
Fastener	Door or Frame	Drill
SNB	hollow-metal	9/32" (7.00mm.) thru 3/8" (9.50mm.) door face opposite to closer
	aluminum or wood	3/8" (9.50mm.) thru



UNI-1600 or UNI-1600H Series Unitrol Door Closers
Parallel Arm Application for Doors 33" to 41" (0.85-1.0m) Wide
With 2022 Flush Transom Bracket & With or Without 1688 Drop Plate
Non Hold Open or Hold Open Arm - All Arms With Spring Cushioned Stop
Individually Sized Units 3 and 4 & Multi-size Unit 1-6

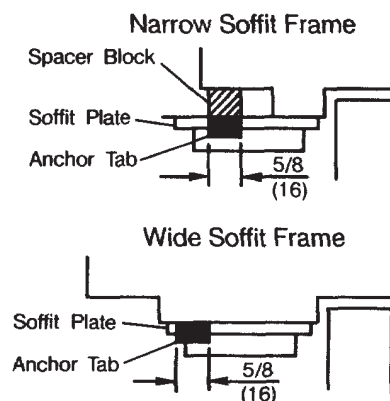


TEMPLATE NUMBER	REV	DATE
7316-2361	4	12/21



Opening		Dim. A	Dim. B	Dim. C
Hold Open ★	Stop			
85°	90°	15	13-1/4	14-1/4
90°	95°	14-1/4	12-1/2	13-1/2
95°	100°	13-5/8	11-7/8	12-7/8
100°	105°	13	11-1/4	12-1/4
105°	110°	12-1/2	10-3/4	11-3/4
110°	115°	12	10-1/4	11-1/4

★ 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.

Models with a Hold Open arm suffix are not permitted to be used on fire doors.

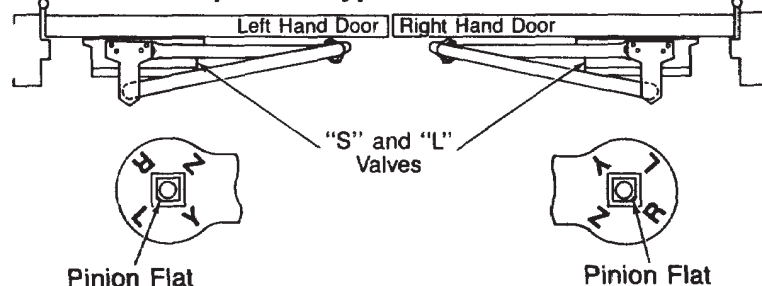
Sex bolts may be required for wood or plastic faced fire-door mounting.

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

Follow Conversion Chart for metric dimensions.

inches	mm.	inches	mm.	inches	mm.
		2-3/4	70	12-1/4	311
3/8	9.5	4	101.5	12-1/2	317.5
7/16	11	4-1/2	114	12-7/8	327
1/2	13	7	178	13	330
3/4	19	9-1/16	230	13-1/4	336.5
1-1/8	28.5	10-1/4	260	13-1/2	342.5
1-1/4	31.5	10-3/4	273	13-5/8	346
1-1/2	38	11-1/4	285.5	14-1/4	361.5
1-5/8	41	11-3/4	298	15	380.5
1-7/8	47.5	11-7/8	301.5		
2	51	12	304.5		

Top View Typical Installation



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	7/32" (5.5mm)
SNB	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

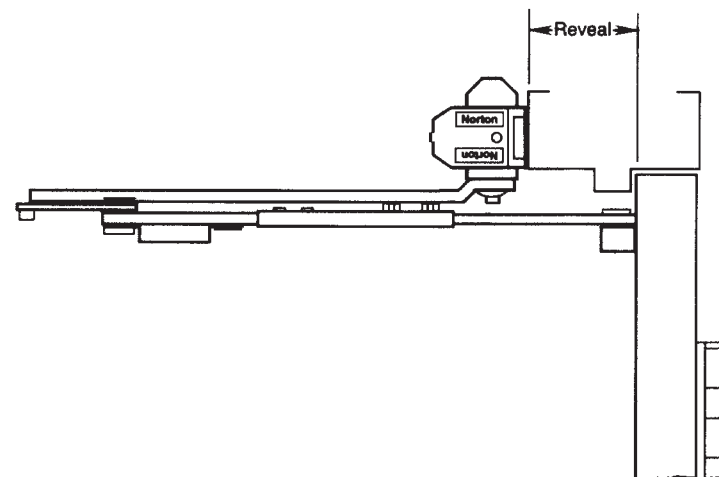
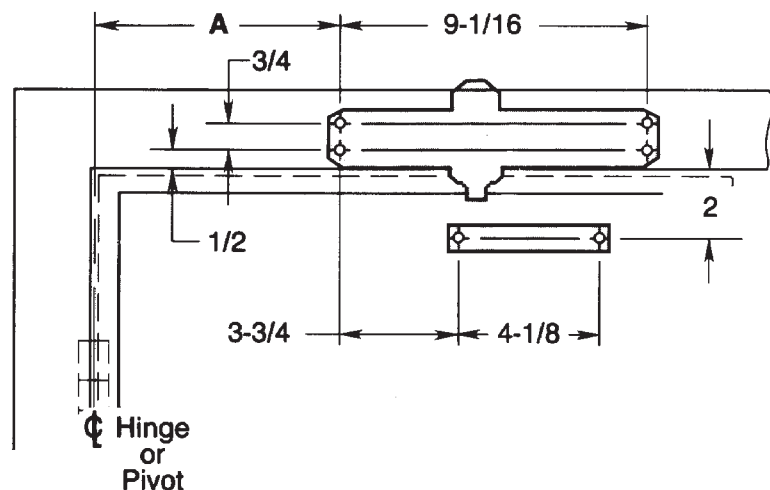
UNI-1600 or UNI-1600H Series Unitrol Door Closers
Parallel Arm Application for Doors 42" to 48" (1.05-1.20m) Wide
With 6191 Reinforcing Kit & With or Without 1688 Drop Plate
Non Hold Open or Hold Open Arm - All Arms With Spring Cushioned Stop
Individually Sized Units 3 and 4 & Multi-size Unit 1-6

Approved 2022-02-25



ASSA ABLOY

TEMPLATE NUMBER	REV	DATE
7316-2368	4	12/21



Opening		Dim. A	inches		mm.	
Hold Open ★	Stop					
85°	90°	9-1/8	1/2	13	6-3/4	171.5
90°	95°	8-3/8	3/4	19	7-3/8	187
95°	100°	7-3/4	2	51	7-3/4	196.5
100°	105°	7-3/8	3-3/4	95	8-3/8	212.5
105°	110°	6-3/4	4-1/8	104.5	9-1/16	230
110°	115°	6-1/2	6-1/2	165	9-1/8	232

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

Notes:

Do not scale drawing.

Left hand door shown.

Dimensions are in inches.

See conversion chart for metric dimensions.

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

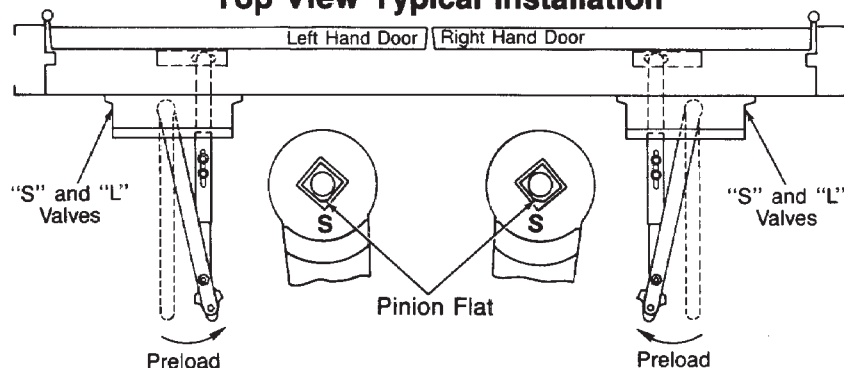
Hollow-metal doors require channel or box-type reinforcement when thru-bolt mount is specified.

Models with a Hold Open arm suffix are not permitted to be used on fire doors.

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).

Top View Typical Installation



Fastener	Frame	Door	Drill
1/4-20 machine screw	metal	none	#7 (.201) or 5.10mm. drill... 1/4-20 tap
#14 type "A" sheet metal screw	wood	none	7/32" (5.5mm)
SNB	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

UNI-J1600 or UNI-J1600H Series Unitrol Door Closers

Top Jamb Application

Non Hold Open or Hold Open Arm - All Arms With Spring Cushioned Stop

Individually Sized Units 3 and 4 & Multi-size Unit 1-6

**NORTON
RIXSON**

ASSA ABLOY

TEMPLATE NUMBER

7316-2402

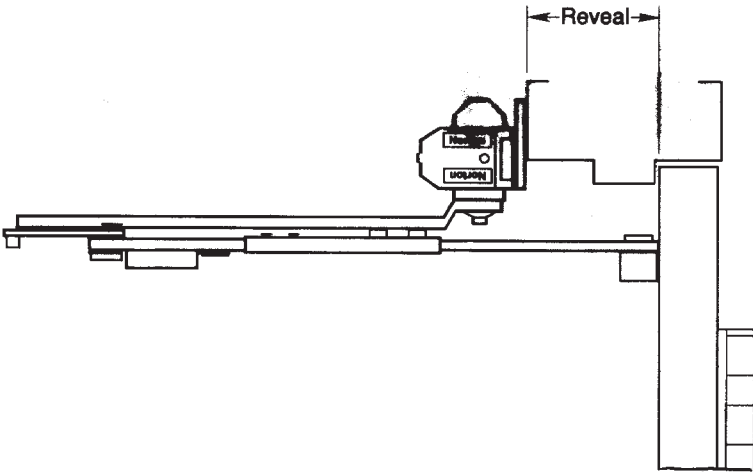
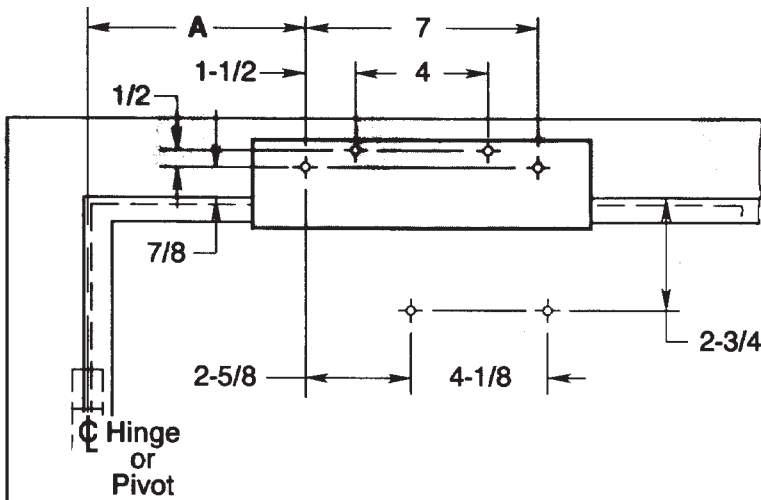
REV

4

DATE

12/21

Approved 2022-02-25



Opening		Dim. A	inches		mm.	
Hold Open ★	Stop					
85°	90°	10-1/8	1/2	13	7	178
90°	95°	9-3/8	7/8	22	7-1/2	190.5
95°	100°	8-3/4	1-1/2	38	7-3/4	196.5
100°	105°	8-3/8	2-5/8	66.5	8-3/8	212.5
105°	110°	7-3/4	2-3/4	70	8-3/4	222
110°	115°	7-1/2	4	101.5	9-3/8	238
			4-1/8	104.5	10-1/8	257

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

Notes:

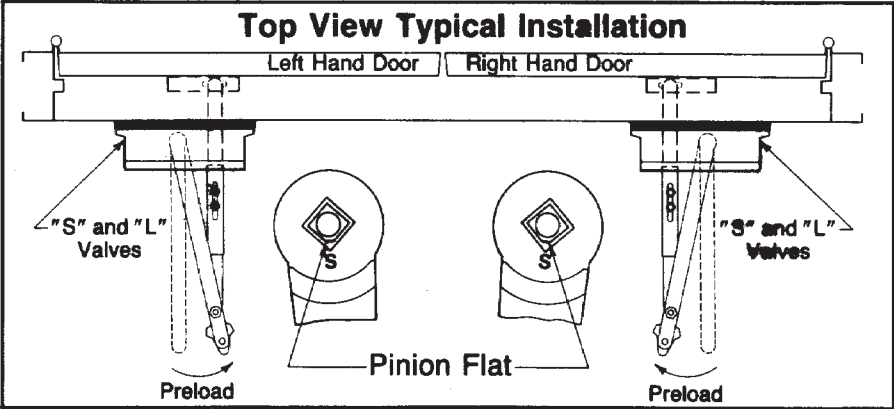
- Do not scale drawing.
- Left hand door shown.
- Dimensions are in inches.
- See conversion chart for metric dimensions.
- Door swing may be limited by door, frame, wall or hardware conditions.

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

Models with a Hold Open arm suffix are not permitted to be used on fire doors.

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).



Fastener	Frame	Door	Drill
1/4-20 machine screw	metal	none	#7 (.201) or 5.10mm. drill. . . 1/4-20 tap
#14 type "A" sheet metal screw	wood	none	7/32" (5.5mm)
SNB	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



UNI-J1600 or UNI-J1600H Series Unitrol Door Closers
Top Jamb Application With 1687 Drop Plate
Non Hold Open or Hold Open Arm - All Arms With Spring Cushioned Stop
Individually Sized Units 3 and 4 & Multi-size Unit 1-6



TEMPLATE NUMBER	REV	DATE
7316-2404	4	12/21