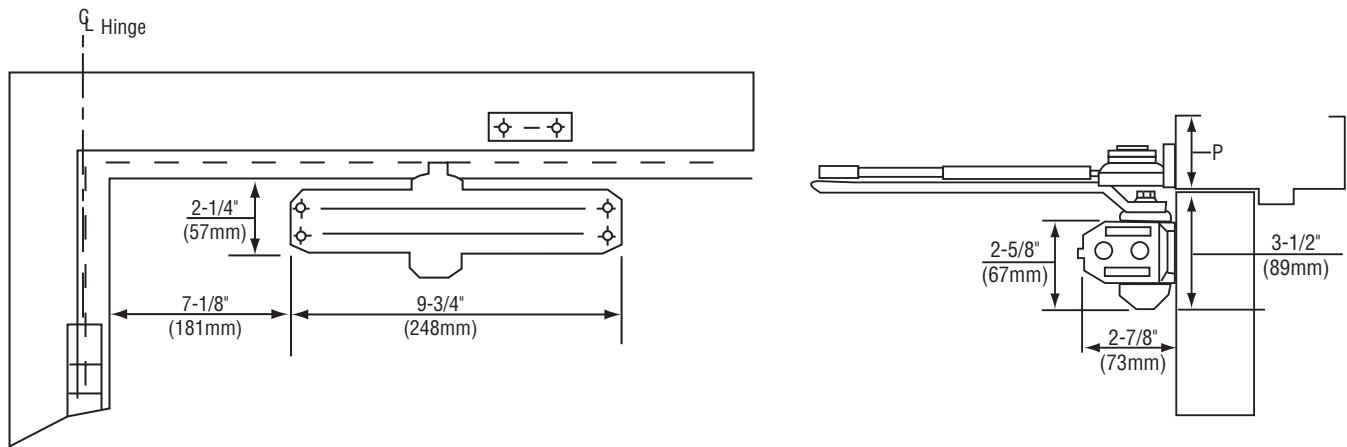


REGULAR ARM



* For doors opening up to 100°

Mounting holes for closer body are spaced 3/4" (19mm) vertically x 9-1/16" (230mm) horizontally.

Maximum Door Size Inches (cm)		Catalog Number Sized Closers	
Interior	Exterior	Non-Hold Open	Hold Open
32" (81)	-	1602BC	1602BCH
38" (97)	30" (76)	1603BC	1603BCH
42" (107)	36" (91)	1604BC	1604BCH
48" (122)	42" (107)	1605BC	1605BCH
-	48" (122)	1606BC	1606BCH

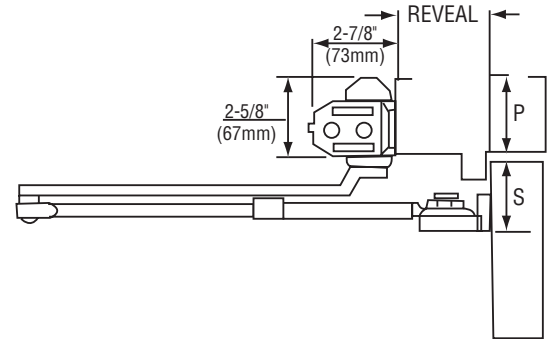
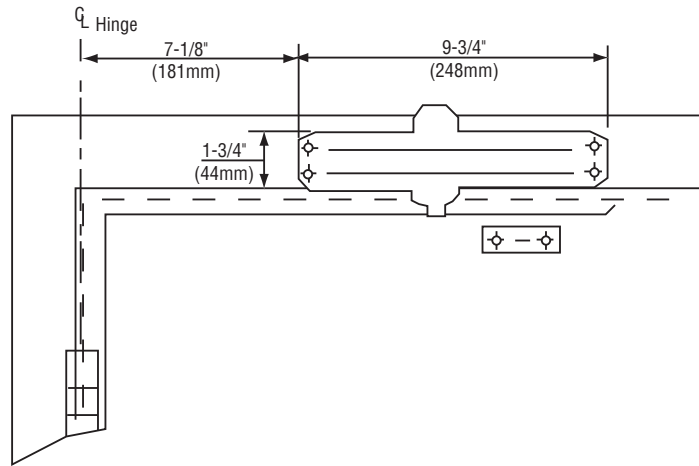
Dimensional Information Shown In Inches/mm		
P Minimum Ceiling Clearance		
Non-Hold Open		Hold Open
1600BC/1601	1680BC/1681	1-5/8" (41)
1-1/2" (38)	1" (25)	

Note:

1601 Door Closers are adjustable for sizes 3 through 6, and are shipped set at size 4.

1601BF Door Closers are adjustable for sizes 1 through 4, shipped set at size 2 and can be adjusted to conform to ADA opening force requirements.

TOP JAMB



* For doors opening up to 100°

Mounting holes for closer body are spaced 3/4" (19mm) vertically x 9-1/16" (230mm) horizontally.

Maximum Door Size Inches (cm)		Catalog Number Sized Closers	
Interior	Exterior	Non-Hold Open	Hold Open
32" (81)		1602BC J1602BC J1682BC†	1602BCH J1602BCH
38" (97)	30" (76)	1603BC J1603BC J1683BC†	1603BCH J1603BCH
42" (107)	36" (91)	1604BC J1604BC J1684BC†	1604BCH J1604BCH
48" (122)	42" (107)	1605BC J1605BC J1685BC†	1605BCH J1605BCH
-	48" (122)	1606BC J1606BC J1686BC†	1606BCH J1606BCH

Dimensional Information Shown In Inches/ mm						
P Minimum Ceiling Clearance		S Minimum Top Rail Clearance				
Without Drop Plate	With Drop Plate	Without Drop Plate	With 1687 Drop Plate		With 1688 Drop Plate	
1600BC/ 1601	1600BC/1601 1680BC/1681	1600BC/ 1601	1600BC 1601	1680BC 1681	1600BC/ 1601	1680BC/ 1681
2-5/8" (67)	1-3/4" (44)	1-7/8" (48)	2-3/4" (70)	2-1/4" (57)	3-3/8" (86)	2-7/8" (73)

Note:

1601 Door Closers are adjustable for sizes 3 through 6, and are shipped set at size 4.

1601BF Door Closers are adjustable for sizes 1 through 4, shipped set at size 2 and can be adjusted to conform to ADA opening force requirements.

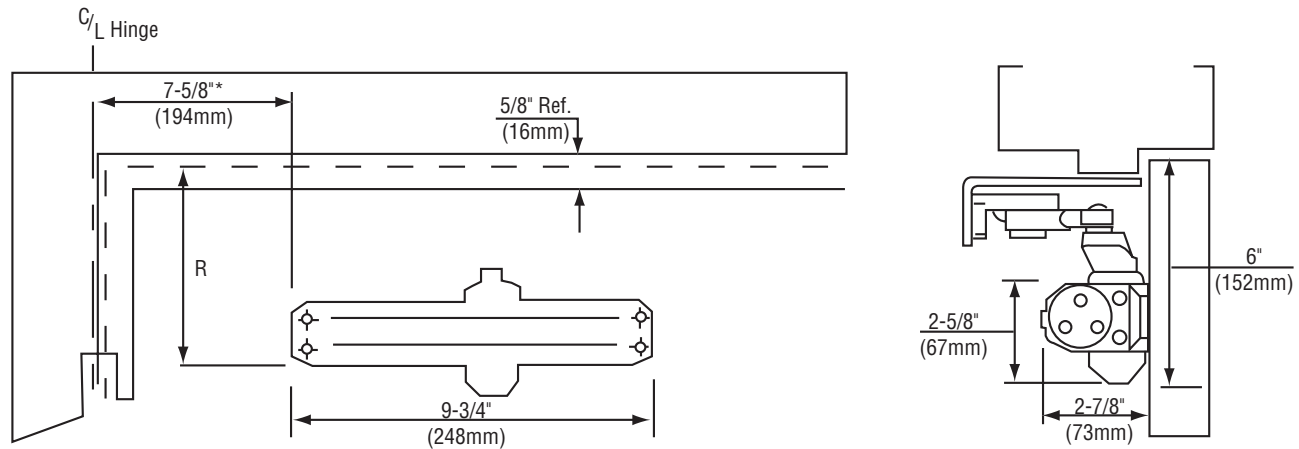
† **Narrow-Profile Arm Closers** can only be installed with 1687/1688 drop plate.

Non-Hold Open- Use standard 1600 closer for frame reveals between 0"- to 3" (0-76mm). Use Top Jamb J1600 closer for frame reveals from 3" to 7" (76 to 178mm).

Hold Open Use standard 1600H closer for frame reveals between 0" to 3" (0-76mm). Use top jamb J1600H closer for frame reveals from 2-3/4" to 6-3/4" (70 to 171mm).

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

PARALLEL ARM



* For doors opening up to 100°

Mounting holes for closer body are spaced 3/4" (19mm) vertically x 9-1/16" (230mm) horizontally.

Maximum Door Size Inches (cm)		Catalog Number Sized Closers	
Interior	Exterior	Non-Hold Open	Hold Open
30" (76)	-	1602BC	1602BCH
36" (91)	30" (76)	1603BC	1603BCH
42" (107)	36" (91)	1604BC	1604BCH
48" (122)	42" (107)	1605BC	1605BCH
-	48" (122)	1606BC	1606BCH

Minimum Top Rail of Door with 5/8" (16mm) frame stop			
Without Drop Plate Inches(mm)		With Drop Plate Inches(mm)	
1600BC/ 1601	1680BC/ 1681	1600BC/ 1601	1680BC/ 1681
5" (127)	4" (102)	3-1/8" (79)	2-1/8" (54)

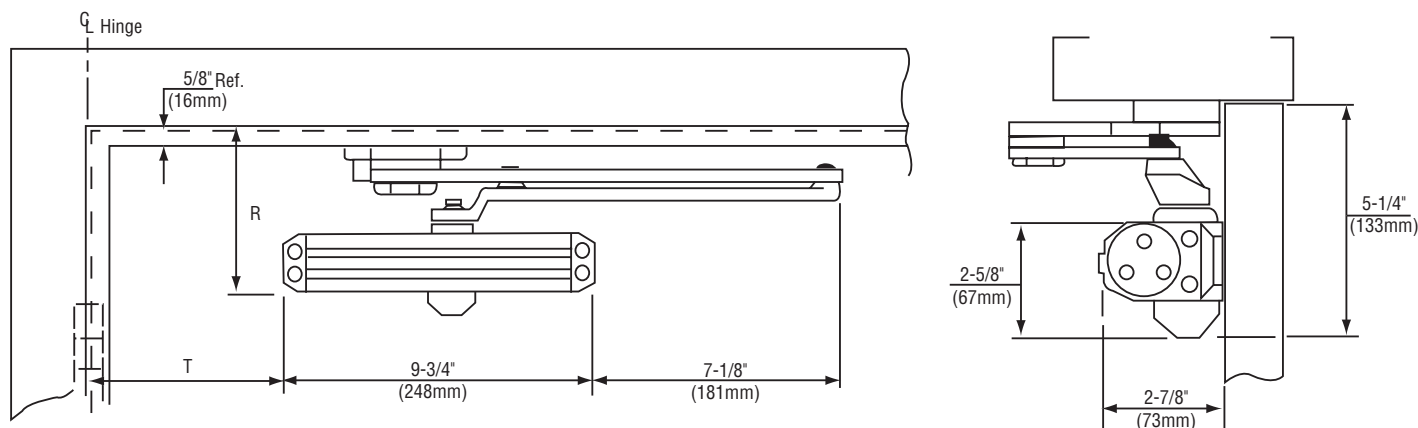
Note:

This door sizing information also applies to corner bracket mounted closers.

1601 Door Closers are adjustable for sizes 3 through 6, and are shipped set at size 4.

1601BF Door Closers are adjustable for sizes 1 through 4, shipped set at size 2 and can be adjusted to conform to ADA opening force requirements.

CLOSERPLUS® ARM PARALLEL RIGID ARM



* For doors opening up to 100°

Mounting holes for closer body are spaced 3/4" (19mm) vertically x 9-1/16" (230mm) horizontally.

Door Size Wood or Metal Inches (cm)		CloserPlus® Catalog Number Sized Closers		Parallel Rigid Catalog Number Sized Closers	
Interior	Exterior	Non-Hold Open	Hold Open	Non-Hold Open	Hold Open
28"-32" (71-81)	-	CLP1602BC	CLP1602BCT	PR1602BC	PR1602BCH
33"-36" (84-91)	28"-32" (71-81)	CLP1603BC	CLP1603BCT	PR1603BC	PR1603BCH
37"-42" (94-107)	33"-36" (84-91)	CLP1604BC	CLP1604BCT	PR1604BC	PR1604BCH
43"-48" (109-122)	37"-42" (94-107)	CLP1605BC	CLP1605BCT	PR1605BC	PR1605BCH
-	43"-48" (109-122)	CLP1606BC	CLP1606BCT	PR1606BC	PR1606BCH

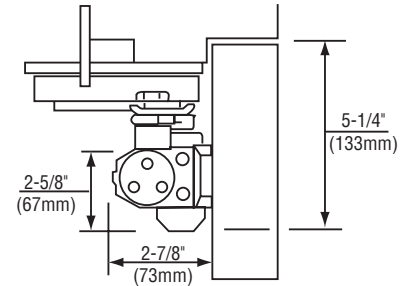
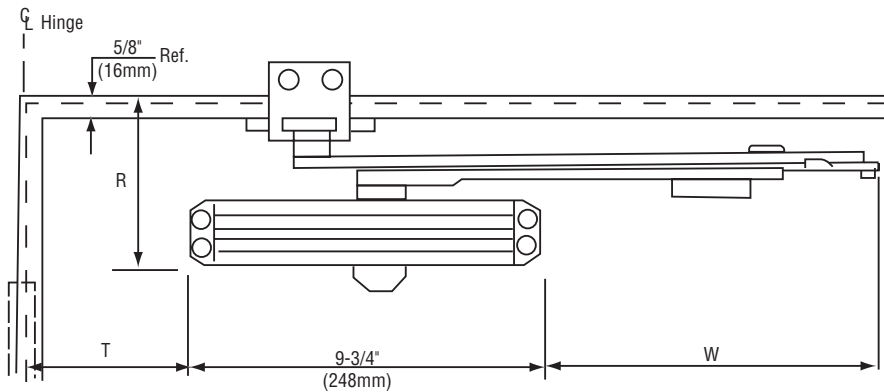
Note:

1601 Door Closers are adjustable for sizes 3 through 6, and are shipped set at size 4.

1601BF Door Closers are adjustable for sizes 1 through 4, shipped set at size 2 and can be adjusted to conform to ADA opening force requirements.

R Minimum Top Rail of Door		T Template Position For Hold Open or Stop at listed Angle					
Without Drop Plate(mm)	With Drop Plate(mm)	85°	90°	95°	100°	105°	110°
4-1/2" (114)	2-5/8" (67)	8-3/4" (222)	8" (203)	7-1/4" (184)	6-5/8" (168)	6" (152)	5-3/8" (137)

PARALLEL UNITROL® ARM



* For doors opening up to 100°

Mounting holes for closer body are spaced 3/4" (19mm) vertically x 9-1/16" (230mm) horizontally.

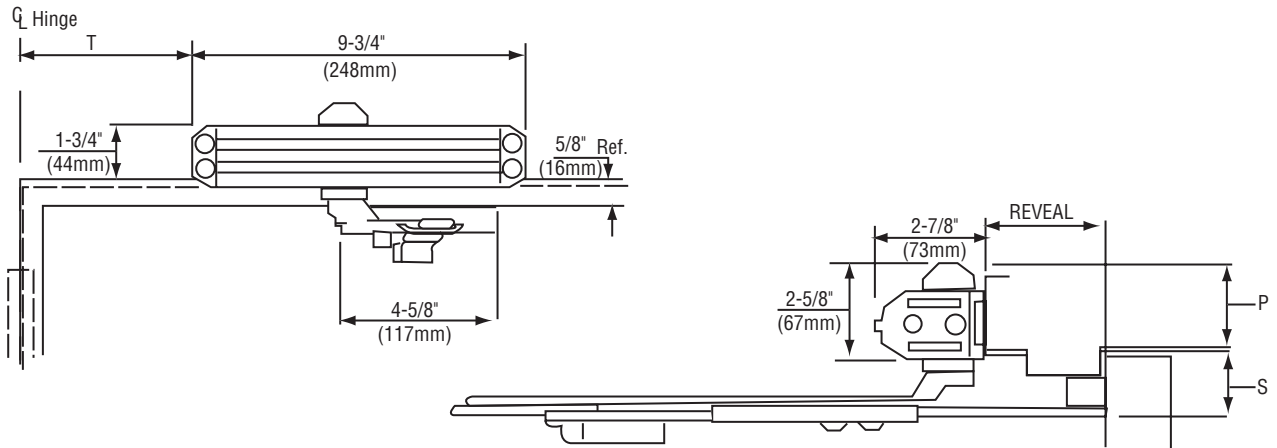
Door Width Inches (cm)	R Minimum Top Rail of Door		T Template Position For Hold Open or Stop at listed Angle						W Arm Extension Beyond Closer
	Without Drop Plate(mm)	With Drop Plate(mm)	85°	90°	95°	100°	105°	110°	
28"-32" (71- 81)	4-1/2" (114)	3-1/8" (79)	8-3/8" (213)	7-3/4" (197)	7-1/8" (181)	6-3/4" (171)	6-1/2" (165)	6" (152)	7-1/8" (181)
33"-41" (84- 104)			10-3/4" (273)	10 (254)	9-1/2" (241)	9" (229)	8-1/2" (216)	8" (203)	8-5/8" (219)
42"-48" (107- 122)			13" (330)	12-1/4" (311)	11-1/2" (292)	11" (279)	10-1/2" (267)	10" (254)	10-1/8" (257)

Door Size Wood or Metal Inches (cm)		Unitrol Catalog Number		
Interior	Exterior	Non-Hold Open	Hold Open	x Specify Door Width
28"-32" (71-81)	-	UNI1602BC	UNI1602BCH	
33"-36" (84-91)	28"-32" (71-81)	UNI1603BC	UNI1603BCH	
37"-41" (94- 104)	33"-36" (84-91)	UNI1604BC	UNI1604BCH	
42"-48" (107-122)	37"-41" (94-104)	UNI1605BC	UNI1605BCH	
-	42"-48" (107-122)	UNI1606BC	UNI1606BCH	

Note:

1601 Door Closers are adjustable for sizes 3 through 6, and are shipped set at size 4.

1601BF Door Closers are adjustable for sizes 1 through 4, shipped set at size 2 and can be adjusted to conform to ADA opening force requirements.



* For doors opening up to 100°

Mounting holes for closer body are spaced 3/4" (19mm) vertically x 9-1/16" (230mm) horizontally.

P Minimum Ceiling Clearance		S Minimum Top Rail Clearance		T Template Position For Hold Open or Stop at Listed Angle					
Without Drop Plate(mm)	With Drop Plate(mm)	Without Drop Plate(mm)	With Drop Plate(mm)	85°	90°	95°	100°	105°	110°
2-5/8" (67)	1-3/4" (44)	2-3/4" (70)	3-5/8" (92)	8-7/8" (225)	8-1/8" (206)	7-1/2" (191)	7-1/8" (181)	6-1/2" (165)	6-1/4" (159)

Note:

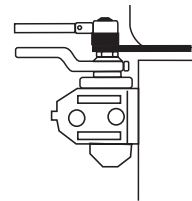
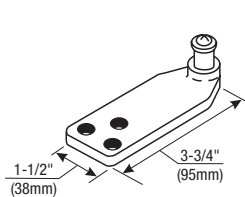
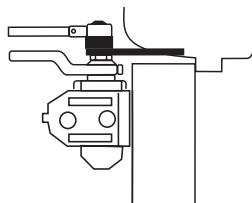
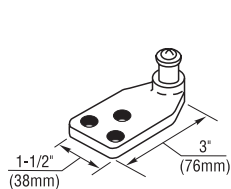
1601 Door Closers are adjustable for sizes 3 through 6, and are shipped set at size 4.

1601BF Door Closers are adjustable for sizes 1 through 4, shipped set at size 2 and can be adjusted to conform to ADA opening force requirements.

Door Size Wood or Metal Inches (cm)		Unitrol Catalog Number		
Interior	Exterior	Non-Hold Open	Hold Open	x Specify Frame Reveal
28"-34" (71-86)	-	UNIJ1602BC	UNIJ1602BCH	
35"-42" (89-107)	28"-32" (71-81)	UNIJ1603BC	UNIJ1603BCH	
37"-41" (94-104)	33"-36" (84-91)	UNIJ1604BC	UNIJ1604BCH	
42"-48" (107-122)	37"-41" (94-104)	UNIJ1605BC	UNIJ1605BCH	
-	42"-48" (107-122)	UNIJ1606BC	UNIJ1606BCH	

REGULAR ARM

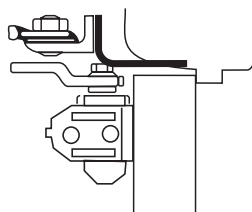
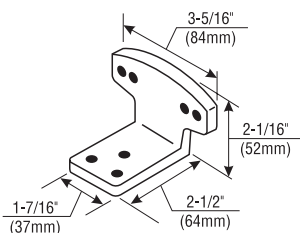
Brackets for Non-Hold Open Arms



Molded/Bull Nose Trim - #2403 Bracket: For use where the door frame has molded or bull nose trim which will not accept a standard non-hold open shoe. The bracket is mortised into the frame rabbet, and projects beyond the face of the frame. It will accommodate a frame rabbet up to 2" (51mm) deep.

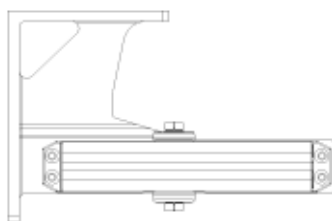
Molded/Bull Nose Trim - #2403-3/4 Bracket: This bracket is similar to-but longer than the 2403 bracket. It is designed to accommodate frame rabbets from 2" to 2-7/8" (51mm to 73mm) deep.

Brackets for Hold Open Arms



Molded/Bull Nose Trim - #80 Bracket: For use where the door frame has molded or bull nose trim which will not accept a standard hold open shoe. It is mortised into the frame rabbet, and projects beyond the face of the frame. It will accommodate a rabbet up to 2" (51mm) deep. This bracket is used in combination with the standard hold open mounting shoe.

Corner Brackets for Closer Mounting

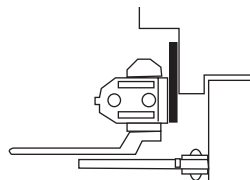
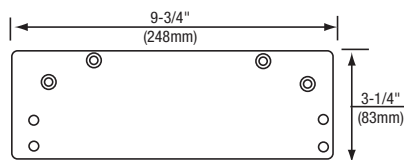


For Closer sizing information, use the Parallel Arm sizing chart on page 14.

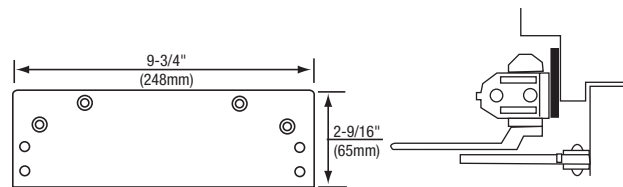
Mounting Opposite Hinge Side - #1647 Corner Bracket: For use where it is desired to mount the closer regular arm on the opposite to hinge side of the door. Can also be used to clear an overhead door holder.

TOP JAMB

Closer Mounting Plates



Overhead Door Holder - #1688 Drop Plate: For use where a overhead door holder prevents normal top jamb mounting. This places the center line of the arm mounting screws at 3-1/2" (89mm) from the top of the door.



Low Ceiling Clearance - Overhead Door Holder - #1687 Drop Plate: For use where the ceiling clearance is between 1-3/4" and 2-5/8" (44mm and 67mm). Or for use where an overhead door holder prevents normal top jamb mounting. This places the centerline of the arm mounting screws at 2-1/8" (54mm) from the top of door.

Closer Mounting Plate

PARALLEL ARM

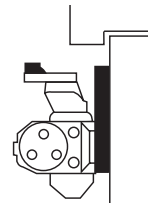
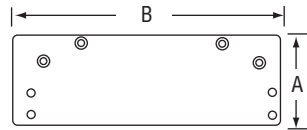
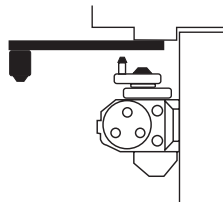
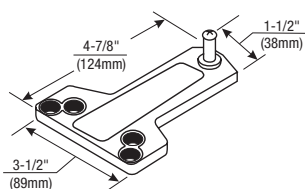


Plate No.	Dimensions	
	A (width)	B (length)
1688	3-1/4" (83mm)	9-3/4" (248mm)
1688C	4-1/8" (105mm)	9-7/8" (251mm)

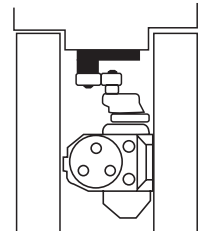
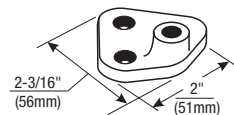
Note: #1688C - To be used when optional cover is specified.

Narrow Top Rail - #1688 Drop Plate: For use where a narrow top rail prevents the closer from being mounted directly to the door surface. This drop plate can be used to mount a closer on a top rail as narrow as 3-1/8" (79mm) in height for 1600BC or 2-1/8" (54mm) for 1680BC.

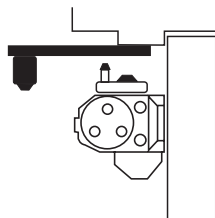
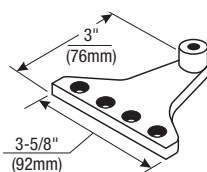
Brackets for Non-Hold Open Arms



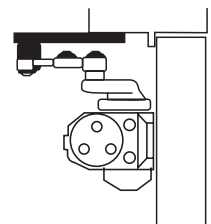
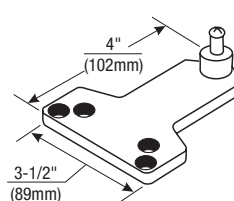
Standard Installation - #1618A Soffit Plate: This soffit plate is supplied standard with parallel arm closers. It can be mounted where the frame soffit is as narrow as 1" (25 mm). **Specify 1618A-SS for stainless steel soffit plate.** With Series P1600SS closers, a 1618A-SS soffit plate fabricated of stainless steel, is supplied standard.



Mounting Between Doors - #2018 Soffit Bracket: For use where insufficient space between companion doors does not permit use of other soffit plates. This bracket permits mounting of the closer between doors with as little as 3" (76mm) of header space. Permits closer arm to clear up to 5/8" (16mm) high stop.



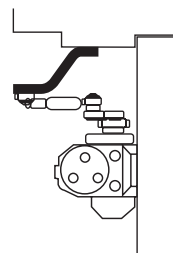
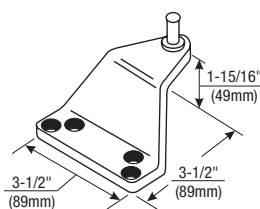
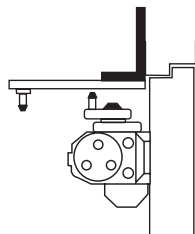
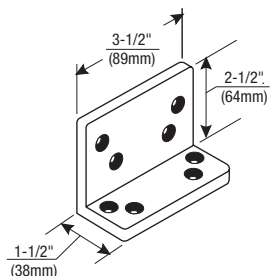
Narrow Frame/Removable Stop - #2018B Soffit Plate: For use where a narrow frame or frame with removable stop does not permit use of the standard soffit plate. This soffit plate may be mounted on the frame soffit or the frame rabbet where the stop does not exceed 5/8" (16mm) in height. All of the screw holes are in a straight line, requiring as little as 1-1/4" (32mm) of frame reveal to mount bracket and maintain good closer arm geometry. Where the frame soffit is as wide as 2" (51mm), this soffit plate may be used to clear weather-stripping that is up to 1-3/8" (35mm) wide and 5/8" (16mm) in height.



Blade/Applied Stop - #2018D Soffit Plate: For use where a blade or applied stop does not permit installation of the standard soffit plate. Mounts to either the frame soffit or rabbet. Since this soffit plate projects 7/8" (22mm) less than a standard soffit plate, it requires a minimum frame reveal of 1-1/2" (38mm). Permits closer to clear up to a 5/8" (16mm) high frame stop.

PARALLEL ARM

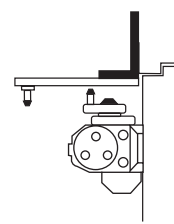
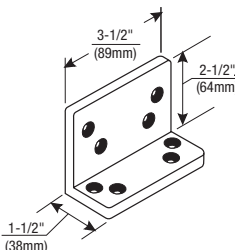
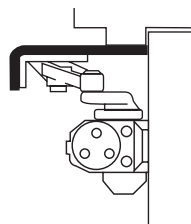
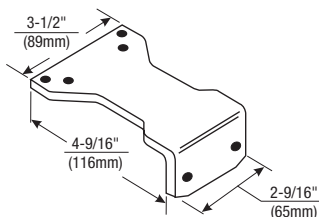
Brackets for Non-Hold Open Arms (continued)



Flush Transom - #2022 Angle Bracket: For use where rabbeted or flush transom conditions prevent installation of a soffit plate. Used in combination with the 1618A soffit plate, or may be used in combination with the 2018S soffit plate when it is necessary for the closer arm to clear a separate overhead door holder.

Extra-clearance - #2018S Offset Soffit Plate: For use where the need for additional clearance prevents use of the standard soffit plate. This plate mounts to the frame soffit to provide up to 2" (51mm) of clearance when a separate overhead door holder is used. Standard mounting requires a 2-5/8" (67mm) wide frame soffit. It may also be used where unusually high frame stops or weather-stripping prevent the use of other soffit plates.

Brackets for Hold Open Arms



Parallel Hold Open - #1628H Adapter Plate: This Adapter Plate is supplied standard with all parallel arm hold open closers. It can also be used to convert regular arm or top jamb hold open arms to parallel arm installation. It can be mounted where the frame soffit is as narrow as 1" (25mm).

Flush Transom Hold Open - #2022 Angle Bracket: For use where rabbeted or flush transom conditions prevent installation of the standard 1628H hold open adapter plate. It is used in combination with the 1628H adapter plate.

PARALLEL
RIGID ARM

Closer Mounting Plate

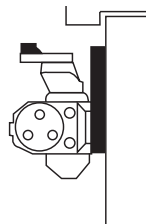
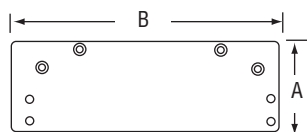
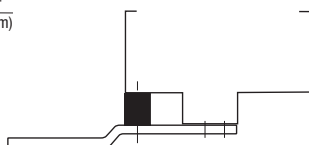
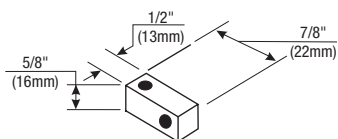


Plate No.	Dimensions	
	A (width)	B (length)
1688	3-1/4" (83mm)	9-3/4" (248mm)
1688C	4-1/8" (105mm)	9-7/8" (251mm)

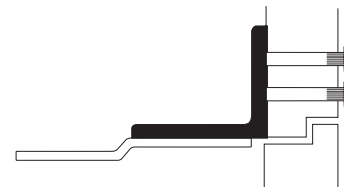
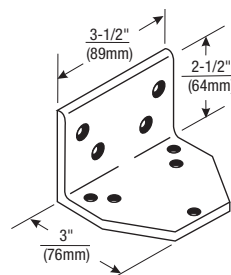
Note: #1688C - To be used when optional cover is specified.

Narrow Top Rail - #1688 Drop Plate: For use where a narrow top rail prevents the closer from being mounted directly to the door surface. This drop plate can be used to mount a closer on a top rail as narrow as 2-5/8" (67mm) in height.

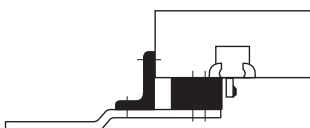
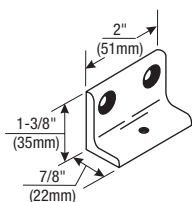
Brackets for Non-Hold Open Arms & Hold Open Arms



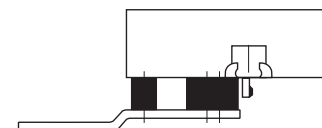
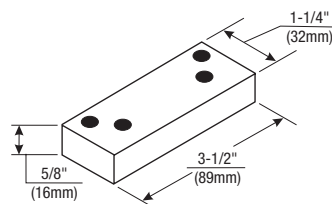
Standard - #2019S Spacer Block: For use where a narrow frame soffit does not provide adequate support for the soffit plate. Supplied as standard with all parallel rigid arm closers. For use on frame with either 1/2" (13mm) or 5/8" (16mm) high frame stop.



Flush Rabbeted Transom - #2019L Angle Bracket: For use where flush transom conditions prevent mounting of the standard soffit plate. This bracket is used in combination with the arm's soffit plate.



Narrow Frame - #6890 Support Bracket: For use where the frame is narrow, and the soffit plate cannot be mounted directly to the frame soffit or rabbet. Used in combination with the #6891 Spacer Block on blade stop frames to provide extra support and needed clearance of the blade stop. Used on frame where frame stop does exceed 5/8" (16mm) in height.



Clearance/Support Blade Stop - #6891 Spacer Block: For use where the door frame has a blade stop and the soffit plate must be mounted on the frame rabbet. This accessory is used in combination with the standard 2019S Spacer Block to provide clearance of the blade stop. For clearance of 5/8" (16mm) high-frame stop.