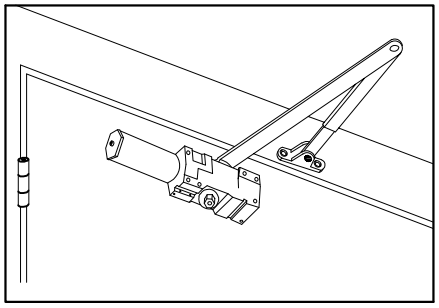
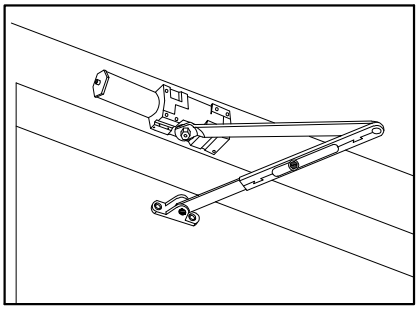
DC8416 SERIES DOOR CLOSER INSTALLATION INSTRUCTIONS

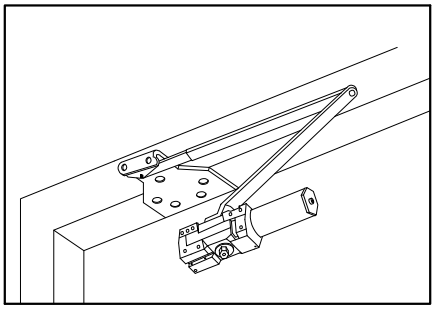
STANDARD MOUNT (PULL SIDE)



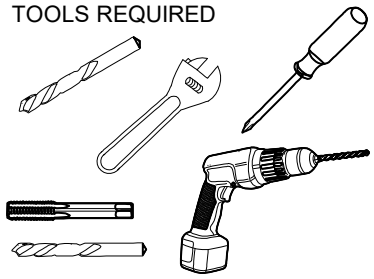
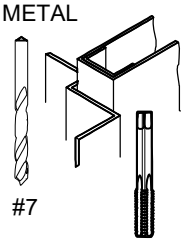
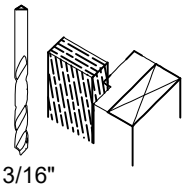
TOP JAMB MOUNT (PUSH SIDE)



PARALLEL MOUNT (PUSH SIDE)



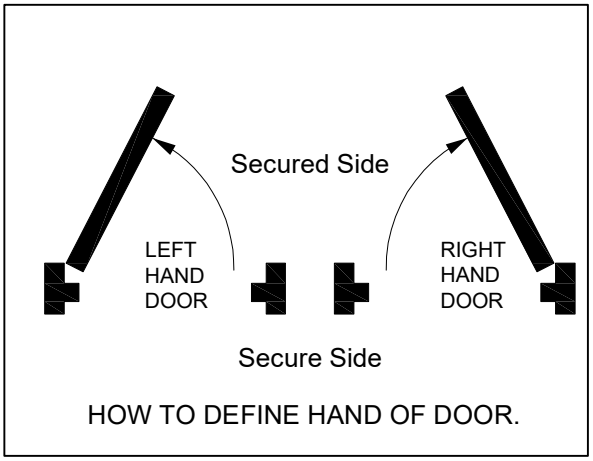
Preparation for Fasteners-Figure 1.

TOOLS REQUIRED	METAL	WOOD	Self Drilling /Tapping screws Wood and Metal	Sleeve Nut and Bolt
	 #7 1/4"-20	 3/16" *Pilot Hole Required	 For wood, drill 3/16" hole Machine Screws  #7 Drill, 1/4"-20 Tap	 Drill 9/32" thru from Closer side 3/8" Drill other Side Check building and fire codes to see if your application requires the use of sleeve nuts and bolts.

Spring power setting & door width

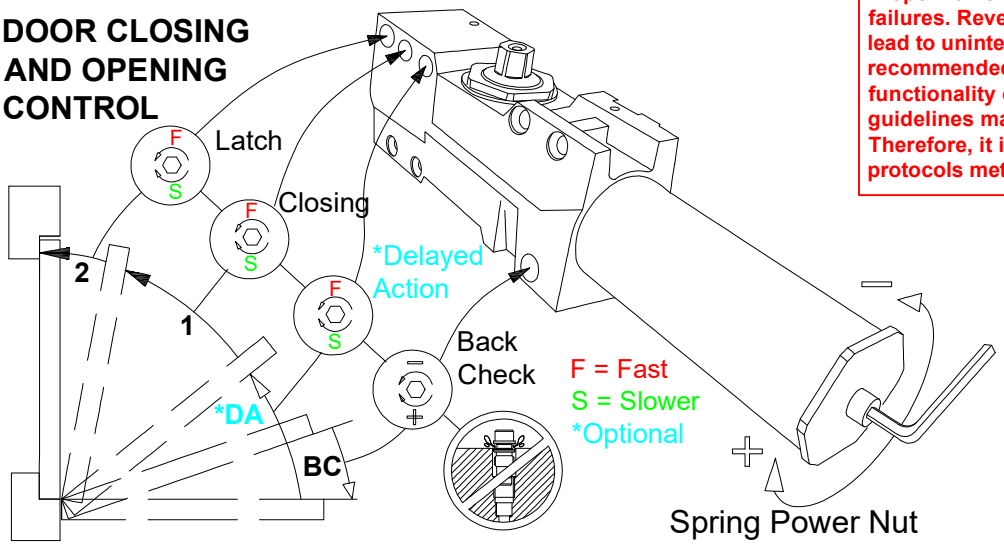
MAXIMUM DOOR WIDTH		FULL TURNS REQUIRED
EXTERIOR DOORS	INTERIOR DOORS	
———	5 lbs-ADA	5 TURNS C.C.W.
8.5 lbs-ADA	34"(864)	2 TURNS C.C.W.
30" (762)	38"(962)	0 TURNS
36"(914)	48"(1219)	5 TURNS C.W.
42"(1067)	54"(1372)	10TURNS C.W.
48"(1219)	60"(1524)	15 TURNS C.W.

C.W-Clockwise
C.C.W-Counter-Clockwise



HOW TO DEFINE HAND OF DOOR.

DOOR CLOSING AND OPENING CONTROL



Warning:

Proper valve maintenance is crucial to prevent system failures. Reversing the direction of certain valves can lead to unintended operational issues. Adhering to recommended procedures ensures the integrity and functionality of the equipment. Any deviation from these guidelines may compromise the system's performance. Therefore, it is imperative to follow established protocols meticulously.

ATTENTION:

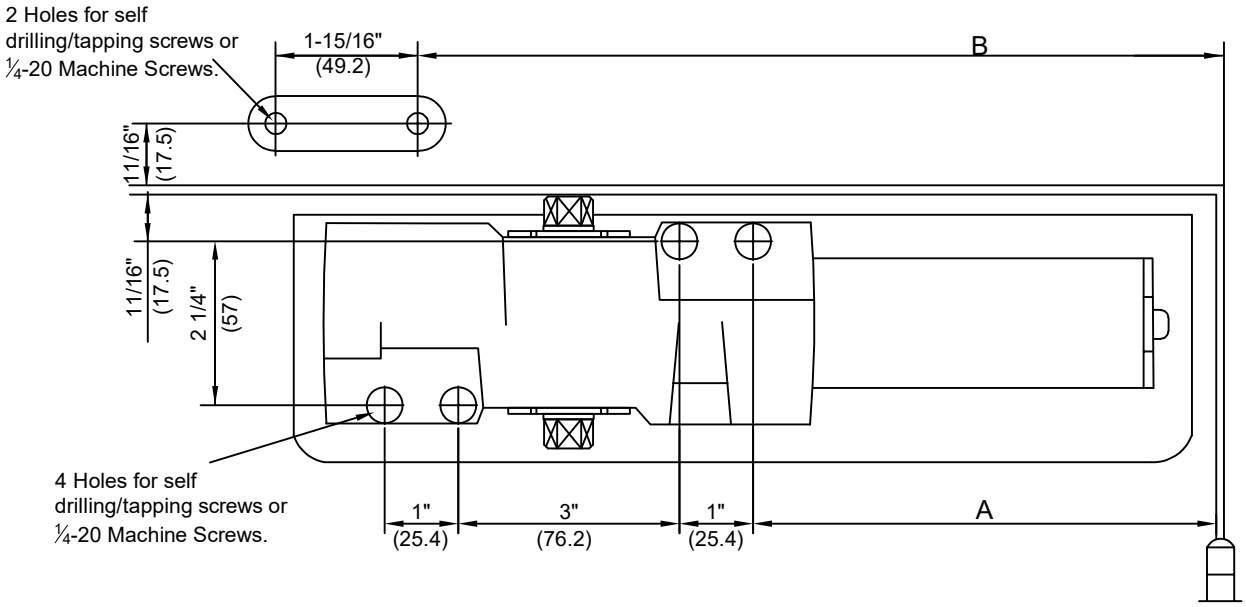
Please note the recommended door closing time, measured from a 90-degree open position, should be between 4 to 6 seconds. For individuals with disabilities, the elderly, or young children, a longer closing duration may be more appropriate.

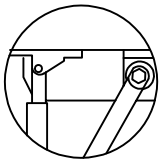
The Backcheck ("BC") valve regulates the hydraulic resistance encountered when opening the door within the backcheck range. It is crucial never to fully close this valve, as its function is not to provide a positive stop..

DC8416 SERIES DOOR CLOSER
STANDARD INSTALLATION
CLOSER MOUNTED ON DOOR ON PULL SIDE

This drawing shown is LEFT HAND DOOR,
For RIGHT HAND DOOR should be install in symmetry

Do not scale drawing
Dimensions are in inches (mm)

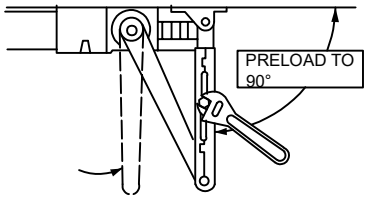


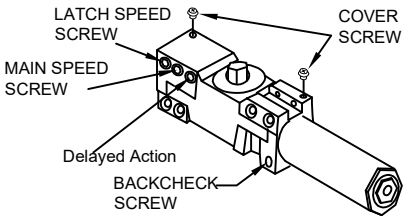


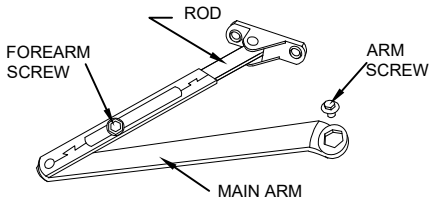
* Recommended mounting for meeting ADA compliance
* When door closer is installed and adjusted to conform to ADA reduced opening force requirements (5 lbs max.), it may not have adequate closing force to reliably close and latch the door.

OPENING	"A"	"B"	
TO 100°	7-5/16" (185)	11-7/8" (301)	
*TO 130°	6-1/4" (159)	10-13/16" (275)	♿

1. Select degree of opening and use dimensions shown or attached template to locate 4 holes on door for closer body and 2 holes on frame face for forearm shoe.
2. Prepare door and frame for fasteners. See **"Preparation for Fasteners", Figure 1**, Page 1.
3. Adjust spring power to match door width as indicated by chart on page 1.
4. Mount closer on door as dimensions shown. Tube end toward hinge.If pivots are used , locate closer and shoe from CENTERLINE OF PIVOT.
   (For offset pivots, please increase the marked dimensions by ⅛")
5. Place main arm on top shaft, 90° to closer body, insert arm screw into top of shaft and tighten.
6. Attach shoe to frame as dimensions shown. (if more latching power is required, rotate shoe 180°)
7. Open door and insert rod in forearm.
8. With forearm at right angle to door (90°) ,insert forearm set screw and tighten.







(IF HOLD OPEN ARM IS USED, THE NUT IS ON THE TOP FOR RH DOOR AND BOTTOM FOR LH DOOR)

REGULATION:
A ' normal ' closing time from 90° open position to door stop position is 4-6 secs, evenly divided between main swing speed and latch swing speed. Use socket key (Furnished) to adjust speed. To slow main speed of door, turn regulating screw nearest shaft clockwise. To slow latch speed, turn regulating screw nearest hinge clockwise.

BACKCHECK AND DELAYED ACTION
To increase back-check force, turn regulating screw clockwise.
DO NOT USE ABRUPT BACKCHECK OR EXPECT DOOR CLOSER TO ACT AS A DOOR STOP.
To Increase the Delayed closing time, turn the DA screw clockwise.

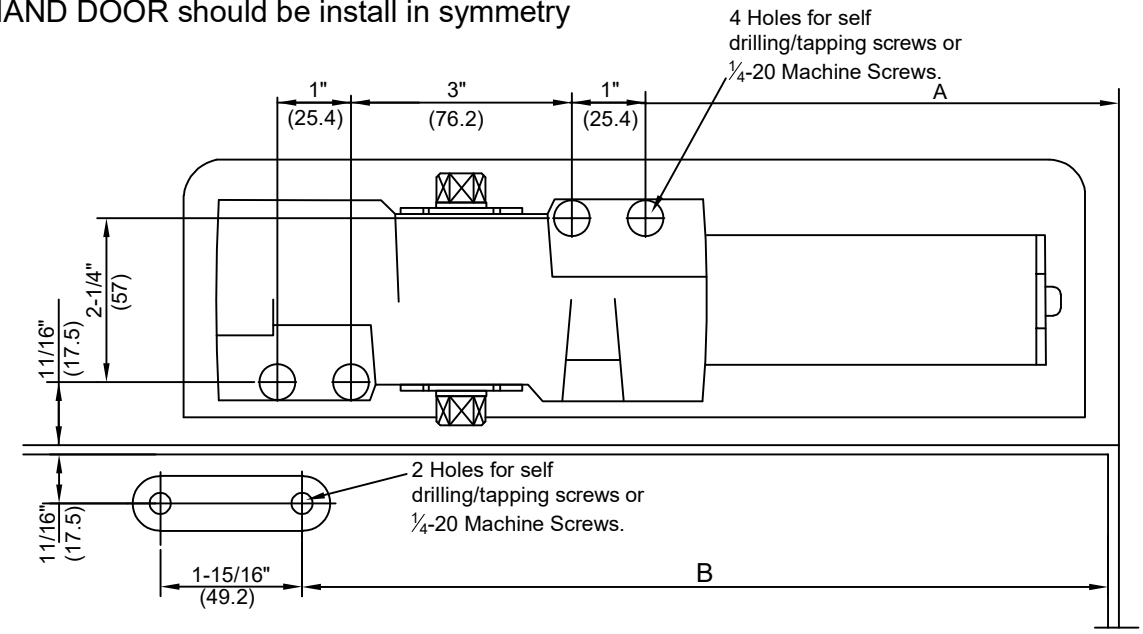
COVER
Place insert in Proper cutout, then push cover against door. Tighten both cover screw securely.

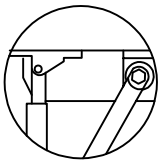
HOLD OPEN ADJUSTMENT (WHEN FRICTION HOLD OPEN ARM IS USED)
Loose adjusting nut, open door to required hold open position and tighten the nut. Do not permit door to swing beyond hold open setting.

DC8416 SERIES DOOR CLOSER
TOP JAMB INSTALLATION
CLOSER MOUNTED TOP JAMB ON PUSH SIDE

This drawing shown is RIGHT HAND DOOR,
For LEFT HAND DOOR should be install in symmetry

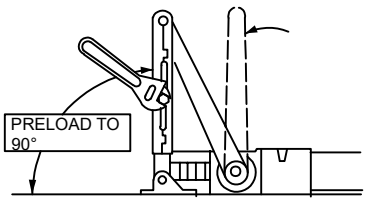
Do not scale drawing
Dimensions are in inches (mm)

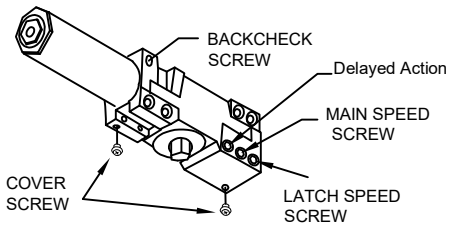


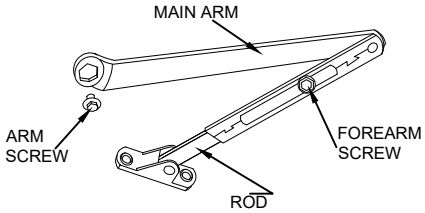


* Recommended mounting for meeting ADA compliance
* When door closer is installed and adjusted to conform to ADA reduced opening force requirements (5 lbs max.), it may not have adequate closing force to reliably close and latch the door.

OPENING	"A"	"B"	
TO 100°	7-5/16" (185)	11-7/8" (301)	
*TO 130°	6-¼" (159)	10-13/16" (275)	♿







1. Select degree of opening and use dimensions shown or attached template to locate 4 holes on frame face for closer body and 2 holes on door for forearm shoe.
2. Prepare door and frame for fasteners. See **"Preparation for Fasteners", Figure 1,** Page 1.
3 Adjust spring power to match door width as indicated by chart on page 1.
4. Mount closer on frame as dimensions shown. Tube end toward hinge. If pivots are used , locate closer and shoe from CENTERLINE OF PIVOT. (For offset pivots, please increase the marked dimensions by ⅛")
5. Place main arm on top shaft 90° to closer body, insert arm screw into top of shaft and tighten.
6. Attach shoe to door as shown. (if more latching power is required, rotate shoe 180°)
7. Open door and insert rod in forearm(For reveal 2 5/8" through 4 13/16" use long rod. For reveals 4 7/8" to 8" use FOREARM EXTENDER (ROD) -available from dealer).
8. With forearm at right angle to door (90°) ,insert forearm set screw and tighten.

(IF HOLD OPEN ARM IS USED, THE NUT IS ON THE TOP FOR LH DOOR AND BOTTOM FOR RH DOOR)

REGULATION:
A ' normal ' closing time from 90° open position to door stop position is 4-6 secs, evenly divided between main swing speed and latch swing speed. Use socket key (Furnished) to adjust speed. To slow main speed of door, turn regulating screw nearest shaft clockwise. To slow latch speed, turn regulating screw nearest hinge clockwise.

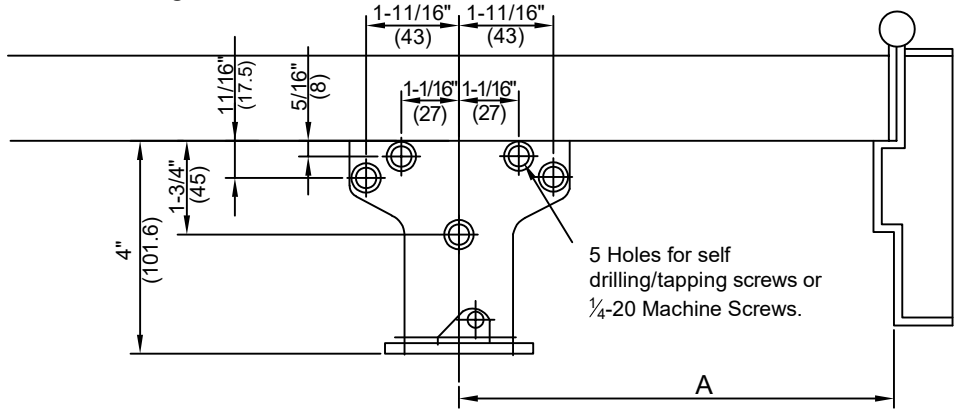
BACKCHECK AND DELAYED ACTION
To increase back-check force, turn regulating screw clockwise.
DO NOT USE ABRUPT BACKCHECK OR EXPECT DOOR CLOSER TO ACT AS A DOOR STOP.
To Increase the Delayed closing time, turn the DA screw clockwise.

COVER
Place insert in Proper cutout, then push cover against door. Tighten both cover screw securely.

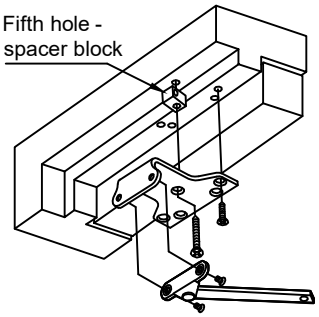
HOLD OPEN ADJUSTMENT (WHEN HOLD OPEN ARM IS USED)
Loose adjusting nut, open door to required hold open position and tighten nut.
Do not permit door to swing beyond hold open setting.

DC8416 SERIES DOOR CLOSER
PARALLEL ARM INSTALLATION
CLOSER MOUNTED ON DOOR ON PUSH SIDE

This drawing shown is RIGHT HAND DOOR, For LEFT HAND DOOR should be install in symmetry

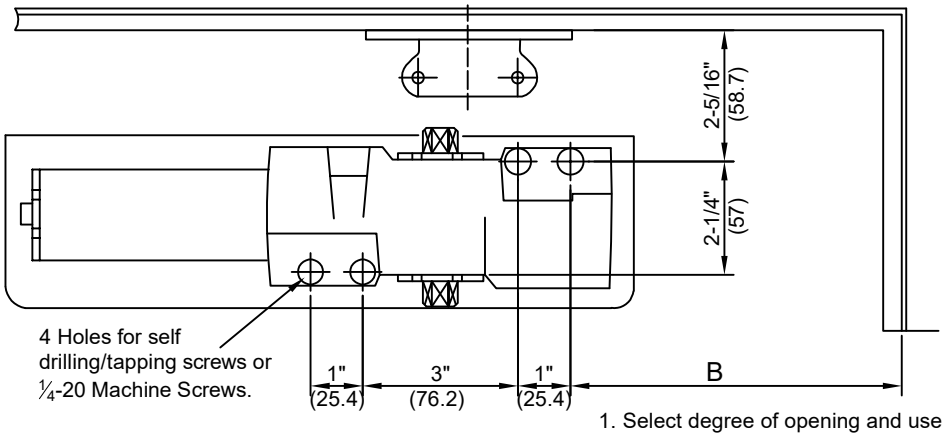


Do not scale drawing
Dimensions are in inches (mm)

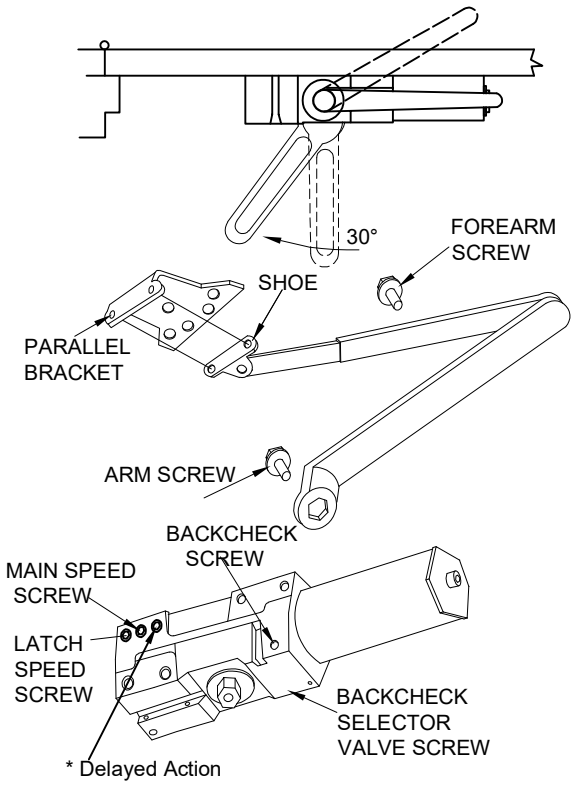


OPENING	"A"	"B"	
TO 100°	9-7/16" (240)	8-1/16" (205)	
* TO 120°	8 5/8" (220)	7 -5/16" (185)	♿
* TO 180°	7 7/8" (200)	6- 1/2" (165)	♿

* Recommended mounting for meeting ADA compliance
* When door closer is installed and adjusted to conform to ADA reduced opening force requirements (5 lbs max.), it may not have adequate closing force to reliably close and latch the door.



1. Select degree of opening and use dimensions shown or attached template to locate 4 holes on door for closer body and 5 holes on door for parallel bracket.
2. Prepare door and frame for fasteners. See **"Preparation for Fasteners", Figure 1**, Page 1.
3. Before installation, turn **Backcheck selector** valve (Found on the opposite side of closer) ALL THE WAY IN(CLOCKWISE).
2. Adjust spring power to match door width as indicated by chart on page 1.
3. Mount closer on door as dimensions shown. Tube end toward latch.If pivots are used, locate closer and parallel bracket from CENTERLINE OF PIVOT.
4. Place open end wrench on bottom shaft and turn toward hinge jamb about 30° and then place main arm on top shaft, insert arm screw into top of shaft and tighten.
5. Attach parallel bracket on frame using dimensions shown.
6. Attach rod and shoe to parallel bracket as shown.
7. Insert rod into forearm, and adjust the length of the forearm so that the main arm is parallel to door. Then insert forearm set screw and tighten.



(IF HOLD OPEN ARM IS USED, THE NUT IS ON THE TOP FOR RH DOOR AND BOTTOM FOR LH DOOR)

REGULATION:
A ' normal ' closing time from 90° open position to door stop position is 4-6 seconds, evenly divided between main swing speed and latch swing speed. Use Allen key (Furnished) to adjust speed. To slow main speed of door, turn regulating screw nearest shaft clockwise. To slow latch speed, turn regulating screw nearest hinge clockwise.

BACKCHECK AND DELAYED ACTION
To increase back-check force, turn regulating screw clockwise.
DO NOT USE ABRUPT BACKCHECK OR EXPECT DOOR CLOSER TO ACT AS A DOOR STOP.
To Increase the Delayed closing time, turn the DA screw clockwise.

COVER
Place insert in Proper cutout, then push cover against door. Tighten both cover screw securely.

HOLD OPEN ADJUSTMENT (WHEN FRICTION HOLD OPEN ARM IS USED)
Loose adjusting nut, open door to required hold open position and tighten the nut. Do not permit door to swing beyond hold open setting.

DC8416 SERIES
REGULAR ARM INSTALLATION- PULL SIDE
TEMPLATE FOR A RIGHT HAND DOOR

WARNING:
PLEASE PRINT AT ACTUAL SIZE,
DO NOT SCALE TO FIT

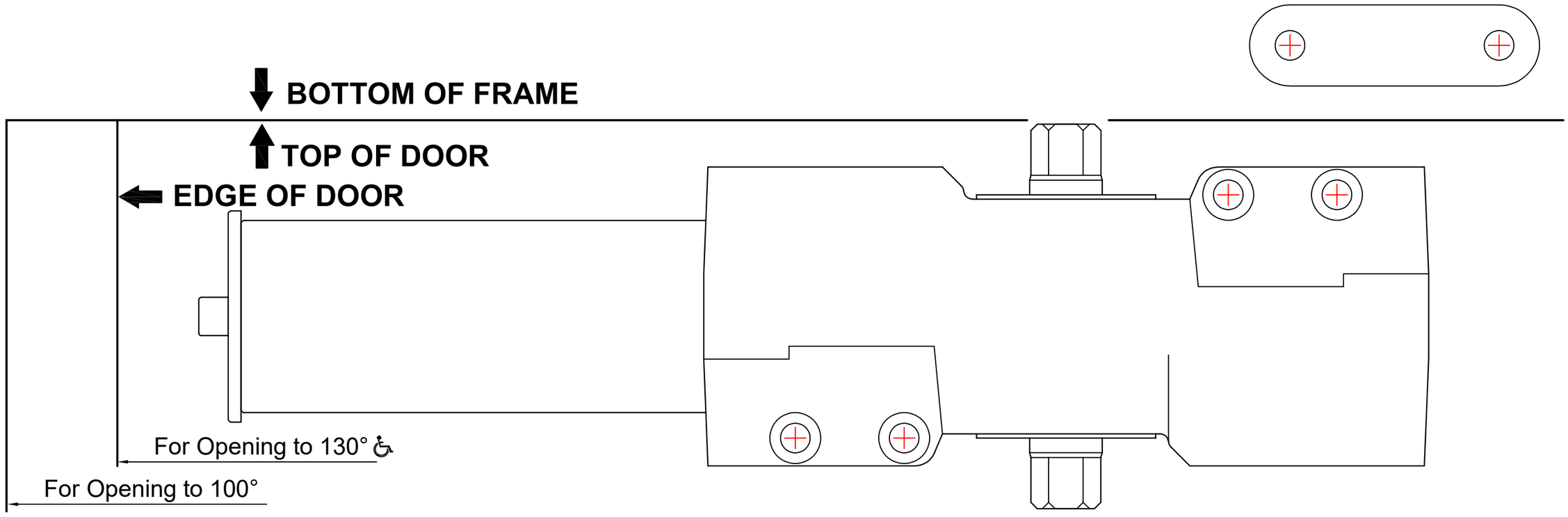


Figure 1

Preparation for Fasteners		
Fasteners	Door or Frame	Drill-Sizes
Self Drilling/Tapping Screw	Hollow Metal or Aluminum	No drill required
	Wood (see note*)	3/16" pilot hole
1/4"-20 Machine Screw	Hollow Metal	Drill #7 (0.201" dia.)& Tap 1/4"-20
1/4"-20 Machine Screw used with Through Bolt	Hollow Metal or Aluminum	9/32" drill closer side & 3/8" drill opposite side
	Wood	
Wood Screw-Optional	Wood	3/16" pilot hole

*NOTE: Wood doors/frames must have the pilot holes drilled when using Self Drilling/Tapping screws.

Notes:
1. Use this template to locate the mounting holes of the closer body and arm shoe.
2. Align Bottom of frame and Top of door with thick dark lines shown on template.
3. Align Edge of door with line of the desired degree of opening.
4. Mark holes locations and drill holes according to Preparation for Fasteners chart shown below.

DC8416 SERIES
REGULAR ARM INSTALLATION- PULL SIDE
TEMPLATE FOR A LEFT HAND DOOR

WARNING:
PLEASE PRINT AT ACTUAL SIZE,
DO NOT SCALE TO FIT

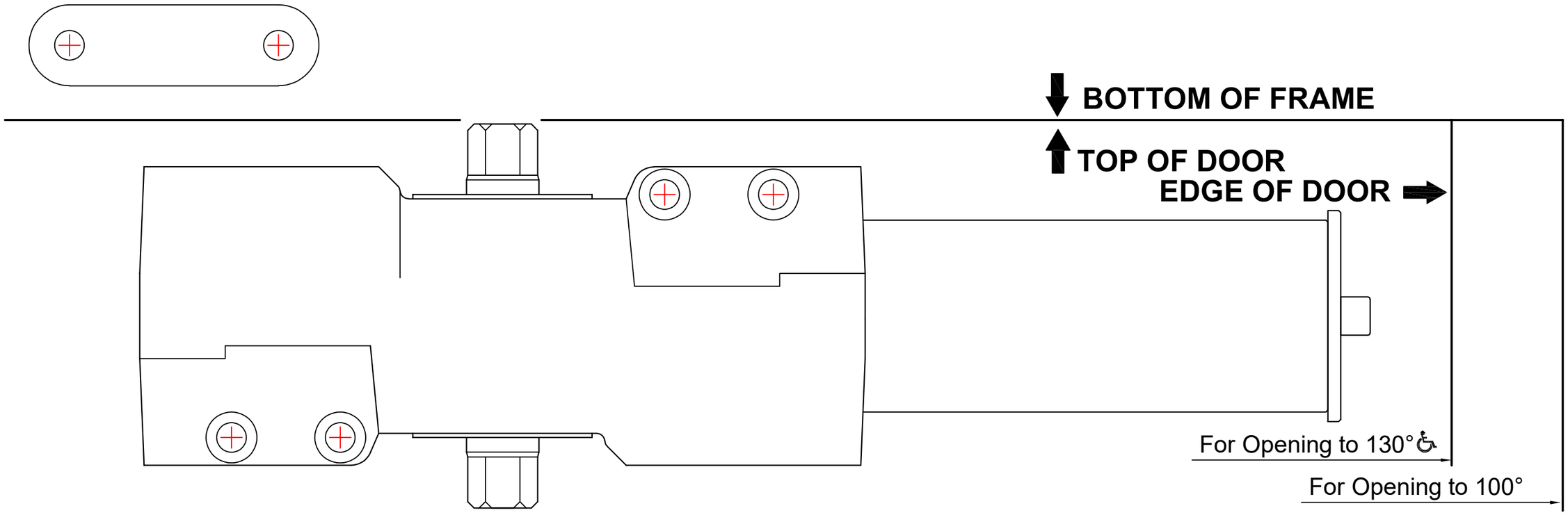


Figure 1

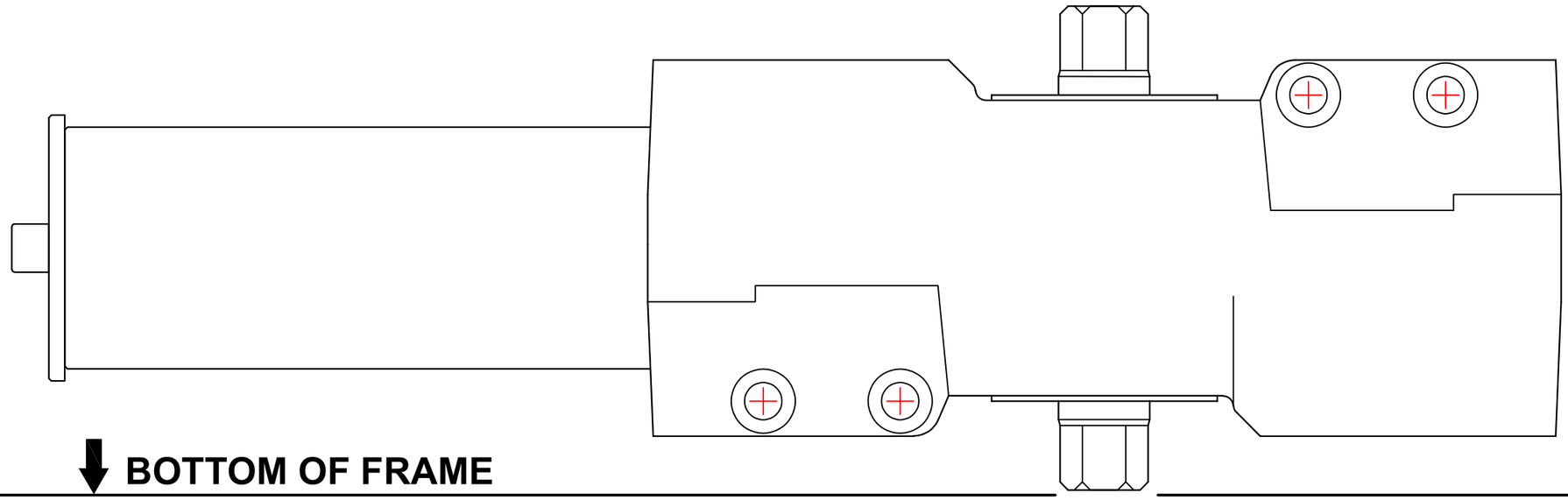
Preparation for Fasteners		
Fasteners	Door or Frame	Drill-Sizes
Self Drilling/Tapping Screw	Hollow Metal or Aluminum	No drill required
	Wood (see note*)	3/16" pilot hole
1/4"-20 Machine Screw	Hollow Metal	Drill #7 (0.201" dia.)& Tap 1/4"-20
1/4"-20 Machine Screw used with Through Bolt	Hollow Metal or Aluminum	9/32" drill closer side & 3/8" drill opposite side
	Wood	
Wood Screw-Optional	Wood	3/16" pilot hole

*NOTE: Wood doors/frames must have the pilot holes drilled when using Self Drilling/Tapping screws.

Notes:
1. Use this template to locate the mounting holes of the closer body and arm shoe.
2. Align Bottom of frame and Top of door with thick dark lines shown on template.
3. Align Edge of door with line of the desired degree of opening.
4. Mark holes locations and drill holes according to Preparation for Fasteners chart shown below.

DC8416 SERIES
TOP JAMB INSTALLATION-PUSH SIDE
TEMPLATE FOR A LEFT HAND DOOR

WARNING:
PLEASE PRINT AT ACTUAL SIZE,
DO NOT SCALE TO FIT



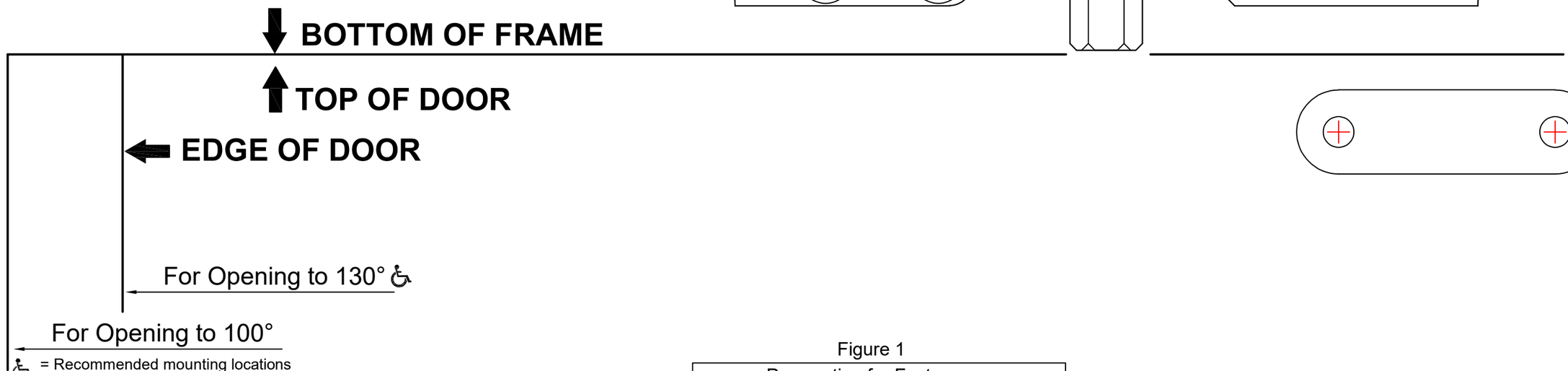


Figure 1

Preparation for Fasteners		
Fasteners	Door or Frame	Drill-Sizes
Self Drilling/Tapping Screw	Hollow Metal or Aluminum	No drill required
	Wood (see note*)	3/16" pilot hole
1/4"-20 Machine Screw	Hollow Metal	Drill #7 (0.201" dia.)& Tap 1/4"-20
1/4"-20 Machine Screw used with Through Bolt	Hollow Metal or Aluminum	9/32" drill closer side & 3/8" drill opposite side
	Wood	
Wood Screw-Optional	Wood	3/16" pilot hole

*NOTE: Wood doors/frames must have the pilot holes drilled when using Self Drilling/Tapping screws.

Notes:
1. Use this template to locate the mounting holes of the closer body and arm shoe.
2. Align Bottom of frame and Top of door with thick dark lines shown on template.
3. Align Edge of door with line of the desired degree of opening.
4. Mark holes locations and drill holes according to Preparation for Fasteners chart shown below.

DC8416 SERIES
TOP JAMB INSTALLATION-PUSH SIDE
TEMPLATE FOR A RIGHT HAND DOOR

WARNING:
PLEASE PRINT AT ACTUAL SIZE,
DO NOT SCALE TO FIT

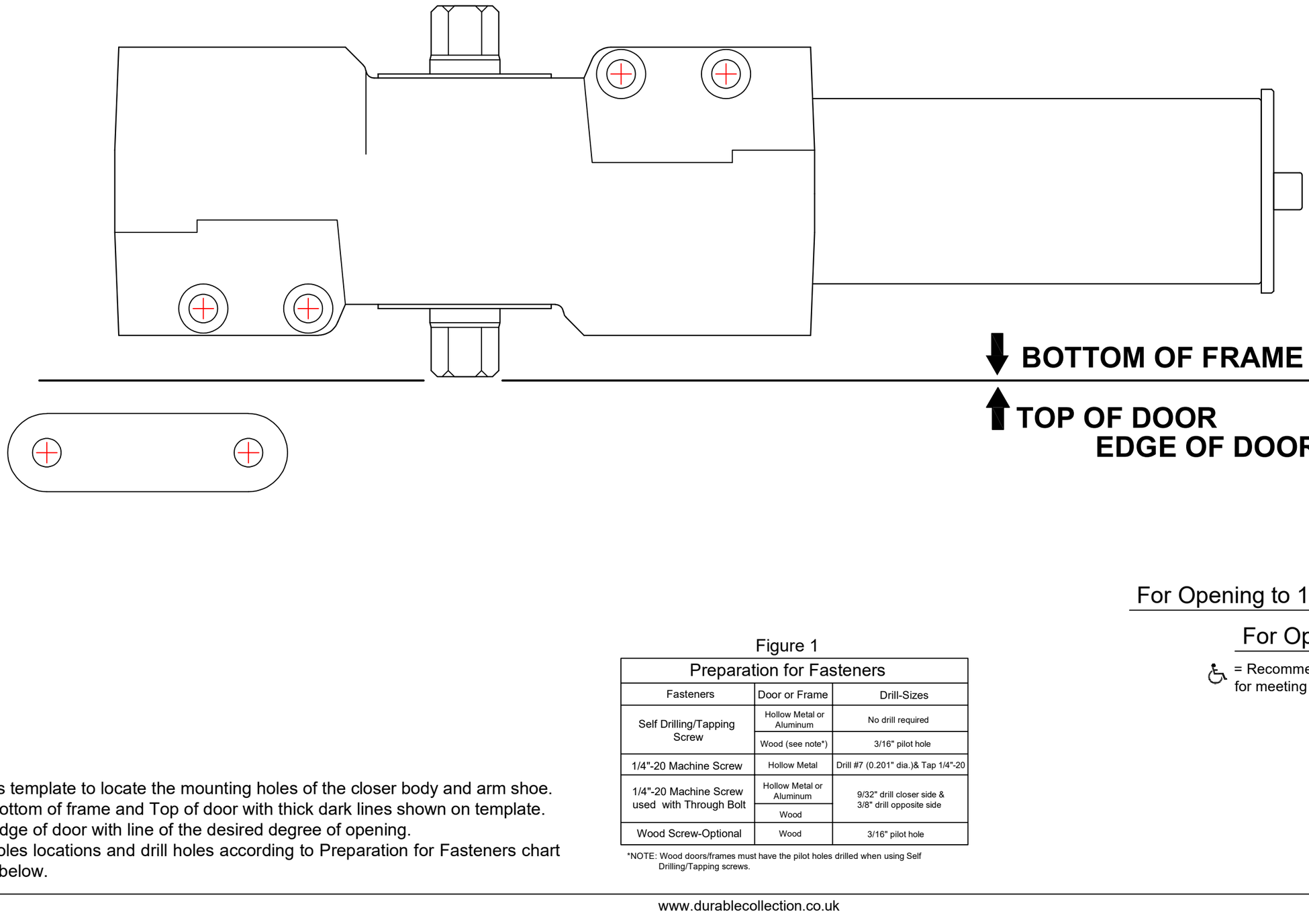


Figure 1

Preparation for Fasteners		
Fasteners	Door or Frame	Drill-Sizes
Self Drilling/Tapping Screw	Hollow Metal or Aluminum	No drill required
	Wood (see note*)	3/16" pilot hole
1/4"-20 Machine Screw	Hollow Metal	Drill #7 (0.201" dia.)& Tap 1/4"-20
1/4"-20 Machine Screw used with Through Bolt	Hollow Metal or Aluminum	9/32" drill closer side & 3/8" drill opposite side
	Wood	
Wood Screw-Optional	Wood	3/16" pilot hole

*NOTE: Wood doors/frames must have the pilot holes drilled when using Self Drilling/Tapping screws.

Notes:
1. Use this template to locate the mounting holes of the closer body and arm shoe.
2. Align Bottom of frame and Top of door with thick dark lines shown on template.
3. Align Edge of door with line of the desired degree of opening.
4. Mark holes locations and drill holes according to Preparation for Fasteners chart shown below.

DC8416 SERIES
PARALLEL ARM INSTALLATION-PUSH SIDE
TEMPLATE FOR A LEFT HAND DOOR

WARNING:
PLEASE PRINT AT ACTUAL SIZE,
DO NOT SCALE TO FIT

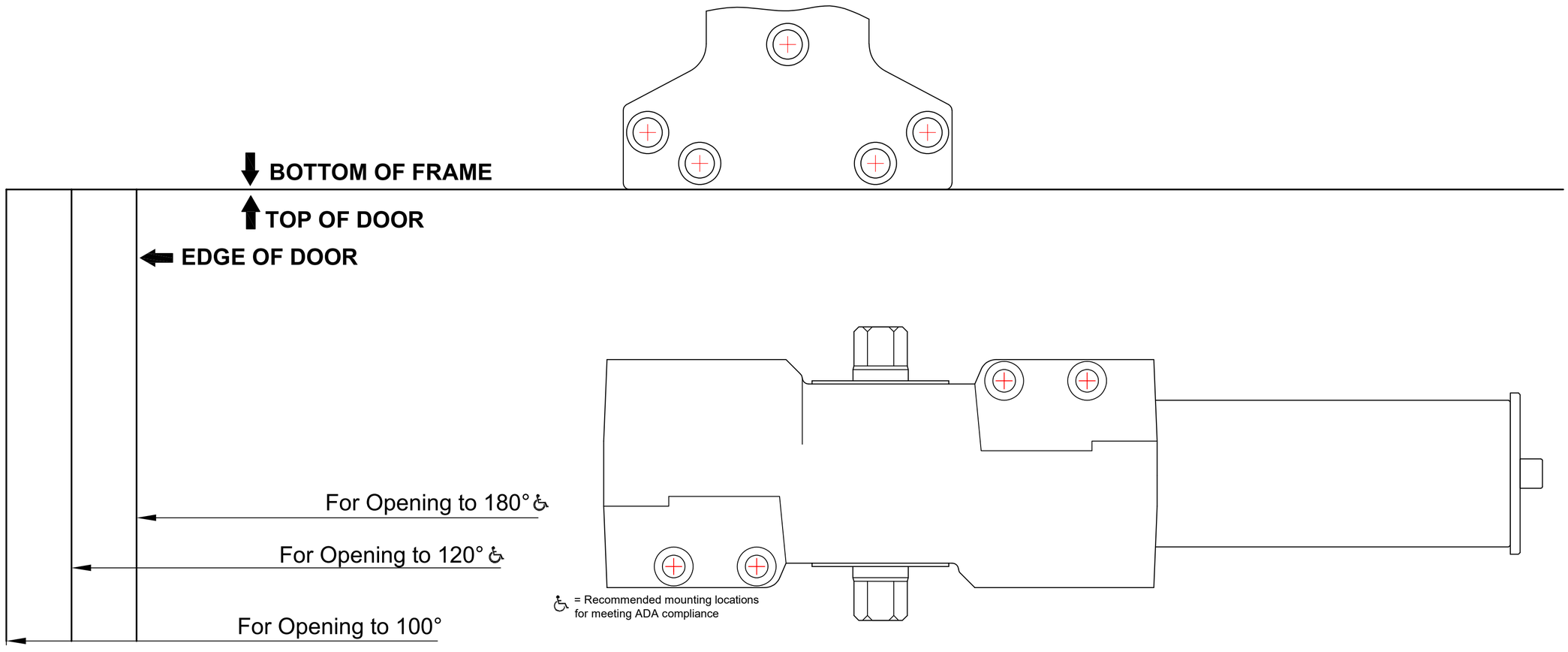


Figure 1

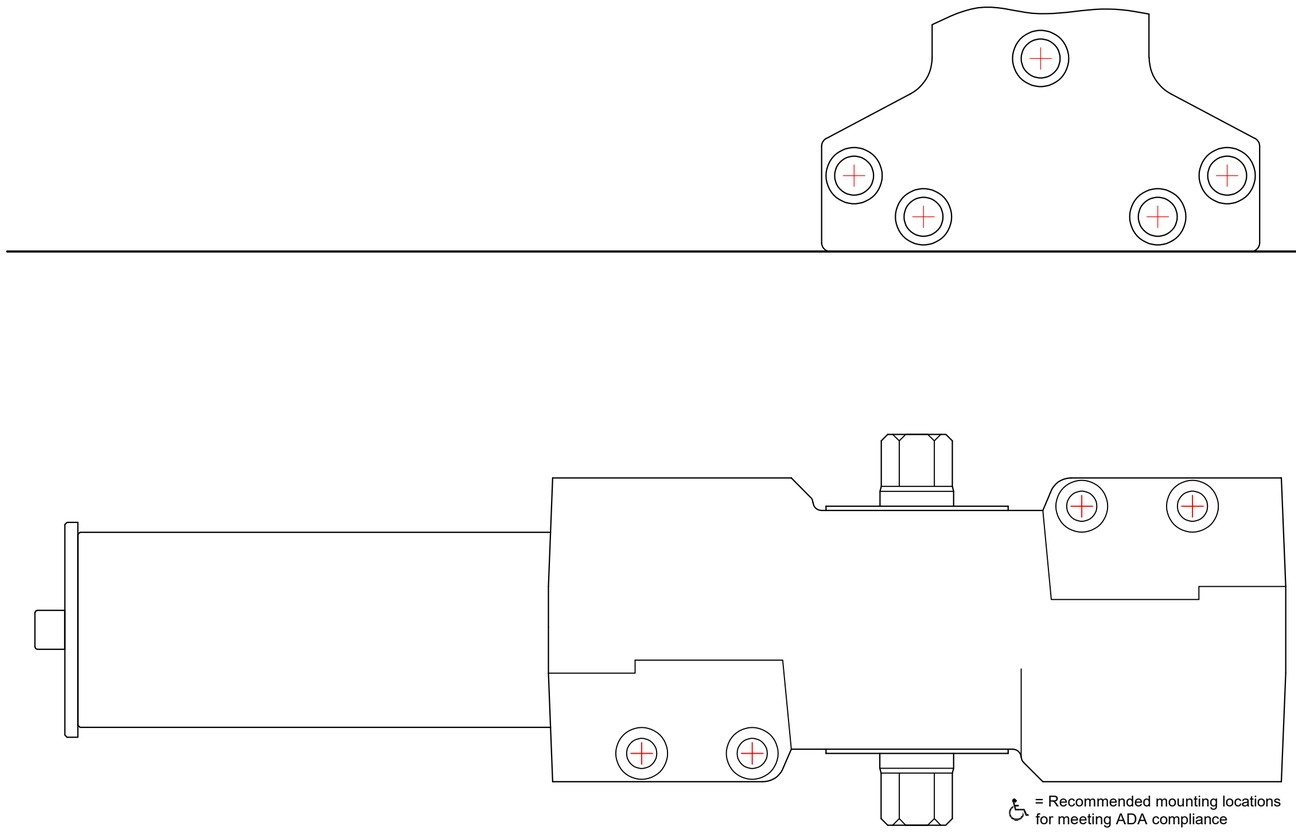
Preparation for Fasteners		
Fasteners	Door or Frame	Drill-Sizes
Self Drilling/Tapping Screw	Hollow Metal or Aluminum	No drill required
	Wood (see note*)	3/16" pilot hole
1/4"-20 Machine Screw	Hollow Metal	Drill #7 (0.201" dia.)& Tap 1/4"-20
1/4"-20 Machine Screw used with Through Bolt	Hollow Metal or Aluminum	9/32" drill closer side & 3/8" drill opposite side
	Wood	
Wood Screw-Optional	Wood	3/16" pilot hole

*NOTE: Wood doors/frames must have the pilot holes drilled when using Self Drilling/Tapping screws.

Notes:
1. Use this template to locate the mounting holes of the closer body and parallel bracket.
2. Align Bottom of frame and Top of door with thick dark lines shown on template.
3. Align Edge of door with line of the desired degree of opening.
4. Mark holes locations and drill holes according to Preparation for Fasteners chart shown below.

DC8416 SERIES
PARALLEL ARM INSTALLATION-PUSH SIDE
TEMPLATE FOR A RIGHT HAND DOOR

WARNING:
PLEASE PRINT AT ACTUAL SIZE,
DO NOT SCALE TO FIT



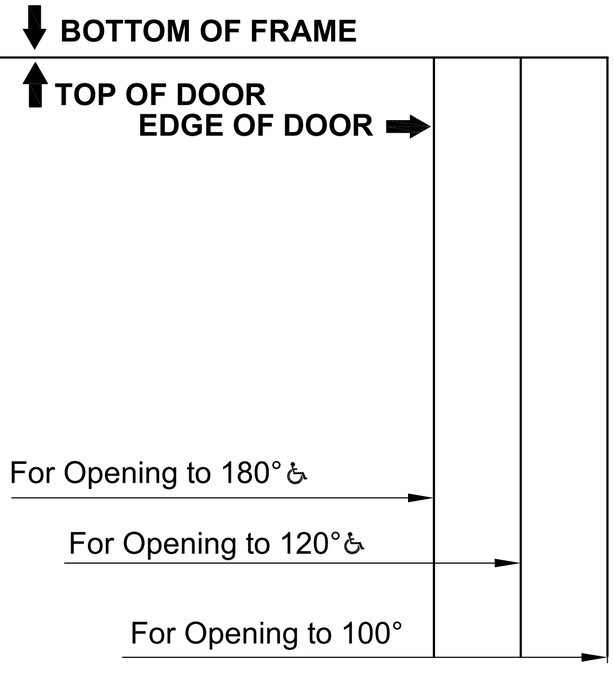


Figure 1

Preparation for Fasteners		
Fasteners	Door or Frame	Drill-Sizes
Self Drilling/Tapping Screw	Hollow Metal or Aluminum	No drill required
	Wood (see note*)	3/16" pilot hole
1/4"-20 Machine Screw	Hollow Metal	Drill #7 (0.201" dia.)& Tap 1/4"-20
1/4"-20 Machine Screw used with Through Bolt	Hollow Metal or Aluminum	9/32" drill closer side & 3/8" drill opposite side
	Wood	
Wood Screw-Optional	Wood	3/16" pilot hole

*NOTE: Wood doors/frames must have the pilot holes drilled when using Self Drilling/Tapping screws.

Notes:
1. Use this template to locate the mounting holes of the closer body and parallel bracket.
2. Align Bottom of frame and Top of door with thick dark lines shown on template.
3. Align Edge of door with line of the desired degree of opening.
4. Mark holes locations and drill holes according to Preparation for Fasteners chart shown below.