

PLEASE NOTE: Closing and latching speeds are controlled by two (2) separate adjustment valves. Adjust the CLOSING speed first, then adjust the LATCHING speed.

WARNING! Do not turn the speed adjustment valves more than two full revolutions counter-clockwise from the factory pre-set position, as these could become dislodged from the door closer body, resulting in leakage and device failure.

1. CLOSING speed adjustment is accomplished by full rotations of the CLOSING SPEED adjusting valve.

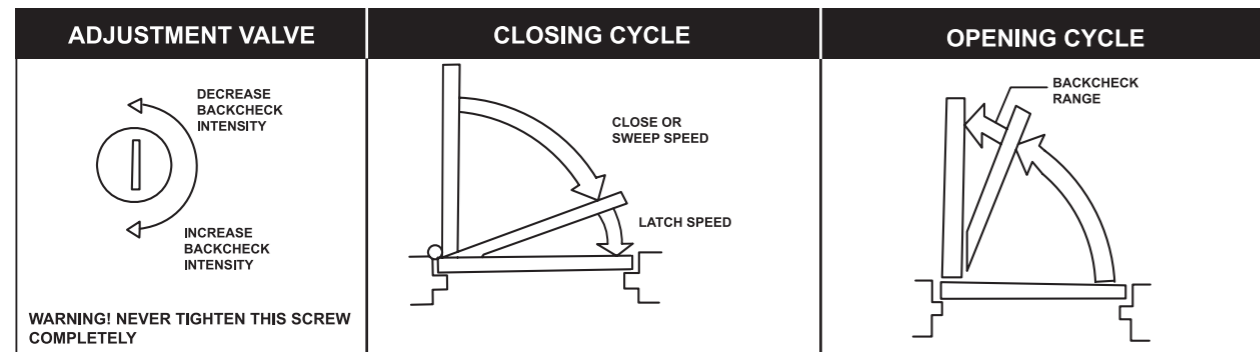
- Turn the speed adjusting valve CLOCKWISE for a SLOWER closing speed.
- Turn the speed adjusting valve COUNTER-CLOCKWISE for a FASTER closing speed.

2. LATCHING speed adjustment is accomplished by full rotations of the LATCH SPEED adjusting valve.

- Turn the speed adjusting valve CLOCKWISE for a SLOWER closing speed.
- Turn the speed adjusting valve COUNTER-CLOCKWISE for a FASTER closing speed.

3. BACKCHECK CONTROL

- To increase backcheck intensity, turn backcheck control valve CLOCKWISE.
- To decrease backcheck intensity, turn backcheck control valve COUNTER-CLOCKWISE.

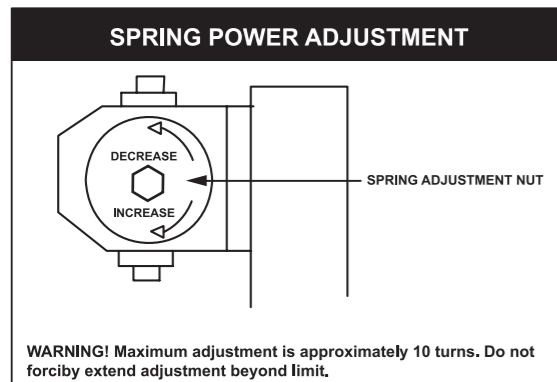


4. SPRING POWER ADJUSTMENT: Please note that this closer is factory preset to #3 spring power rating.

- To increase the opening/closing force or spring power, turn the speed adjusting nut CLOCKWISE.
- To decrease the opening/closing force or spring power, turn the speed adjusting nut COUNTER-CLOCKWISE.

SPRING POWER CHART			
EXTERIOR DOORS	INTERIOR DOORS	FULL TURNS REQUIRED	SPRING POWER RATING
32" (0.81m)	28" (0.71m)	-5 TURNS C.C.W.	1
36" (0.91m)	32" (0.81m)	-3 TURNS C.C.W.	2
42" (1.07 m)	36" (0.91 m)	0 TURNS	3
48" (1.22 m)	42" (1.07 m)	3 TURNS C.W.	4
54" (1.37 m)	54" (1.22 m)	6 TURNS C.W.	5
58" (1.47 m)	54" (1.37 m)	9 TURNS C.W.	6

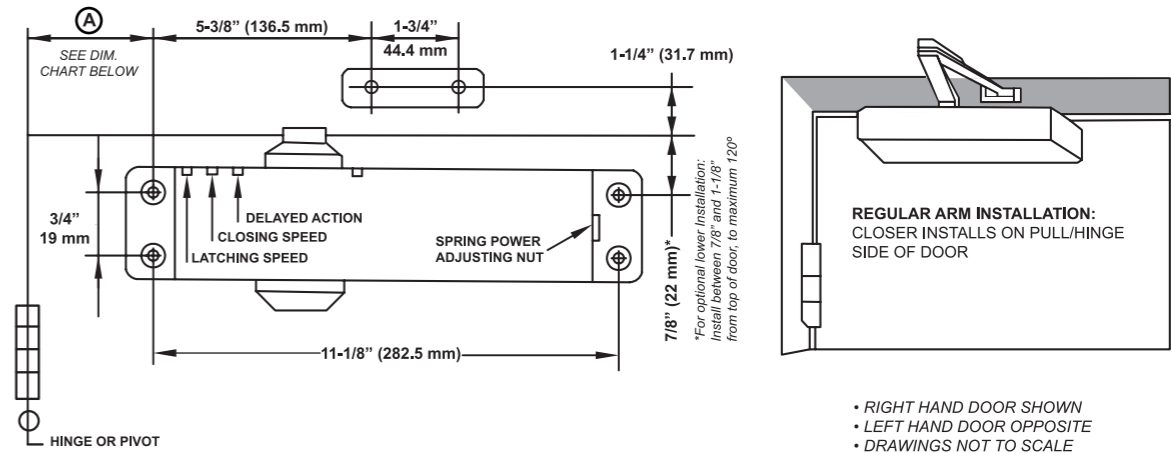
-5 MEANS 5 TURNS COUNTERCLOCKWISE
3 MEANS 3 TURNS CLOCKWISE



13-1900 SERIES DOOR CLOSER

SURFACE MOUNT
BARRIER FREE, BACKCHECK ON MODEL #13-1900AL
BARRIER FREE, BACKCHECK AND DELAYED ACTION ON MODEL #13-1900BFDAAL

INSTALLATION INSTRUCTIONS FOR REGULAR ARM MOUNTING (PULL SIDE)

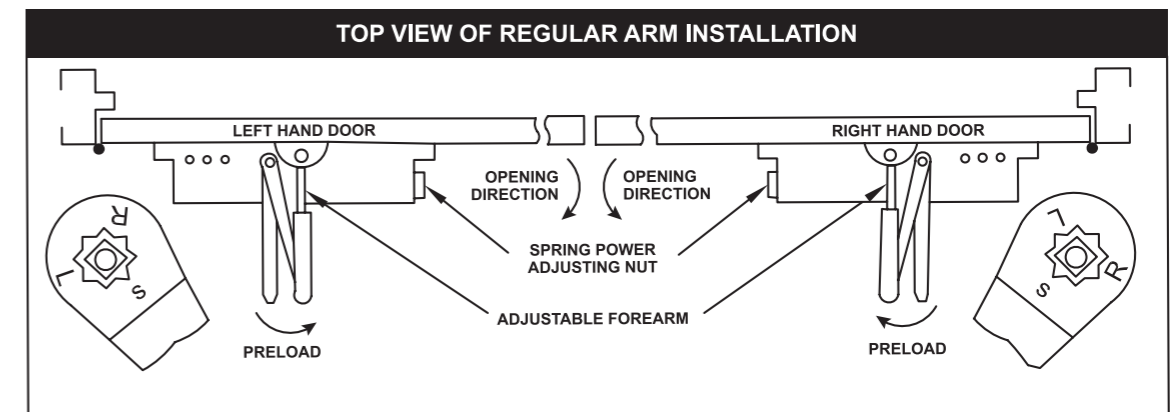


DIMENSION CHART

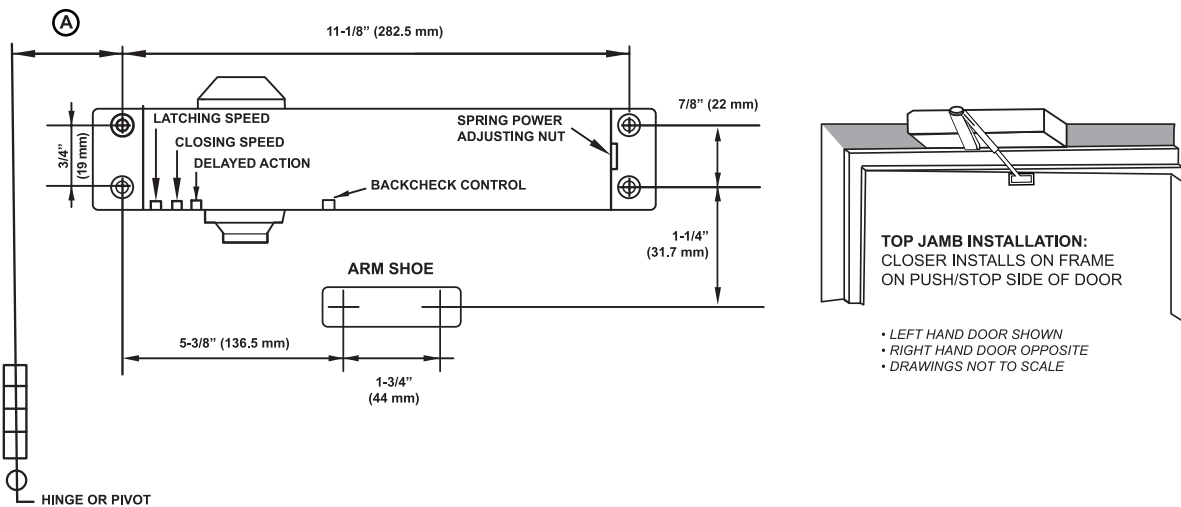
OPENING	DIM. A
TO 120°	7-1/16" (180 mm)
120° - 180°	3-15/16" (100 mm)

INSTALLATION INSTRUCTIONS

1. Select degree of opening from the table above. Using the paper template enclosed, mark four (4) holes on door for the closer body and two (2) holes on the door frame for the arm shoe.
2. Drill pilot holes in door and frame for #14 all-purpose screws or drill and tap for 1/4"-20 machine screws.
3. Install adjustable forearm/arm shoe assembly to door frame using screws provided.
4. Install main arm to top pinion shaft using screw provided.
5. Mount closer body on door using screws provided. **Note: Spring power adjusting nut must be positioned away from hinge edge.**
6. Adjust length of adjustable forearm so that adjustable forearm is perpendicular to the door when assembled. To preload main arm (see illustration below), secure forearm to main arm with screw provided.
7. Snap pinion cap over shaft on top of closer. When using the full cover, pinion cap is not necessary.
8. Adjust closing speed, backcheck control and spring power following the instructions on page 4.



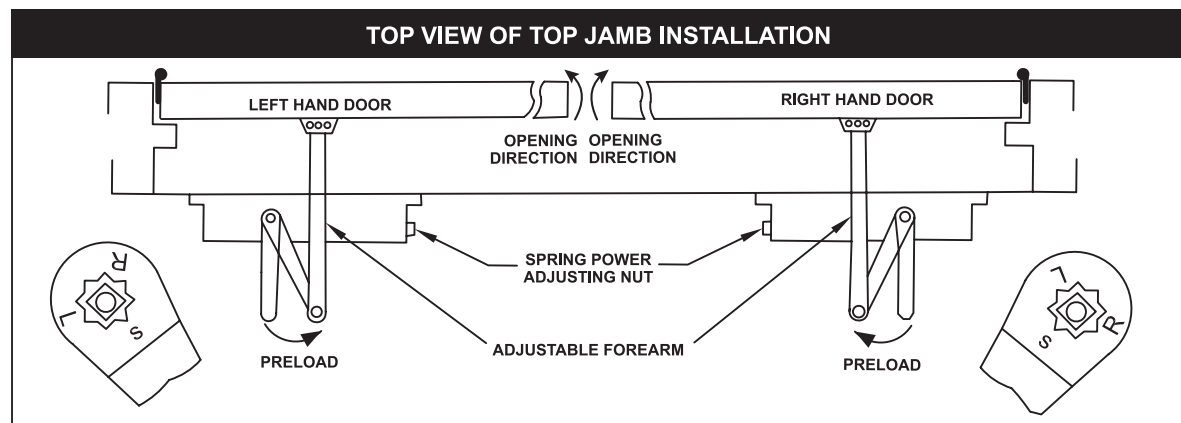
INSTALLATION INSTRUCTIONS FOR TOP JAMB MOUNTING (PUSH SIDE)



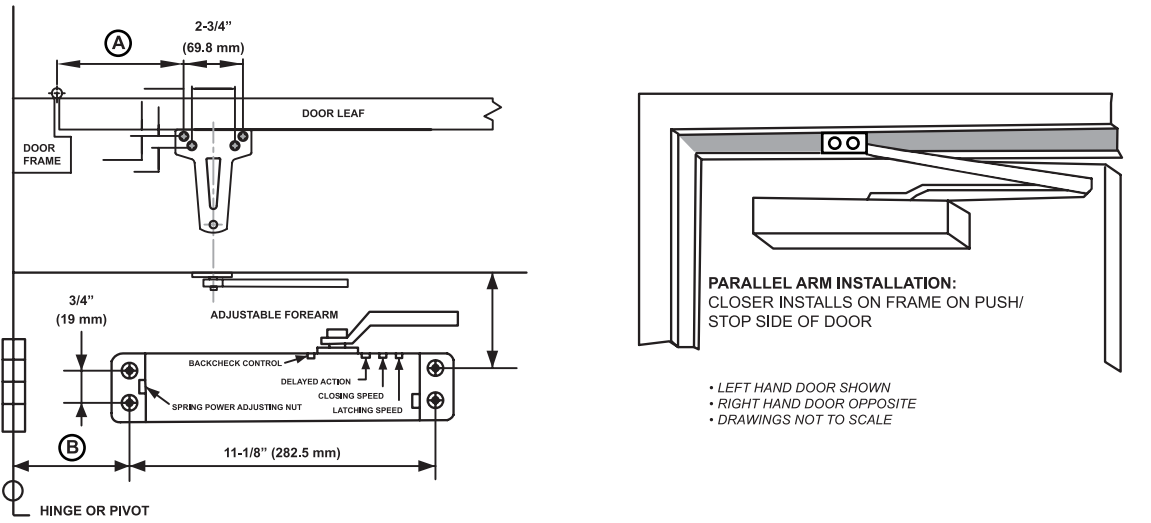
DIMENSION CHART	
OPENING	DIM. (A)
TO 120°	7-1/8" (180 mm)
120° - 180°	3-15/16" (100 mm)

INSTALLATION INSTRUCTIONS

1. Select degree of opening from the table above. Using the paper template enclosed, mark four (4) holes on door frame for the closer body and two (2) holes on the door for the arm shoe.
2. Drill pilot holes in door and frame for #14 all-purpose screws or drill and tap for 1/4"-20 machine screws.
3. Install adjustable forearm/arm shoe assembly to door using screws provided.
4. Install main arm to top pinion shaft using screw provided.
5. Mount closer body on door using screws provided. **Note: Spring power adjusting nut must be positioned away from hinge edge.**
6. Adjust length of adjustable forearm so that adjustable forearm is perpendicular to the door when assembled (see illustration below).
7. Snap pinion cap over shaft on top of closer. When using the full cover, pinion cap is not necessary.
8. Adjust closing speed, backcheck control and spring power following the instructions on page 4.



INSTALLATION INSTRUCTIONS FOR PARALLEL ARM MOUNTING (PUSH SIDE)



DIMENSION CHART		
OPENING	DIM. (A)	DIM. (B)
TO 100°	9-1/2" (241 mm)	6-1/8" (156 mm)
120° - 180°	5-7/8" (149 mm)	2-9/16" (65 mm)

INSTALLATION INSTRUCTIONS

1. Select degree of opening from the table above. Using the paper template enclosed, mark four (4) holes on door for the closer body and four (4) holes on the door frame for bracket.
2. Drill pilot holes in door and frame for #14 all-purpose screws or drill and tap for 1/4"-20 machine screws.
3. Mount closer on door using screws provided. **Spring power adjusting nut must be positioned toward hinge edge.**
4. Install parallel arm to frame using screws provided.
5. Using a wrench on the square shaft at the bottom of closer, rotate shaft approximately 45° toward hinge edge of door. Hold and place main arm of shaft on top of closer at proper index mark as illustrated. **For left hand door "L" (illustration "A"). For right hand door "R" (illustration "B").** Tighten arm screw with lockwasher securely.
6. Remove arm shoe from the forearm and discard (arm shoe is not used for parallel installation) and tighten screw securely.
7. Adjust length of adjustable forearm so that the adjustable forearm is parallel to frame.
8. Snap pinion cap over shaft on top of closer. When using the full cover, pinion cap is not necessary.
9. Adjust closing speed, backcheck control and spring power following the instructions on page 4.

