

#### Closer setup

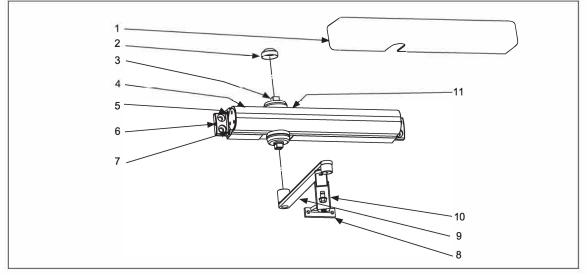


Follow included template to properly prepare door frame for all accessories of the closer installation.

Verify closer spring size prior to installation. See "Spring size chart" on page 2.

Know the swing of the door which is being installed prior to installation.

Make sure door efficiently operates prior to installing closer.



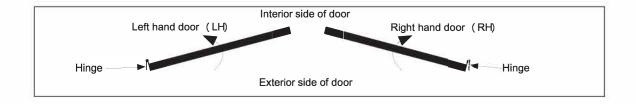
#### Surface closer system

The closer is comprised of the following components.

- 1. Cover
- Dust cap 2.
- 3. Pinion screw
- 4. Delayed action adjustment
- 5. Latch speed adjustment
- Closer body 6.
- 7. Closing/sweep speed adjustment

Handing of the door

- 8. Bar/shoe assembly
- Main arm 9.
- 10. Connecting arm
- 11. Backcheck action adjustment



Tools recommended

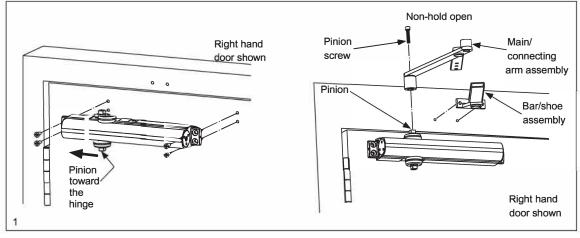
 Drill Bits Metal:

- 7/32" & 1/4-20 tap Wood: 5/32" DPK: 1/8" 3/8" Sex nut:
- #3 Phillips screwdriver
- 1/2" or 13mm box wrench
- 10" adjustable wrench
- 3/16" hex key
- 5mm hex key (supplied)



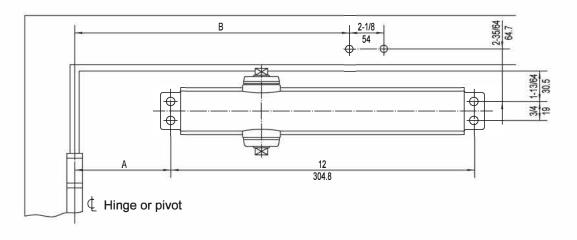
# PULL SIDE, REGULAR MOUNT

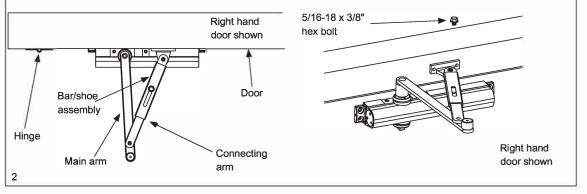
Mounting the surface closer & arm assembly (reg mnt)



- 1.1 Secure closer body to door.
- Use four 1-1/4" combo screws provided.
- 1.2 Secure the bar/shoe assembly to frame.
- Use two 1/4-20 x 5/8" Phillips round head screws [#14 x 1-1/4" round head wood screws] provided.
- 1.3 Secure main arm to operator pinion.
- Use a torque wrench (25 ft-lbs) and provided pinion screw [M8 x 30 socket head cap screw].

Opening	Dimension"A"	Dimension"B"
TO 85 °	6-1/4 158.6	14-21/64
TO 90°	5-39/64 142.6	13-31/32 355
TO 95°	4-53/64 122.6	13-45/64 348
TO 100°	5-47/64 145.6	13-5/64 332
TO 105°	4-15/64 107.6	12-23/32 323
TO 110°	4-1/8 104.6	12-21/64





2.1 Slide end of connecting arm into end of bar/shoe assembly.

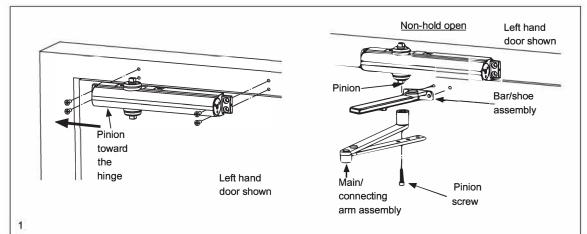
2.2 Secure connecting arm and bar/shoe assembly.

Use provided fastener [5/16-18 x 3/8 hex bolt].



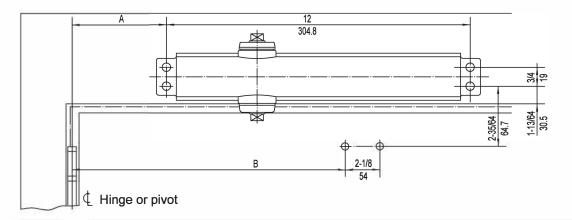
## PUSH SIDE, TOP JAMB MOUNT

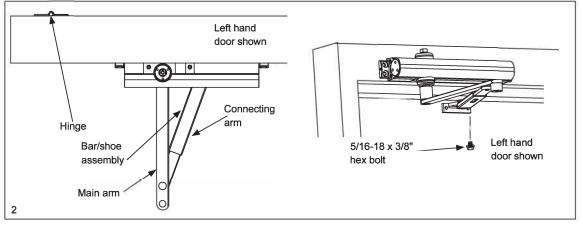
Mounting the surface closer & arm assembly (top jamb mnt)



- 1.1 Secure closer body to frame.
- Use four 1-1/4-20 x 5/8" Phillips flat head screws provided.
- 1.2 Secure bar/shoe assembly to mounting surface.
- Use two 1/4-20 x 5/8" Phillips round head screws [#14 x 1-1/4" round head wood screws] provided.
- 1.3 Secure main arm to operator pinion.
- Use a torque wrench (25 ft-lbs) and provided pinion screw [M8 x 30 socket head cap screw].

Opening	Dimension"A"	Dimension"B"
TO 85 °	6-7/8	13-11/32
TO 90°	6-1/8 155.6	12-53/64 326
TO 95°	5-57/64 149.6	12-7/16 316
TO 100°	5-39/64 142.6	11-31/32 304
TO 105°	5-3/8 136.6	11-11/16 297
TO 110°	5-7/64 129.6	11-29/64





2.1 Slide end of connecting arm into end of bar/shoe assembly.

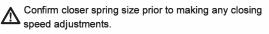
2.2 Secure connecting arm and bar/shoe assembly.

Use provided fastener [5/16-18 x 3/8 hex bolt].



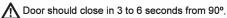
### **CLOSER ADJUSTMENTS**

#### Adjustments

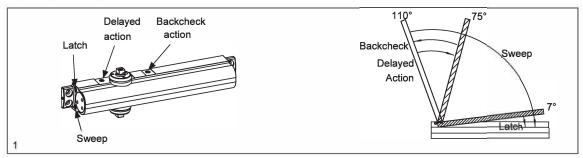


Do not back valves out beyond closer casting.

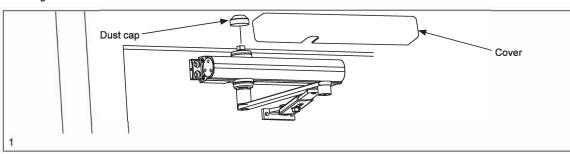
Maximum opening angle is 110º.



Adjusting the closing speeds: sweep, latch, and backcheck



- 1.1 Adjust sweep speedfor the area from 70° 10°.
- Increase sweep speed: Turn valve counter-clockwise
- Decrease sweep speed: Turn valve clockwise
- 1.2 Adjust latch speed from 10° 0°.
- Increase latch speed: Turn valve counter-clockwise
- Decrease latch speed: Turn valve clockwise
- 1.3 Adjust backcheck for the area from 110° 75°.
- Increase resistance: Turn valve clockwise
- Decrease resistance: Turn valve counter-clockwise.
- 1.4 AdjustDelayed Action for the area from 110° 75°.
- Increase delay: Turn valve counter-clockwise
- Decrease delay: Turn valve clockwise



Installing the closer cover

1.1 Snap cover over closer body.

1.2 Screw dust cap onto exposed pinion.