RHDSA-SS Arm Installation Instructions for 300 Series / 500 Series Door Closers

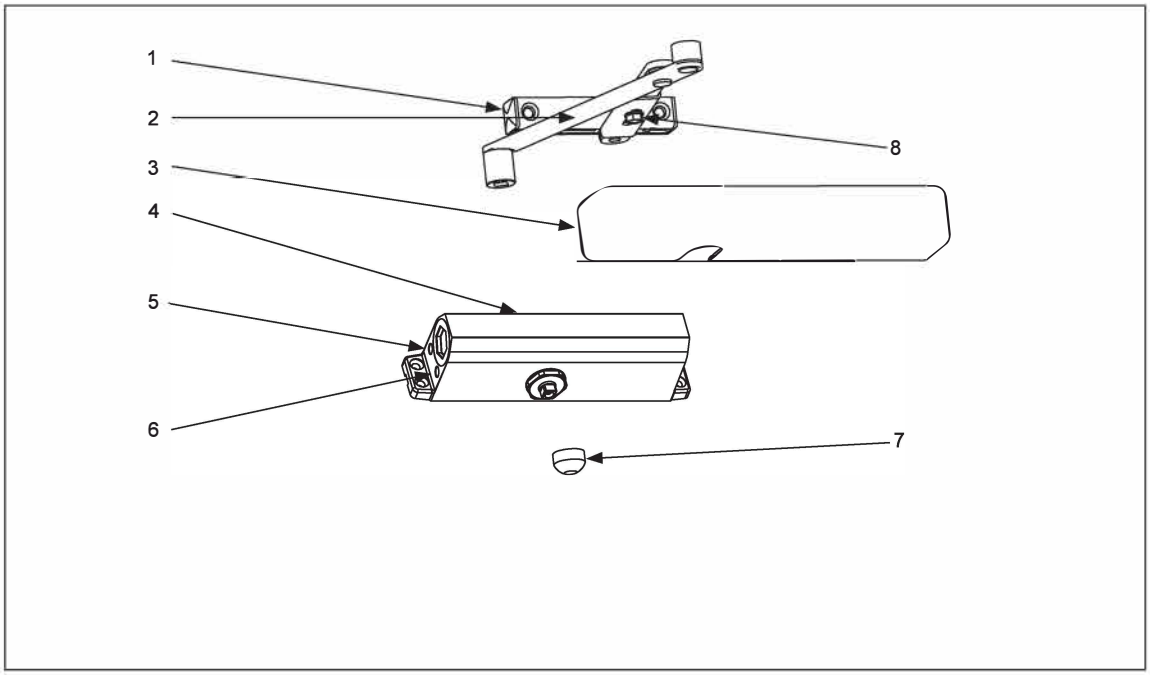
Closer setup

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

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

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

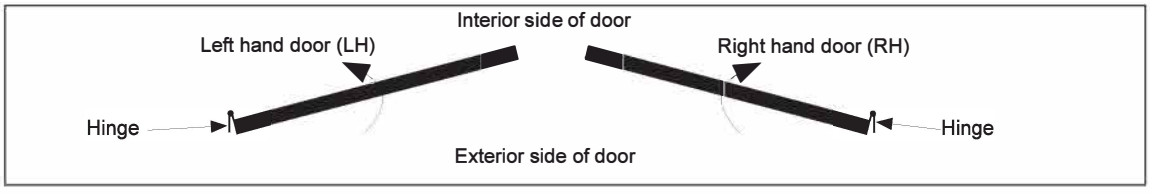
⚠ Make sure door efficiently operates prior to installing closer.



Surface closer system
The closer is comprised of the following components.

1. Damper assembly
2. Main arm
3. Cover
4. Pinion
5. Latch speech adjustment
6. Closing/sweep speed adjustment
7. Dust cap
8. Connecting arm

Handing of the door



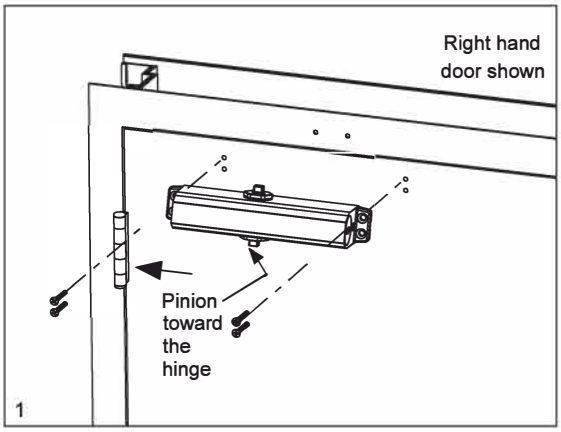
Tools recommended

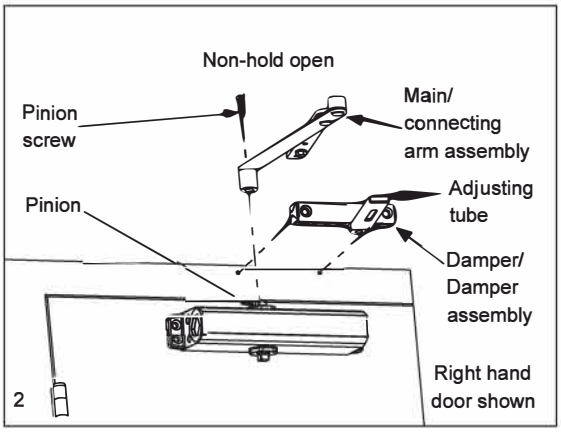
- Drill Bits
  - Metal: 7/32" & 1/4-20 tap
  - Wood: 5/32"
  - DPK: 1/8"
  - Sex nut: 3/8"
- #3 Phillips screwdriver
- 1/2" or 13mm box wrench
- 10" adjustable wrench
- 3/16" hex key
- 5mm hex key (supplied)

PULL SIDE, REGULAR MOUNT

Installation Instructions

Mounting the surface closer & arm assembly (reg mnt)





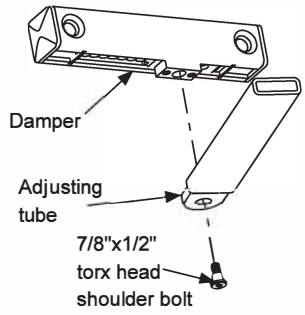
NOTE: Orient pinion closest to hinge.

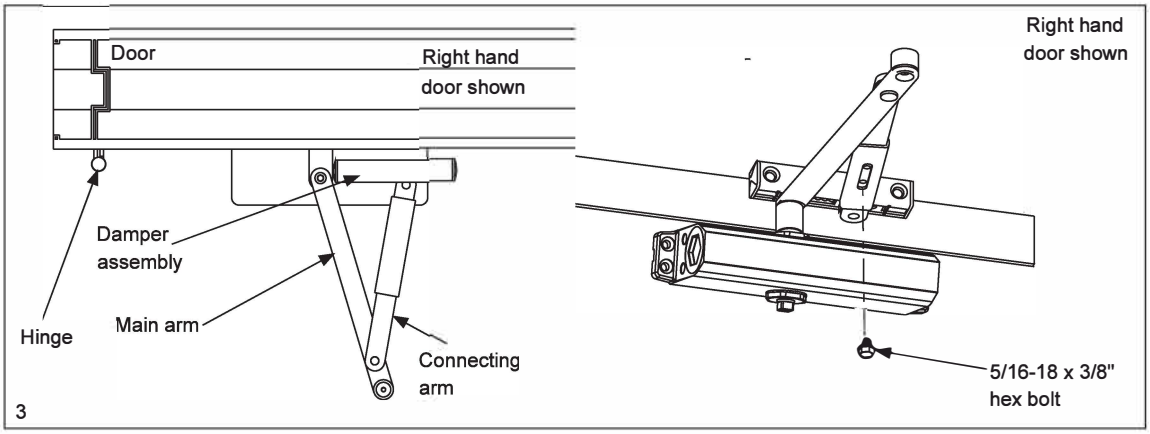
1.1 Secure closer body to mounting surface.
- Use four 1-1/4" combo screws provided.

2.1 Secure adjusting tube to damper.
- Use one 7/8" x 1/2" torx head shoulder bolt provided.

2.2 Secure damper assembly to frame.
- Use two 5/16" x 2" flat head screws [#20 x 2" flat head wood screws] provided.

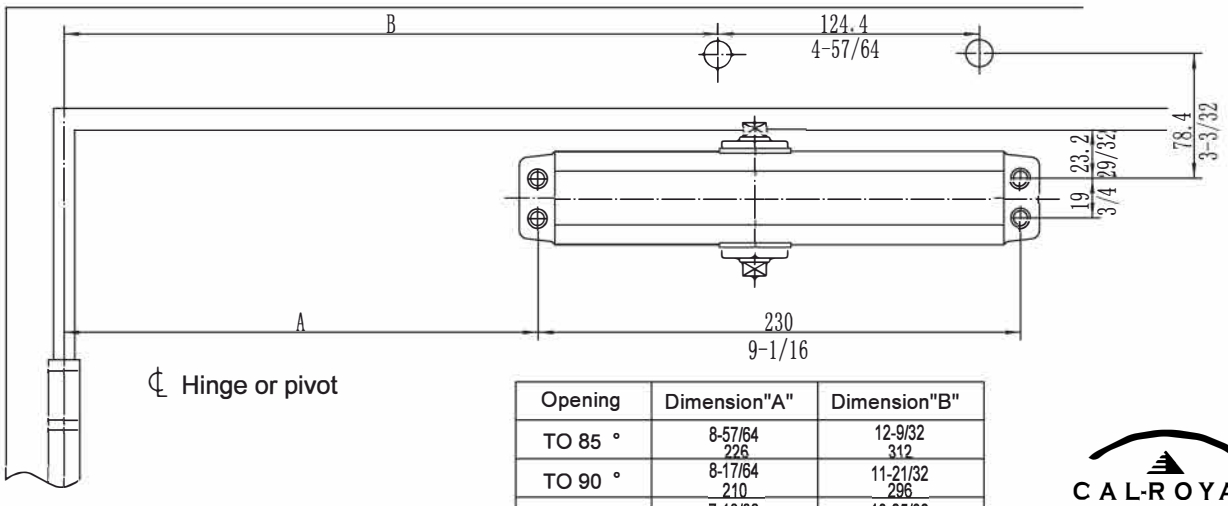
2.3 Secure main arm to operator pinion.
- Use a torque wrench (25 ft-lbs) and provided pinion screw [M8 x 30 socket head cap screw].





3.1 Slide end of connecting arm into end of damper assembly.

3.2 Secure connecting arm and damper assembly.
- Use provided fastener [5/16-18 x 3/8 hex bolt].



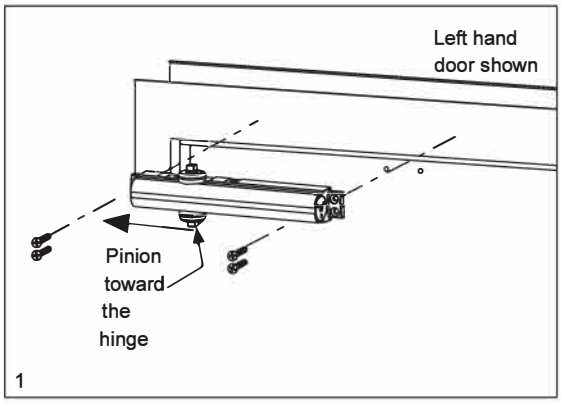
Opening	Dimension"A"	Dimension"B"
TO 85 °	8-57/64 226	12-9/32 312
TO 90 °	8-17/64 210	11-21/32 296
TO 100°	7-13/32 188	10-25/32 274
TO 110°	6-39/64 168	10-3/64 255

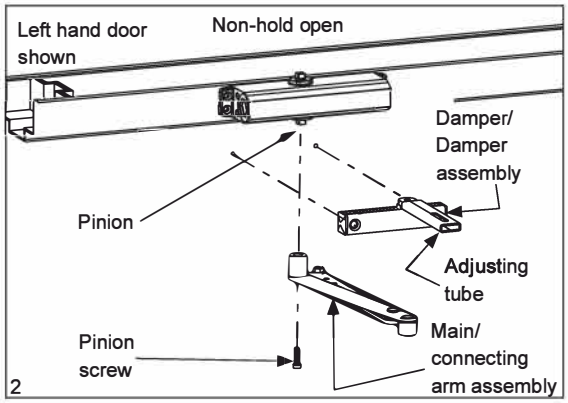
CAL-ROYAL PRODUCTS, INC. USA

PUSH SIDE, TOP JAMB MOUNT

RHDSA-SS Arm Installation Instructions
for 300 Series / 500 Series Door Closers

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





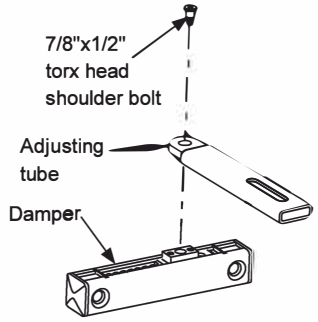
NOTE: Orient pinion closest to hinge.

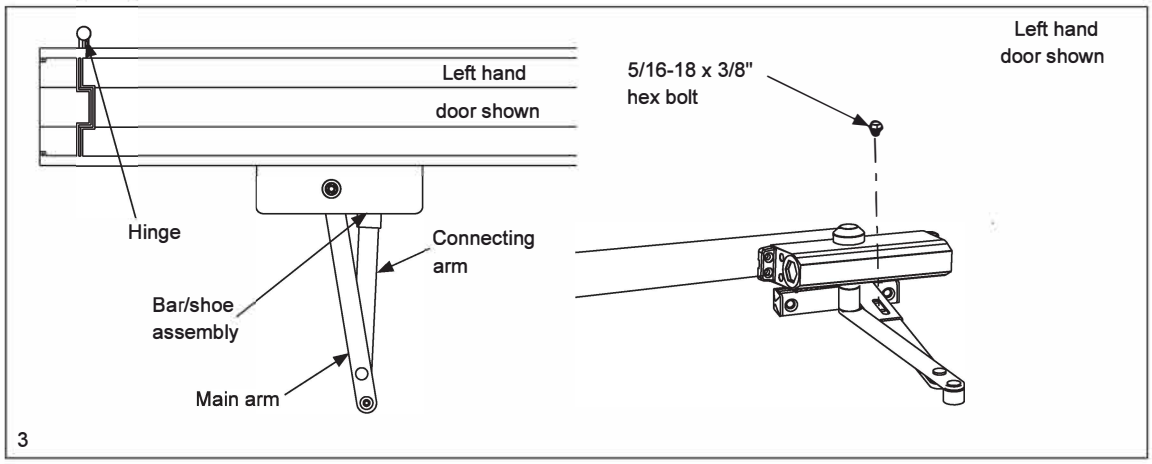
1.1 Secure closer body to plate.
- Use four 1/4-20 x 5/8" Phillips flat head screws provided with the plate itself.

2.1 Secure adjusting tube to damper.
- Use one 7/8" x 1/2" torx head shoulder bolt provided.

2.2 Secure damper assembly to frame.
- Use two 5/16" x 2" flat head screws [#20 x 2" flat head wood screws] provided.

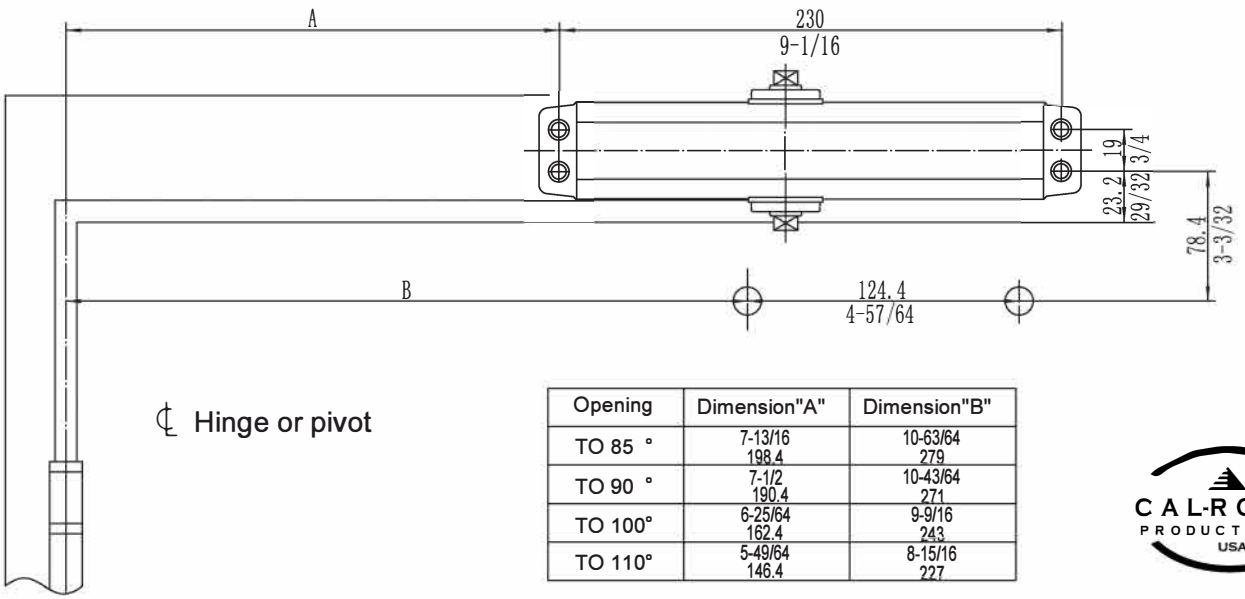
2.3 Secure main arm to operator pinion.
- Use a torque wrench (25 ft-lbs) and provided pinion screw [M8 x 30 socket head cap screw].





3.1 Slide end of connecting arm into end of damper assembly.

3.2 Secure connecting arm and bar/shoe assembly.
- Use provided fastener [5/16-18 x 3/8 hex bolt].



Opening	Dimension"A"	Dimension"B"
TO 85 °	7-13/16 198.4	10-63/64 279
TO 90 °	7-1/2 190.4	10-43/64 271
TO 100°	6-25/64 162.4	9-9/16 243
TO 110°	5-49/64 146.4	8-15/16 227

CAL-ROYAL
PRODUCTS, INC.
USA

RHDSA-SS Arm Installation Instructions for 300 Series / 500 Series Door Closers

CLOSER ADJUSTMENTS

Adjustments

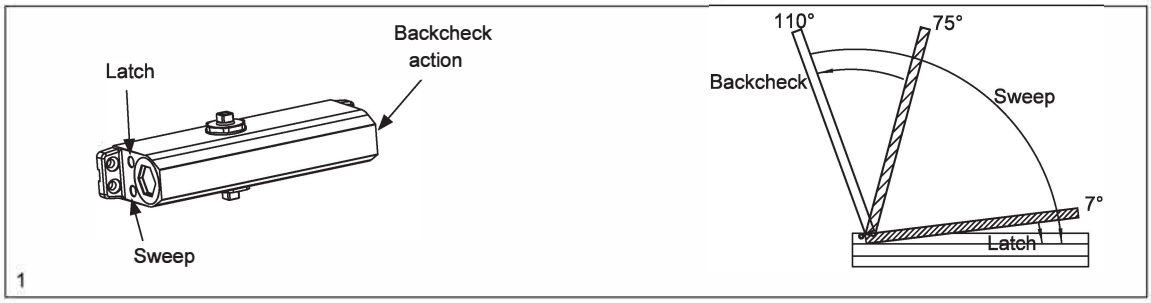
⚠ Confirm closer spring size prior to making any closing speed adjustments.

⚠ Do not back valves out beyond closer casting.

⚠ Maximum opening angle is 110º.

⚠ Door should close in 3 to 6 seconds from 90º.

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

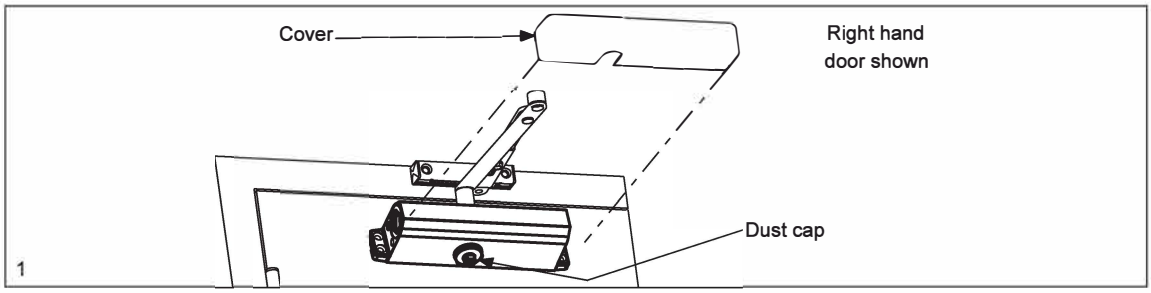
1.2 Adjust latch speed from 10° - 0°.
- Increase latch speed: Turn valve counter-clockwise
- Decrease latch speed: Turn valve clockwise

1.3 Adjust backcheck for the area from 110° - 70°.
- Increase resistance: Turn valve clockwise
- Decrease resistance: Turn valve counter-clockwise.

1.4 Adjust Delayed Action for the area from 75° - 110°.
- Increase delay: Turn valve counter-clockwise
- Decrease delay: Turn valve clockwise

Installing the closer cover

Installing the full cover (only)



1.1 Snap cover over closer body.

1.2 Screw dust cap onto exposed pinion.