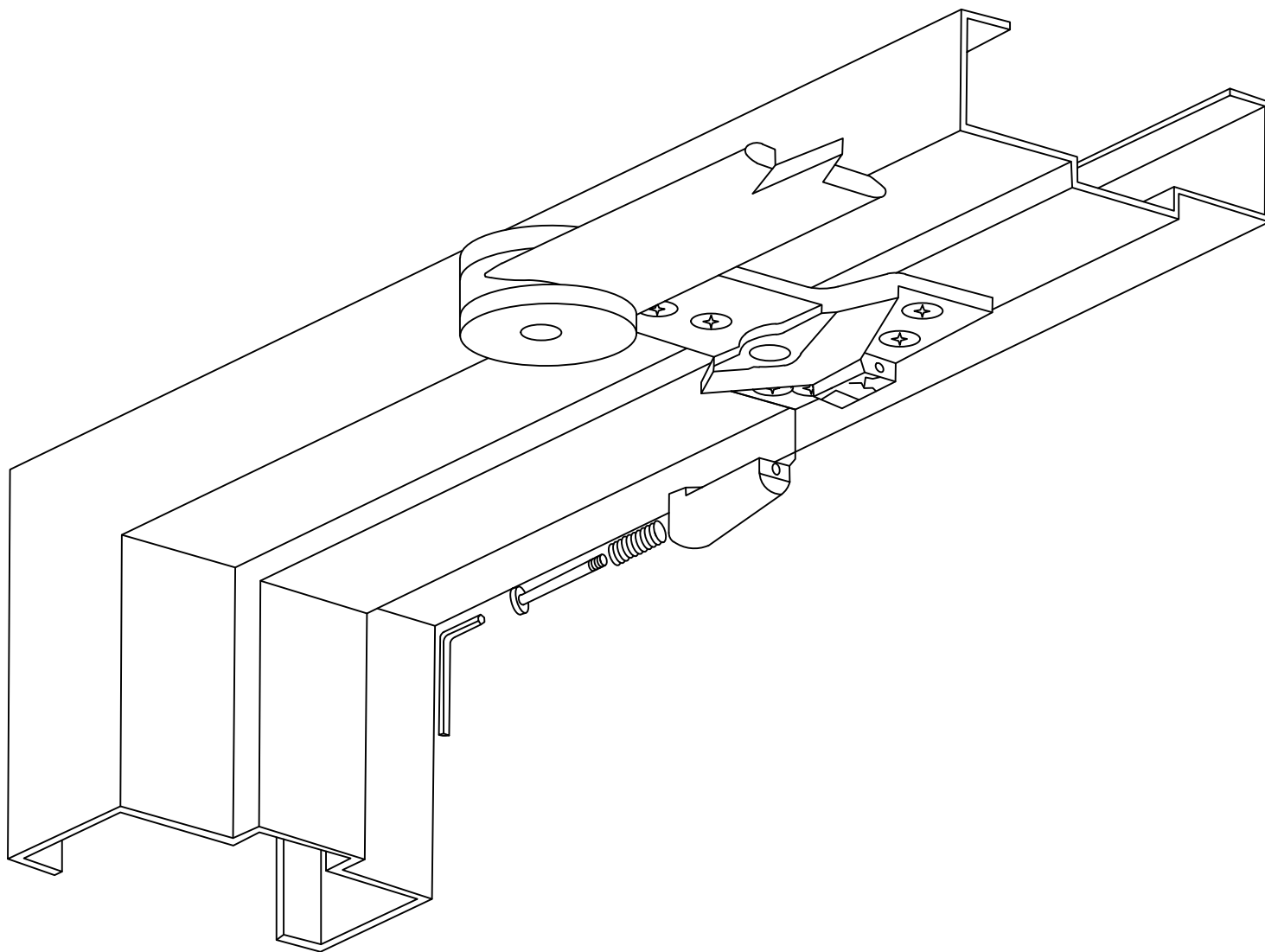


N900 SERIES DOOR CLOSER WITH SPRING CUSH ARM

INSTALLATION INSTRUCTIONS

900SPRING / 900HOSPRING



1. Please follow the installation instruction on page 1-3. The shoe must be mounted at first stage.
2. insert the bolt to the shoe from the rear, with the spring properly inserted to the bolt.
3. Align the shoe to the bracket with correct position (left or right) corresponding to the door handing, Illustration shows left handing.
4. Tighten the screw using the supplied 5/32" (4mm) hexagonal wrench.

NOTE:

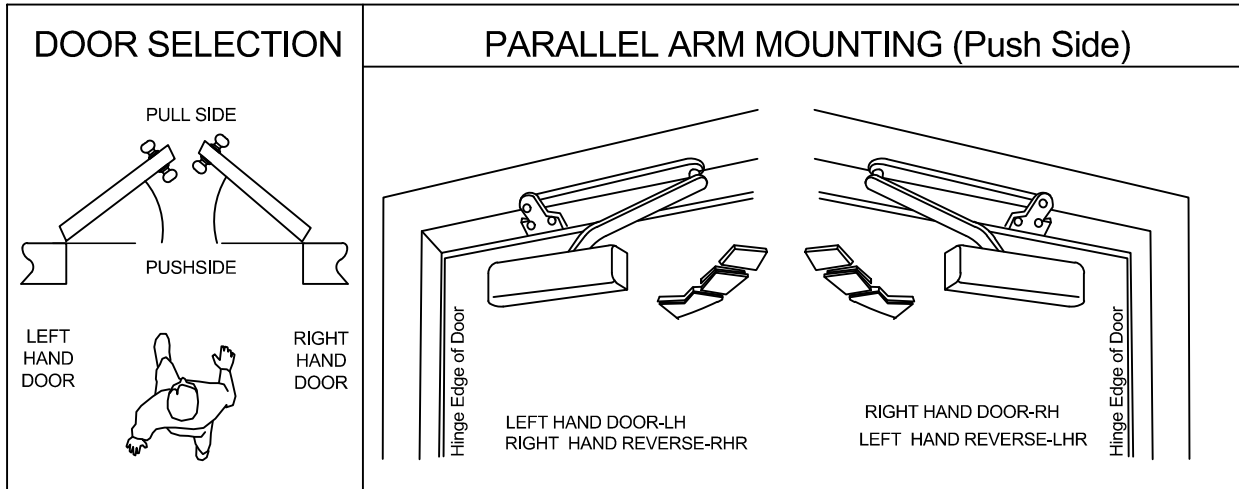
Spring Cush will slow the door down 5 degree (5°) ahead from normal dead stop point.
Despite Installation of the spring Cush, do not adjust BACKCHECK setting of door closer.



900 SERIES SUPER RIGID PARALLEL ARM

INSTALLATION INSTRUCTION FOR
CAL-ROYAL 900 SERIES DOOR CLOSERS
(HOLD-OPEN & NON HOLD-OPEN TYPE)

Model No. SPRING/900 (NON HOLD-OPEN)
 HOSPRING/900 (HOLD-OPEN)



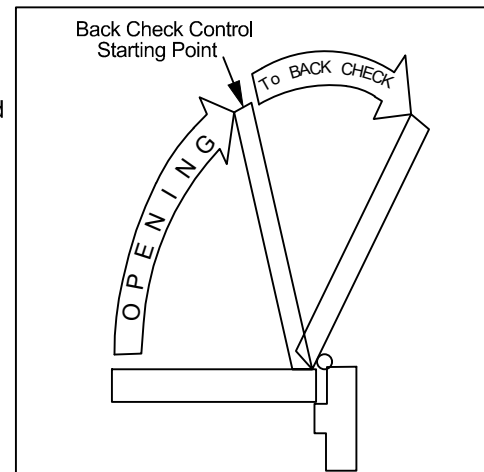
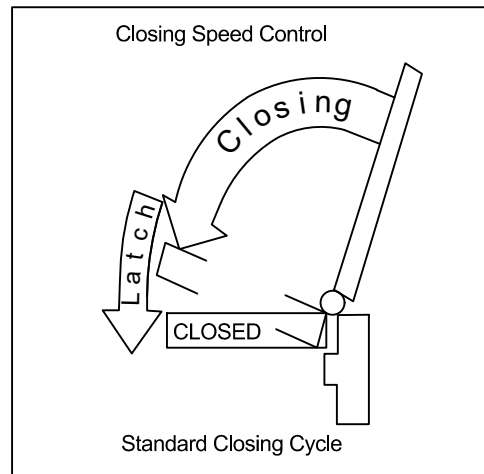
GENERAL DESCRIPTIONS:

The 900 series closer are non-handed for right or left hand doors designed to meet entrance accessibility requirements. The 900 series are spring power adjustable for all exterior/interior door up to 58" (1470mm) wide doors and up to 330 Lbs (150Kg.) weight.

Adjust the spring power before installing the door closer according to the "POWER ADJUSTMENT CHART FOR DOOR SELECTION" as shown on page. 4

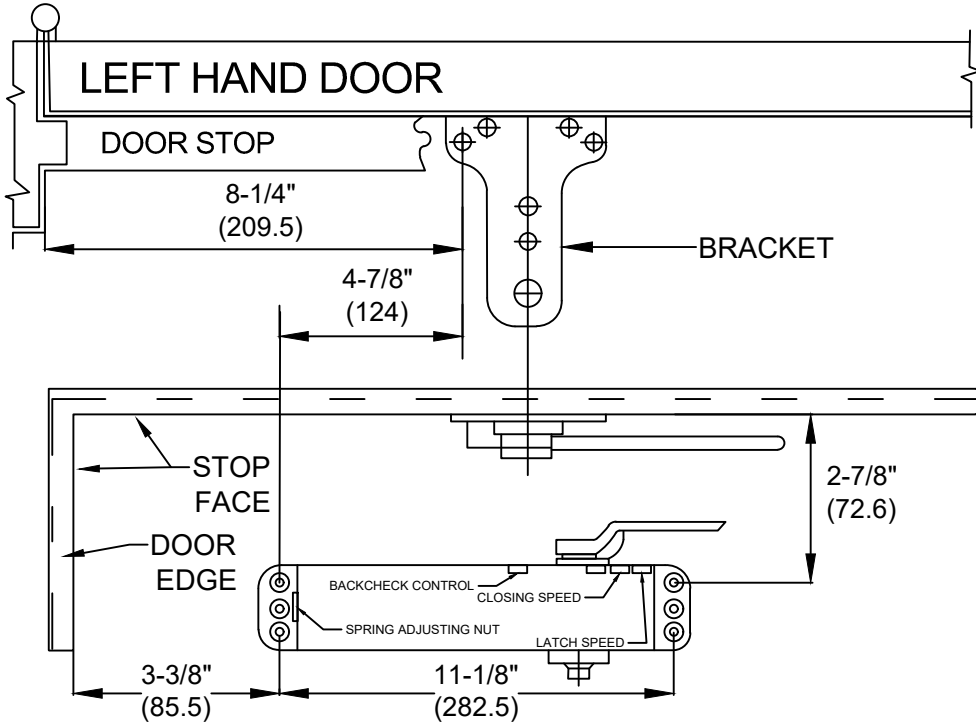
The 900 series closer are installed BACK CHECK function as a standard which is essential to the proper operation of the SUPER RIGID PARALLEL ARM. Use just enough to prevent arm striking stop with impact.

The delayed action (optional) function can not be used for this arm because this arm permits maximum 100° door open angle.



PARALLEL ARM (PUSH SIDE) MOUNTING

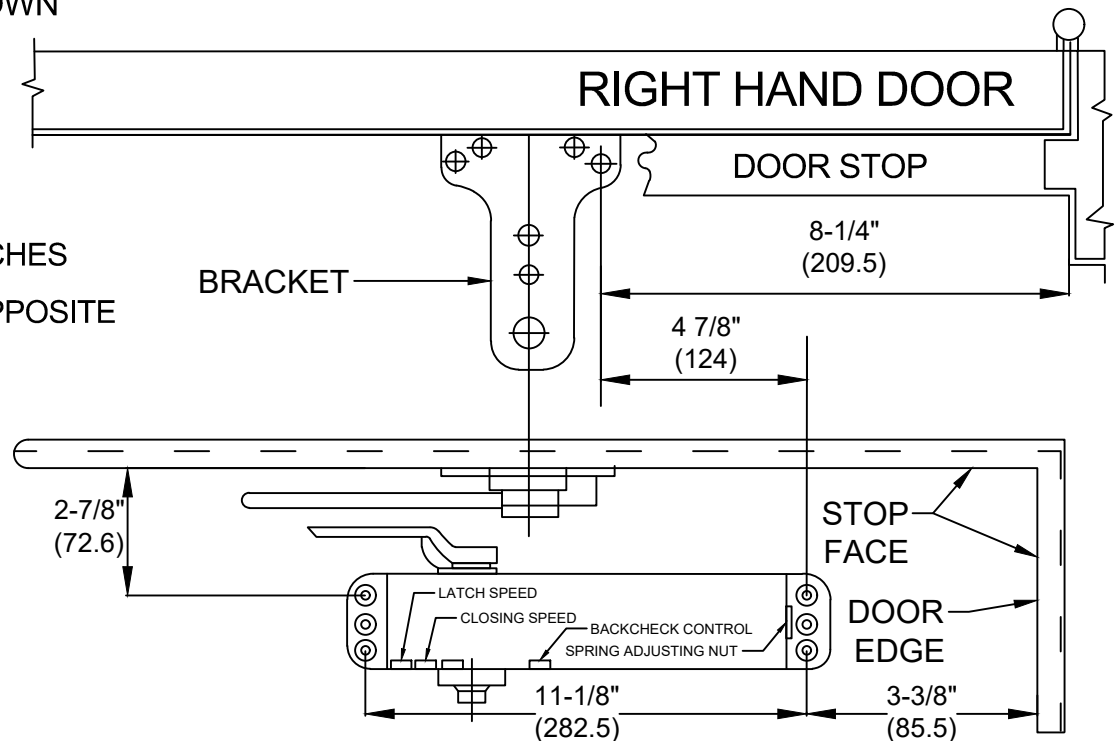
LEFT HAND DOOR SHOWN



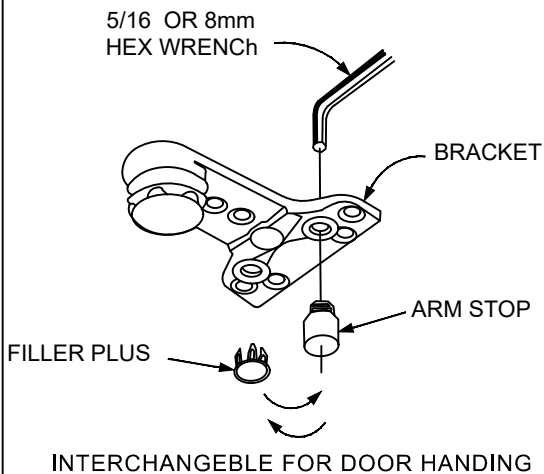
- DIMENSION ARE IN INCHES
- RIGHT HAND DOOR OPPOSITE
- DO NOT SCALE

PARALLEL ARM (PUSH SIDE) MOUNTING

RIGHT HAND DOOR SHOWN



- DIMENSION ARE IN INCHES
- RIGHT HAND DOOR OPPOSITE
- DO NOT SCALE



of door (refer to page 1) THE HAND MUST BE CORRECT BEFORE THE BRACKET IS MOUNTED TO THE DOOR STOP (TOP JAMB).

FOR LEFT HAND DOORS:

All bracket are shipped assembled for LEFT HAND DOOR. Insert 5/16" (8mm) hex wrench into ARM STOP and turn anti-clockwise to seat as tightly as possible.
Push filler plug in firmly.

FOR RIGHT HAND DOORS:

Push filler plug out of bracket
Using a 5/16" (8mm) hex wrench turn ARM STOP clockwise to remove from bracket insert in hole marked "R". Turn hex wrench clockwise to seat ARM STOP as tightly as possible. Push filler into other hole.

INSTALLATION SEQUENCE

LEFT HAND DOOR SHOWN - RIGHT HAND DOOR OPPOSITE



1. Adjusting spring power to match door width or weight as indicated by DOOR SELECTION CHART shown on page 4.
2. Mount closer on door to dimensions shown on page 2.
3. Attach MAIN ARM as follows:
 - (a) Remove stud at junction between MAIN ARM and FOREARM
 - (b) -IMPORTANT- place open end wrench (spanner) on bottom shaft and turn toward hinge edge about 45°
 - (c) place MAIN ARM on top shaft parallel with door and secure with shaft screw with wrench (13/32" or 10mm)
4. Attach BRACKET to door stop (Top jamb) as shown on page 2.
5. Swing door open about 45° join main and forearm insert stud and tighten securely.

IMPORTANT REMARK

REGULATION

Do not allow door to slam into frame.
A normal standard closing time from 90° open position is 5 to 7 seconds evenly divided between main closing (sweep) speed and latching speed Adjust the CLOSING speed first, then adjust the LATCHING speed.

For slow closing speed of door turn speed adjusting valve of "C" (closing speed) clockwise and anti-clockwise for fast.
Latching speed control of door is the same manner as closing speed adjustment.

ADJUSTABLE BACK CHECK FUNCTION

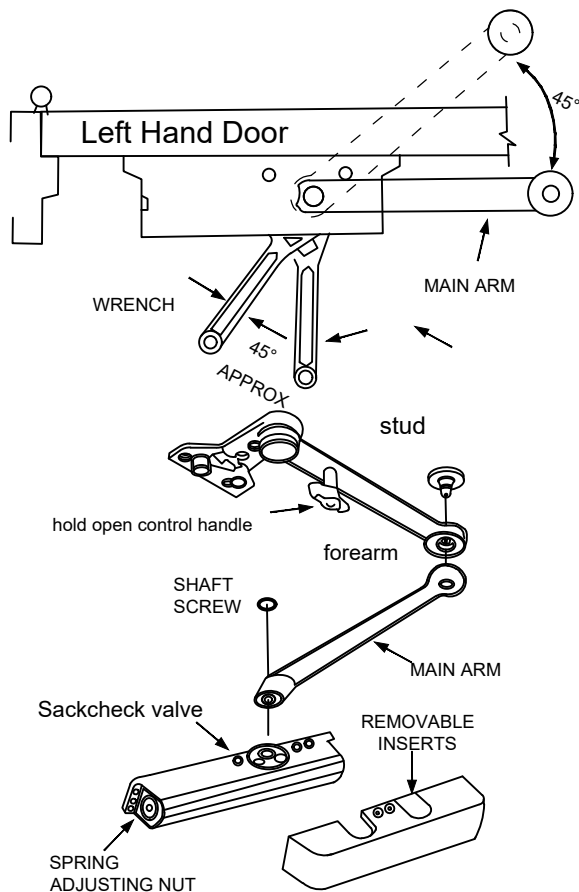
This function is essential to the proper operation of the SUPER RIGID PARALLEL ARM. Use just enough to prevent arm to striking stop with impact. See page 4.

ATTACH COVER

Slide cover insert into the un-used cutout in cover.
Install cover securely using screw provided.

HOW TO HOLD-OPEN (90° STOP)

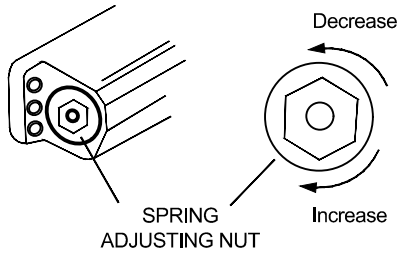
A quarter turn on the HOLD-OPEN CONTROL HANDLE engages or disengages hold-open.



POWER ADJUSTMENT CHART FOR DOOR SELECTIONS

Spring Power Control

To increase opening force and closing force turn the spring adjusting nut clockwise.
To decrease opening force and closing force turn the spring adjusting nut anticlockwise.



NOTE: MAXIMUM ADJUSTMENT IS APPROXIMATELY 10 TURNS. DO NOT FORCIBLY EXTEND. ADJUSTMENT BEYOND LIMITS.

HOW TO ADJUST SPRING POWER

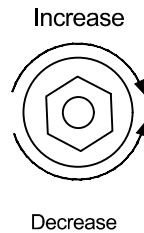
BE NOTED THAT 900 SERIES ARE SET DOWN AS DOOR CLOSER SIZE 3 FROM THE FACTORY.
EX: SIZE 2 CLOSER CAN BE MADE BY ROTATING SPRING ADJUSTING NUT ANTI-CLOCKWISE 3 TURNS BECAUSE IT WAS SET DOWN AS SIZE 3 FROM THE FACTORY ORIGINALLY. ALSO IN A SAME WAY. SIZE 6 CLOSER CAN BE MADE BY ROTATING SPRING ADJUSTMENT NUT CLOCKWISE 9 TURNS.

DOOR CLOSER SIZE		CLOCKWISE TURNS OF ADJUSTIN NUT		APPLICABLE DOOR SIZE		APPLICABLE DOOR WEIGHT
900-P/PDA (SIZE 1/2-6)	900-FBF/BFDA (SIZE 1/2-4)	900-P/PDA (SIZE 2-6)	900-PBF/BFDA (SIZE 1/2-4)	INTERIOR	EXTERIOR (SWING OUT)	
NOT RECOMMEND USE 900-PBF/BFDA	1/2	N/A	• -9	28"(0.71m)	24"(0.51m)	22-33 Lbs (10-15kg)
NOT RECOMMEND USE 900-PBF/BFDA	1	N/A	• -6	32"(0.81m)	28"(0.71m)	33-55 Lbs (15-30kg)
2	2	• -3	• -3	36"(0.91m)	32"(0.81m)	55-88 Lbs (30-45kg)
3	3	0 (FACTORY SET)	0 (FACTORY SET)	42"(1.07m)	38"(0.91m)	88-143 Lbs (45-85kg)
4	4	3	3	48"(1.22M)	42"(1.07m)	143-187 Lbs (65-85kg)
5	NOT RECOMMEND USE 900-P/PDA	6	N/A	54"(1.37m0)	48"(1.22M)	187-264 Lbs (85-120kg)
6	NOT RECOMMEND USE 900-P/PDA	9	N/A	58"(1.47m)	52"(1.37m0)	264-330 Lbs (120-150kg)

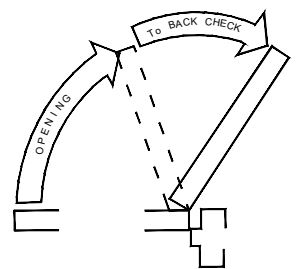
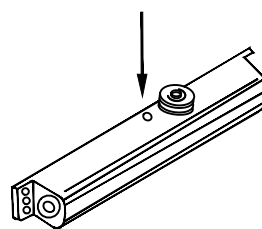
• -3 Mean 3 turn anti-clockwise

Back Check Control

- To increase back check intensity, turn back check control valve clockwise.
- To decrease back check intensity, turn back check control valve counterclockwise.



Backcheck Valve



- NEVER close this valve completely

OPENING Cycle

INSTRUCTION FOR INSTALLATING BRACKET SUPPORT ("L" SUPPORT)

(AFTER BRACKET IS INSTALLED)

IT frame (or door stop) is not wide enough to fix the bracket wholly use "L" support to support and fasten between the frame and bracket as shown below:

HOW TO INSTALL

- Set "L" support on top of bracket and hold & match with frame.
- Fasten the 2 pieces of 1/4-20 machine screws to the frame.
- To the proper position. DRILL & TAP one or two holes of 1/4-20 from the bracket through "L" support.
- Tighten the 1/4-20 screw(s) securely.

