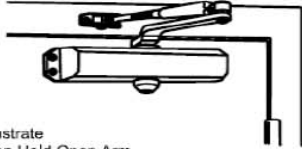
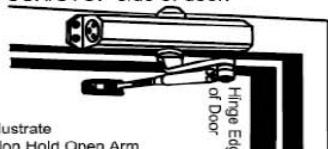
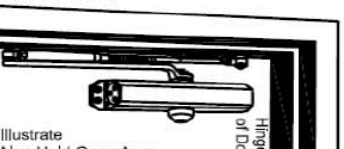


INSTALLATION INSTRUCTIONS

<p>Regular Arm installation Closer installs on PULL/HINGE side of door</p>  <p>illustrate Non Hold Open Arm Left Hand Door-RH or Right Hand Reverse -RHR See Page 2</p>	<p>Top Jamb Installation Closer Installs on Frame on PUSH/STOP side of door.</p>  <p>illustrate Non Hold Open Arm Left Hand Door-RH or Right Hand Reverse -RHR See Page 3</p>	<p>Parallel Arm Installation Closer installs on PUSH/STOP side of door.</p>  <p>illustrate Non Hold Open Arm Left Hand Door-RH or Right Hand Reverse -RHR See Page 4</p>
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CLOSER ADJUSTMENT

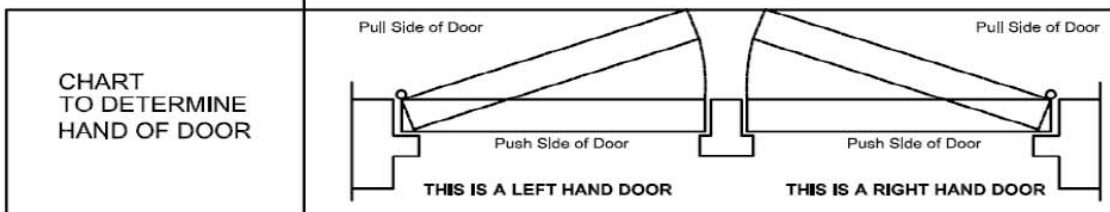
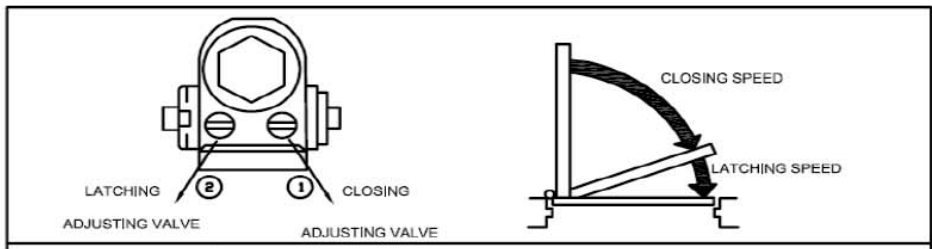
CLOSING CYCLE

NOTE:CLOSING arcs(CLOSE and LATCH) are controlled two (2)separate speed adjusting valves adjust the CLOSING speed first, then adjust the LATCHING speed.

- 1.CLOSING speed adjustment is accomplished by full rotations of the speed adjusting valve.
-Turn the speed adjustment valve CLOCKWISE for a SLOWER CLOSE arc closing speed.
-Turn the speed adjustment valve COUNTER-CLOCKWISE for a FASTER CLOSER arc closing speed.
- 2.LATCH speed adjustments is accomplished by full rotations of the speed adjusting valve.
-Turn the speed adjustment screw CLOCKWISE for a SLOWER LATCH arc closing speed.
-Turn the speed adjustment screw COUNTER-CLOCKWISE for a FASTER LATCH arc closing speed.

CAUTIONS!

Do not turn speed adjusting valve more than two (2) full turns counter-clockwise from its factory set position,as two speed adjusting valves could become dislodged from the door closer body, resulting in the loss of internal fluid and failure of the device.

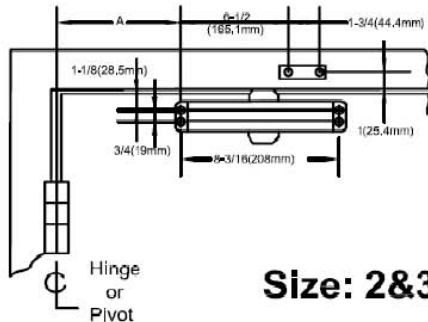




3000 Series "DO05" Optional back check

Installation Instructions for REGULAR ARM (PULL SIDE) Mounting

THIS TEMPLATE COVERS REGULAR ARM INSTALLATIONS TO 180 ° OPENING.



Right hand door shown
Left hand door shown
Dimensions are in inches
Do not scale drawing

Size: 2&3

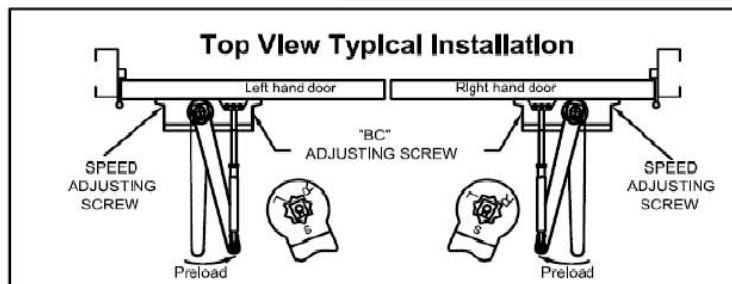
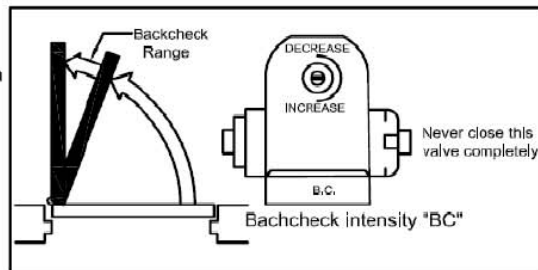
OPENING	DIM. A F1602BC F1603BC
TO 120°	6-1/2(165.1mm)
120° -180°	4(101.6mm)

Power Size	Door Weight lbs (kgs)	Exterior doors	Interior doors
2	55-99 (25-45)	8.5lb -f	34"
3	99-143(145-65)	30"	38"

INSTALLATION INSTRUCTONS

NOTED:These Instructions apply to closers equipped with backcheck.
To Increase backcheck intensity, turn valve marked "BC"clockwise.
To decrease backcheck intensity, turn valve marked BC counter-clockwise

- 1.Select door opening and use dimensions shown above, mark four (4) holes on frame door and two (2) holes on door of arm shoe.
- 2.Drill pilot holes in door and frame for # 14 all-purpose screws or drill or tap for 1/4-20 machine screw.
- 3.Intall forearm/arm shoe assembly to door using screws provided.
- 4.Mount closer on frame using screw provided, SPEED ADJUSTING VALVE MUST BE POSITIONED TOWARD HINGE EDGE.
- 5.Install main arm to top pinlon shaft, perpendicular to frame when assebled to preload main arm (illustration below). Secure forearm to main arm with screw/washer assmebly provided.
- 6.Adjut length of forearm so that forearm is perpendicular to frame when assebled to preload main arm (illustration below). Secure forearm to main arm with screw /washer assembly provided.
- 7.Snap pinlon cap over shaft at bottom of closer.
- 8.Adjust closing speed of door, following instructions as shown page 1.

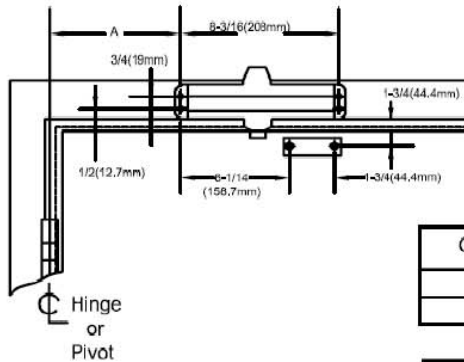




3000 Series "DO05" Optional back check

Installation Instructions for TOP JAMB (PULL SIDE) Mounting

THIS TEMPLATE COVERS REGULAR ARM INSTALLATIONS TO 180 ° OPENING.



Left hand door shown
Right hand door shown
Dimensions are in inches
Do not scale drawing

OPENING	DIM. A F1602BC F1603BC
TO 120°	6-1/2(165.1mm)
120° -180°	4(101.6mm)

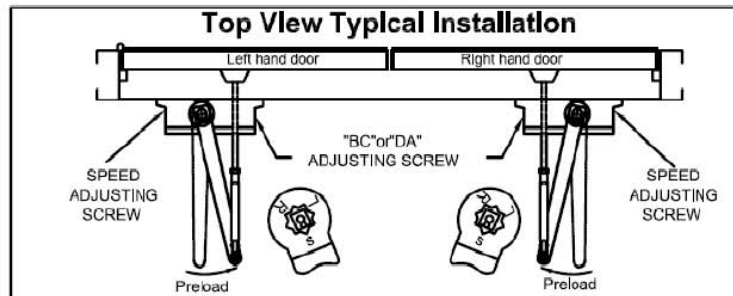
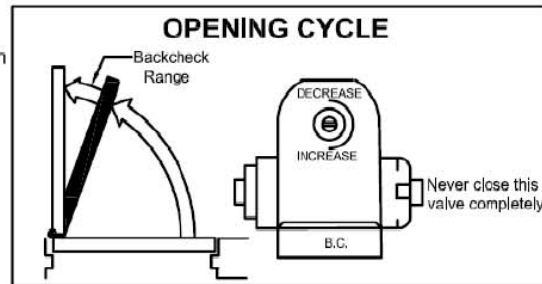
Power Size	Door Weight lbs (kgs)	Exterior doors	Interior doors
2	55-99 (25-45)	8.5lb -f	34"
3	99-143(145-65)	30"	38"

OPEN CYCLE

NOTED: These Instructions apply to closers equipped with backcheck.
To increase backcheck intensity, turn valve marked "BC" clockwise.
To decrease backcheck intensity, turn valve marked BC counter-clockwise

INSTALLATION INSTRUCTONS

1. Select door opening and use dimensions shown above, mark four (4) holes on frame door and two (2) holes on door of arm shoe.
2. Drill pilot holes in door and frame for # 14 all-purpose screws or drill or tap for 1/4-20 machine screw.
3. Intall forearm/arm shoe assembly to door using screws provided.
4. Mount closer on frame using screw provided, SPEED ADJUSTING VALVE MUST BE POSITIONED TOWARD HINGE EDGE.
5. Install main arm to top pinion shaft, perpendicular to frame when assembled to preload main arm (illustration below). Secure forearm to main arm with screw/washer assmely provided.
6. Adjut length of forearm so that forearm is perpendicular to frame when assembled to preload main arm (illustration below). Secure forearm to main arm with screw /washer assembly provided.
7. Snap pinion cap over shaft at bottom of closer.
8. Adjust closing speed of door. following instructions as shown page 1.

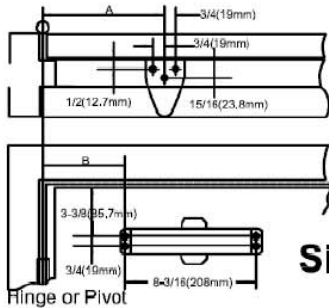




3000 Series "DO05" Optional back check

Installation Instructions for PARALLEL ARM (PUSH SIDE) Mounting

THIS TEMPLATE COVERS REGULAR ARM INSTALLATIONS TO 180 ° OPENING.



Size: 2&3

Left hand door shown
Right hand door shown
Dimensions are in inches
Do not scale drawing

OPENING	DIM. A F1602BC F1603BC
TO 120°	6-1/2(165.1mm)
120° -180°	4(101.6mm)

Power Size	Door Weight lbs (kgs)	Exterior doors	Interior doors
2	55-99 (25-45)	8,5lb -f	34"
3	99-143(45-65)	30"	38"

INSTALLATION INSTRUCTONS

1. Select door opening and use dimenslons shown above, mark four (4) holes on frame door and two (2) holes on door of arm shoe.
2. Drill pilot holes in door and frame for # 14 all-purpose screws or drill or tap for 1/4-20 machlne screw.
3. Intall forearm/arm shoe assembly to door using screws provided.
4. Mount closer on frame using screw provided, SPEED ADJUSTING VALVE MUST BE POSITIONED TOWARD HINGE EDGE.
5. Install main arm to top pinion shaft, perpendicular to frame when assebled to preload main arm (illustration below). Secure forearm to main arm with screw/washer assebley provided.
6. Adjut length of forearm so that forearm is perpendicular to frame when assebled to preload main arm (illustration below). Secure forearm to main arm with screw /washer assebley provided.
7. Snap pinion cap over shaft at bottom of closer.
8. Adjust closing speed of door. following instructions as shown page 1.

OPEN CYCLE

NOTED: These Instructions apply to closers equipped with backcheck.
To increase backcheck intensity, turn valve marked "BC" clockwise.
To decrease backcheck intensity, turn valve marked BC counter-clockwise

