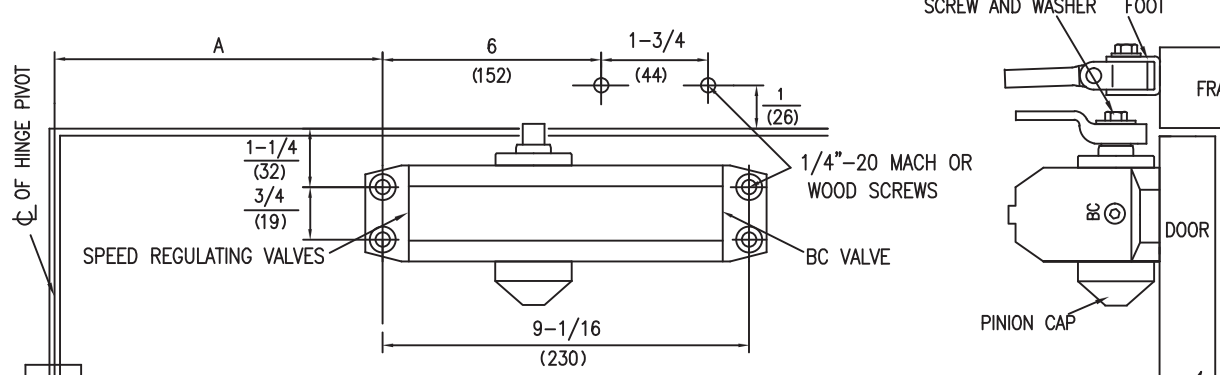


REGULAR ARM INSTALLAION



SCREW AND WASHER FOOT
FRAME
DOOR
PINION CAP
BC VALVE
SPEED REGULATING VALVES
CL OF HINGE PIVOT
9-1/16 (230)
1-3/4 (44)
1 (25)
1-1/4 (32)
3/4 (19)
1/4"-20 MACH OR WOOD SCREWS

DIMENSIONS "A"			OPENING
inches	mm		
7	178		T100"
6	152		101"TO120"
3-1/2	89		*121"TO180"

* Door/Wall/Hardware/Jamb conditions permitting

POSITION OF ARMS AND INDEX SETTINGS

RIGHT HAND DOOR
FRAME
RIGHT ANGLE
PINION FLAT
POSITION OF MAIN ARM WHEN ASSEMBLING TO SPINDLE

1.SELECT DEGREE OF DOOR. USE DIMENSIONS SHOWN IN CHART AND ILLUSTRATION ABOVE TO MARK LOCATION OF ATTACHING SCREWS ON DOOR AND FRAME. PREPARE HOLES.

2.ASSEMBLE MAIN ARM TO CLOSER.

3.ATTACH CLOSER TO DOOR WITH SPEED REGULATING VALVES TOWARD HINGE.

4.ATTACH THE FOOT OF THE FOREARM TO FRAME.

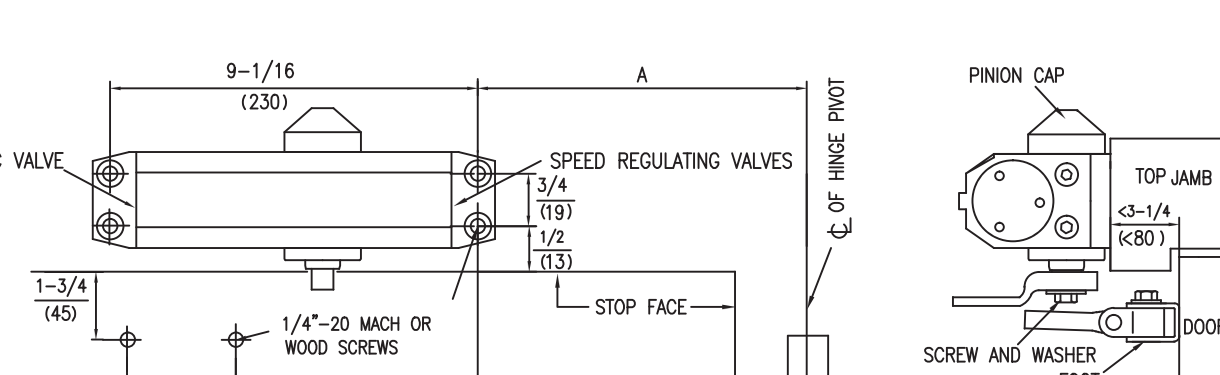
5.ADJUST LENGTH OF FOREARM TO POSITION FOREARM AT RIGHT ANGLE TO FRAME WHEN CONNECTED TO MAIN ARM AT ELBOW USE WASHER AND SCREW PROVIDED TO SECURE PIVOT CONNECTION.TIGHTEN LOCKNUT ON FOREARM.

6.SNAP PINION CAP OVER SPINDLE AT BOTTOM OF CLOSER.

7.ADJUST CLOSER.

MAXIMUM DOOR WIDTH		FULL TURNS REQUIRED
EXTERIOR DOORS	INTERIOR DOORS	
—	5 lb-ft*	13 TURNS C.C.W.
8.5 lb-ft*	34" (864)	9 TURNS C.C.W.
30" (762)	38" (962)	5 TURNS C.C.W.
36" (914)	48" (1219)	0 TURNS
42" (1067)	54" (1372)	5 TURNS C.W.
48" (1219)	60" (1524)	10 TURNS C.W.

TOP JAMB INSTALLATION



9-1/16 (230)
A
BC VALVE
1-3/4 (45)
1-3/4 (44)
1/4"-20 MACH OR WOOD SCREWS
SPEED REGULATING VALVES
STOP FACE
CL OF HINGE PIVOT
PINION CAP
TOP JAMB
DOOR
SCREW AND WASHER FOOT

DIMENSIONS "A"			OPENING
inches	mm		
7-1/2	191		T100"
6	152		101"TO120"
3-1/2	89		*121"TO180"

* Door/Wall/Hardware/Jamb conditions permitting

POSITION OF ARMS AND INDEX SETTINGS

RIGHT HAND DOOR
TOP JAMB
FRAME
RIGHT ANGLE
PINION FLAT
POSITION OF MAIN ARM WHEN ASSEMBLING TO SPINDLE

1.SELECT DEGREE OF DOOR. USE DIMENSIONS SHOWN IN CHART AND ILLUSTRATION ABOVE TO MARK LOCATION OF ATTACHING SCREWS ON DOOR AND FRAME. PREPARE HOLES.

2.ASSEMBLE MAIN ARM TO CLOSER.

3.ATTACH CLOSER TO FRAME WITH SPEED REGULATING VALVES TOWARD HINGE.

4.ATTACH THE FOOT OF THE FOREARM TO DOOR.

5.ADJUST LENGTH OF FOREARM TO POSITION FOREARM AT RIGHT ANGLE TO FRAME WHEN CONNECTED TO MAIN ARM AT ELBOW USE WASHER AND SCREW PROVIDED TO SECURE PIVOT CONNECTION.TIGHTEN LOCKNUT ON FOREARM.

6.SNAP PINION CAP OVER SPINDLE AT BOTTOM OF CLOSER.

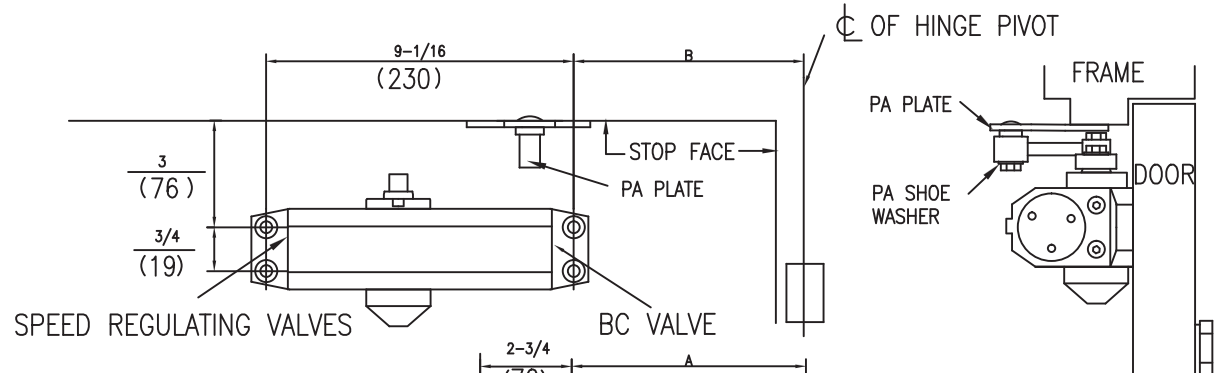
7.ADJUST CLOSER.

About Power Adjustment

Before installation, Adjust the spring power as chart in page 2. Adjust spring power DO NOT exceed the maximum turn .

The spring power has been reset on 0 turns in factory.

PARALLEL ARM INSTALLATION



CL OF HINGE PIVOT
FRAME
DOOR
PA PLATE
PA SHOE WASHER
STOP FACE
SPEED REGULATING VALVES
BC VALVE
2-3/4 (70)
3/8 (9.5)
3/4 (19)
3 (76)
9-1/16 (230)
A
RIGHT HAND DOOR
FRAME
PA PLATE
7/16 (11)
5/16 (8)
1-1/2 (38)

DIMENSIONS "A"		DIMENSIONS "B"		OPENING
inches	mm	inches	mm	
9-1/4	235	7-5/8	194	TO 100"
7-3/4	197	6-1/8	156	101" TO 150"
5-3/4	146	4-1/8	105	OVER 151"

* RIGHT HAND DOOR ILLUSTRATED
SAME DIMENSIONS APPLY TO LEFT HAND DOOR
* MEASURED FROM HINGE CL
DIMENSIONS ARE IN inches
* DO NOT SCALE DRAWING

INSTALLATION INSTRUCTIONS

1.SELECT DEGREE OF DOOR. USE DIMENSIONS SHOWN IN CHART AND ILLUSTRATION ABOVE TO MARK LOCATION OF ATTACHING SCREWS ON DOOR AND FRAME. PREPARE HOLES.

2.ATTACH CLOSER TO DOOR WITH SPEED REGULATING VALVES TOWARD HINGE.

3.ATTACH PA PLATE TO TOP FRAME AS SHOWN.

4.REMOVE FOOT FROM FOREARM AND DISCARD.

5.INSTALL ARM ON PINION SHAFT. ROTATE PINION 45° TOWARD HINGE EDGE OF DOOR TO ALIGH MAIN ARM LETTER "B" (RIGHT HAND DOOR) OR "A" (LEFT HAND DOOR) WITH PINION FLAT. FASTEN WITH ARM SCREW.

6.FASTEN FOREARM TO PA PLATE USING SCREW REMOVED FROM FOOT IN STEP 4 AND PA SHOE WASHER INCLUDED IN SCREW PACK.

7.ADJUST FOREARM LENGTH TO SET ARM ELBOW ABOUT 1-1/2" (38mm) FROM DOOR WHEN CONNECTED TO MAIN ARM. USE WASHER AND SCREW PROVIDED TO SECURE PIVOT CONNECTION.TIGHTEN LOCKNUT.

8.SNAP PINION CAP OVER SPINDLE AT BOTTOM.

9. ADJUST CLOSER.

PINION FLAT FOR LEFT HAND DOOR
PINION FLAT FOR RIGHT HAND DOOR

DOOR CLOSER

INSTALLATION INSTRUCTIONS

■ CHART TO DETERMINE HAND OF DOOR

PULL SIDE
HINGE SIDE OF DOOR
STOP SIDE OF DOOR
HINGE SIDE OF DOOR
STOP SIDE OF DOOR
PUSH SIDE
THIS IS A LEFT HAND DOOR
THIS IS A RIGHT HAND DOOR

■ COMPONENTS

CLOSER BODY
ARM ASSEMBLY
PINION CAP
FOREARM
LOCKNUT
FOOT
WASHER
PARALLEL ARM (PA) PLATE
ELBOW WASHER AND SCREW
MAIN ARM

■ CONTROL FUNCTION

CLOSING SPEED CONTROL

CAUTION
DO NOT BACK VALVES OUT OF CLOSER OR A LEAK WILL RESULT

ATTENTION:
ADJUST CLOSING SPEED TIME TO BETWEEN 4 TO 6 SECONDS FROM 90°. USE OF THE DOOR BY HANDICAPPED, ELDERLY OR SMALL CHILDREN MAY REQUIRE LONGER CLOSING TIME.

OPENING DOOR CONTROL

CAUTION
DO NOT BACK VALVES OUT OF CLOSER OR A LEAK WILL RESULT

ATTENTION:
BACKCHECK ("BC") VALVE CONTROLS THE HYDRAULIC RESISTANCE TO DOOR OPENING IN BACKCHECK RANGE. NEVER CLOSE THIS VALVE COMPLETELY. IT IS NOT TO PROVIDE A POSITIVE STOP.

■ FINAL ADJUSTMENT AND REGULATING PROCEDURES

REGULATING DOOR SPEED AND LATCHING SPEED

TURN SPEED REGULATING VALVE CLOCKWISE TO SLOW DOWN OR COUNTER CLOCKWISE TO SPEED UP DOOR MOVEMENT

REGULATING SPRING POWER REGULATING BC POWER

POWER ADJUSTMENT SCREW.TURN THIS SCREW CLOCKWISE TO INCREASE OR COUNTER CLOCKWISE TO DECREASE.

ADJUSTING FOOT FOR CLOSING POWER

MOVE FOOT PIVOT TO HOLE AS ILLUSTRATED BELOW

LESS POWER
MORE POWER
STANDARD POSITION
HINGE EDGE OF DOOR