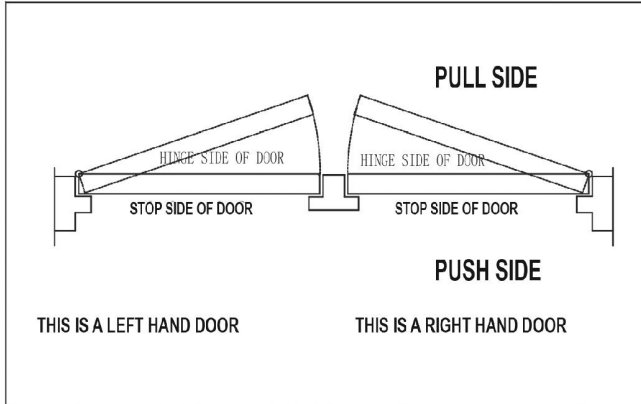
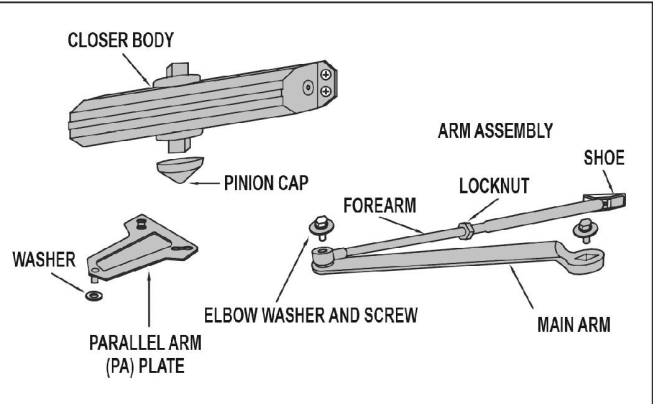


COMMANDO COMMERCIAL DOOR HARDWARE

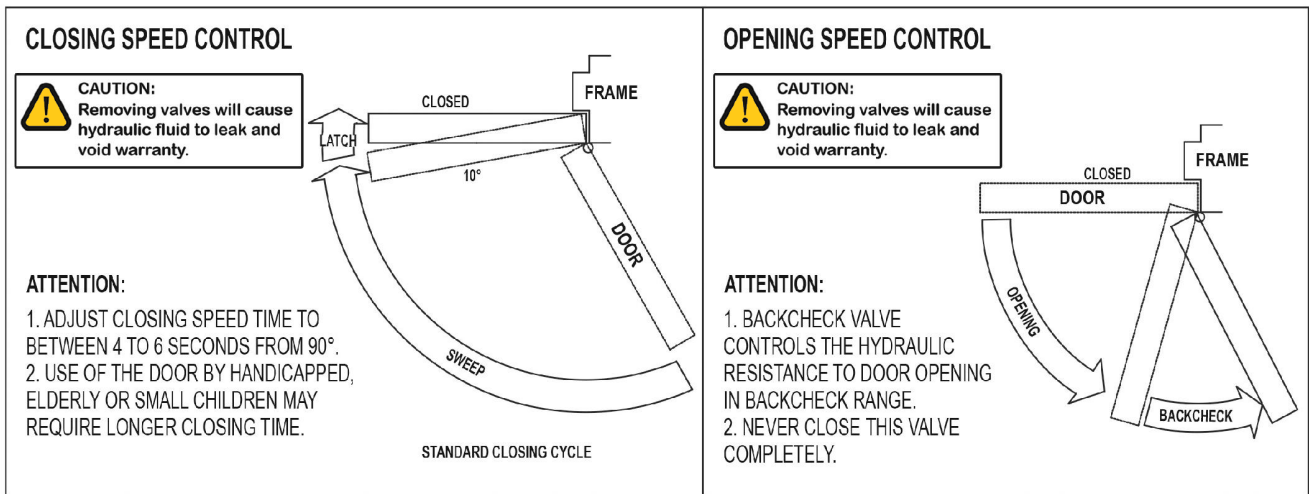
CHART TO DETERMINE HAND OF DOOR



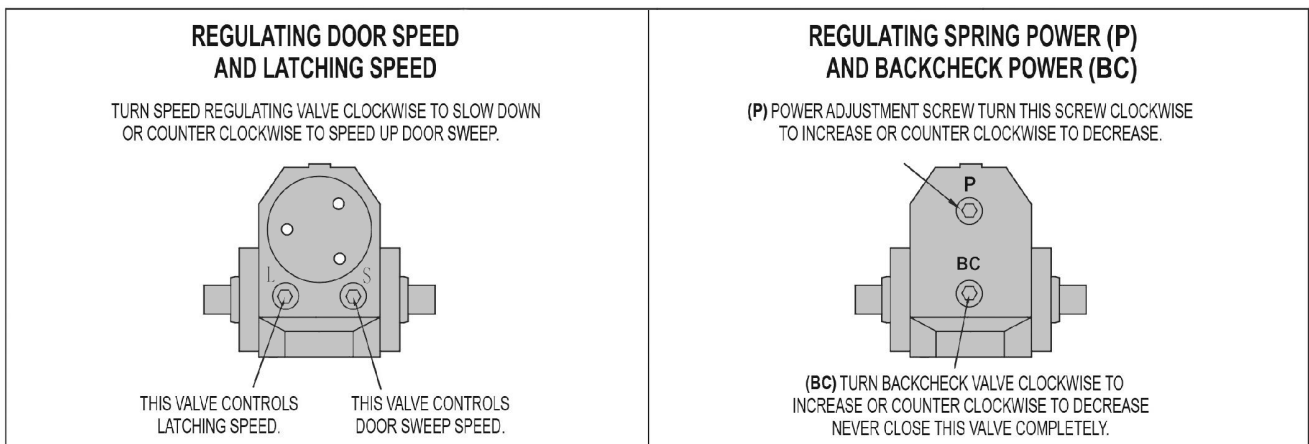
COMPONENTS

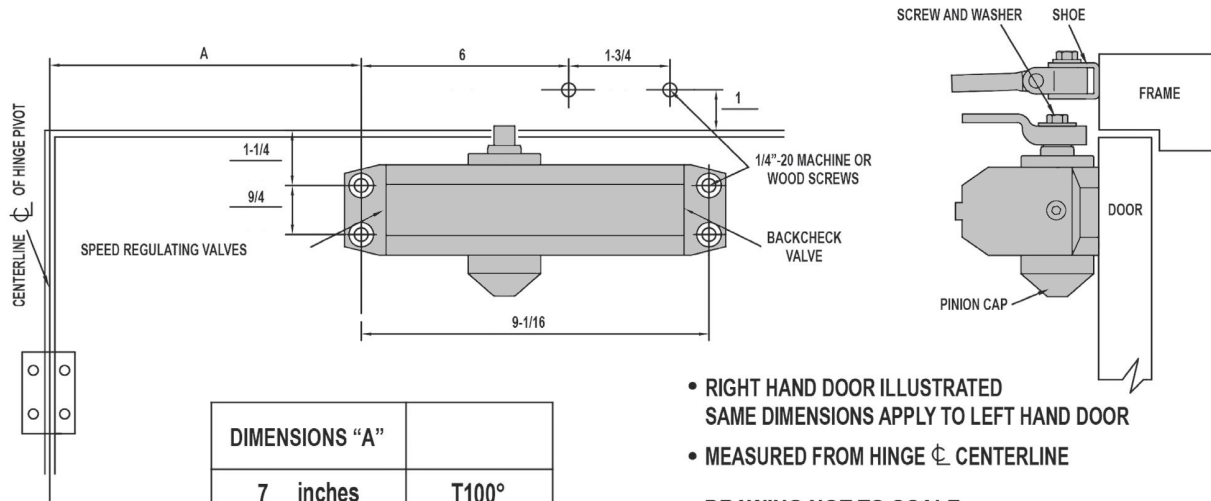


CONTROL FUNCTION



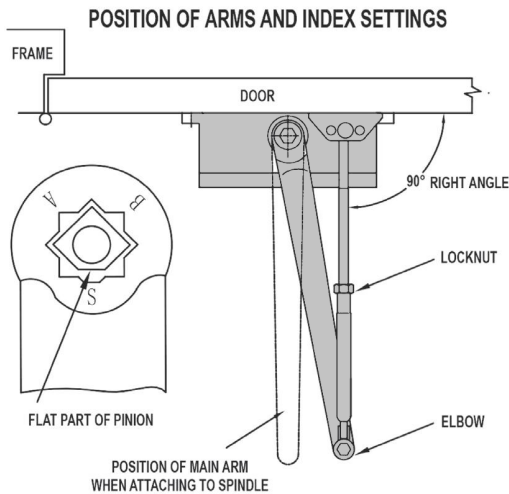
FINAL VALVE ADJUSTMENT AND REGULATING PROCEDURES



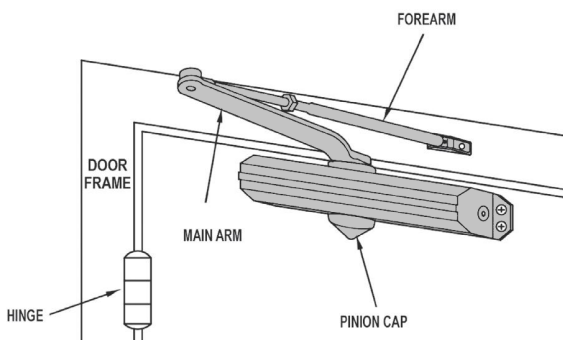


INSTALLATION INSTRUCTIONS

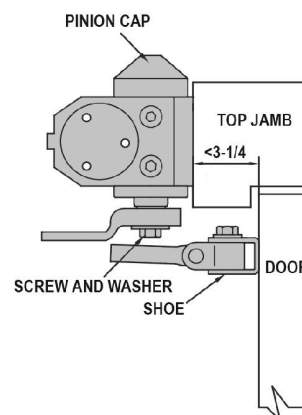
1. SELECT DEGREE OF DOOR OPENING USE DIMENSIONS SHOWN IN CHART AND ILLUSTRATION ABOVE TO MARK LOCATION OF ATTACHING SCREWS ON DOOR AND FRAME.
2. ATTACH MAIN ARM TO CLOSER.
3. ATTACH CLOSER TO DOOR WITH SPEED REGULATING VALVES FACING TOWARD HINGE.
4. ATTACH THE SHOE OF THE FOREARM TO FRAME.
5. ADJUST LENGTH OF FOREARM TO POSITION FOREARM AT RIGHT ANGLE (See drawing) TO FRAME.
6. TIGHTEN LOCKNUT ON FOREARM.
7. SNAP PINION CAP OVER SPINDLE AT BOTTOM OF CLOSER.
8. ADJUST CLOSER VALVES AS REQUIRED.



CAUTION:
Removing valves will cause hydraulic fluid to leak and void warranty.



MAXIMUM DOOR WIDTH		FULL TURNS REQUIRED
EXTERIOR DOORS	INTERIOR DOORS	
—	5 lb-ft	13 TURNS C.C.W.
8.5 lb-ft	34"	9 TURNS C.C.W.
30"	38"	5 TURNS
36"	48"	0 TURNS C.W.
42"	54"	5 TURNS C.W.
48"	60"	10 TURNS C.W.

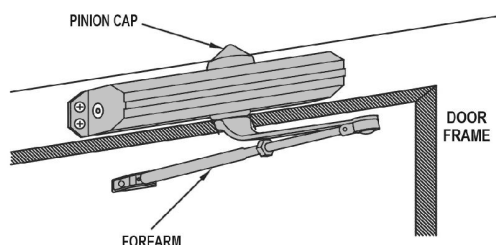
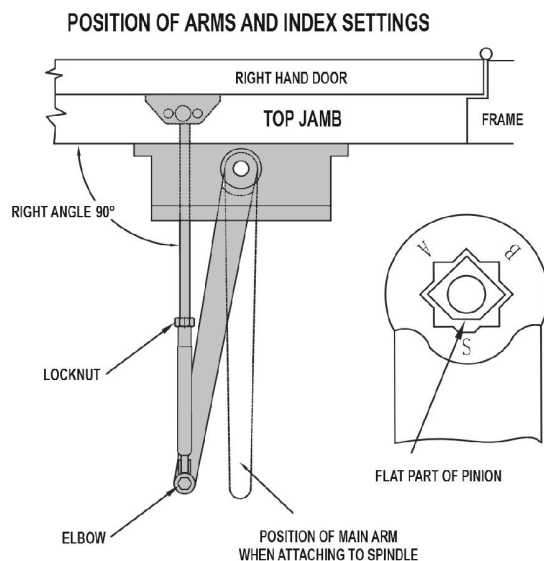


DIMENSIONS "A"	OPENING
7-1/2 inches	T100°
6 inches	101° TO 120°
3-1/2 inches	*121° TO 180°

- RIGHT HAND DOOR ILLUSTRATED
- SAME DIMENSIONS APPLY TO LEFT HAND DOOR
- MEASURED FROM HINGE \perp CENTERLINE
- DRAWING NOT TO SCALE

INSTALLATION INSTRUCTIONS

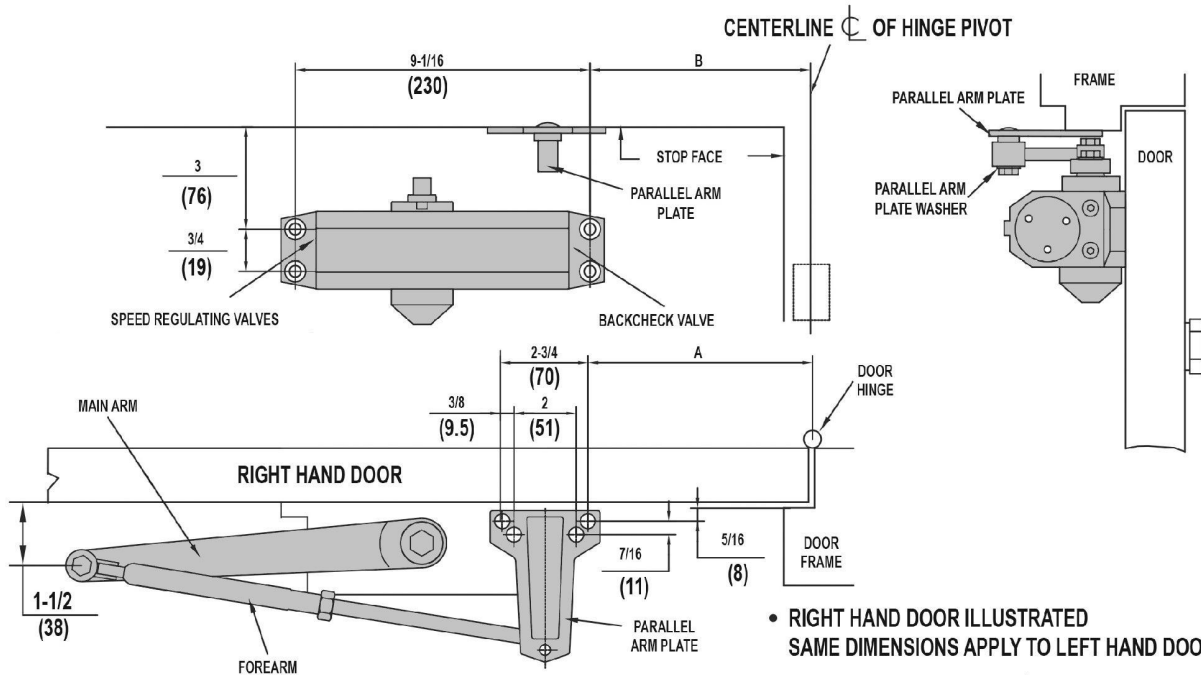
1. SELECT DEGREE OF DOOR OPENING USE DIMENSIONS SHOWN IN CHART AND ILLUSTRATION ABOVE TO MARK LOCATION OF ATTACHING SCREWS IN DOOR AND FRAME.
2. ATTACH MAIN ARM TO CLOSER.
3. ATTACH CLOSER TO FRAME WITH SPEED REGULATING VALVES FACING TOWARD HINGE.
4. ATTACH THE SHOE OF THE FOREARM TO DOOR.
5. ADJUST LENGTH OF FOREARM TO POSITION FOREARM AT RIGHT ANGLE (See drawing) TO FRAME.
6. TIGHTEN LOCKNUT ON FOREARM.
7. SNAP PINION CAP OVER SPINDLE AT BOTTOM OF CLOSER.
8. ADJUST CLOSER VALVES AS REQUIRED.



CAUTION:
Removing valves will cause hydraulic fluid to leak and void warranty.

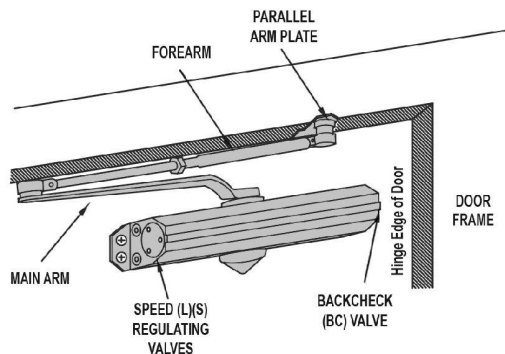
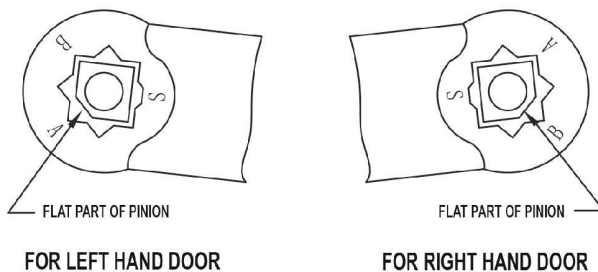
ABOUT POWER ADJUSTMENT

1. Before installation, adjust the spring power as shown on chart on page 2.
2. DO NOT exceed the maximum number of turns.
3. The spring power has been preset at 0 turns in factory.



- RIGHT HAND DOOR ILLUSTRATED
SAME DIMENSIONS APPLY TO LEFT HAND DOOR
- MEASURED FROM HINGE \perp CENTERLINE
- DRAWING NOT TO SCALE

DIMENSIONS "A"	DIMENSIONS "B"	OPENING
9-1/4 inches	7-5/8 inches	TO 100°
7-3/4 inches	6-1/8 inches	101° TO 150°
5-3/4 inches	4-1/8 inches	OVER 151°



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.
2. ATTACH CLOSER TO DOOR WITH BACKCHECK (BC) REGULATING VALVE FACING HINGE.
3. ATTACH PARALLEL ARM PLATE TO TOP FRAME AS SHOWN.
4. REMOVE SHOE FROM FOREARM.
5. INSTALL MAIN ARM ON PINION SHAFT.
6. ROTATE PINION 45° TOWARD HINGE EDGE OF DOOR TO ALIGN MAIN ARM LETTER "B" (RIGHT HAND DOOR) OR "A" (LEFT HAND DOOR) WITH FLAT PART OF PINION.
7. ATTACH WITH ARM SCREW.
8. FASTEN FOREARM TO PARALLEL ARM PLATE USING SCREW REMOVED FROM SHOE IN STEP 4 AND PARALLEL ARM SHOE WASHER INCLUDED IN SCREW PACK.
9. ADJUST FOREARM LENGTH TO SET ARM ELBOW ABOUT 1-1/2" (38mm) FROM DOOR WHEN CONNECTED TO MAIN ARM (See drawing) USE WASHER AND SCREW PROVIDED TO SECURE PIVOT CONNECTION. TIGHTEN LOCKNUT.
10. SNAP PINION CAP OVER SPINDLE AT BOTTOM.
11. ADJUST CLOSER VALVES.



CAUTION:
Removing valves will cause hydraulic fluid to leak and void warranty.