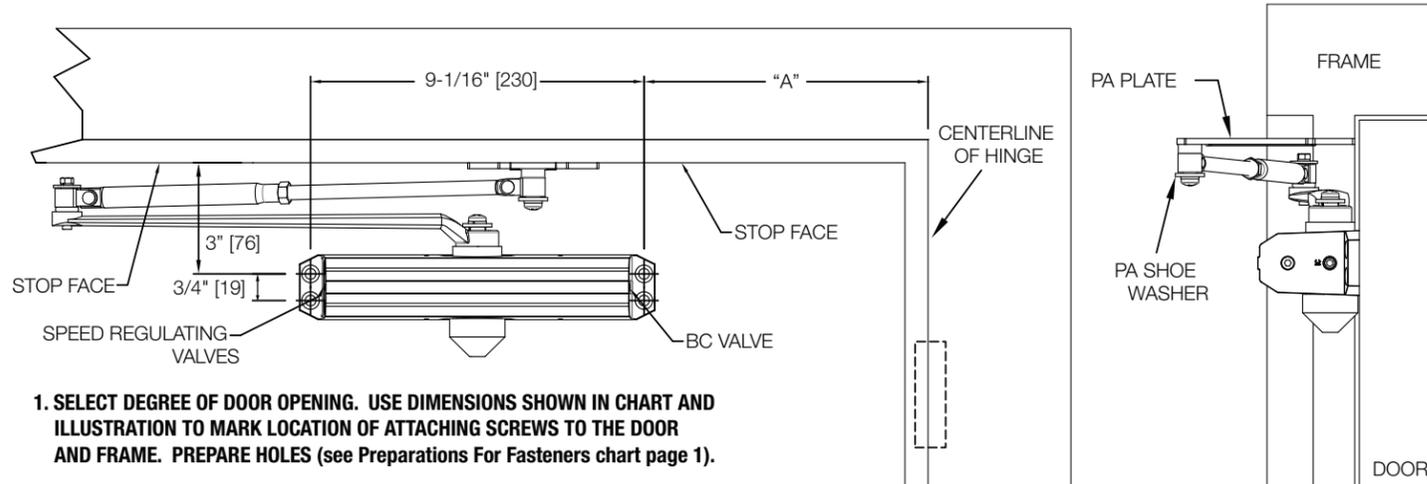


# PARALLEL ARM INSTALLATION

WC31 or WC32 INSTALLATION INSTRUCTIONS



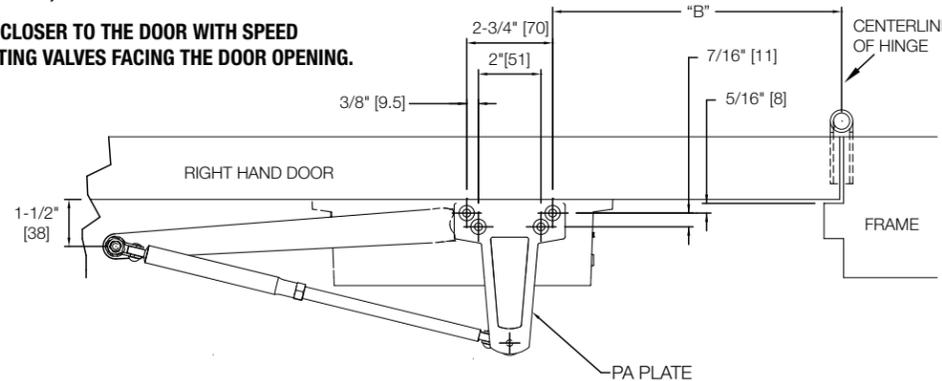
1. SELECT DEGREE OF DOOR OPENING. USE DIMENSIONS SHOWN IN CHART AND ILLUSTRATION TO MARK LOCATION OF ATTACHING SCREWS TO THE DOOR AND FRAME. PREPARE HOLES (see Preparations For Fasteners chart page 1).

MODEL	DIMENSION "A"		DIMENSION "B"		DEGREE OF OPENING
	inches	mm	inches	mm	
WC31	7-5/8"	194	9-1/4"	235	TO 100°
	6-1/8"	156	7-3/4"	197	101° TO 130°
WC32	4-1/8"	105	5-3/4"	146	OVER 131°

2. DISASSEMBLE FOREARM FROM MAIN ARM BY REMOVING ELBOW WASHER AND SCREW.

3. REMOVE THE FOOT FROM THE FOREARM AND DISCARD. Note: DO NOT DISCARD SCREW AND WASHER, WILL NEED IN STEP 7.

4. ATTACH CLOSER TO THE DOOR WITH SPEED REGULATING VALVES FACING THE DOOR OPENING.



5. ATTACH THE PA PLATE TO THE TOP FRAME AS SHOWN IN DIAGRAM.

6. BEFORE INSTALLING THE ARM ON THE PINION SHAFT, ROTATE THE PINION WITH A WRENCH. 45° TOWARDS THE HINGE EDGE OF THE DOOR TO ALIGN MAIN ARM LETTER "B" (RH DOOR) OR "A" (LH DOOR) WITH THE PINION FLAT. FASTEN WITH MAIN ARM SCREW AND WASHER (see Fig. 5).

7. FASTEN FOREARM TO THE PA PLATE, USING THE SCREW THAT WAS REMOVED FROM THE FOOT IN STEP 3 AND PA SHOE WASHER INCLUDED IN THE SCREW PACK.

8. WITH THE DOOR CLOSED, ADJUST THE FOREARM LENGTH TO SET ARM ELBOW ABOUT 1-1/2\"/>

9. SNAP THE PINION CAP OVER THE PINION AT THE BOTTOM OF THE CLOSER.

10. ADJUST CLOSER (refer to Speed and Power Adjustment charts on page 1).

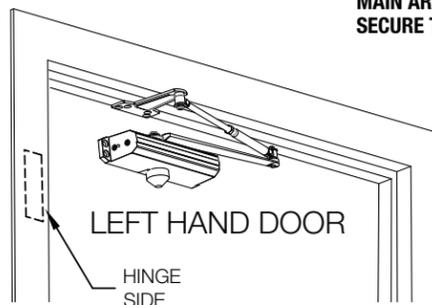
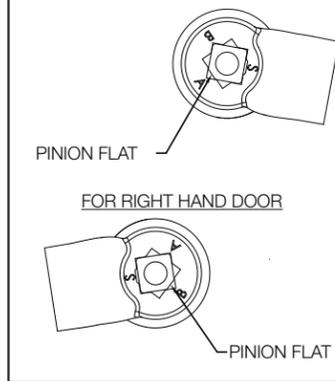


Fig. 5. FOR LEFT HAND DOOR



## POWER ADJUSTMENT

BEFORE INSTALLATION, ADJUST THE SPRING POWER AS SHOWN ON CHARTS BELOW. DO NOT EXCEED THE MAXIMUM TURN. THE SPRING POWER HAS BEEN PRESET TO "0" TURNS FROM FACTORY.

EXTERIOR (and VESTIBULE) DOOR WIDTH MINIMUM DOOR WIDTH (24")

REGULAR JAMB & TOP JAMB	24" (610mm)	30" (762mm)	36" (914mm)	42" (1067mm)
PARALLEL ARM	SIZE 3 (0)	SIZE 4 (5CW)	SIZE 5 (10CW)	
	SIZE 2 (0CW)	SIZE 3 (8CW)		

INTERIOR DOOR WIDTH MINIMUM DOOR WIDTH (24")

REGULAR ARM & TOP JAMB	24" (610mm)	30" (762mm)	34" (865mm)	38" (965mm)	48" (1219mm)	54" (1372mm)
PARALLEL ARM	SIZE 1 (7CCW)	SIZE 2 (4CCW)	SIZE 3 (0)	SIZE 4 (5CW)	SIZE 5 (10CW)	
	SIZE 1 (7CCW)	SIZE 2 (0)	SIZE 3 (8CW)			

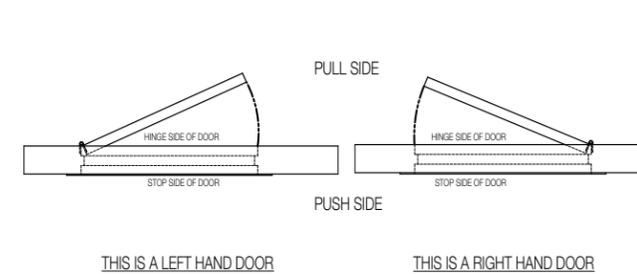
APPROX. 5 TURNS TO INCREASE / DECREASE ONE SIZE CW=CLOCKWISE CCW= COUNTERCLOCKWISE

## PREPARATION FOR FASTENERS

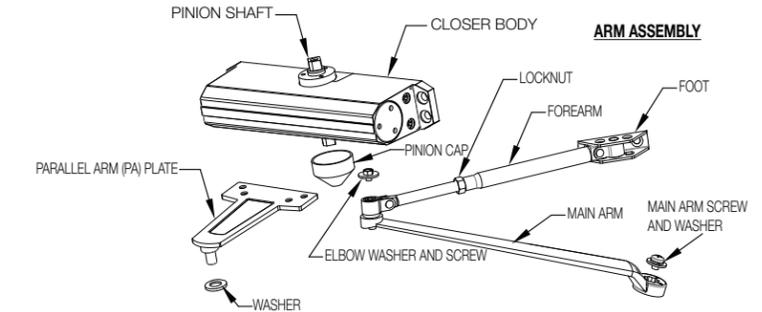
FASTENERS	DOOR OR FRAME	DRILL SIZES	WHERE USED	*DRILL DEPTH
Self Drilling/Tapping Machine Screw	Hollow Metal or Aluminum	3/16"	Closer	Thru One Side
1/4" - 20 Machine Screws	Hollow Metal	#7 (.201") Drill Bit & 1/4" - 20 Tap	Closer	1"
			Parallel Arm (PA) Plate/Foot	5/8"
Wood Screw	Wood	1/8" Drill Bit - Softwood	Closer & PA Plate/Foot	1 1/4"
		3/16" Drill Bit - Hardwood		

\* Measure door thickness before drilling pilot holes to prevent drilling through opposite side

## CHART TO DETERMINE HAND OF DOOR



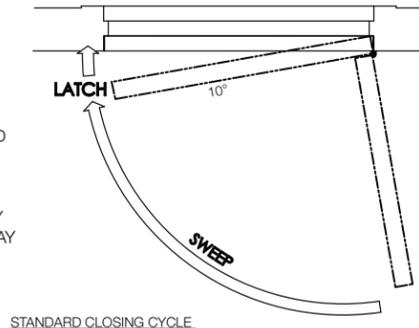
## COMPONENTS



## CLOSING SPEED CONTROL

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

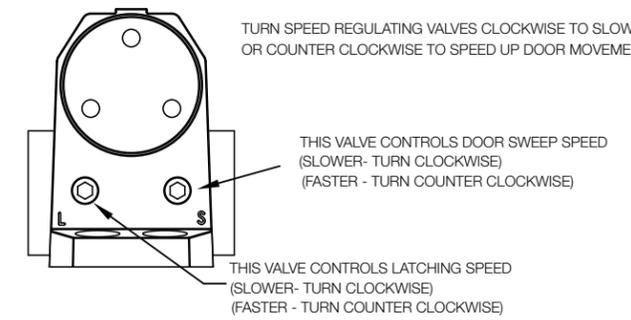
ATTENTION: ADJUST CLOSING SPEED TIME TO BETWEEN 4 & 6 SECONDS FROM 90°. DOORS USED BY: HANDICAPPED, ELDERLY OR SMALL CHILDREN MAY REQUIRE LONGER CLOSING TIMES.



STANDARD CLOSING CYCLE

## REGULATING SWEEP SPEED & LATCHING SPEED

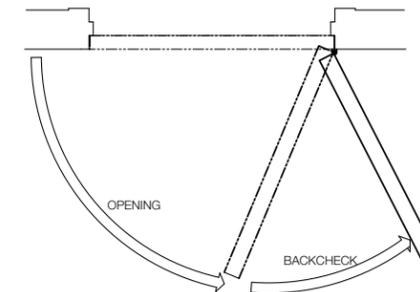
TURN SPEED REGULATING VALVES CLOCKWISE TO SLOW DOWN OR COUNTER CLOCKWISE TO SPEED UP DOOR MOVEMENT.



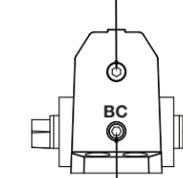
## REGULATING OPENING POWER & BACKCHECK POWER

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.



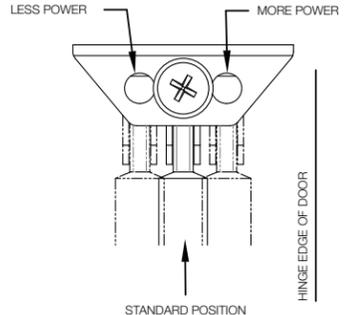
POWER ADJUSTMENT SCREW. TURN CLOCKWISE TO INCREASE OR COUNTER CLOCKWISE TO DECREASE.



TURN BC REGULATING VALVE CLOCKWISE TO INCREASE OR COUNTER CLOCKWISE TO DECREASE. NEVER CLOSE THIS VALVE COMPLETELY.

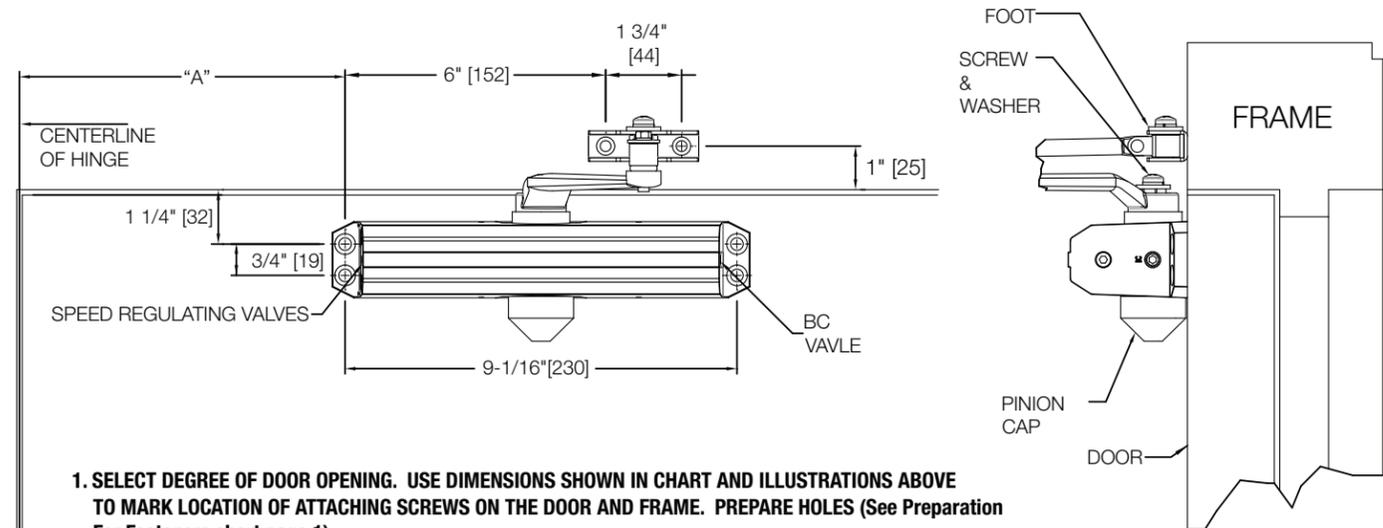
## ADJUSTING FOOT FOR INITIAL OPENING POWER

MOVE FOOT PIVOT TO HOLE AS ILLUSTRATED



# REGULAR ARM INSTALLATION

WC31 or WC32 INSTALLATION INSTRUCTIONS

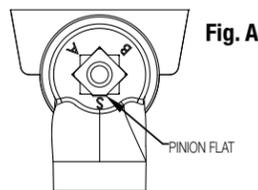


1. SELECT DEGREE OF DOOR OPENING. USE DIMENSIONS SHOWN IN CHART AND ILLUSTRATIONS ABOVE TO MARK LOCATION OF ATTACHING SCREWS ON THE DOOR AND FRAME. PREPARE HOLES (See Preparation For Fasteners chart page 1).
  - RIGHT HAND DOOR ILLUSTRATED, SAME DIMENSIONS APPLY TO LEFT HAND DOOR
  - MEASURED FROM HINGE CENTERLINE
  - DO NOT SCALE DRAWING

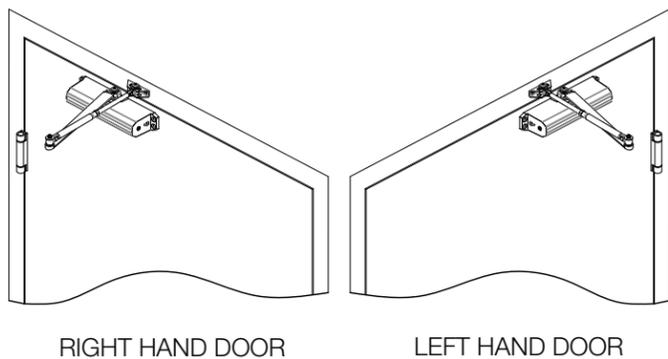
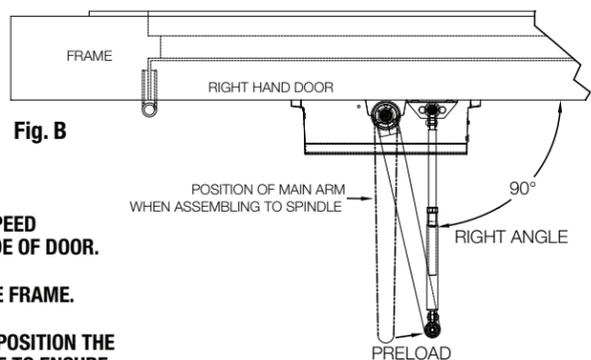
MODEL	DIMENSIONS "A"		OPENING	DOOR WIDTH		ADA COMPLIANT
	inches	[mm]		Interior	Exterior	
WC31	7"	178	TO 100°	UP TO 54"	UP TO 42"	
WC32	3-1/2"	89	* 121° TO 180°			

\*DOOR/WALL/HARDWARE/JAMB CONDITIONS PERMITTING

2. DISASSEMBLE FOREARM FROM MAIN ARM BY REMOVING ELBOW WASHER AND SCREW.
3. MOUNT MAIN ARM ONTO CLOSER PINION SHAFT, ALIGNING ARM MARK "S" WITH PINION FLAT (see Fig. A.) SECURE WITH MAIN ARM SCREW AND WASHER.



4. ATTACH CLOSER TO THE DOOR WITH THE SPEED REGULATING VALVES FACING THE HINGE SIDE OF DOOR.
5. ATTACH THE FOOT OF THE FOREARM TO THE FRAME.
6. ADJUST THE LENGTH OF THE FOREARM TO POSITION THE FOREARM AT A RIGHT ANGLE TO THE FRAME TO ENSURE PROPER LATCHING (See Fig. B).



7. REATTACH MAIN ARM AND FOREARM USING ELBOW SCREW AND WASHER.
8. SNAP PINION CAP OVER THE PINION AT THE BOTTOM OF THE CLOSER.
9. ADJUST CLOSER (refer to Speed and Power Adjustment charts on page 1).

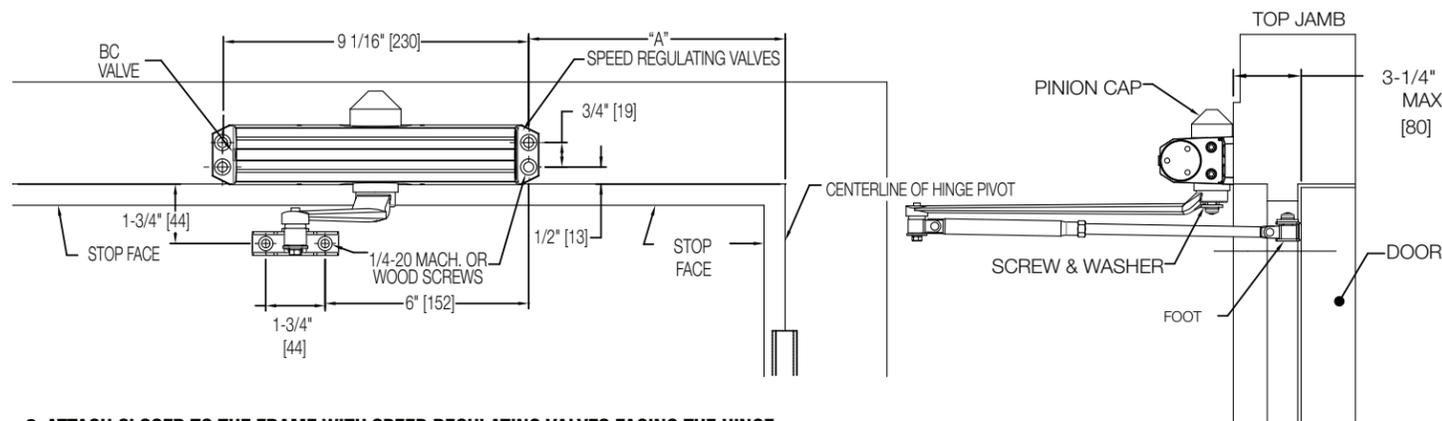
# TOP JAMB INSTALLATION

WC31 or WC32 INSTALLATION INSTRUCTIONS

1. SELECT DEGREE OF DOOR OPENING. USE DIMENSIONS SHOWN IN CHART AND ILLUSTRATIONS BELOW TO MARK LOCATION OF ATTACHING SCREWS ON THE DOOR AND FRAME. PREPARE HOLES (see Preparation For Fasteners chart page 1).

MODEL	DIMENSIONS "A"		OPENING	DOOR WIDTH		ADA COMPLIANT
	inches	[mm]		Interior	Exterior	
WC31	7"	178	TO 100°	UP TO 54"	UP TO 42"	
WC32	3-1/2"	89	* 121° TO 180°			

\*DOOR/WALL/HARDWARE/JAMB CONDITIONS PERMITTING



2. ATTACH CLOSER TO THE FRAME WITH SPEED REGULATING VALVES FACING THE HINGE.

3. DISASSEMBLE FOREARM FROM MAIN ARM BY REMOVING ELBOW WASHER AND SCREW.

4. MOUNT MAIN ARM ONTO CLOSER PINION SHAFT, ALIGNING ARM MARK "S" WITH PINION FLAT (see Fig. A.) SECURE WITH MAIN SCREW AND WASHER.

5. ATTACH THE FOOT OF THE FOREARM TO THE DOOR.

6. WHEN CONNECTING THE FOREARM TO MAIN ARM: ADJUST THE LENGTH OF THE FOREARM TO POSITION AT A RIGHT ANGLE TO THE FRAME TO ENSURE PROPER PRELOAD (see Fig. B.) USE WASHER AND SCREW PROVIDED TO SECURE PIVOT CONNECTION. TIGHTEN LOCKNUT ON FOREARM.

7. SNAP THE PINION CAP OVER THE PINION AT THE TOP OF THE CLOSER.

8. ADJUST CLOSER (refer to Speed and Power Adjustment charts on page 1).

