

DOOR CLOSER

MODEL 316 HOLD OPEN ARM (FRICTION TYPE) INSTALLATION INSTRUCTIONS

CHART TO INSTALLTION FOOT

Optional Hold-open arm. Identify direction of hold-open nut according to mounting.

Optional Hold-open arm. Identify direction of hold-open nut according to mounting.

FINAL ADJUSTMENT AND REGULATING PROCEDURES

REGULATING DOOR SPEED AND LATCHING SPEED

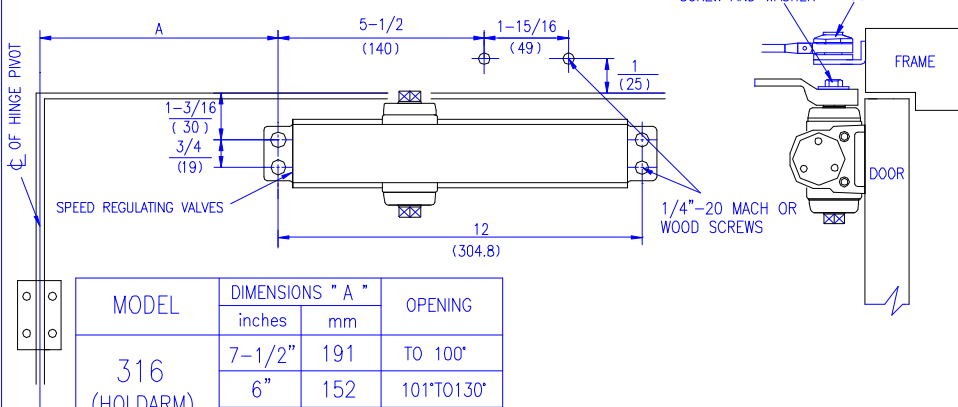
TURN SPEED REGULATING VALVE CLOCKWISE TO SLOW DOWN COUNTER-CLOCKWISE TO SPEED UP DOOR MOVEMENT

REGULATING SPRING POWER

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

STANDARD INSTALLATION: PULL SIDE RIGHT INSTALLATION

- RIGHT HAND DOOR ILLUSTRATED SAME DIMENSIONS APPLY TO LEFT HAND DOOR
- MEASURED FROM HINGE \perp DIMENSIONS ARE IN $\frac{\text{inches}}{\text{(mm)}}$
- DO NOT SCALE DRAWING



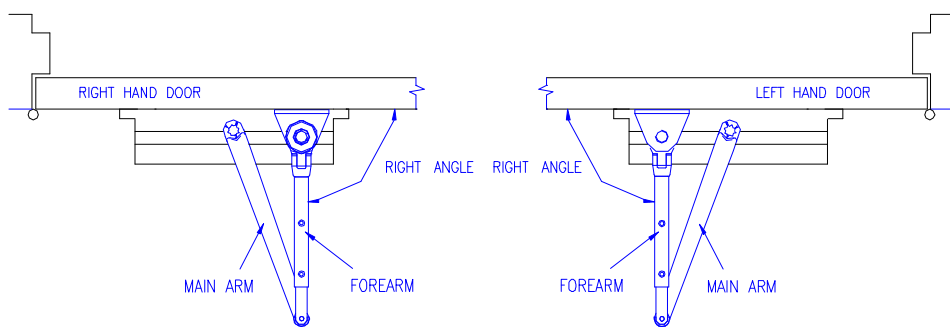
MODEL	DIMENSIONS * A *		OPENING
	inches	mm	
316 (HOLDARM)	7-1/2"	191	TO 100"
	6"	152	101" TO 130"
	4-1/2"	114	* 131" TO 180"

* Door/Wall/Hardware/Jamb conditions permitting

INSTALLATION INSTRUCTIONS

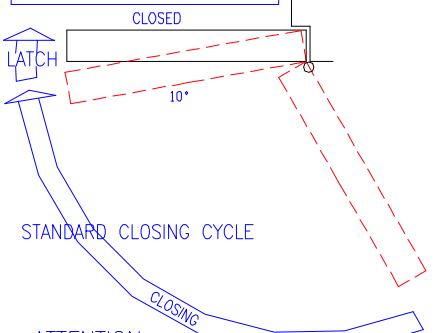
1. SELECT DEGREE OF DOOR. USE DIMENSIONS SHOWN IN CHART AND ILLUSTRATION ABOVE TO MARK LOCATION OF ATTACHING SCREWS. ON DOOR AND FRAME PREPARE HOLES.
2. ASSEMBLE MAIN ARM TO CLOSER.
3. ATTACH CLOSER TO DOOR WITH SPEED REGULATING VALVES TOWARD HINGE.
4. ATTACH THE FOOT OF THE FOREARM TO FRAME.
5. ADJUST LENGTH OF FOREARM TO POSITION FOREARM AT RIGHT ANGLE TO FRAME TIGHTEN THE SCREW OF FOREARM.
6. SNAP PINION CAP OVER SPINDLE AT BOTTOM OF CLOSER
7. ADJUST DOOR CLOSER
8. LOOSEN THE INNER HEX SCREW AT THE ELBOW OF THE MAIN ARM, OPEN THE DOOR TO THE ANGLE YOU NEED, THEN TIGHTEN THE INNER HEX SCREW TO HOLD THE DOOR OPEN.

POSITION OF ARMS AND INDEX SETTINGS



CLOSING SPEED CONTROL

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



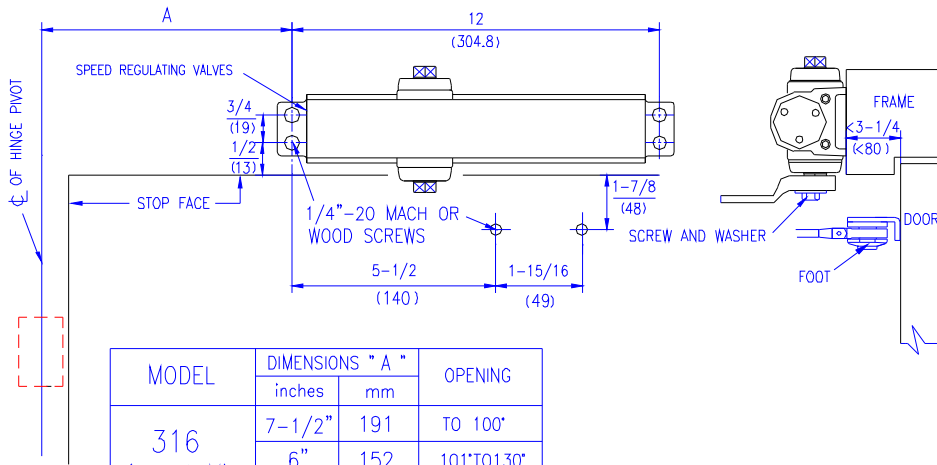
ATTENTION:
ADJUST CLOSING SPEED TIME TO BETWEEN 4 TO 6 SECONDS FROM 90°. USE OF THE DOOR BY HANDICAPPED, ELDERLY OR SMALL CHILDREN MAY REQUIRE LONGER CLOSING TIME.

OTHER INSTALLATION: PUSH SIDE TOP JAMB INSTALLATION

- LEFT HAND DOOR ILLUSTRATED SAME DIMENSIONS APPLY TO RIGHT HAND DOOR
- DIMENSIONS ARE IN $\frac{\text{inches}}{\text{mm}}$ MEASURED FROM HINGE \perp
- 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. 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



MODEL	DIMENSIONS "A"		OPENING
	inches	mm	
316 (HOLDARM)	7-1/2"	191	TO 100°
	6"	152	101° TO 130°
	4-1/2"	114	*131° TO 180°

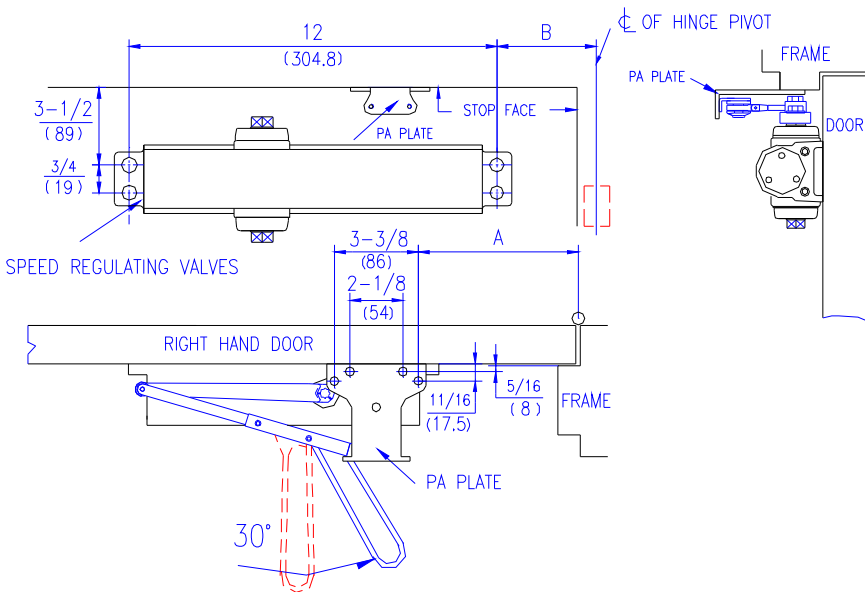
* Door/Wall/Hardware/Jamb conditions permitting

OTHER INSTALLATION: PUSH SIDE PARALLEL INSTALLATION

- RIGHT HAND DOOR ILLUSTRATED SAME DIMENSIONS APPLY TO LEFT HAND DOOR
- MEASURED FROM HINGE \perp DIMENSIONS ARE IN $\frac{\text{inches}}{\text{mm}}$
- 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 BACK TO HINGE.
3. ATTACH MAIN ARM AS FOLLOW:
 - (A) PLACE OPEN END WRENCH ON BOTTOM SHAFT & TURN TOWARD HINGE ABOUT 30°.
 - (B) PLACE MAIN ARM ON TOP SHAFT, INSERT ARM SCREW INTO TOP OF SHAFT AND TIGHTEN.
4. ATTACH PA PLATE TO TOP FRAME AS SHOWN.
5. ATTACH FOOT OF FOREARM TO PA PLATE.
6. ADJUST LENGTH OF FOREARM TO POSITION FOREARM AT PARALLEL TO FRAME WHEN CONNECTED TO MAIN ARM AT ELBOW USE WASHER AND SCREW PROVIDED TO SECURE PIVOT CONNECTION. TIGHTEN LOCKNUT
7. SNAP PINION CAP OVER SPINDLE AT BOTTOM.
8. ADJUST DOOR CLOSER.



MODEL	DIMENSIONS "A"		DIMENSIONS "B"		OPENING
	inches	mm	inches	mm	
316	9-1/4	235	3-3/4	95	TO 120°
	6-3/4	172	1-1/4	32	*121° TO 180°

* Door/Wall/Hardware/Jamb conditions permitting

APPLICABLE DOOR WEIGHT

44-188 POUNDS