

# DOOR CLOSER

## MODEL 116 HOLD OPEN ARM (ADJUSTABLE TYPE) INSTALLATION INSTRUCTIONS

### ■ CHART TO DETERMINE HAND OF DOOR ■ FINAL ADJUSTMENT AND REGULATING PROCEDURES

|  |  |  |  |
|--|--|--|--|
|  | <p><b>REGULATING DOOR SPEED AND LATCHING SPEED</b></p> <p>TURN SPEED REGULATING VALVE CLOCKWISE TO SLOW DOWN COUNTER-CLOCKWISE TO SPEED UP DOOR MOVEMENT</p> <p>THIS VALVE CONTROLS DOOR SWEEP SPEED      THIS VALVE CONTROLS LATCHING SPEED</p> | <p><b>ADJUSTING FOOT FOR CLOSING POWER</b></p> <p>MOVE FOOT PIVOT TO HOLE AS ILLUSTRATED BELOW</p> <p>HINGE EDGE OF DOOR</p> | <p><b>ADJUST DEGREE OF OPENING THE DOOR</b></p> <p>ADJUST THE HEX SCREW FOR HOLD OPEN ARM TO GET THE NEEDED HOLD OPEN DEGREE. AFTER ADJUSTING THE HEX SCREW MUST BE TIGHTED.</p> |
|--|--|--|--|

### ■ STANDARD INSTALLATION: PULL SIDE RIGHT INSTALLATION

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

| MODEL            | DIMENSIONS "A" |     | OPENING     |
|------------------|----------------|-----|-------------|
|                  | inches         | mm  |             |
| 116<br>(HOLDARM) | 7"             | 178 | T100"       |
|                  | 6"             | 152 | 101"TO120"  |
|                  | 3-1/2"         | 89  | *121"TO180" |

\* 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**

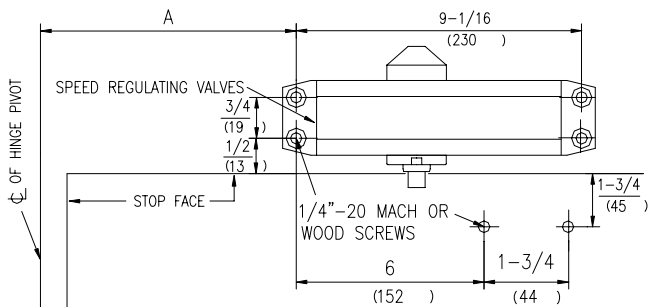
**CLOSING SPEED CONTROL**

**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.

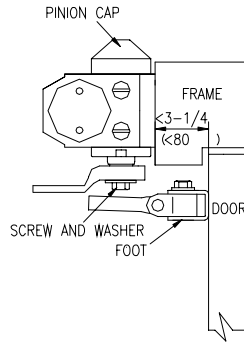
## OTHER INSTALLATION: PUSH SIDE TOP JAMB INSTALLATION

- 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



| MODEL            | DIMENSIONS "A" |     | OPENING     |
|------------------|----------------|-----|-------------|
|                  | inches         | mm  |             |
| 116<br>(HOLDARM) | 7-1/2          | 191 | T100"       |
|                  | 6              | 152 | 101"TO120"  |
|                  | 3-1/2          | 89  | *121"TO180" |

\* Door/Wall/Hardware/Jamb conditions permitting

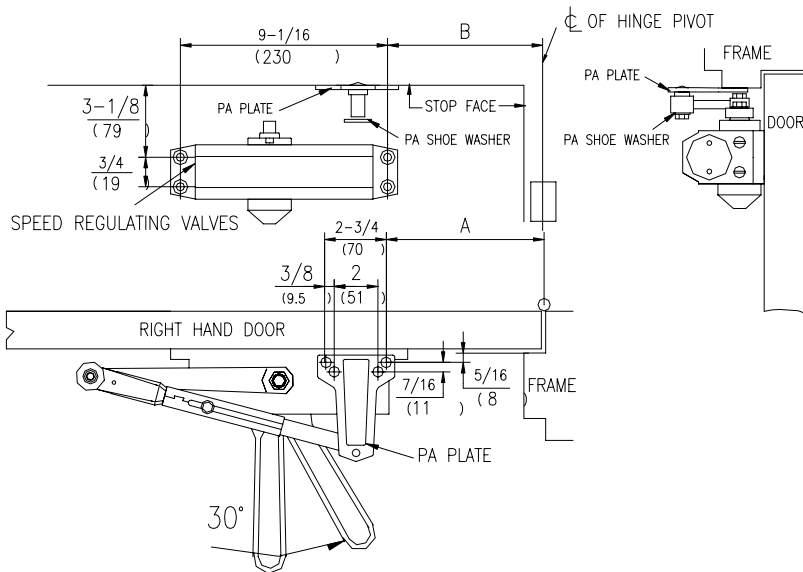


### INSTALLATION INSTRUCTIONS

- 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 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

## 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



| MODEL | DIMENSIONS "A" |     | DIMENSIONS "B" |     | OPENING     |
|-------|----------------|-----|----------------|-----|-------------|
|       | inches         | mm  | inches         | mm  |             |
| 116   | 9-1/4          | 235 | 7-5/8          | 194 | TO 120"     |
|       | 7-3/4          | 197 | 6-1/8          | 156 | *121"TO180" |

\* 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.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. REMOVE FOOT FROM FOREARM AND DISCARD.
6. FASTEN FOREARM TO PA PLATE USING SCREW REMOVED FROM FOOT IN STEP 4 AND PA SHOE WASHER INCLUDED IN SCREW PACK.
7. ADJUST LENGTH OF FOREARM TO POSITION MAIN ARM AT PARALLEL TO FRAME WHEN CONNECTED TO MAIN ARM AT ELBOW USE WASHER AND SCREW PROVIDED TO SECURE PIVOT CONNECTION.TIGHTEN LOCKNUT
- 8.SNAP PINION CAP OVER SPINDLE AT BOTTOM.

APPLICABLE DOOR: WEIGHT

20-85 Kg