

DURULITE INDUSTRIAL, STANDARD & SECURITY DOOR INSTALLATION INSTRUCTIONS (90° HARDWARE)

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 DRAWN BY: MLW

PREPARATION

MEASURE WIDTH AND HEIGHT OF FRAMED OPENING AND COMPARE WITH OTHER DIMENSIONS.
 FRAMED OPENING DIMENSIONS MUST MEET ORDER DIMENSIONS WITHIN THE FOLLOWING TOLERANCES;

SINGLE DOORS: HEIGHT: +1" -1/2"
 WIDTH: +0" -1/2"

DOUBLE DOORS: HEIGHT: +1" -1/2"
 WIDTH: +3/8" -1"

IF THE FRAMED OPENING DOES NOT MEET THE ORDER DIMENSIONS WITHIN THESE TOLERANCES CALL THE FACTORY AT 1-800-547-6856

FOR PROPER INSTALLATION

FRAMED OPENINGS MUST BE SQUARE AND PLUMB. MAKE ANY NECESSARY ADJUSTMENTS TO SQUARE AND PLUMB OPENING. DURULITE DOORS MUST BE INSTALLED PLUMB.

DRILL BIT SIZES

FOR: ② ⑤ ⑩

FOR STEEL JAMBS UP TO 3/8" THICK
 USE: 1/8" DRILL BIT.

FOR STEEL JAMBS 3/8" THICK AND ABOVE
 USE: 13/64" DRILL BIT.

FOR WOOD JAMBS
 USE: 3/16" DRILL BIT.

FOR SECURITY DOORS
 USE: #7 DRILL BIT.

ON SECURITY DOORS USE A 1/4-20 TAP
 (PARTS ② & ⑤ ONLY)

FASTENERS

FOR: ② ⑤

FOR STEEL JAMB
 USE: 1/4" X 1-1/2" TEK SCREW.

FOR WOOD JAMB
 USE: 1/4" X 3" HARDWARE SCREW.

FOR SECURITY DOORS
 USE: 1/4-20 X 7/8" SOCKET HEAD.

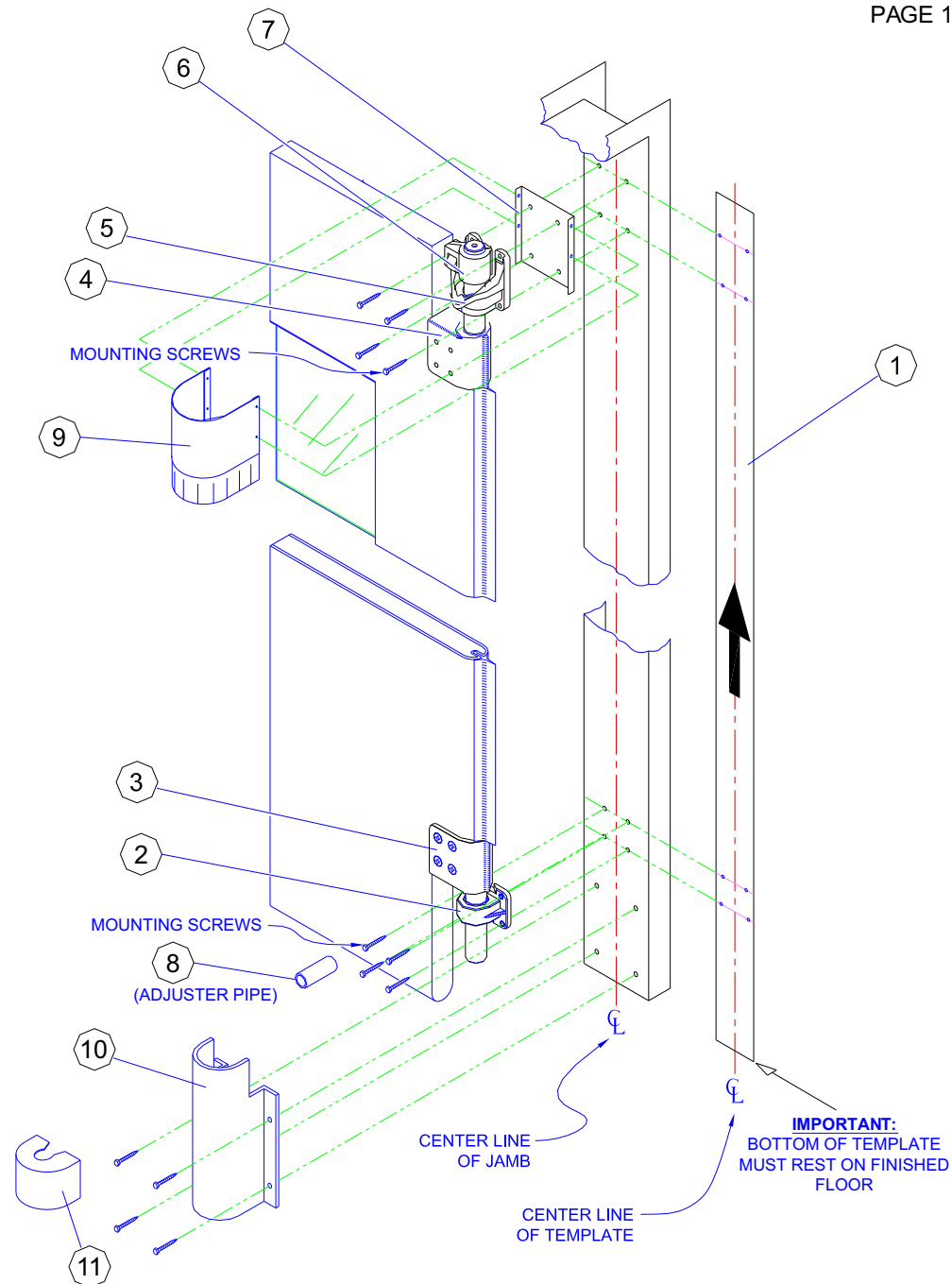
FOR: ⑩

FOR STEEL JAMB
 USE: 1/4" X 1" TEK SCREW.

FOR WOOD JAMB
 USE: 1/4" X 3" HARDWARE SCREW.

FOR SECURITY DOORS
 USE: 1/4" X 1-1/2" TEK SCREW.

NOTE:  PILLOW BLOCK NOTCH POINTS UP.



STEP 1. MARKING AND DRILLING JAMB FOR HARDWARE.

NOTE: PROCEED ONLY AFTER COMPLETING THE "PREPARATION" SECTION AT LEFT.
 USE A PLUMB TO ESTABLISH THE CENTERLINE OF JAMB. PLACE TEMPLATE ① ON THE INSIDE FACE OF JAMB WITH BOTTOM OF TEMPLATE ① TOUCHING FINISHED FLOOR OR SILL. LINE UP CENTERLINE ON TEMPLATE ① WITH CENTERLINE OF JAMB.

MARK HOLES THROUGH TEMPLATE ① ONTO JAMB WITH CENTER PUNCH. **NOTE:** SEE "DIM A" FROM "HARDWARE LOCATION" SECTION, PAGE 2, FOR YOUR APPLICATION.

REMOVE TEMPLATE ① FROM JAMB AND DRILL HOLES (SEE "DRILL BIT SIZES" AT LEFT).

STEP 2. ATTACHING HARDWARE AND HANGING DOOR.

ATTACH PILLOW BLOCK ② TO JAMB, **NOTCH SIDE UP**, WITH SINGLE FASTENER (DO NOT TIGHTEN FASTENER AT THIS TIME).

PLACE UPPER V-CAM ⑤ AND ROLLER ASSEMBLY ⑥ OVER UPPER HINGE ADAPTER ④ SHAFT (SEE FIGURE "A-1").

TILT THE LOWER PILLOW BLOCK ② TO APPROXIMATELY A 30° ANGLE (SEE FIGURE 2), THIS ALLOWS YOU TO INSERT THE LOWER HINGE ADAPTER INTO THE LOWER PILLOW BLOCK WITHOUT INTERFERENCE FROM THE HEADER. LIFT THE DOOR AND INSERT THE LOWER HINGE ADAPTER ④ SHAFT INTO THE LOWER PILLOW BLOCK ②.

STAND THE DOOR UPRIGHT. PLACE THE BACKER PLATE ⑦ BEHIND THE V-CAM ASSEMBLY ⑤ AND FASTEN TO JAMB USING APPROPRIATE FASTENERS (SEE "FASTENERS" AT LEFT) AND TIGHTEN. INSERT REMAINING FASTENERS INTO LOWER PILLOW BLOCK ② AND TIGHTEN.

STEP 3. DOOR SWING AND HEIGHT ADJUSTMENT.

NOTE: IF YOUR OPENING HEIGHT IS **NOT** WITHIN TOLERANCE AS INDICATED UNDER THE "PREPARATION" SECTION AT LEFT CALL THE FACTORY AT 1-800-547-6856, OTHERWISE CONTINUE FROM HERE.

PLACE THE ADJUSTER PIPE ⑧ UNDER THE DOOR FOR USE AS A SPACER.

CENTER PANEL IN OPENING AND SET THE BEARING ON THE ROLLER ASSEMBLY ⑥ TO LOWEST POSITION IN V-CAM ⑤ (SEE FIGURE 3).

TIGHTEN THE TOP CAP SCREW IN THE ROLLER ASSEMBLY ⑥ (SEE FIGURE 3).

LIFT DOOR UP TO EXPOSE THE BOTTOM CAP SCREW AND TIGHTEN.

REMOVE SPACER AND ALLOW DOOR TO REST IN OPENING. BE SURE THAT THE PANEL/PANELS ARE CENTERED IN OPENING BEFORE CONTINUING. IF PANEL/PANELS ARE NOT CENTERED YOU MUST LOOSEN THE CAP SCREWS AND READJUST PANEL/PANELS.

AFTER SETTING PANELS IN THEIR CORRECT POSITION AND CHECKING SWING YOU MUST PIN THE ROLLER ASSEMBLY TO PREVENT THE DOORS FROM SLIPPING OUT OF ALIGNMENT. PLEASE REFER TO "SPLIT PIN INSTALLATION" ON PAGE 2.

STEP 4. HINGE GUARD AND SEAL

PEEL PAPER FROM DOUBLE FACE TAPE ON UPPER HINGE SEAL ⑨. PLACE OVER BACKER PLATE ⑦ (SKIRT SIDE DOWN), ATTACH WITH #10 TEK SCREWS.

SET LOWER HINGE GUARD ⑩ INTO PLACE, ON FLOOR AND AGAINST JAMB, CENTERED OVER LOWER PILLOW BLOCK ②. MARK HOLES, REMOVE LOWER HINGE GUARD ⑩ AND DRILL (SEE "DRILL BIT SIZE" AT LEFT).

ATTACH LOWER HINGE GUARD ⑩ WITH FASTENERS AND SNAP SOLID RISER ONTO LOWER HINGE ADAPTER ④ SHAFT, JUST ABOVE THE LOWER PILLOW BLOCK ②.

NOTE: CHECK DOOR AT FULL SWING IN BOTH DIRECTIONS. IT MAY BE NECESSARY TO TRIM GASKET MATERIAL IN SOME AREAS.

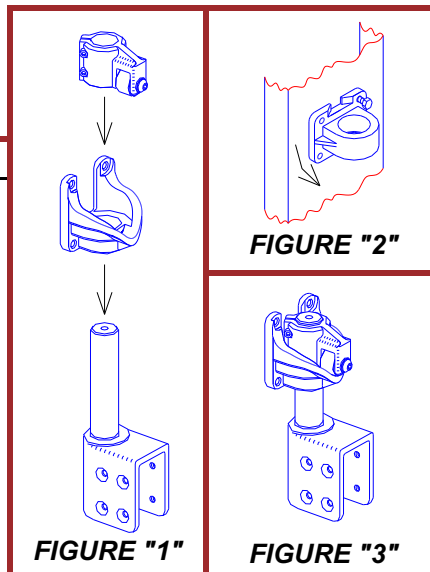


FIGURE "1"

FIGURE "2"

FIGURE "3"

DURULITE INDUSTRIAL, STANDARD & SECURITY DOOR INSTALLATION INSTRUCTIONS (90° HARDWARE)

NOTE: DIMENSIONS LISTED PERTAIN ONLY TO STANDARD FINISHED OPENING HEIGHTS. PLEASE VERIFY YOUR FINISHED OPENING HEIGHT WITH THE FACTORY PRIOR TO DRILLING. CONTACT THE FACTORY AT 1-800-547-6856.

SPLIT PIN INSTALLATION

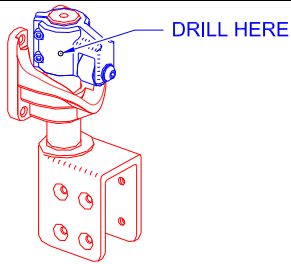


FIGURE "4-A"



FIGURE "4-B"

IMPORTANT:

MAKE SURE PANELS CLOSE AND SWING CORRECTLY BEFORE PROCEEDING. DOOR SWING CAN NOT BE ADJUSTED AFTER PINNING.

STEPS:

1. LOCATE THE CONICAL DRILL MARK ON THE ROLLER ASSEMBLY (SEE FIGURE "4-A").
2. DRILL A 5/16" HOLE COMPLETELY THROUGH THE CENTER OF ROLLER ASSEMBLY AND HINGE SHAFT (SEE FIGURE "4-B").
2. GENTLY TAP SPLIT PIN INTO DRILL HOLE UNTIL FLUSH WITH ROLLER ASSEMBLY (SEE FIGURE "4-B").

SPRING ASSIST INSTALLATION

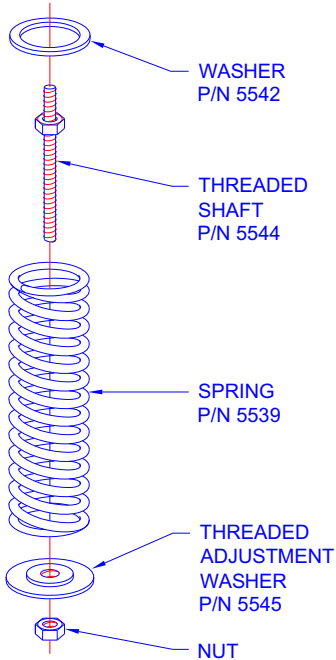


FIGURE "5"

IMPORTANT:

MAKE SURE THAT "ROLLER ASSEMBLY" IS PROPERLY MOUNTED AND PINNED BEFORE PROCEEDING.

CAUTION:

SPRING COILS MUST NOT TOUCH EACH OTHER WHEN DOOR IS IN THE OPEN POSITION. OVERTIGHTENING THE SPRING WILL CAUSE SEVERE DAMAGE TO THE ROLLER ASSEMBLY.

STEPS: (Refer to FIGURE "5")

1. INSERT THREADED SHAFT (P/N 5544) INTO LOWER HINGE SHAFT UNTIL JAMB NUT BOTTOMS OUT, THEN TAKE HALF TURN ON JAMB NUT WITH OPEN-END WRENCH.
2. SLIDE THIN WASHER (P/N 5542) OVER THREADED SHAFT. SLIDE SPRING (P/N 5539) OVER SHAFT. THREAD ADJUSTMENT WASHER (P/N 5545) ONTO THREADED SHAFT JUST ENOUGH TO GET IT STARTED.
3. TIGHTEN THE THREADED ADJUSTMENT WASHER (P/N 5545) ON THE THREADED SHAFT (P/N 5544) UNTIL THE DESIRED CLOSING ACTION IS OBTAINED.
4. PLACING OPEN-END HAND WRENCHES ON THE ADJUSTMENT WASHER (P/N 5545) AND ON THE JAMB NUT, TURN ONE AGAINST THE OTHER TO LOCK ADJUSTMENT WASHER IN PLACE.

HARDWARE LOCATION

(90° Hardware with **WELD PLATES** Only)

DOOR HEIGHT	DIM "A"
78"	72.375"
80"	74.375"
84"	78.375"
90"	84.375"
96"	90.375"
102"	96.375"
108"	102.375"
114"	108.375"
120"	114.375"

BOTTOM OF UPPER WELDPLATE (V-CAM)

TOP OF LOWER WELDPLATE (PILLOW BLOCK)

FINISHED FLOOR

90° Durulite Industrial & Standard
(WELD PLATES)

HARDWARE LOCATION

(90° Hardware Only
NO WELD PLATES)

DOOR HEIGHT	DIM "A"
78"	72.75"
80"	74.75"
84"	78.75"
90"	84.75"
96"	90.75"
102"	96.75"
108"	102.75"
114"	108.75"
120"	114.75"

FINISHED FLOOR

IMPORTANT:

DIMENSIONS SHOWN ARE MEASURED UP FROM THE FINISHED FLOOR LINE.

90° Durulite Industrial & Standard
(NO WELD PLATES)

