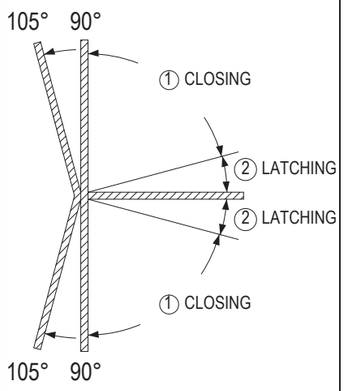
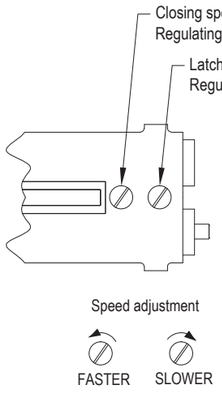
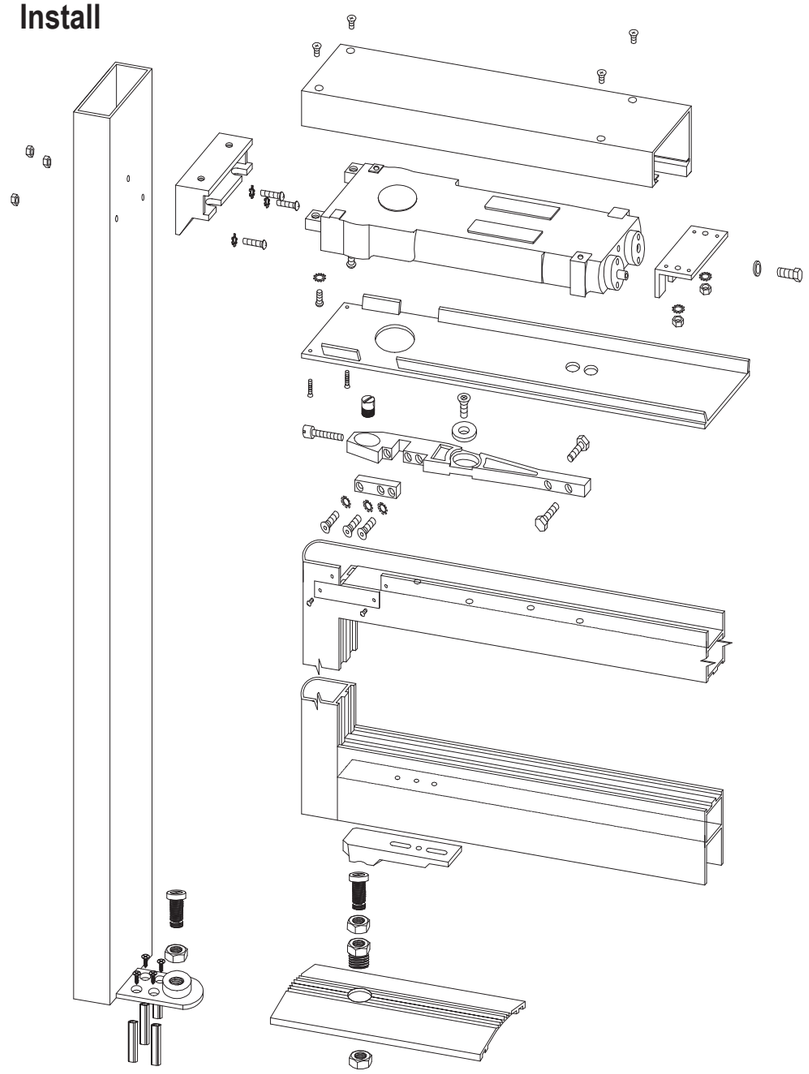
HOW TO REGULATE CLOSING AND LATCHING SPEED





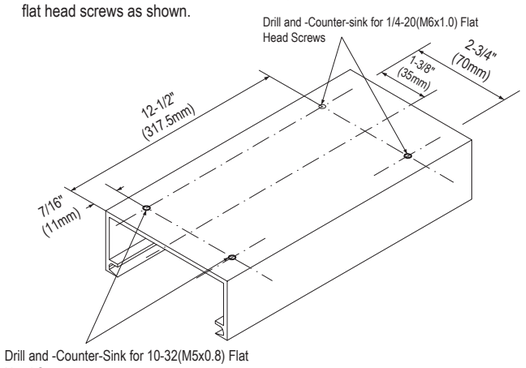
88 SERIES overhead concealed type door closer should apply on the fire door and door frame with frame stop.

Install



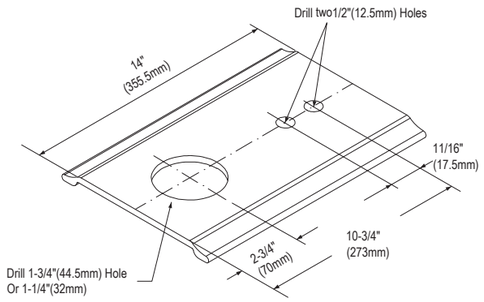
DOOR HEADED

Drill and counter-sink outside top surface for 10-32x7/16"(M5x0.8)and 1/4-20x1-1/4"(M6x1.0) flat head screws as shown.



COVER PLATE

Drill a 1-3/4"(44.5mm) hole as shown.
Drill two1/2"(12.5mm) hole as shown.

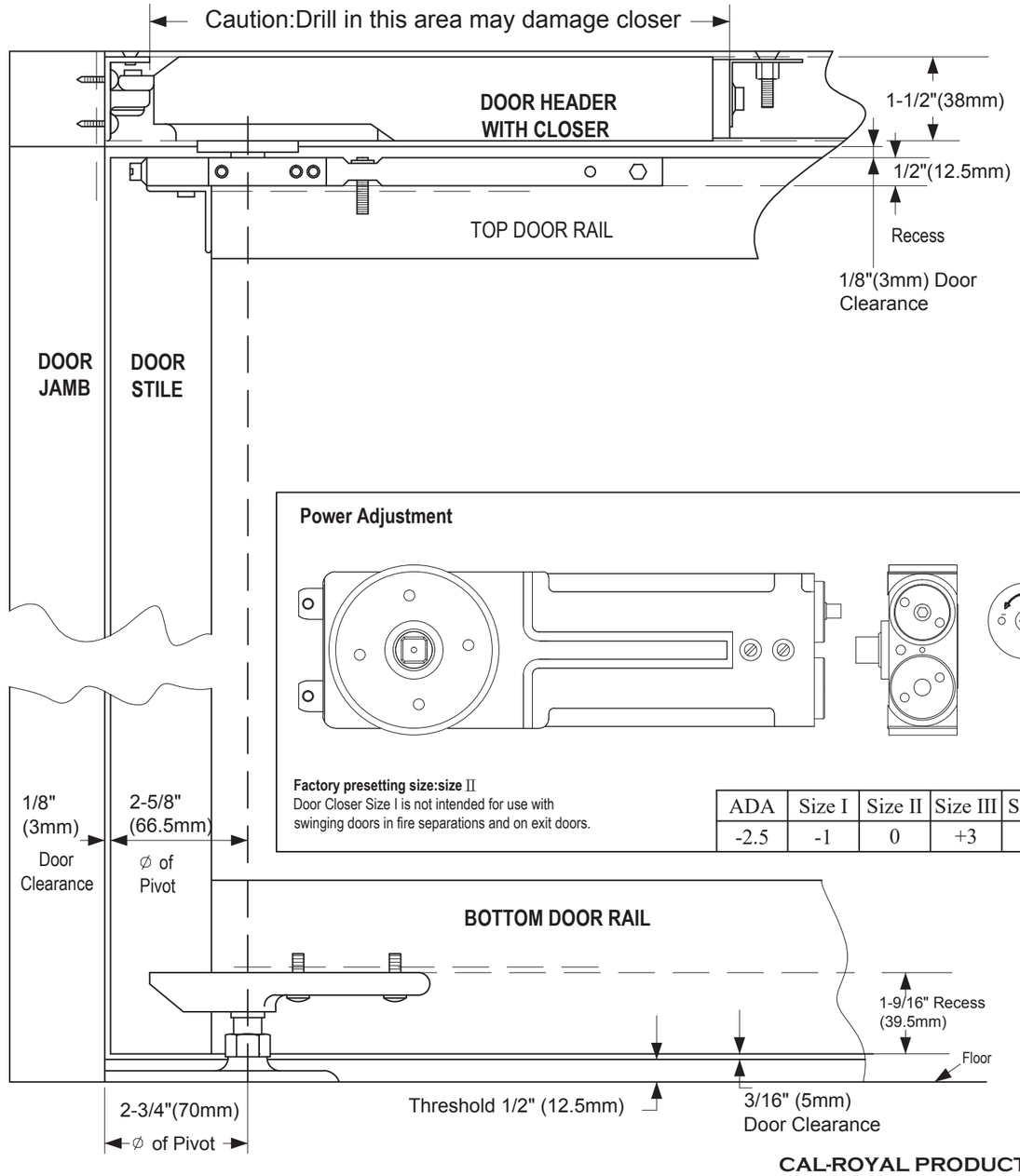


10807 IN-690-C4-01

88 SERIES CONCEALED OVERHEAD DOOR CLOSER

INSTALLATION INSTRUCTIONS

SINGLE ACTING-CENTER HUNG-SIDE AND END LOADING
DUAL SPEED ADJUSTING VALVES FOR LATCHING AND CLOSING SPEED ADJUSTMENT
POWER ADJUSTMENT



Power Adjustment

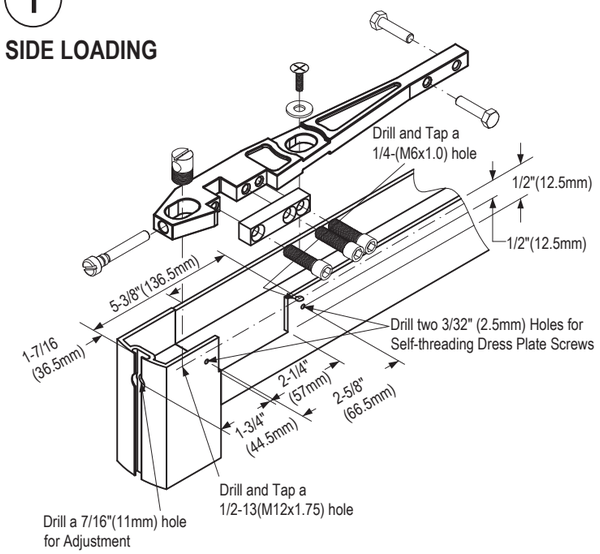
Factory presetting size:size II
Door Closer Size I is not intended for use with swinging doors in fire separations and on exit doors.

ADA	Size I	Size II	Size III	Size IV
-2.5	-1	0	+3	+6

ARM INSTALLATION MANUAL

Options for Arm Installation

1 SIDE LOADING

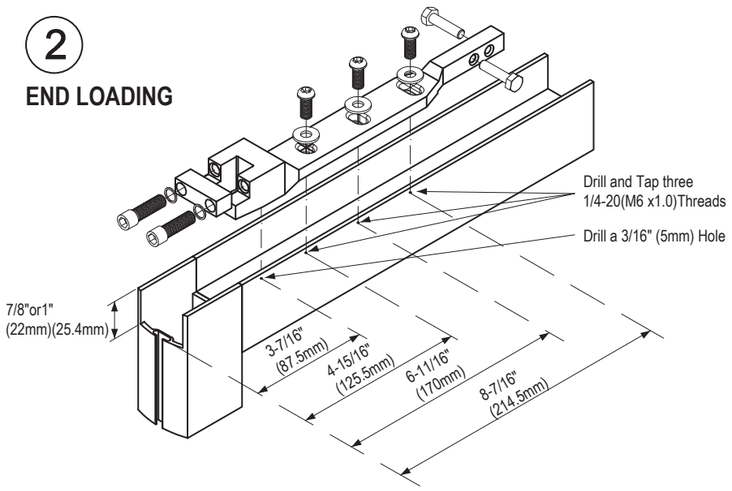


TOP DOOR RAIL (88-S)

"S" Type Side Loading Arm

Drill or drill and tap holes in top of door as shown.
Make 2-1/4"x1/2"(57mmx12.5mm)cut-out in top of door as shown.Cut-out must be on the inside of the door.
Install arm using 1/4-20x1-1/4"(M6x1.0) flat head machine screw and 7/8"washer.Install 1/2-13x3/4"(M12x1.75) arm stud and 1/4-20x1-1/8"(M6x1.0) dome head arm adjustment screw.Laterally
adjust center of the arm spindle retainer 2-5/8"(66.5mm) from hinge edge of door (not including weather stripping).
Center arm in the top rail by adjusting the two 1/4-20x1" (M6x1.0) hex head centering bolts.
After installation of door, attach dress plate with self-threading screws.
NOTE: Befor attaching dress plate,make certain the three 1/4-20x7/8"(M6x1.0) socket head cap screws are tightened securely with the lock washers.

2 END LOADING



TOP DOOR RAIL (88-A & 88-PT)

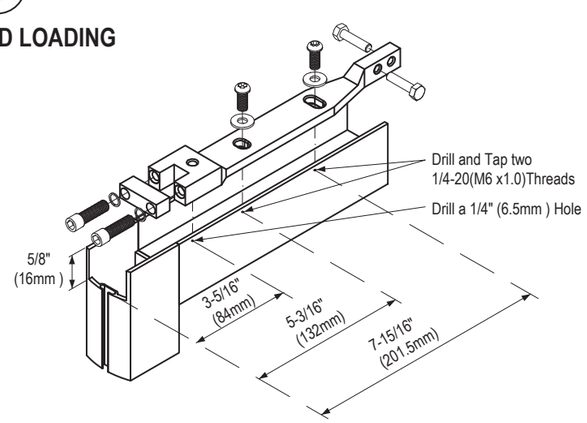
"A" Type End Loading Arm

Make a 1"(25.4mm) deep cut-out in hinge edge of door as shown.

"PT" Type End Loading Arm

Make a 7/8"(22mm) deep cut-out in hinge edge door as shown.
Drill or drill and tap holes in top of door as shown.
Position arm in door by placing pin of arm 3/16"(5mm) hole.Install arm using three 1/4-20x5/8"(M6x1.0) pan head machine screws and lock washers.
Center arm in the top rail by adjusting the two 1/4-20x1" (M6x1.0) hex head centering bolts.
NOTE:After door is installed ,the two 1/4-20x1"(M6x1.0) socket head cap screws must be tightened securely with the lock washers.

3 END LOADING



TOP DOOR RAIL (88-K)

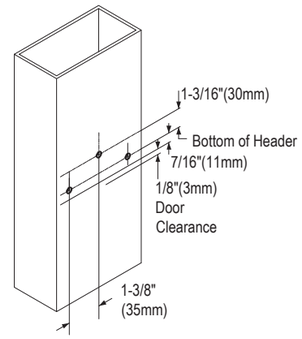
"K" Type End Loading Arm

Make a 5/8"(16mm)deep cut-out in hinge edge of door as shown.
Drill or drill and tap holes in top of door as shown.
Position arm in door by placing pin of arm 1/4"(6.5mm) hole.
Install arm by using two1/4-20x5/8"(M6x1.0) pan head machine screws and lock washers.Center arm in the top rail by adjusting the two 1/4x20x1"(M6x1.0) hex head centering bolts.
NOTE : After door is installed, the two1/4-20x1"(M6x1.0) socket head cap screws must be tightened securely with the lock washers.

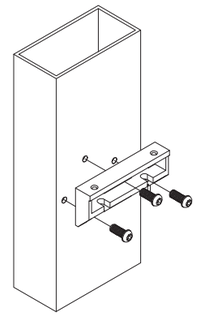
BRACKET & PIVOT INSTALLATION MANUAL

HINGE JAMB

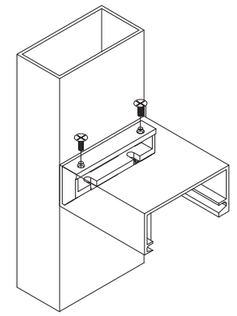
Drill three holes for #10 pan head self-threading screws as shown



Install bracket by using #10x9/16" pan head self-threading screws.



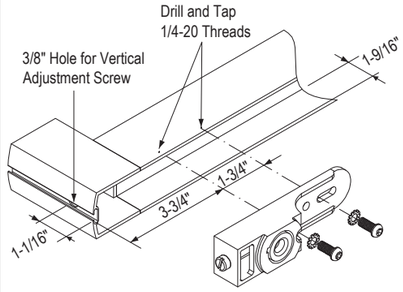
Mount door header on bracket by using 10-32 x 7/16" flat head self-tapping screws.



BOTTOM DOOR RAIL (88-GE)

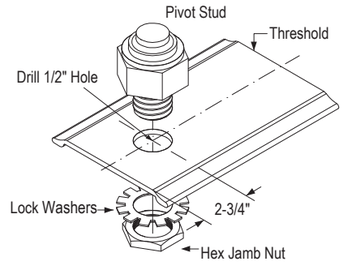
Side Loading (1/4" Height Adjustment)*

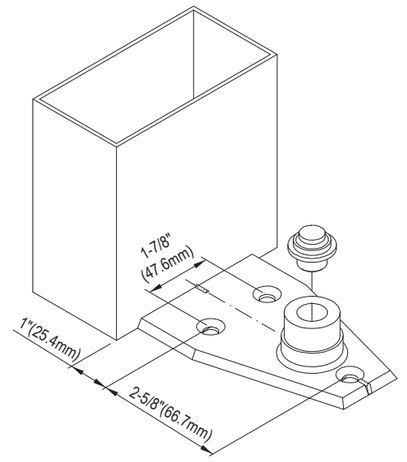
Drill and tap two 1/4-20 holes in bottom rail of door as shown.Install pivot bearing retainer using two 1/4-20x 5/8" truss head machine screw and lock washers.
Laterally adjust center of pivot bearing retainer 2-5/8" from hinge edge of door (not including weather stripping) and tighten screws securely.



THRESHOLD MOUNT SET

Drill a hole on threshold as shown .
Install pivot stud from top and secure with hex jamb nut and washer underneath

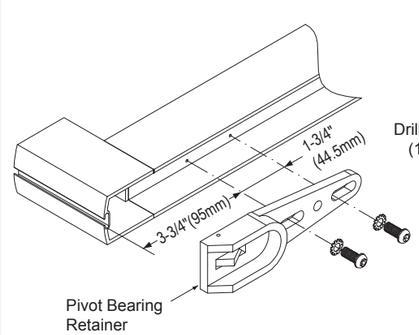




BOTTOM DOOR RAIL (88-PV)

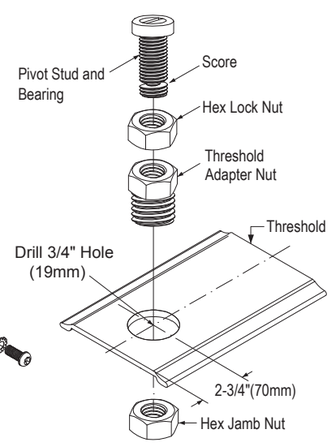
Side Loading

Drill and tap two 1/4-20 (M6x1.0)holes in bottom rail of door as shown.Install pivot bearing retainer in bottom of door using 1/4-20x5/8"(M6x1.0) pan head machine screws and lock washers.
Laterally adjust center of pivot bearing retainer 2-5/8"(66.5mm)from hinge edge of door (not including weatherstripping)and tighten screws securely.



THRESHOLD MOUNT SET

Drill a hole on threshold as shown.Install pivot stud and bearing with hex lock nut as shown and adjust bearing height for proper door clearance and firmly tighten lock nut.



FLOOR MOUNT PIVOT

Center pivot base against door jamb on hinge side.Mark and drill four ¼"(6.5mm)holes 1-1/2"(38mm)deep in floor for plastic expansion plugs.
Mount base using #12x1¼" plastic expansion plugs and #12x1¼" flat head wood screws.
Install pivot stud and bearing with hex lock nut as shown ,and adjust bearing height for proper door clearance and firmly tighten lock nut.
When using threshold, drill a 1¼" (32mm) hole for clearance of pivot base on center line 2-3/4" (70mm)from hinge end of threshold.
NOTE:When threshold is not used,pivot bearing stud must be shortened by sawing off at score ½"(12.5mm) from bottom.