INSTALLATION INSTRUCTIONS FM8700, 12-FM8700 Surface Vertical Rod Exit Device

U.S. Patent No. 268,003 Canadian Patent No. RD 1981

ASSA ABLOY

FOR INSTALLATION ASSISTANCE, CALL SARGENT AT 1-800-727-5477 • www.sargentlock.com

NOTE: THIS DEVICE IS ONE COMPONENT OF A SPECIFIC COMBINATION OF HARDWARE REQUIRED FOR THIS OPENING TO MEET FEMA 361 REQUIREMENTS, FOLLOW ALL INSTALLATION STEPS AS DIRECTED. IN SEQUENCE GIVEN.

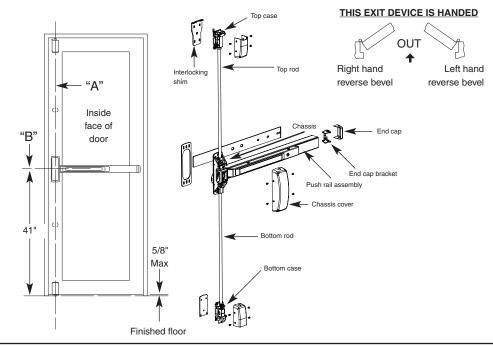
NOTE: FOR 12-FM8700 SINGLE DOOR APPLICATION, (4) THERMAL PINS ARE REQUIRED. SEE TEMPLATE 4628, PG. 4.

Rail Lengths & Cutting Instructions, Pg.4.

TOOLS REQUIRED

- Power drill, drill bits #7, #16, #25, 3/32", 1/4", 11/32", 3/8", 25/64", and 3/4"
- Taps, #10-24, #12-24, 1/4"-20, 7/16"-20
- Hacksaw or power cutter
- Screwdrivers, Phillips #2, #3
- Allen wrenches, 1/8", 3/16", 5/16", 3/8"
- · Level, Pencil, Tape Measure

- 1. MARK VERTICAL REFERENCE LINE A. A is CENTERLINE for chassis, top and bottom cases
- 2. MARK HORIZONTAL REFERENCE LINE B at 41" above finished floor. B is CENTERLINE for chassis and rail
- 3. TAPE TOP CASE AND CHASSIS TEMPLATES TO DOOR (PACKED WITH DEVICE)



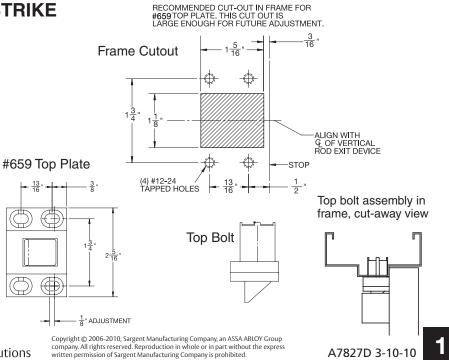
INSTALL TOP BOLT AND STRIKE

PREPARE CUT-OUT IN FRAME FOR 659 TOP BOLT / STRIKE Use 11/64" drill, 12-24 tap, #3 Phillips screwdriver.

INSTALL 659 TOP BOLT/STRIKE Transfer vertical centerline to door frame. With

the door closed, align INTERLOCKING SHIM with 659 TOP BOLT/STRIKE and place on vertical reference line. Mark and drill 4 mounting holes using 11/64" drill and 12-24 tap.

MOUNT 659 TOP BOLT/STRIKE, (4) #12-24 x 3/4" PH.FL.HD.Mach. Screws NOTE: ALL FOUR FASTENERS REQUIRED. DO NOT TIGHTEN UNTIL STEP 4



3

INSTALL TOP CASE

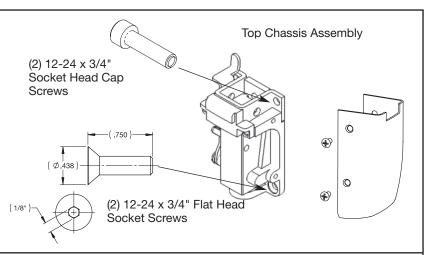
With the door closed center the TOP CHASSIS ASSEMBLY and INTERLOCKING SHIM on vertical reference line. Ensure INTERLOCKING SHIM is engaged in TOP **BOLT/STRIKE**

Mark location of (4) mounting screws

USE 3/8" DRILL BIT to drill two TOP MOUNTING HOLES THROUGH DOOR. Install (2) sex nuts, p/n 60-0502 from OUTSIDE door surface. Install (2)

-12-24 x 3/4 Socket Head Cap Screws from INSIDE.

ATTACH USING (2) 12-24 x 3/4" flat head socket head screws in two BOTTOM mounting holes (1/8" Allen wrench).



Δ

SECURING INTERLOCKING SHIM

With the TOP CHASSIS ASSEMBLY and INTERLOCKING SHIM secured, the 659 TOP BOLT/STRIKE should engage the TOP CHASSIS ASSEMBLY and INTERLOCKING SHIM when door is closed.

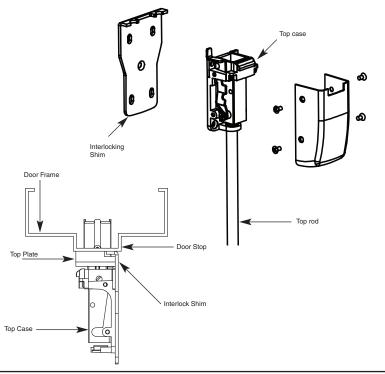
Trace the outline of the INTERLOCKING SHIM

Remove the TOP CHASSIS ASSEMBLY to expose the center hole on the INTERLOCKING SHIM. Ensure the INTERLOCKING SHIM is aligned with the tracing. Mark and tap center hole (1) 12-24 x 3/4" flat head socket head screw.

REINSTALL TOP CHASSIS ASSEMBLY.

Check for TOP CHASSIS ASSEMBLY and 659 TOP BOLT/STRIKE engagement. Tighten all screws.

INSTALL TOP CASE COVER using (4) 8-32 x 5/16" screws

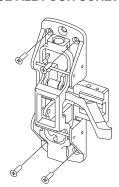


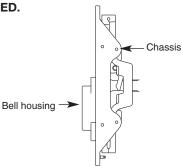
5

INSTALL CENTER CHASSIS

SECURE CHASSIS and CHASSIS SHIM with (4) #10-24 x 3/4" PH.FL.HD.Mach. Screws, 4 corner mounting holes.

NOTE: USE ALL FOUR SCREWS PROVIDED.



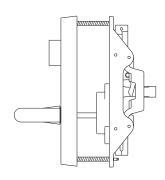


POSITION TRIM ON

DOOR - Align spindle

with BELL HOUSING

THRU-BOLT CHASSIS to ET TRIM with (2) 1/4"-20 x 2 3/8" PH.FL.HD.Mach. Screws



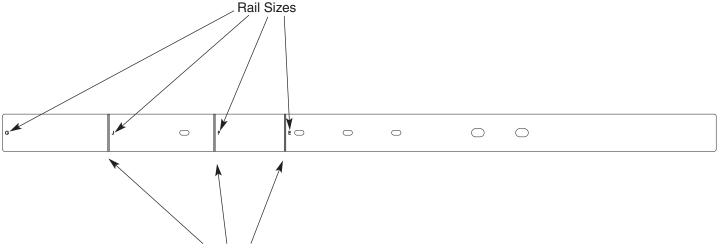
SARGEN



6

RAIL SHIM LENGTHS AND CUTTING INSTRUCTIONS

Refer to rail size listed on the box the device was shipped in. Break Rail Shim to length that corresponds to the rail size. NOTE: If shim needs to be cut, always cut shim from end closest to hinge edge.



Use Breaking Lines to shorten Shim to the needed Rail size

7

INSTALL RAIL

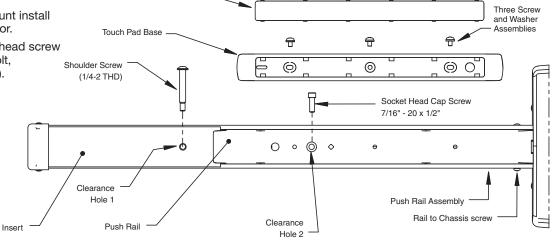
NOTE: DO NOT INSTALL THROUGH-BOLTS UNTIL INSTALLATION IS COMPLETE AND ALL MOUNTING SCREWS ARE TIGHT. DO NOT INSTALL CHASSIS COVER AT THIS TIME.

- Level rail assembly on door. Use rail assembly as template. Mark and punch locations for threaded holes.
- 2. Remove rail assembly from door.
- Drill and tap (2) holes as shown in door surface (#7 drill, 1/4-20 tap, 25/64" drill, 7/16-20 tap).
- 4. With rail shim under the mount install push rail assembly on to door.
- Install shoulder and socket head screw (3/16" wrench for 1/4"-20 bolt, 3/8" wrench for 7/16" screw).
- Attach touch pad base to push rail with (3) screw and washer assemblies.
- 7. Snap touch pad insert into touch pad base.

8. Install End Cap Bracket. Attach to door using (2) #10-24 x 3/4" Ph.Rd.Hd.Mach. screws.

Touch Pad Insert

9. Tighten all screws. Install hinge side cover using (2) #8-32 x 5/16" Ph.Ov.Hd.Mach. screws.





8

INSTALL BOTTOM STRIKE

SURFACE MOUNT 653 BOTTOM STRIKE

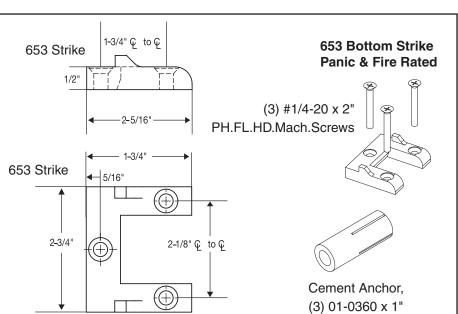
Transfer vertical centerline to threshold.

Drill holes 1 5/8" to 1 3/4" deep for (3) 3/8" cement anchors.

Set anchors with center punch.

NO CLEARANCE IN FLOOR IS REQUIRED

Mount 653 strike with (3) #1/4-20 x 2" screws; tighten securely.



9

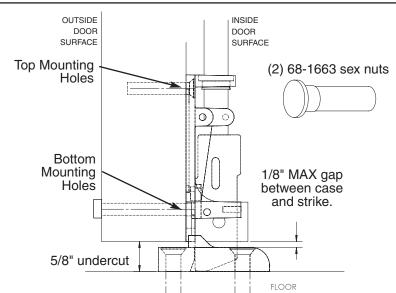
INSTALL BOTTOM CASE

Using vertical reference line, with bottom case as a template, ALIGN BOTTOM CASE for 1/8" MAXIMUM gap between case and strike.

DRILL and TAP TOP MOUNTING HOLES for (2) 12-24 \times 3/4" Flat Head Socket Screws, using 11/64" drill and 12-24 Tap.

USE 3/8" DRILL BIT to drill two BOTTOM MOUNTING HOLES THROUGH DOOR. Install (2) sex nuts, p/n 68-1663 from OUTSIDE door surface. Install (2) 12-24 x 3/4 Socket Head Cap Screws from INSIDE.

TIGHTEN SCREWS: 1/8" Allen wrench, TOP; 5/32" Allen wrench, BOTTOM.



10

INSTALL RODS

SLIDE TOP ROD into main slide, center chassis, until CENTER HOLE IS ALIGNED WITH THE HOLE IN THE MAIN SLIDE.

THREAD TOP ROD into TOP CASE until finger-tight.

ADJUST position.

INSERT ROD ADJUSTMENT PIN.

SLIDE BOTTOM ROD into main slide, center chassis.

THREAD BOTTOM ROD into BOTTOM CASE until finger-tight.

ROTATE to adjust height.

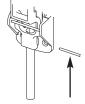
UNSCREW BOTTOM ROD UNTIL CENTER HOLE IS ALIGNED WITH BOTTOM OF SLOT IN MAIN SLIDE.

INSERT ROD ADJUSTMENT PIN.



Rod adjustment pin

TOP ROD / CENTER CASE



Rod adjustment pin

BOTTOM ROD / CENTER CASE

in door opening solutions

SARGENT



ADJUST TOP & BOTTOM RODS

ADJUST TOP AND BOTTOM LATCH BOLTS FOR MAXIMUM **ENGAGEMENT**

ROUGH adjustments are made by changing the hole used for the adjustment pin.

FINE ADJUSTMENTS: Turn rod INTO TOP and BOTTOM CASES to SHORTEN, or OUT of TOP AND BOTTOM CASES to LENGTHEN.

TOP ROD: Push on the door AND the rail at the same time. As soon as the door opens, release the rail. The top bolt should be in the hold back position. If not, extend the top bolt.

NOTE: Top bolt must go into hold back position BEFORE the door opens.

BOTTOM ROD: Extend the bottom bolt for maximum engagement with bottom strike.

When the top bolt is in hold back, it also holds the bottom bolt in the retracted position. When the bottom bolt is retracted, the bolt must clear the bottom strike by 1/8" minimum through the swing of the door.

When adjustment is completed, install top and bottom rod guides at midpoint between center and top and bottom chassis, using (2) #10-24 x 1-1/4" Ov.Hd.screws per guide.

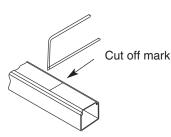
Install center chassis cover using (4) #8-32 x 5/16" screws.

RAIL LENGTHS AND CUTTING INSTRUCTIONS

RAIL MAX DOOR WIDTH MIN DOOR WIDTH Ε 32" 24" F 36" 33"

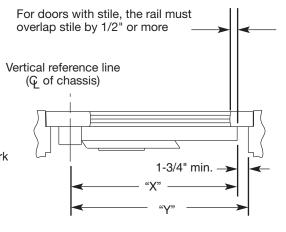
Determine rail length dimension "X" by subtracting 1-3/4" from dimension "Y".

- 1. Dog push rail and cut off at mark.
- 2. Cut must be straight.
- 3. For (43-) flush end cap use cutting guide provided.
- 4. Remove sharp edges with file.



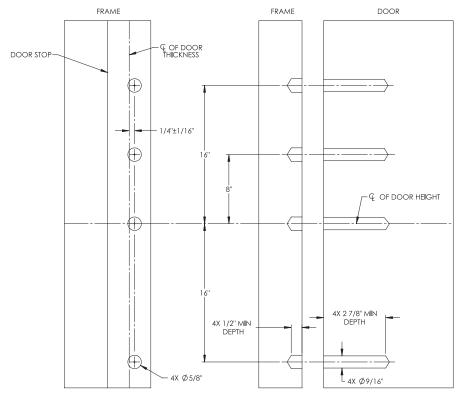
Copyright 2006-2010, Sargent Manufacturing Company, an ASSA ABLOY Group company. All rights reserved. Reproduction in whole or in part without the express written permission of Sargent Manufacturing Company is prohibited.

TOP VIEW OF EXIT DEVICE





FIRE-RATED SINGLE DOOR, THERMAL PIN TEMPLATE 4628



ies. Thermal pins in door are to be centered in door thickness. Pin recieving holes in frame to be offset as indicated.

FASTENER CHART



END CAP BRACKET MOUNTING SCREW, #10-24 x 3/4" PH.RD.HD. MACH. SCREW (2)



ET MOUNTING SCREW (1-3/4" DOOR) (1/4"-20 X 2-3/8" PH. FL. HD. MACH. SCREW, (2)



12-24 X 3/4" SOCKET HEAD CAP SCREWS, TOP CHASSIS, (4)



12-24 X 3/4" PHILLIPS FLAT HEAD MACH.SCREWS, 654 TOP BOLT (4)



CHASSIS MOUNTING SCREW (#10-24 X 3/4" PH. FL. HD. MACH. SCREWS, 4 PCS)



#1/4-20 x 2" PH.FL.HD.MACH. SCREWS (3), 653 BOTTOM STRIKE



12-24 X 3/4" FLAT HEAD SOCKET SCREWS, TOP CHASSIS, (5)



SOCKET HEAD CAP SCREW, 7/16"-20 X 1/2" (1)



#10-24 x 1 1/4" Oval Head Screws, (4), Rod guides



COVERS MOUNTING SCREW (#8-32 X 5/16" WITH #6 PH. OV. U'CUT HD. MACH. SCREW, 14 PCS)



SCREW AND WASHER ASSEMBLIES, (3)



GROMMET NUT (4)



SHOULDER SCREW, 1/4-2 THD (1)



3/8" CEMENT ANCHORS (3)

