

# Corbin Russwin

## ED8400A Series

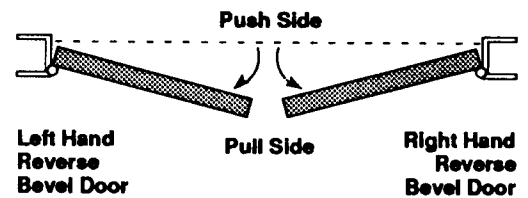
Fire Rated Vertical Rod Exit Device  
(Not Reversible)



**IMPORTANT:**

- Failure to follow these instructions could affect operation of this product and voids warranty.
- Some trim designs are handed when used with this device (see trim instructions).
- Exit devices must be securely fastened to properly reinforced doors with fasteners which will not loosen or pull out. Add reinforcement when necessary.
- **Before Installing:** Check to be sure the exit device is the proper hand for your door.

**How to Determine Hand of Door**



### 1. Mark Centerlines

Mark centerlines on **INSIDE** of door. Establish the centerline of the device by drawing a line across the door and stop,  $40\frac{5}{16}$ " (1.02 m) above the finished floor (Figure 1). Using "Easy-Spot" Template Locator (enclosed), establish device  $2\frac{3}{4}$ " (70 mm) backset centerline by drawing a vertical line from the top to the bottom of the door measuring from the centerline of the door bevel.

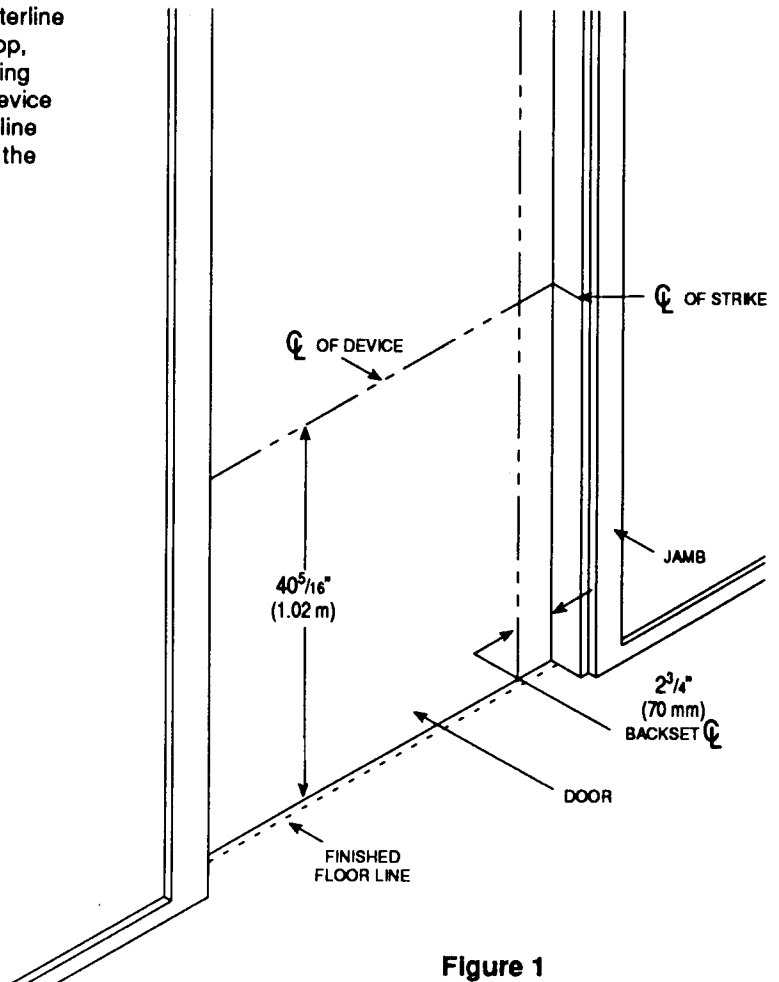


Figure 1

# Installation Instructions

## ED8400A Series Fire Rated Vertical Rod Exit Device

### 2. Spot and Drill Template Holes

Using templates furnished, spot and drill mounting holes for trim (if furnished) and device. Be sure the template is aligned with horizontal and vertical centerlines on the inside of door.

**For Reinforced Metal Doors:** Using templates provided, spot, drill and tap all holes marked **A** and **C** for machine screws. Spot and drill  $\frac{1}{4}$ " (6 mm) holes marked **B** through door. Enlarge to  $\frac{3}{8}$ " (10 mm) from opposite side of door to clear for sexnuts.

**For All Other Doors:** Using templates provided, spot and drill all  $\frac{1}{4}$ " (6 mm) holes marked **B** through door. Enlarge to  $\frac{3}{8}$ " (10 mm) from opposite side of door to clear for sexnuts. Spot, drill and tap two holes marked **A** for machine screws or tapping screws. If trim is used, spot, drill and tap holes marked **C** for tapping screws.

**For Exit Only Applications:** On holes marked **C**, drill  $\frac{1}{4}$ " (6 mm) holes through door. Enlarge to  $\frac{3}{8}$ " (10 mm) from opposite side of door to clear for sexnuts.

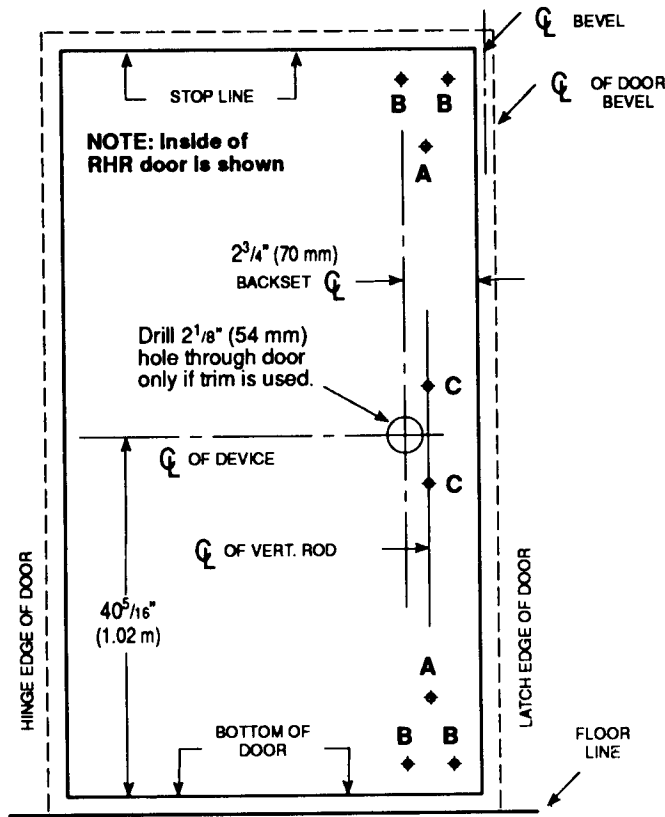


Figure 2

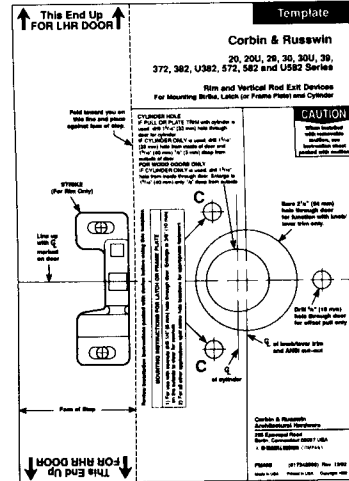


Figure 3

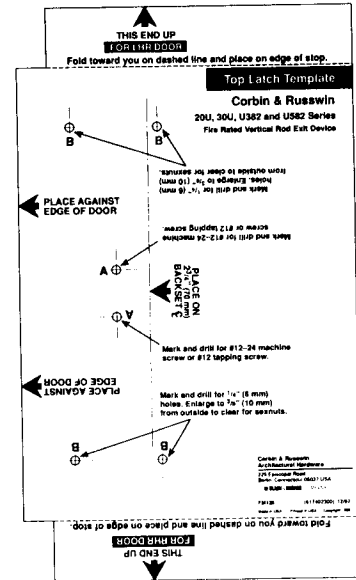


Figure 4

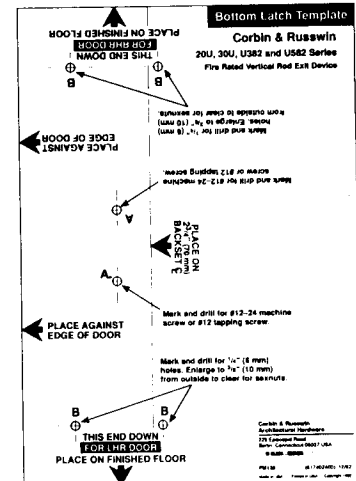


Figure 4

# Installation Instructions

## ED8400A Series Fire Rated Vertical Rod Exit Device

### 3. Cut Pushbar (If Required)

**NOTE:** If bar does not require cutting, proceed to step 4.

- A. Note  $\frac{3}{4}$ " (19 mm) minimum restriction (Figure 6).
- B. Measure and mark bar as shown (Figure 7).
- C. Fully depress bar and cut off square on mark.

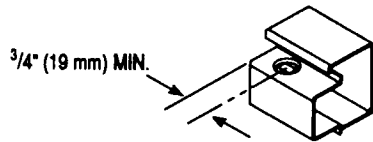


Figure 6

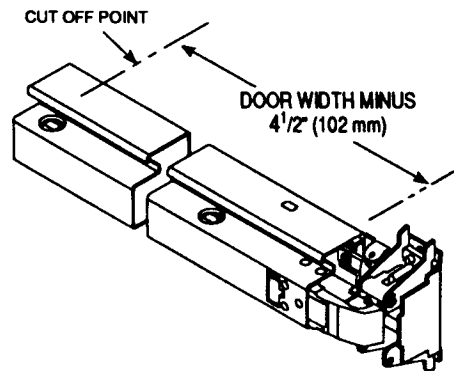


Figure 7

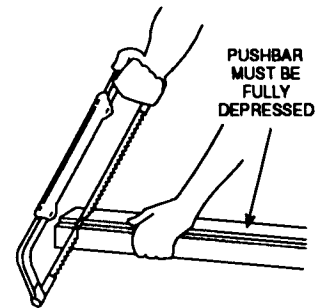


Figure 8

### 4a. Mount Exit Device – For Reinforced Metal Doors Only

**NOTE:** For all other door types, proceed to step 4b.

- A. If trim is used install trim first, then install device with two pan head machine screws and two lock washers (or throughbolting screws packed with trim) in frame plate assembly holes marked C (Figure 9). Use level as shown to ensure device is level. Use rear bracket to spot, drill and tap two rear bracket mounting holes. Attach rear bracket and backing plate to door using two pan head machine screws and two lock washers. Tighten all pushbar screws securely.
- B. Proceed to step 5.

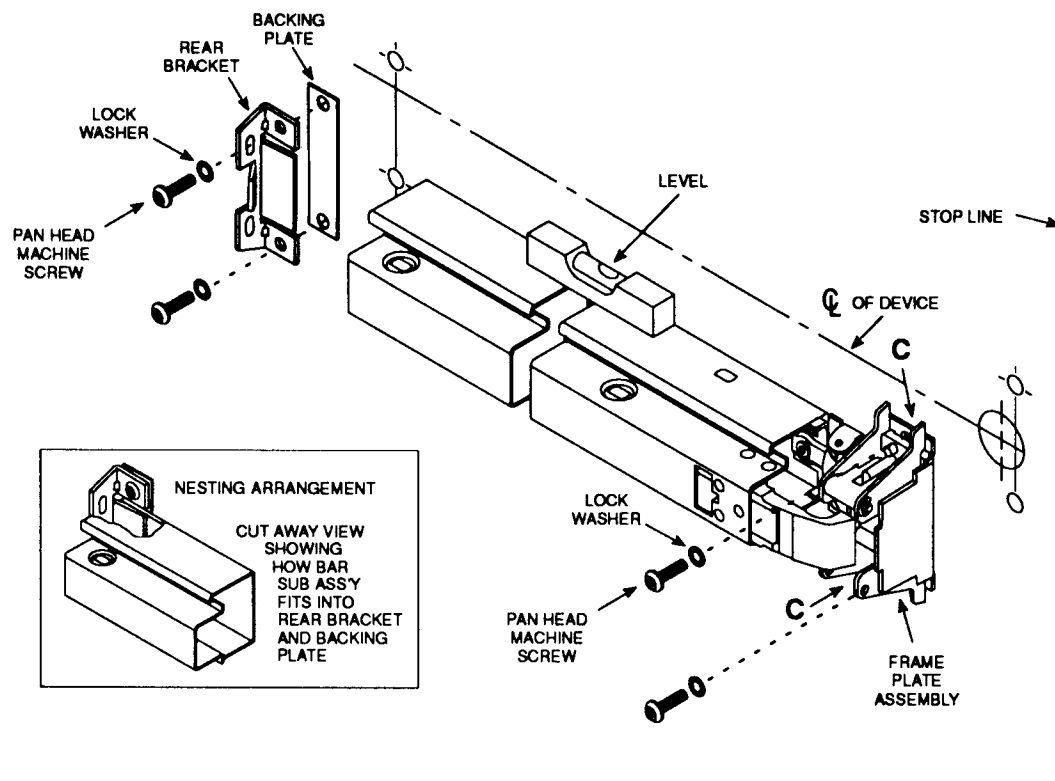


Figure 9

# Installation Instructions

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## 4b. Mount Exit Device – For All Other Door Types

**NOTE:** For reinforced metal doors, see step 4a.

- A. If trim is used install trim first, then install device with two pan head machine screws, two lock washers and two sexnuts (or throughbolting screws packed with trim) in latch assembly holes marked C (Figure 10). Sexnuts for holes marked C are not required and cannot be used with throughbolted escutcheon and rose trims. Use level as shown to ensure device is level. Use rear bracket to spot and drill  $\frac{1}{4}$ " (6 mm) holes through door. Enlarge holes to  $\frac{3}{8}$ " (10 mm) from opposite side of door to clear for sexnuts and bolts. Attach rear bracket and backing plate to door using two pan head machine screws, two lock washers and two sexnuts. Tighten all pushbar screws securely.
- B. Proceed to step 5.

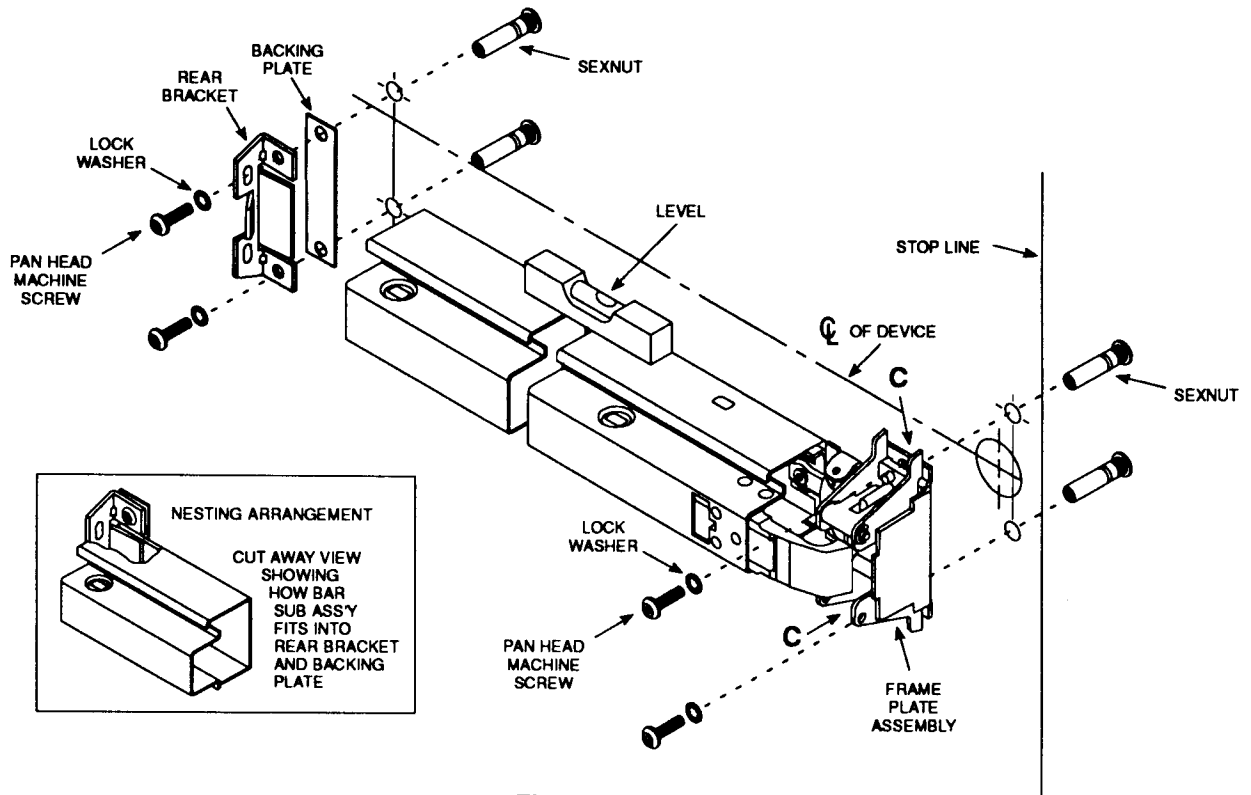


Figure 10

## 5. Mount Top and Bottom Latches

- A. Install top latch using two pan head machine screws and two sexnuts in holes marked B and one pan head machine screw or tapping screw in hole marked A (Figure 11).
- B. Install bottom latch using two pan head machine screws and two sexnuts in holes marked B and one pan head machine screw or tapping screw in hole marked A (Figure 12).

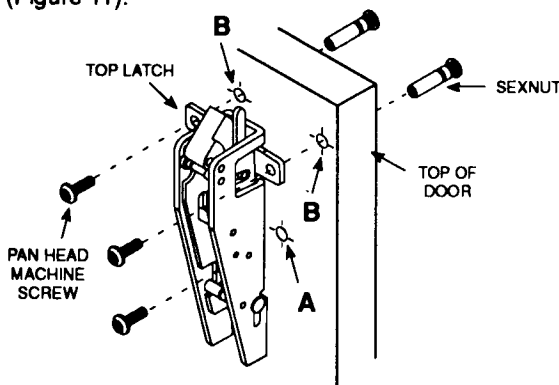


Figure 11

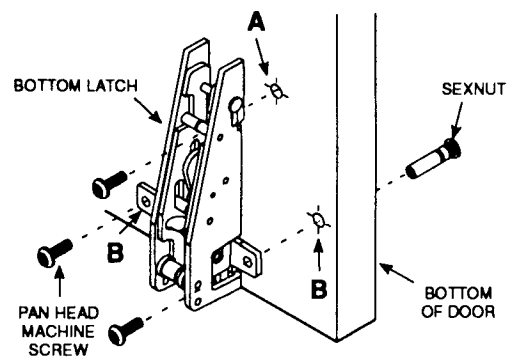


Figure 12

# Installation Instructions

## ED8400A Series Fire Rated Vertical Rod Exit Device

### 6 Install Bottom Strike

Using strike as template, mortise bottom strike into floor, lining up carefully with latchbolt centerline. Use anchors or equivalent to secure flat head screws into floor.

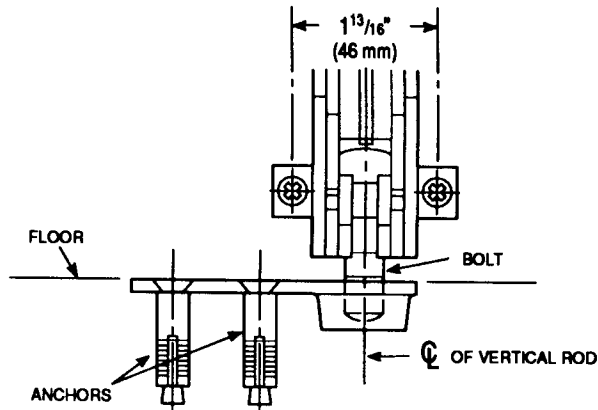


Figure 13

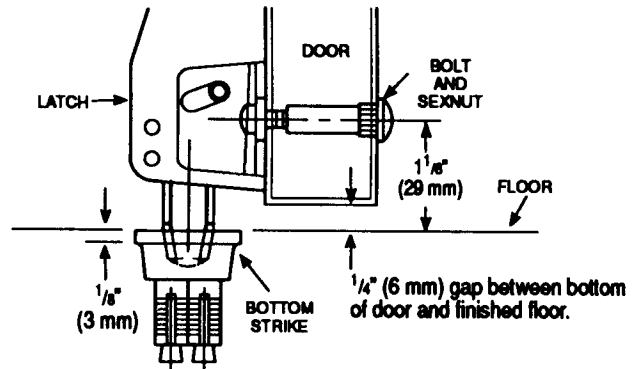


Figure 14

### 7 Install Top Strike

Align strike with latch and use strike as a template to spot, drill and tap for two outboard screws through outboard slots. Fasten top strike to frame with two pan head outboard screws but do not tighten (Figure 15). Adjust the strike so that the latch engages it fully without binding when door is closed. Push up on the latch to make sure that the latchbolt retracts to allow the door to open. Tighten the two outboard screws. Spot, drill and tap for one flat head machine screw in the center of the strike. Install the screw and tighten securely.

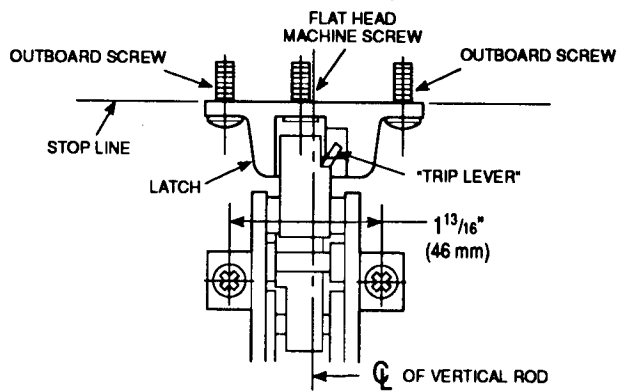


Figure 15

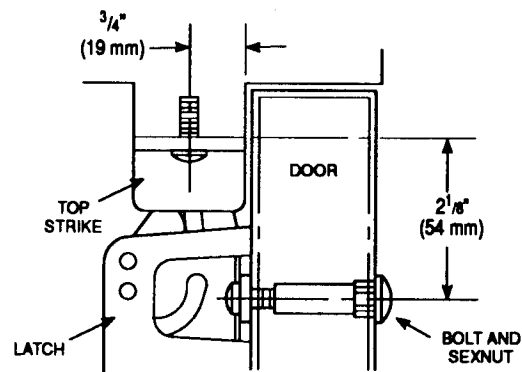
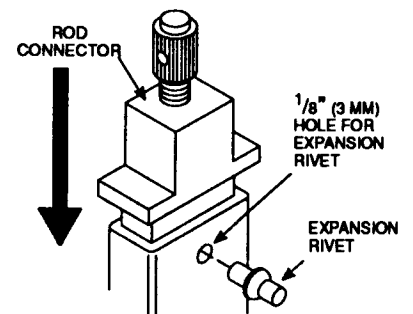
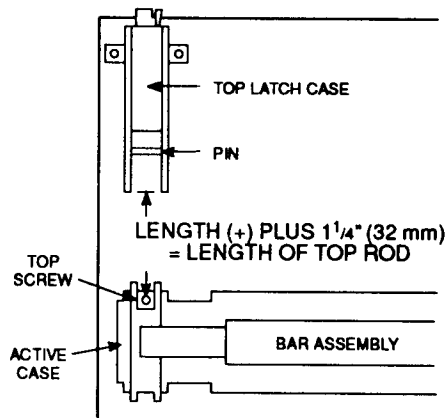


Figure 16

### 8 Assemble Top Rod

Measure distance from bottom of top latch case to centerline of top screw in device active case (Figure 17). Cut undrilled end of top rod to this length (+) plus 1 1/4" (32 mm). Seat adjustable rod connector in cut end of rod. Using hole in connector as guide, drill 1/8" (3 mm) hole through rod. Install expansion rivet from front of rod through rod connector (Figure 18).



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## 9. Install Top Rod and Adjust Top Latch

With door closed and latched, attach top rod to the bar assembly by slipping hole in rod over the stump on active case and secure rod by means of the "E" ring. Make certain "E" ring engages slot in stump. Remove "E" ring holding pin in the top latch and remove pin. Turn adjuster so that the hole aligns with the holes in the slides. Insert the pin. Depress bar. If top latch does not retract completely, and does not remain in retracted position, remove pin and turn connector to adjust length. Repeat until latchbolt operates correctly. Secure pin with the "E" ring. "E" ring should engage slot in pin.

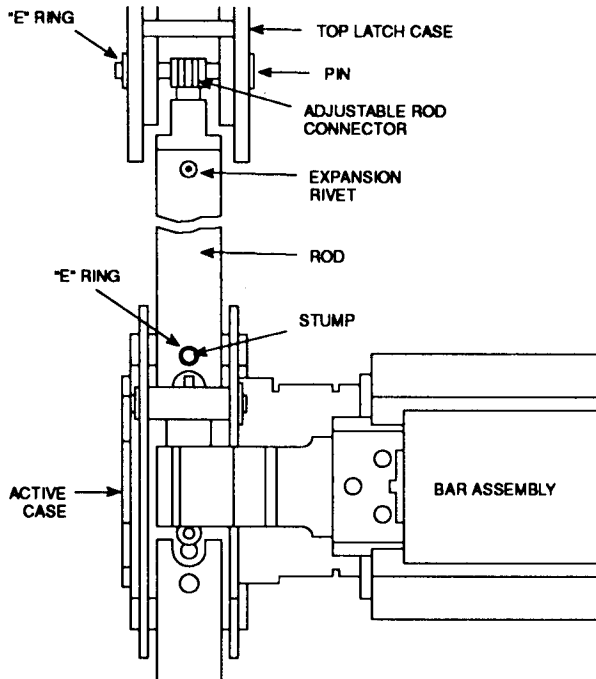


Figure 19

## 10. Install Bottom Rod and Adjust Bottom Latch

With door closed and latched, attach bottom rod to the bar assembly by slipping hole in rod over the stump on active case and secure rod by means of the "E" ring. Make certain "E" ring engages slot in stump. Remove "E" ring holding the pin in the bottom latch and remove the pin. Turn adjuster at bottom of rod so that the holes align with the holes in the latch slides. Insert the pin. Depress pushbar. If bottom latchbolt does not clear the strike, remove pin and turn connector to adjust length. Repeat until latchbolt just clears strike. Secure pin with the "E" ring. "E" ring should engage slot in pin.

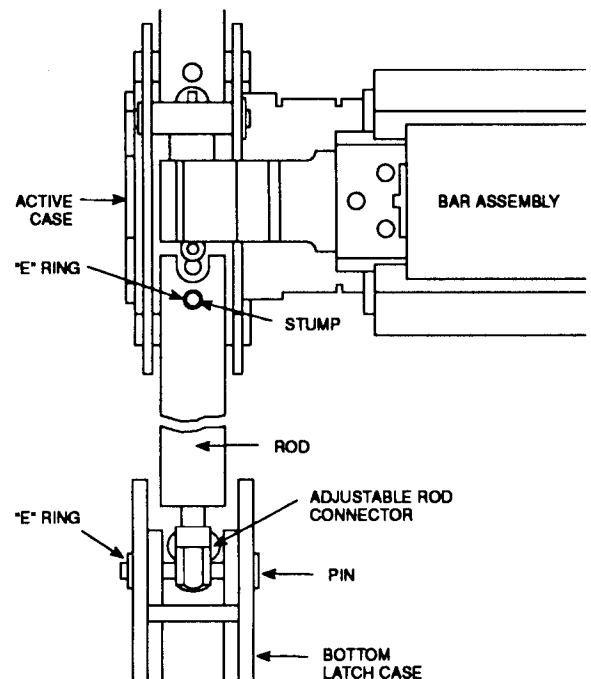


Figure 20

## 11. Install Top and Bottom Latch Covers

Position top latch cover and secure in top latch frame (Figure 21). Position bottom latch cover and secure in bottom latch frame (Figure 22). When tightening top and bottom latch covers, tighten screws equally. DO NOT over torque one side only – it might create a bind on the rod.

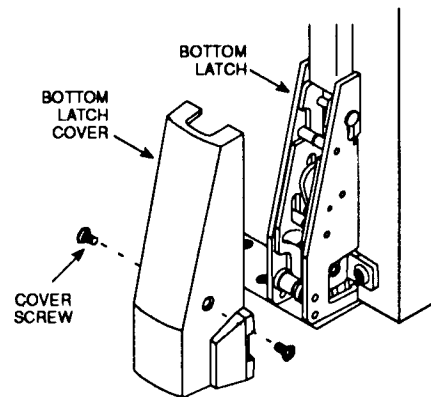
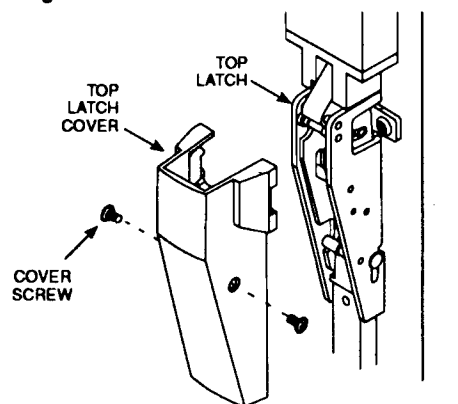


Figure 22

# Installation Instructions

## ED8400A Series Fire Rated Vertical Rod Exit Device

### 12. Install Covers

Install front and rear covers using screws with attached washers (Figure 23).

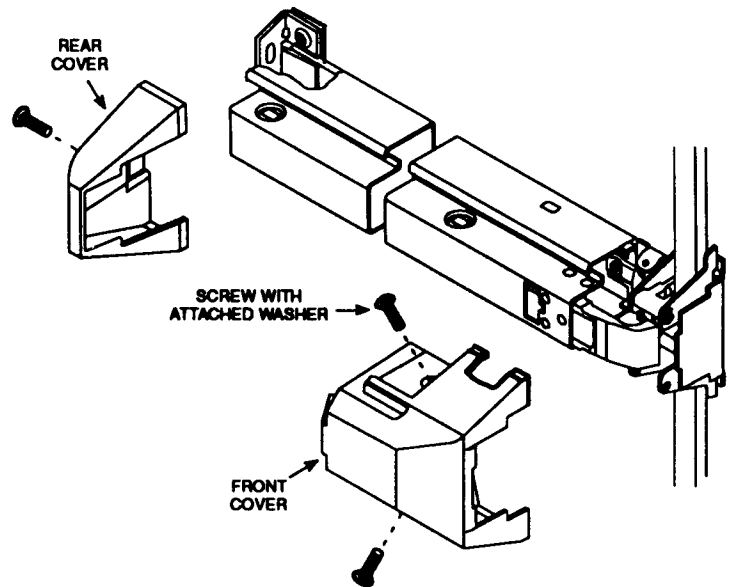


Figure 23

### 13. Test Pushbar Operation

The latches should engage the strikes when door is closed. If the door can be pushed open without depressing the pushbar, the top rod connector has been over adjusted. Remove cover. Adjust connector as needed. Replace cover.

The top and bottom latches should disengage from the strikes freely when the pushbar is depressed. If they do not disengage, remove the covers and adjust the connectors as needed. Replace the covers. Retest for proper operation.

### 14. Mount Rod Guides

Place guides over the rods (midway between bar assembly and top and bottom latches). Be sure the guides will not bind against rods. Use holes in the guides to spot screw locations. Drill holes and secure guides to the door using round head tapping screws (Figure 24).

Check to be certain the rods move freely (Figure 25). **RODS MUST MOVE FREELY UP AND DOWN.** If rods bind, reposition the guides and check again.

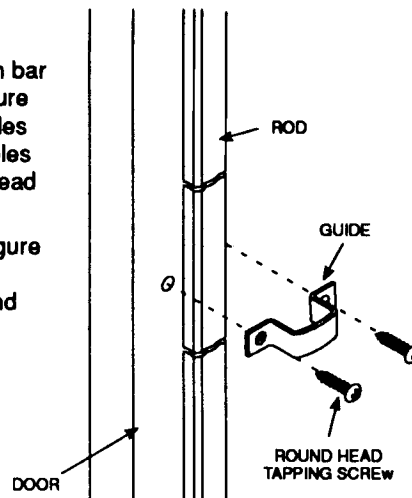


Figure 24

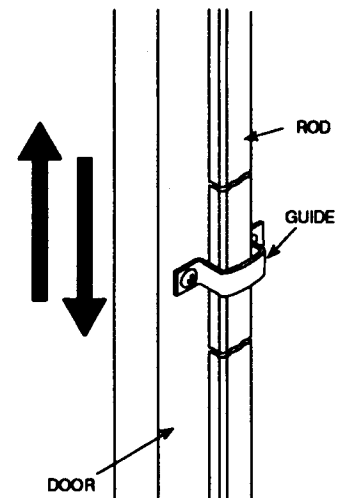


Figure 25

# Installation Instructions

## ED8400A Series Fire Rated Vertical Rod Exit Device

### Fastener Chart

Item	Quantity	Fastener
Frame Plate Assembly	2	#12-24 x 3/4" Phillips Flat Head Machine Screws
	2	#12 Internal Tooth Lock Washers
Rear Bracket	2	#12-24 x 3/4" Phillips Pan Head Machine Screws
	2	#12 Internal Tooth Lock Washers
Top Strike	2	#12-24 x 3/4" Phillips Pan Head Machine Screws
	1	#12-24 x 7/8" Phillips Flat Head Machine Screw
Bottom Strike	2	1/4-20 x 5/8" Phillips Flat Head Machine Screws
	2	Anchors
Top Latch	3	#12-24 x 3/4" Phillips Flat Head Machine Screws (For wood door - 1 #12 Pan Head Tapping Screw)
Bottom Latch	3	#12-24 x 3/4" Phillips Flat Head Machine Screws (For wood door - 1 #12 Pan Head Tapping Screw)
Top Latch Cover	2	Oval Head Screws with Attached Washers
Bottom Latch Cover	2	Oval Head Screws with Attached Washers
Front Cover	2	#8-32 x 1/2" Screws with Attached Washers
Rear Cover	1	#8-32 x 1/2" Screw with Attached Washer
Rod Guides	4	#8 x 3/4" Phillips Round Head, Type A Tapping Screws
Non-Reinforced Door	8	#12-24 (3/8" dia.) Sexnuts

Drill sizes for screws and sexnuts cannot be recommended because various factors such as type of door and frame construction, thickness and type of metal, etc., can affect the final hole diameter and resulting holding strength of the fastener.



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