

# 8400/F8400

Surface Vertical Rod Exit Device

## Installation instructions

95011760 (1135-31) I8400-14 - 06-2020

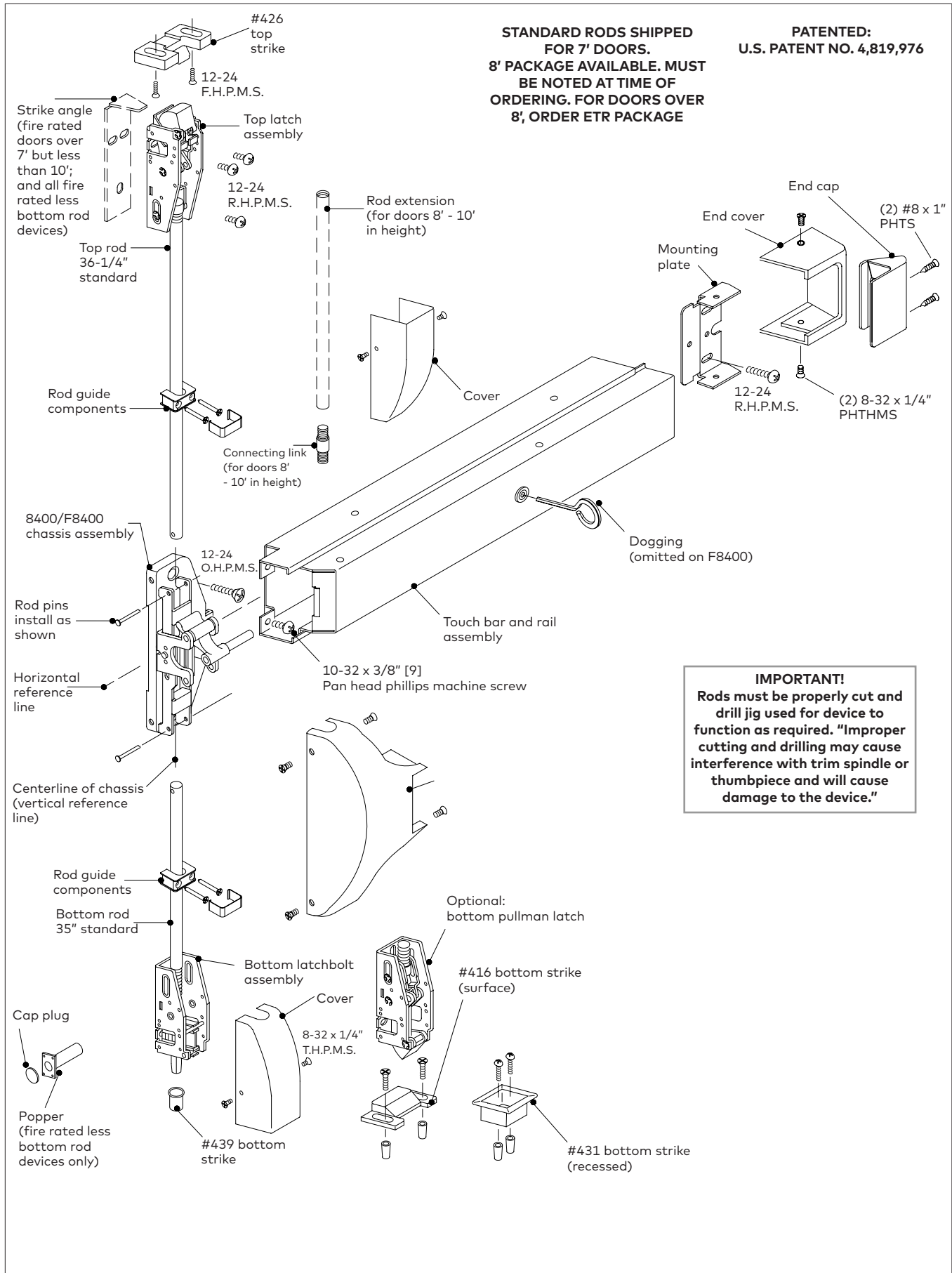
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# 1.1 Overall



## 1.2 Door preparation

**NOTE: SURFACE OF DOOR WHERE EXIT DEVICE IS TO BE INSTALLED MUST BE FLAT. PROPER REINFORCEMENT OF DOOR IS ALSO REQUIRED.**

**NOTE: BEFORE STARTING INSTALLATION:**

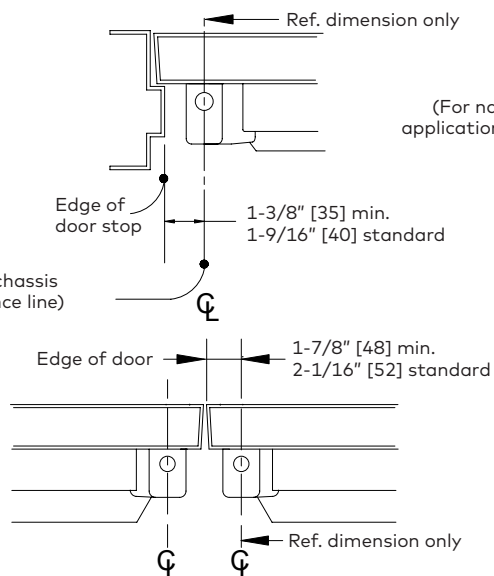
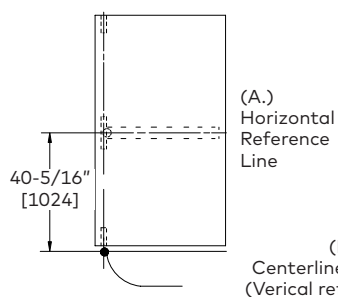
1. DOOR SHOULD BE FITTED AND HUNG.
2. VERIFY DOOR WIDTH WITH BOX LABEL FOR CORRECT LENGTH.

**For less bottom rod devices delete bottom latch installation steps.**

**Less bottom rod devices should not be used where security is a primary concern.**

1.2.1 Measure and mark horizontal reference line on push side of door. (40-5/16" [1024] from finished floor, recommended.)

1.2.2 Measure and mark the vertical reference line (center line of chassis) on push side of door. (See dimension below.)



**NOTE:**  
(For narrow stile door application, consult factory.)

## 1.3 Prepare strike

**For exit only device with no outside trim function**

- 1.3.1 Remove (2) phillips head screws.
- 1.3.2 Then remove cam bracket assembly.
- 1.3.3 No additional prep required except for mounting holes. (See spotting template)
- 1.3.4 Proceed to step 1.4.

**For device using outside trim with rim cylinder**

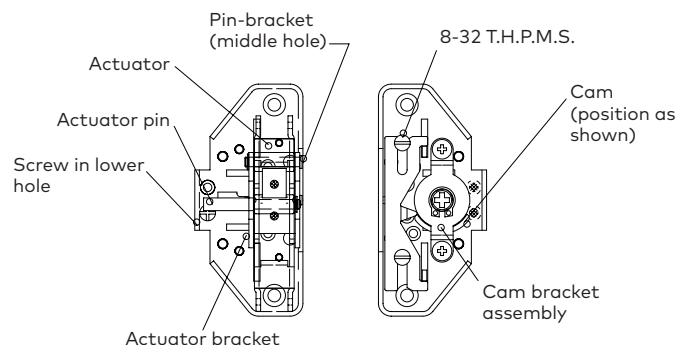
- 1.3.1 Tailpiece should be trimmed 1/8" [3] to 3/16" [5] less than inside face of door.

**For device using outside lever trim**

- 1.3.1 See additional instructions packaged in trim carton

**For hand reversal:**

- 1.3.1 Remove actuator pin
- 1.3.2 Remove pin-bracket
- 1.3.3 Remove actuator
- 1.3.4 Rotate chassis 180 degrees



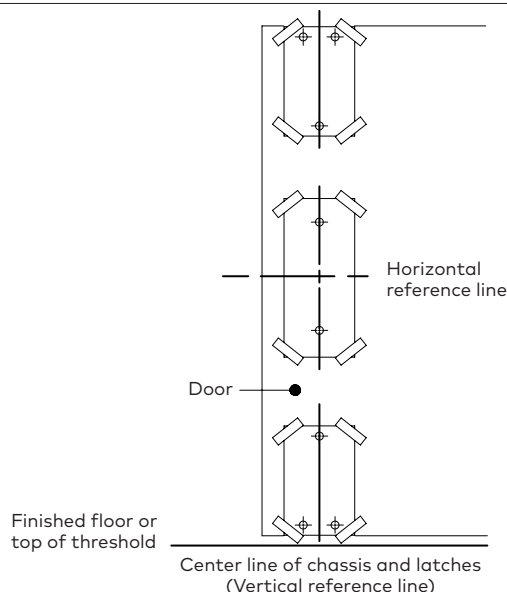
- 1.3.5 Reinstall actuator & pin-bracket in top hole of bracket
- 1.3.6 Reinsert actuator pin in actuator
- 1.3.7 Rotate cam on rear of chassis 180 degree
- 1.3.8 Move screw to lower hole
- 1.3.9 Reinstall all retaining rings on pins

## 1.4 Drill door for exit device

- 1.4.1 Refer to carton label for model and trim numbers before drilling.
- 1.4.2 Prepare door by using the template enclosed (tape to door).
- 1.4.3 Horizontal center line and center line of chassis (vertical reference) on template **MUST** be on horizontal and vertical reference line on door.

**CAUTION:** If horizontal center line is not maintained, vertical rods will not fit.

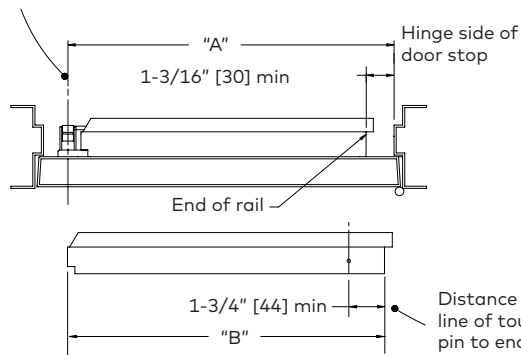
**NOTE:** Vertical reference line is not centerline of cylinder



## 1.5 Verify door width

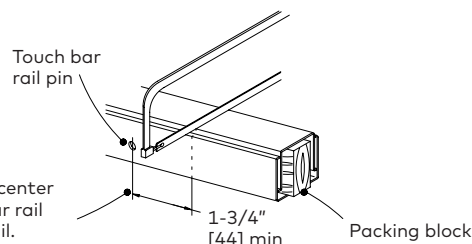
- 1.5.1 If no cutting is required; proceed to step 1.6.
- 1.5.2 If cutting is required, determine length by:
  - measuring "A" (hinge side door stop to center of chassis), subtract 2" [51] to determine "B" (length of touch bar and rail dim.).

Centerline of chassis (vertical reference line)



- 1.5.3 Mark length on rail (cut with touch bar depressed, packing block rotated on edge), then remove packing block and any burrs.

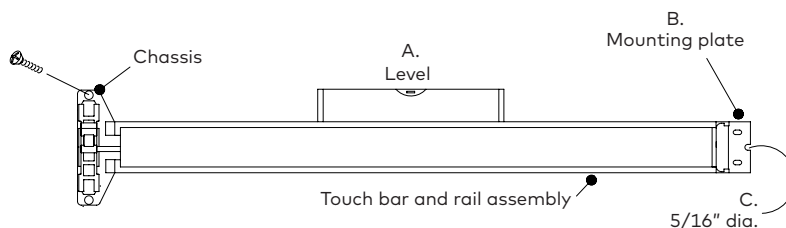
\* Depress touch bar to cut to length



## 1.6 Install chassis, exit device and trim

Install chassis to touch bar; install exit device and any trim using screws as noted on the spotting template.

- 1.6.1 Level touch bar/chassis assembly on door, hold mounting plate against touch bar, mark (2) holes and drill.
  - No. 25 drill 1" [25] deep for wood doors.
  - No. 14 drill 12-24 tap for metal doors.
  - 3/8" [10] diam. drill through door for sex bolts
- 1.6.2 Fasten mounting plate (against rail) to door with (2) round head phillips screws.
- 1.6.3 For electronic options; drill additional 5/16" [8] diam. hole per detail above.

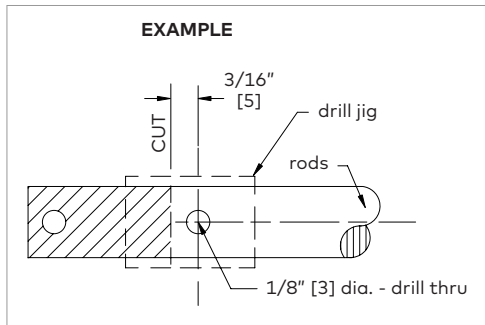


## 1.7 Install covers, end cap, end cover

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| <p>1.7.1 Install top and bottom latch cases using screws as noted on the spotting template.</p> <p>1.7.2 Install strike angle behind top latch and fire rated less bottom rod devices or fire doors over 8 foot.</p> | <p>1.7.3 Install top and bottom strikes using fasteners as noted on the spotting template.</p> <p>NOTE: If installing less bottom rod units on fire rated doors, additional popper must be used. See instruction sheet packed with popper for installation.</p> |
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## 1.8 Verify door height

<p>1.8.1 If cutting rod is required, do not cut threaded end.</p> <p>1.8.2 Use drill jig supplied as guide to redrill holes.</p> <p>1.8.3 Install rod guides as shown.</p>		<table border="1"> <thead> <tr> <th>Door height</th> <th>Top rod length</th> </tr> </thead> <tbody> <tr> <td>6'8"</td> <td>32-1/4"</td> </tr> <tr> <td>6'10"</td> <td>34-1/4"</td> </tr> <tr> <td>7'0"</td> <td>36-1/4"</td> </tr> <tr> <td>7'2"</td> <td>38-1/4"</td> </tr> <tr> <td>7'4"</td> <td>40-1/4"</td> </tr> <tr> <td>7'6"</td> <td>42-1/4"</td> </tr> <tr> <td>7'8"</td> <td>44-1/4"</td> </tr> <tr> <td>7'10"</td> <td>46-1/4"</td> </tr> <tr> <td>8'0"</td> <td>48-1/4"</td> </tr> </tbody> </table>	Door height	Top rod length	6'8"	32-1/4"	6'10"	34-1/4"	7'0"	36-1/4"	7'2"	38-1/4"	7'4"	40-1/4"	7'6"	42-1/4"	7'8"	44-1/4"	7'10"	46-1/4"	8'0"	48-1/4"
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Drill jig (Pt. No. 6400-182-500)  
NOTE: DO NOT CUT THREADED END OF ROD

## 1.9 Latches

<p>1.9.1 Install threaded ends of rods to top and bottom latches.</p> <p>1.9.2 Install top and bottom latch covers with (4) No. 8-32 truss head phillips machine screws.</p> <p>1.9.3 Install rod guides over rods. Secure rod guides to door equal distance between top and bottom latches and chassis. (See step 1.8 above.) Use No. 30 drill for (4) #8 x 2" [25] F.H.P.T.S.</p> <p>1.9.4 Push upward on top rod allowing top latch bolt to retract and be captured by tripping lever fully.</p> <p>1.9.5 Depress and hold touch bar to hold actuator fully upward.</p> <p>1.9.6 Rotate rod right (clockwise) to shorten and left (counter-clockwise) to lengthen until hole in rod aligns with hole in top of bell crank. Insert rod pin. Do not bend, pin will be captured by cover once installed. Release touch bar.</p> <p>1.9.7 * Lift up on bottom rod and align hole in rod and bell crank. Insert pin only.</p>	<p>1.9.8 * Feel to see if bottom of latchbolt is flush across cover. If so, install cover. If not, remove pin, then lengthen or shorten rod as required until latchbolt is flush. Reinsert pin and secure by installing cover.</p> <p>1.9.9 Depress tripping lever allowing latches to extend.</p> <p>1.9.10 Depress touch bar slowly. Release touch bar, latches should remain retracted, being held by tripping lever. Both latch bolts should be flush across covers. Bell crank should travel full length of slot. (See Sec. A.) If outside trim is used check to ensure its function at this time.</p> <p>1.9.11 Adjust strikes if necessary.</p> <p>1.9.12 * Omit Step 1.9.7 and 1.9.8 when installing less bottom rod device (LBR).</p>
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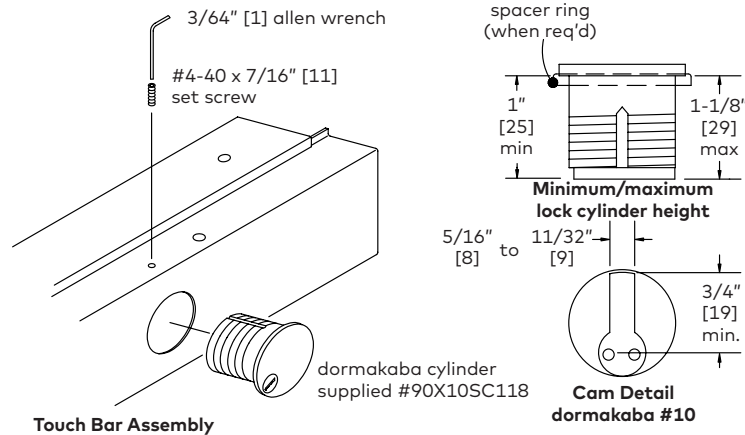
**IMPORTANT:**  
Bellcrank MUST travel full length of slot.

Section "A"

## 1.10 Install chassis cover

Install chassis cover, latch covers and endcover using (10) 8-32 x 1/4" [6] THPHMS and end cap with (2) #8 x 1" [25] PHFHTS screws.

## 1.11 OPTIONAL: Cylinder dogging



- 1.11.1 Thread mortise cylinder into touch bar assembly (see above)
- 1.11.2 Snug (1) #4-40 x 7/16" set screw with allen wrench (DO NOT OVER TIGHTEN)

- 1.11.3 Depress touch bar and turn key clockwise to dog and counter clockwise to release.
- NOTE: CYLINDER MUST BE INSTALLED WITH TOP OF CYLINDER AWAY FROM CHASSIS (See above)**

