7210 Surface Vertical Rod Exit Device
Installation Instructions

Attention Installer
Any retrofit or other field modification to a fire rated opening can potentially impact the fire rating of the opening, and Yale Locks & Hardware makes no representations or warranties concerning what such impact may be in any specific situation. When retrofitting any portion of an existing fire rated opening, or specifying and installing a new fire-rated opening, please consult with a code specialist or local code official (Authority Having Jurisdiction) to ensure compliance with all applicable codes and ratings.

Device Assembly

Outside Trim
Device is packed ready for any Yale narrow stile trim.

Abbreviation

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<th>FASTENER DESCRIPTION</th>
<th>ABBREVIATION</th>
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<td>PHILLIPS ROUND HEAD MACHINE SCREW</td>
<td>PRHMS</td>
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All dimensions are in inches (mm) unless otherwise noted.
### To Change Hands

#### Vertical Lifter Assembly

- **RHR Device**
- **LHR Device**

(4) 8-32 x 3/16" PPHMS

**RHR Door**

**LHR Door**

### Maintenance

1. Periodically remove covers and coat mechanisms with a silicone base lubricant. This is particularly required in corrosive environments for proper product function.

2. Check mounting fasteners periodically. Retighten if found loose. Apply screw locking compound (available at automotive part stores) or change part fasteners if screws continue to back out.

3. Periodic checks (and adjustments) of strikes are required to compensate for changes in the opening (e.g. door sagging).

### Check Before Starting

**Unreinforced Doors or Frames**

Doors and Frames with walls having a structural thickness (metal skin plus reinforcement or solid hardwood) to engage less than (3) full screw threads are considered unreinforced.

- Unreinforced Doors: Use SNB (sex nuts and bolts).

Recommended fasteners for unreinforced openings are not necessarily supplied by Yale Locks & Hardware.

### 1. Mark Door

**Locate and Mark Horizontal and Vertical Reference Centerlines as shown.**

LHR door shown preparation is typical for both door hands.

**Caution:** If device is mounted higher or lower than shown, rod length must change. Lengthen or cut top and bottom rods as shown in Step 7.

### 2. Prepare Door, Frame & Sill

**A. Locate “Device Template”** aligning VERTICAL REFERENCE and HORIZONTAL REFERENCE lines on door and template. Tape template to door face.

**B. Locate “Top Latch”, “Top Strike”, “Bottom Case” and “Bottom Strike” templates,** aligned on centerline of Device, Rods and Strikes on door. Tape templates in place.

**C. Locate and tape Trim Template to door.**

(See instructions packed with Trim.)

**D. Spot and prepare holes:**

**Device and Bolt Case Plates:**

- Each (2) 1/4-20 Machine Screws* or (2) 3/8" (10) dia Sex Nuts & Bolts

**Bottom Case Template**

**Bottom Strike Template**

**(*) Metal reinforced door only.**

**Top Strike:** (2) 10-32 Machine Screws:

**Bottom Strike:** 5/8" (16) dia x 3/4 (19) deep hole
3. Clear Raised Door Molding

Device must seat flush on door surface, or on shims that keep it parallel to door face.

Longer mounting screws needed when more than (2) shim kits are used.

One Shim Kit #724N per 1/8" (3mm) of raised molding.

4. Size Device

Device must be field cut to size, unless standard opening and device are 36" (0.91m) or 48" (1.22m).

LHR DOOR (Door Open)
INSIDE FACE

Align mounting holes in door with mounting holes in device
Align horizontal line on door with edge of device

No gap between end cover & touch bar
Mark cutoff line
Cut square on line

Minimum: 1-3/8 (35)
Minimum to Stile Edge: 3/8 (10)

5. Install Device

A. Mount Trim (Follow instructions packed with Trim).

B. Seat Bar in place (Projecting C-Cam boss must penetrate into door hole). Fasten Device Head (2 PRHMS or SNB).

C. Set Bar level. Locate End Clamp holes.

D. Prepare End Clamp mounting holes. Mount End Clamp. (2 #1/4-20 PRHMS or 3/8" (10) dia SNB)

E. Check Slide Action (Slide Travel = 9/16" (14).

1. Depress touchbar (slide should move up). Release touchbar (slide should fall back to original rest position).
2. Activate trim (slide should move up). Release trim actuator (slide should fall back to rest position).
3. Depress touchbar, turn dogging key clockwise (bar must remain depressed, slide must remain in up position). Turn dogging key counterclockwise (bar should extend, slide should fall back to rest position).

NOTE: When resulting operation is faulty, check first for visible binding or interference. If there is no apparent reason for the fault, remove item from the door and recheck its operation before assuming that it is defective.

F. Tighten all mounting screws.
6. Set Latches, Strikes and Guides

**Top Strike Detail**
- Blade Stop Block
- Shim (2 Supplied) (Start With One)
- Strike Plate (Ridges Face Down)
- 791 Strike
  - (2) 10-24 x 1-1/4" MS

**NOTE:** Reserve third screw for Step 8.

Blade Stop Mount shown. When Formed Stop is used, omit Blade Stop Block and mount Strike with 5/6" long screws (in 791 Strike Pack).

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**Rod Guide Detail**
(Typical 2 Places)
- (2) 8 x 1/2" POH"AB"SMS

- **Rod Guide**
  - Locate Rod Guide as dimensioned.
  - Spot (2) mounting holes.
  - Prepare holes.
  - .140 (3.50) dia. inside face.
  - Mount Guide.

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**Bottom Strike Detail**
- 790 Strike (Press in Place)

**Note:** Bottom Bolt will retract to 1/8" (3mm) above Floor Strike. Floor covering in the door path must be laid out accordingly.

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**Device Mounting Holes, Rods & Strikes**

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**Rod Guide** (INSTALL AS SHOWN ON ROD GUIDE DETAIL)

**Note:** Additional Rod Guide(s) recommended for openings 8'0" (2.45m) and higher.
7. Prepare Rods

**Top Rod**

**Ready for 84" (2134) Openings**

**Openings Under 84" (2134)**

For Top Rod cutoff length, deduct OPENING HEIGHT from 84" (2134).

**Example:**

Opening = 80" (2032)
84" (2134) - 80" (2032) = 4" (102)
Top Rod must be cut 4" (102).

**Openings Over 84" (2134)**

For Top Rod additional length, deduct 84" (2134) from OPENING HEIGHT.

**Example:**

Opening = 99" (2515)
99" (2515) - 84" (2134) = 15" (381)
Top Rod must be lengthened 15" (381).

**To Lengthen Rods**

- Use Rod Extension(s) to extend Rod to length needed or longer (2", 6", or 12" Rod Extensions available).
- Cut excess length from end of rod with pin hole.
- Apply screw locking compound* to Rod Extension(s) male threads. Thread Extension(s) until seated tight over Rod.

  (*)Available at automotive parts store.

**To Cut Rods**

- Cut from end with pin hole. NEVER CUT THREADED END.
- Press Jig until it bottoms over Rod.
- Drill 1/8" (3) dia. hole thru, 3/8" (10) from end of Rod.

**Bottom Rod**

**Ready for 39-15/16" (1014)**

**Floor to Device Center**

**To Lower Device**

A. Bottom Rod cutoff length is distance that device was lowered below 39-15/16" (1014).

B. Add to Top Rod a length equal to the Bottom Rod cut.

**Example:**

Device at 36" (914) from floor.
39-15/16" (1014) - 36" (914) = 3-15/16" (100)
The Bottom Rod must be cut 3-15/16" (100).
The Top Rod must be lengthened 3-15/16" (100).
8. Complete Installation

MAINTENANCE:
1. Periodically remove covers and coat mechanisms with a silicone base lubricant. This is particularly required in corrosive environments for proper product function.

2. Check mounting fasteners periodically. Retighten if found loose. Apply screw locking compound (available at automotive part stores) or change part fasteners if screws continue to back up.

3. Periodic checks (and adjustments) of rods is required to compensate for changes in the opening (e.g.: door sagging).

4. After acceptable Device function, install third screw in top Strike to lock Strike in position. 10-24 x 5/8” FHMS.

5. Install Device & Latch Covers. (2) 8-32 PFHMS each.

A. Install Rods, as shown.

B. Set Strike Roller between Tripping Lever and Bolt. DO NOT PRELOAD BOLT. Adjust and shim Strike as needed.


D1. Bottom Rod Adjustment TILT ROD OUT & TURN
3/8(10) Bottom Bolt engagement required.

D2. Top Rod Adjustment TILT ROD OUT & TURN

E. 3/8 (10) Bolt In

F. Install Device & Latch Covers. (2) 8-32 PFHMS each.
Notes:
1. "Cutlines" separate different templates.
2. Dimensions are given in inches (mm).
3. CAUTION: Office copiers, printers and facsimile machines may change the size of a drawing and make the template inaccurate to use as a door marker.
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Instructions:

1. Not for 7210M(F) Series.

2. Unreinforced frames (total wall thickness less than 1/8 (3.2) require) that 10-24 blind rivet nuts (by others) be used to bolt strike.

3. Dimensions given in inches (mm).

4. **CAUTION:** Office copiers, printers and facsimile machines may change the size of a drawing and make the template inaccurate to use as a door marker.
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Plastic Installation Template

For use in conjunction with instruction sheets packed with exit device. Holes and slots are identified below by exit device series and trim. Prep door and frame for only those features required for the exit device being installed.