#### **Surface Vertical Rod Exit Device Series**

#### **Installation Instructions**





### ⚠ WARNING

This product can expose you to lead which is known to the state of California to cause cancer and birth defects or other reproductive harm. For more information go to www.P65warnings.ca.gov.

#### 🕰 WARNING

Attention Installer: Any retrofit or other field modification to a fire rated opening can potentially impact the fire rating of the opening, and ASSA ABLOY 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. 80-9470-0010-000 04/24



## Surface Vertical Rod Exit Device Series Installation Instructions

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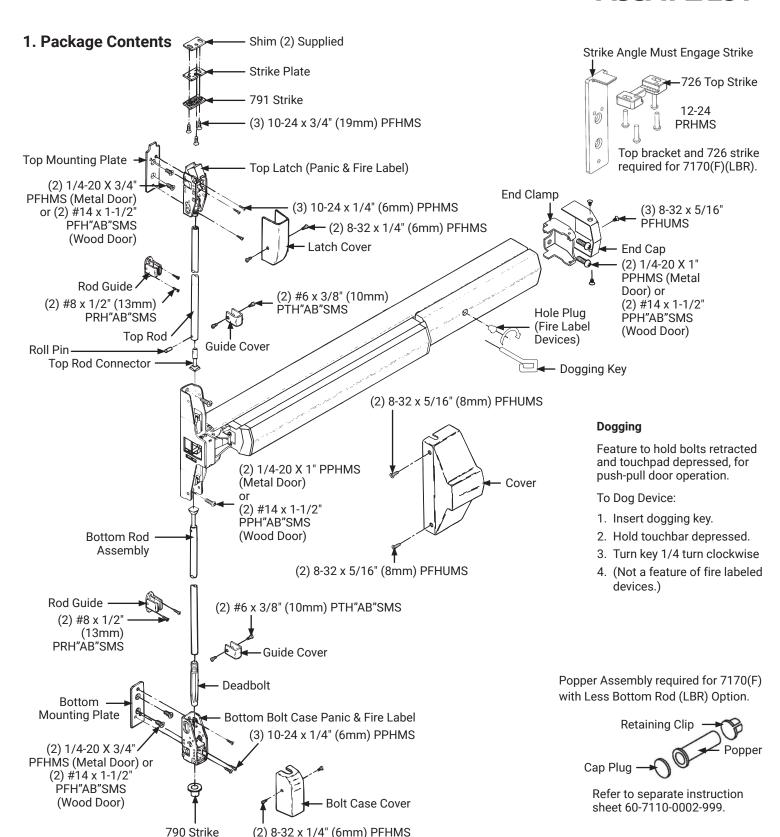
Abbreviation	Fastener Description	
PPH"AB"SMS	Phillips Pan Head Type "AB" Sheet Metal Screw	
PFHUMS	Phillips Flat Head Under Cut Machine Screw	
PFHMS	Phillips Flat Head Machine Screw	
PRH"AB"SMS	Phillips Round Head Type "AB" Sheet Metal Screw	
PTH"AB"SMS	Phillips Truss Head Type "AB" Sheet Metal Screw	
PPHMS	Phillips Pan Head Machine Screw	
PFH"AB"SMS	Phillips Flat Head Type "AB" Sheet Metal Screw	
PRHMS	Phillips Round Head Metal Screw	

All dimensions are in inches (mm) unless otherwise noted.

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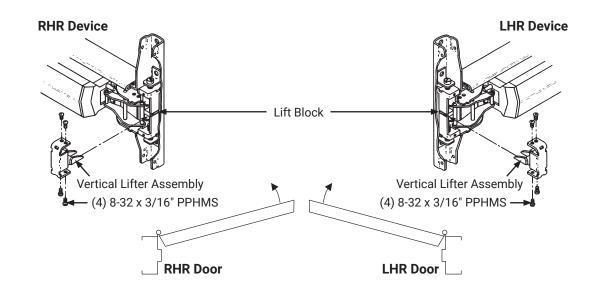
## Surface Vertical Rod Exit Device Series Installation Instructions

#### 2. Handing

To change hands remove (4) screws and vertical lifter assembly.

Rotate device to oppsite hand (180 degrees).

Insert lifter assembly under lift block and re-install screws.



#### 3. 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).

#### 4. Pre-Installation

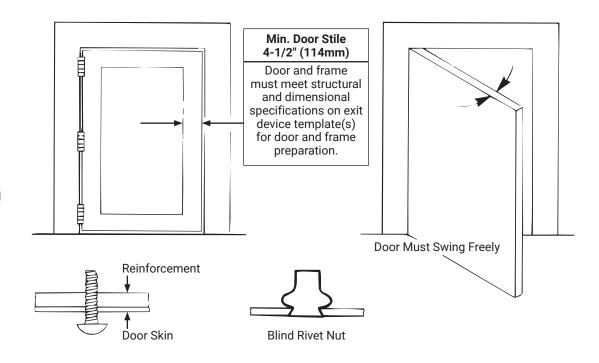
**Unreinforced Doors or Frames** 

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).

Unreinforced Frames: Use Blind Rivet Nuts.

Recommended fasteners for unreinforced openings are not necessarily supplied by ASSA ABLOY ACCENTRA™.



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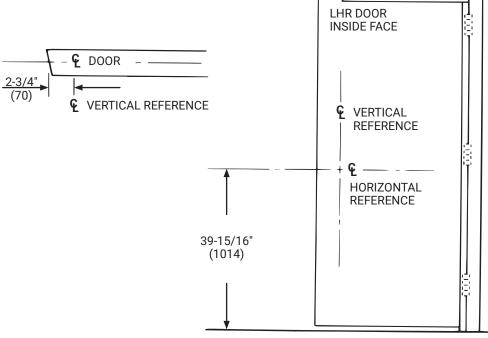
#### 5. Installation

Mark Door Single Door or Pair without Mullion

Locate and mark horizontal and vertical reference centerlines as shown.

LHR door shown, preparation is typical for both door hands.

**NOTE:** Door should be in the closed position while marking horizontal and vertical reference lines. Paper or the plastic template may be used in this step



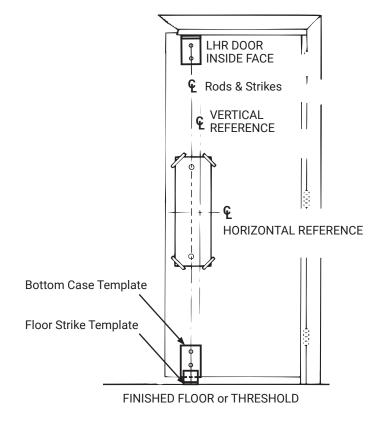
FINISHED FLOOR or THRESHOLD

#### Prepare Door, Frame, & Sill

- 1. Locate "Device Template" aligning VERTICAL REFERENCE and HORIZONTAL REFERENCE lines. Tape template to door face.
- 2. Extend centerline of rod and strikes from "Device Template" to door top and bottom, on door face.
- Locate top latch/strike and bottom bolt case templates in place over centerline of Rods and Strikes on door. Tape templates in place and mark holes.

**NOTE:** The centerline of the rods and strikes used to install top and bottom bolts is not the Vertical Reference centerline.

- Locate and tape Trim Template to door when required (See instructions packed with trim).
- 5. Mark and prepare holes per installation template (exclude 791 or 726 strike, holes prepared in Step 7).
- Locate top latch/strike and bottom bolt case templates in place over centerline of Rods and Strikes on door. Tape templates in place and mark holes.
- 7. Locate 790 Bottom Strike Template. Tape in place over Rods and Strikes centerline on door. Tape template in place and mark hole locations. Holes to be prepared in Step 7.
- 8. Remove templates from door.



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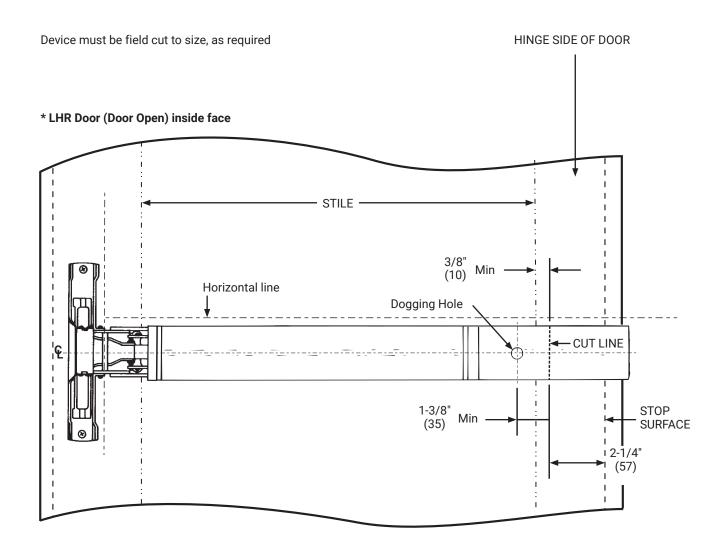


## Surface Vertical Rod Exit Device Series Installation Instructions

### 5. Installation, continued Size Device

#### **Determine device length**

- 1. Close door. Measure 2-1/4" (57mm) from the stop surface on the hinge side of the door. Mark horizontal reference at this point.
- **NOTE:** This dimension must be 3/8" (10mm) minimum from edge of the stile on the door.
- 2. Open door. Align mounting holes in device with mounting holes in the door. Mark device where it crosses the mark from Step 1. If mark is less than 1-3/8" (35mm) min. from dogginghole, a shorter device is required.
- 3. Before cutting, make sure the end cover is in place and there is no gap between it and the pushpad. Cut device on mark from Step 2.



## Surface Vertical Rod Exit Device Series Installation Instructions

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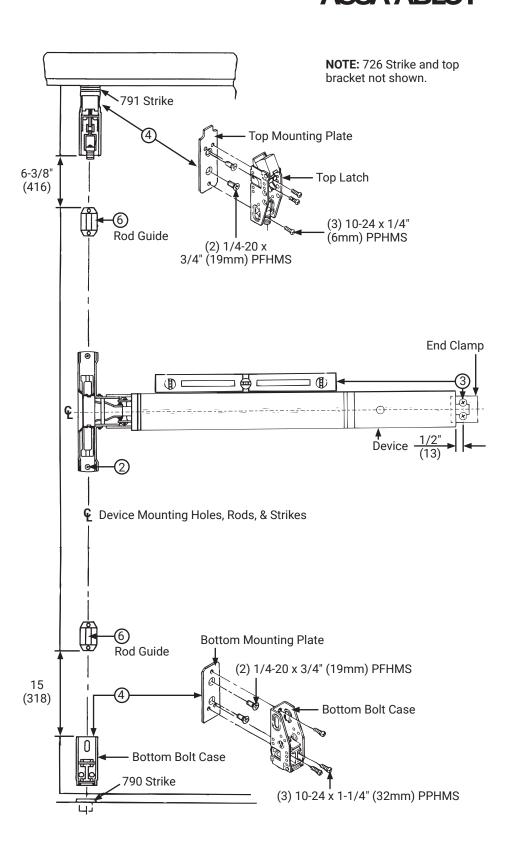
## 5. Installation, continued Mount Device & Components

- 1. Mount trim when required per installation instruction sheet provided with trim pack.
- Fasten device at the latch head using

   (2) 1/4-20 x 1" (25mm) PPHMS or 3/8"
   (10mm) diameter SNB (Metal Door) or #14 x 1-1/2" PPH "AB" SMS (Wood Door), to door surface.
- Set device level. Using the end clamp as a template, locate the end clamp mounting holes and mount end clamp using (2) 1/4-20x1" (25mm) PPHMS or 3/8" (10mm) SNB or #14 x 1-1/2" PPH"AB"SMS (Wood Door).
- 4. Attach top and bottom mounting plates to the door surface using (4) 1/4-20 x 3/4" (13mm) PFHMS or 3/8" (10mm) diameter SNB or #14 x 1-1/2" (38mm) PPH"AB"SMS (Wood Door). Attach top latchand bottom bolt case to the top and bottom mounting plates using (6) 10-24 x 1/4" (6mm) PFHMS.

**NOTE:** For 7170(F) (LBR) options see 726 strike template.

- Check slide action. Press on the pushpad.
   The slide should move up freely. If not, verify handing. See Section 2. Release the touchbar. The slide should fall back to the original rest position.
- 6. Install rod guides.
  - a. Locate the rod guide as dimensioned. Spot (2) mounting holes.
  - b. Prepare holes
    - Metal door: #28 .140" (3.5mm) diameter Inside Face.
    - Wood door: #28 .140" (3.5mm) diameter x 3/4" (19mm) deep
  - c. Mount guides. Fasten with (2) #8 x 1/2" (13mm) PRH"AB"SMS as shown above.





## Surface Vertical Rod Exit Device Series Installation Instructions

## 5. Installation, continued Rod Preparation & Assembly

**NOTE:** Below listed instructions are based on a device mounted 39-15/16" (1014mm) from finished floor or threshold. Any deviation on device mounting height must be accommodated to insure proper device function.

#### A. Top Rod Sizing

1. For openings under 7' (2134 mm), subtract the actual opening height from 7' (2134 mm).

Example:

6'8" (2032mm) opening

7'0" (2134mm) - 6'8" (2032mm)

= 4" (102mm)

Top Rod must have 4" (102 mm) cut from end with 1/8" (3mm) thru hole. Use attached drill fixture to locate and re-drill 1/8" (3mm) dia. hole thru the top rod. Make sure rod bottoms out inside drill fixture prior to drilling. (See **Figure 5A**).

2. For opening over 7' (2134 mm), subtract 7' (2134 mm) from the actual opening height.

Example:

7'6" (2286mm) - 7'0" (2134mm)

= 6" (152mm).

Top Rod must have a 6" (152mm) extension added to length (See below for available rod lengths).

#### **B.** Assemble Top Rod

Insert Top Rod Connector into sized Top Rod and Install 1/8" (3 mm) x 1/2" (13mm) Roll Pin thru both pieces until flush on both sides. (See **Figure 5B**).

Figure 5A: Drill Pin Hole

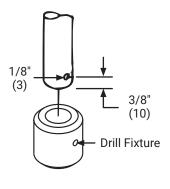
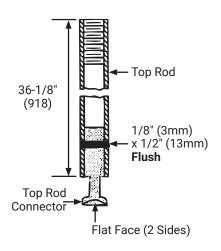
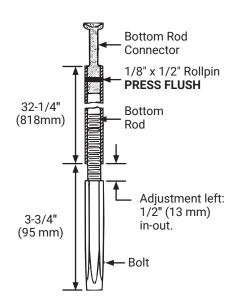
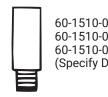


Figure 5B: Top Rod Assembly





#### **Rod Extension Options**



60-1510-0280: 2" (51mm) 60-1510-0277: 6" (152mm) 60-1510-0278: 12" (305mm) (Specify Device Finish)

#### **Bottom Bolt Assembly**

A. Thread Bottom Bolt into Bottom Rod Assembly. B. Leave 1/2" (13mm) for adjustment.

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## Surface Vertical Rod Exit Device Series Installation Instructions



## 5. Installation, continued Complete Installation

#### A. Install Top Rod and 791 Strike

 Thread Top Rod Assembly onto Top Latch. Lift rod to fully retract Top Latchbolt. Depress Pushpad and hold depressed. Adjust top rod length until Rod Connector seats into the Slide Assembly in latch case.

**NOTE:** For 7170 devices, skip section (2a) and 2(b). See the installation instructions for the 726 strike on page 9.

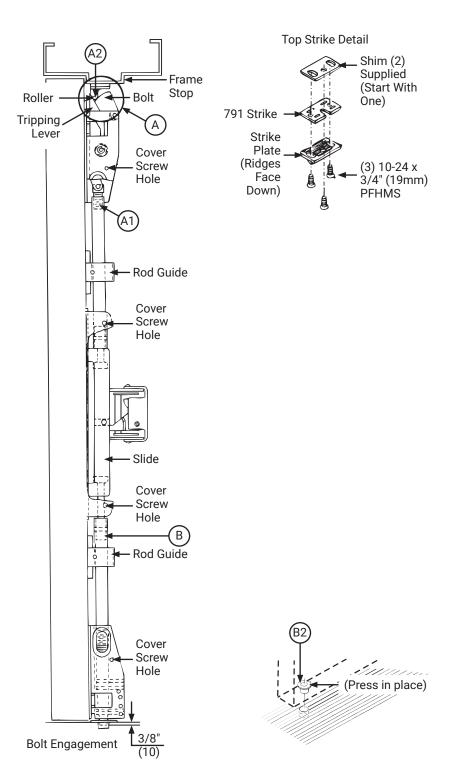
- 2a. Position the Top Strike Roller between the Tripping Lever and the Bolt on the Top Latch. Verify hole positions and prepare holes per Installation Instruction Template.
- 2b. Install Top Strike and Strike Plate using (2) #10-24 x 3/4" (19mm) PFHMS thru outer slots. Adjust and shim strike as needed for zero door rattle. Add third screw (#10-24 x 3/4" (19mm) PFHMS) after final adjustments.
- If Top Bolt does not remain retracted when door is opened, Top Rod is too short. Pull rod out of the guide and the slide then rotate rod to increase length. Upper Bolt should retract flat.
- If upper latch will not deadlock, Top rod is too long. Pull rod out of the guide and the slide and rotate to decrease length.
- \* If 7170 LBR, skip section B.

#### B. Install Lower Rod and 790 Strike

- With door open, actuate Pushpad to retract upper latch. Hang Lower rod from bottom of Slide and adjust bolt so that it clears the finished floor by 1/4".
- 2. Verify location of pipe strike template. Prepare the strike hole and install the pipe strike. Set in place with appropriate bonding material.
- 3. With the door open, actuate pushpadt o retract upper latch. Adjust bolt height by pulling the rod out of the guide and slide and rotating until the bolt clears the pipe strike by 1/8".
- C. Test device action by Touchbar, by Trim, by Dogging.

#### D. Install covers.

**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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## Surface Vertical Rod Exit Device Series Installation Instructions

#### 6. Plastic Installation Template 7000 Exit Devices 7120(F),7160(F) & 7220M(F) CVR For use in conjunction with instruction sheets packed with exit device. All 7000 Exit Devices Holes and slots are identified below by exit device Vertical Reference LHR series and trim. Prep door and frame for only those features required for the exit device being installed. **Against Door Stop** or Mullion (when applicable) Wide Stile Trim Only **Against Door** Surface 0 7150(F)(WS), 7170(F)(WS) Door Narrow Stile Frame Trim Only **Template** Mortise 7130(F) Wide Stile Trim Only Horizontal Reference 757F Strike Location 7150(F)(WS), Door Stop 7170(F)(WS) 7120(F),7160(F) & 7220M(F) CVR яня Wide Stile All 7000 Exit Devices Trim Only

#### 7. 7110 Template 791 Strike

#### NOTES:

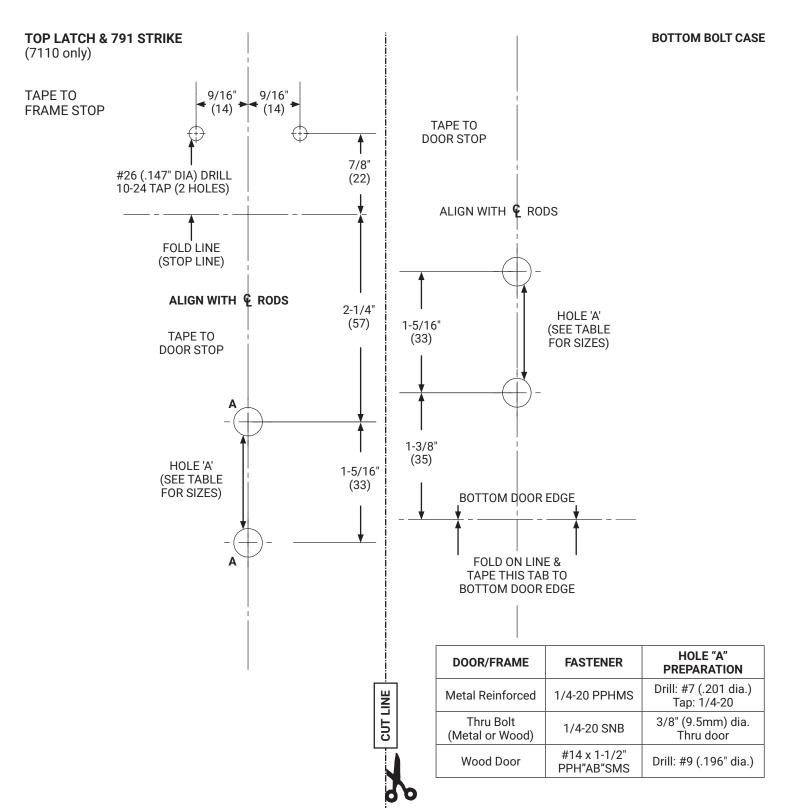
- 1. For 7170 series devices omit the 791 strike and use this template with the 726 strike template (page 17).
- 2. Mark **©** rods line on door face. Note that the centerline of the rods and strikes, used to install top and bottom bolts, is not the vertical reference centerline.
- 3. For LBR devices, omit bottom latch and strike installation steps and see separate instructions for top latch and strike.
- 4. Unreinforced frames require that #10-24 blind rivet nuts (by others) be used to bolt strike. Frames are considered not reinforced when strike mounting screws cannot engage (3) full threads.
- 5. Dimensions are given in inches (mm).
- 6. **CAUTION:** Office copiers 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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Vertical Reference

## Surface Vertical Rod Exit Device Series Installation Instructions







Surface Vertical Rod Exit Device Series Installation Instructions

## **Surface Vertical Rod Exit Device Series Installation Instructions**



#### 8. 7170 Template 790 Strike

#### NOTES:

- 1. For 7170 (LBR) Less Botton Rod devices omit the 790 strike and use this template with the 726 strike template (page 17).
- 2. Mark **©** rods line on door face. Note that the centerline of the rods and strikes, used to install top and bottom bolts, is not the vertical reference centerline.
- 3. For LBR devices, omit bottom latch and strike installation steps and see separate instructions for top latch and strike.
- 4. Unreinforced frames require that #10-24 blind rivet nuts (by others) be used to bolt strike. Frames are considered not reinforced when strike mounting screws cannot engage (3) full threads.
- 5. Dimensions are given in inches (mm).
- 6. **CAUTION:** Office copiers and facsimile machines may change the size of a drawing and make the template inaccurate to use as a door marker.

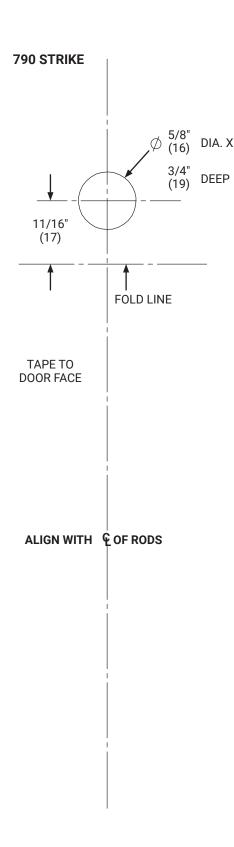
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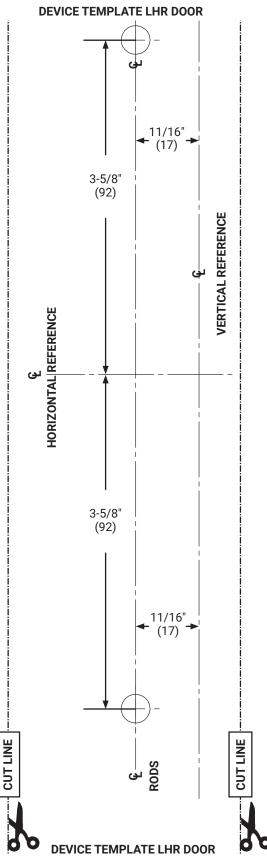
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### 7110(F) & 7170(F) (LBR)

## Surface Vertical Rod Exit Device Series Installation Instructions

### DEVICE TEMPLATE LHR DOOR





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## Surface Vertical Rod Exit Device Series Installation Instructions

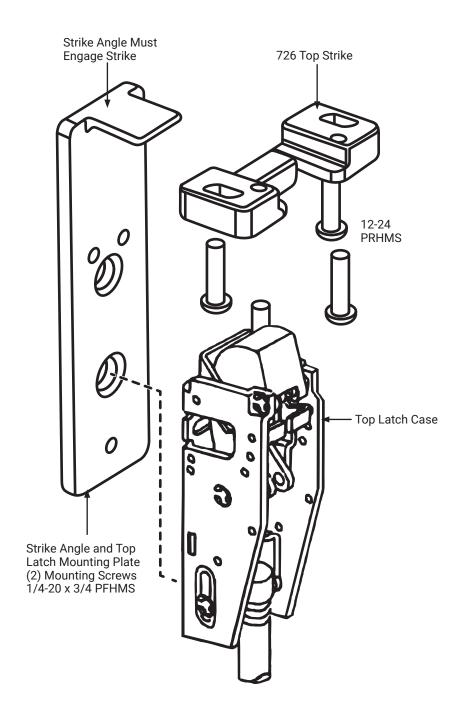
## 9. 7170 Template 726 Strike NOTES:

- 1. 726 Strike template used for 7170 series devices.
- Mark rods line on door face. Note that the centerline of the rods and strikes used to install top and bottom bolts, is not the vertical reference centerline.
- 3. For LBR (Less Bottom Rod) devices, omit bottom latch and strike installation and install 726 Top Strike with strike angle and "popper" assembly supplied with device.

**CAUTION:** LBR devices should not be used where security is a primary concern.

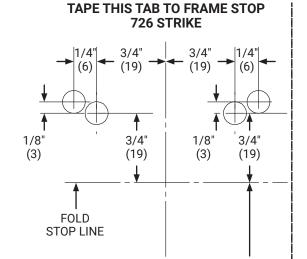
- 1. **726 Top Strike Installation:** With door securely closed, tape template to the door and frame stop. Spot and prepare holes for 726 top strike using (2) 12-24 round head screws, provided. With template still in place, assemble upper mounting plate to the door with the strike angle engaged into the 726 top strike, as shown below. Adjust hole locations for the mounting plate, if required. Spot and prepare (2) outer holes, then prepare (2) inner holes as designed on the template.
- 2. Unreinforce frames require that 12-24 blind rivet nuts (by others) be used to bolt strike. Frames are not considered reinforced when strike mounting screws cannot engage (3) full threads.
- 3. Dimensions are given in inches (mm).

**CAUTION:** Office copiers and facsmille machines may change the size of a drawing and make the template inaccurate to use as a door marker.



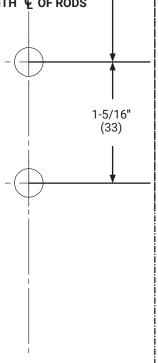
## Surface Vertical Rod Exit Device Series Installation Instructions

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#### ALIGN WITH & OF RODS

DOOD	FAOTENIED	LIGIE "A"
DOOR	FASTENER	HOLE "A"
Metal Reinforced	Screw	1/4-20 Tap
Hollow Metal & Aluminum	Optional SNB	5/16" (8) Dia Inside Door Face 3/8" (10) Dia Outside Door Face
Aluminum	SNB	Thru Door



2-1/4" (57)

TAPE TO DOOR TOP LATCH & STRIKE

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