



911403-00

# 33/3527A

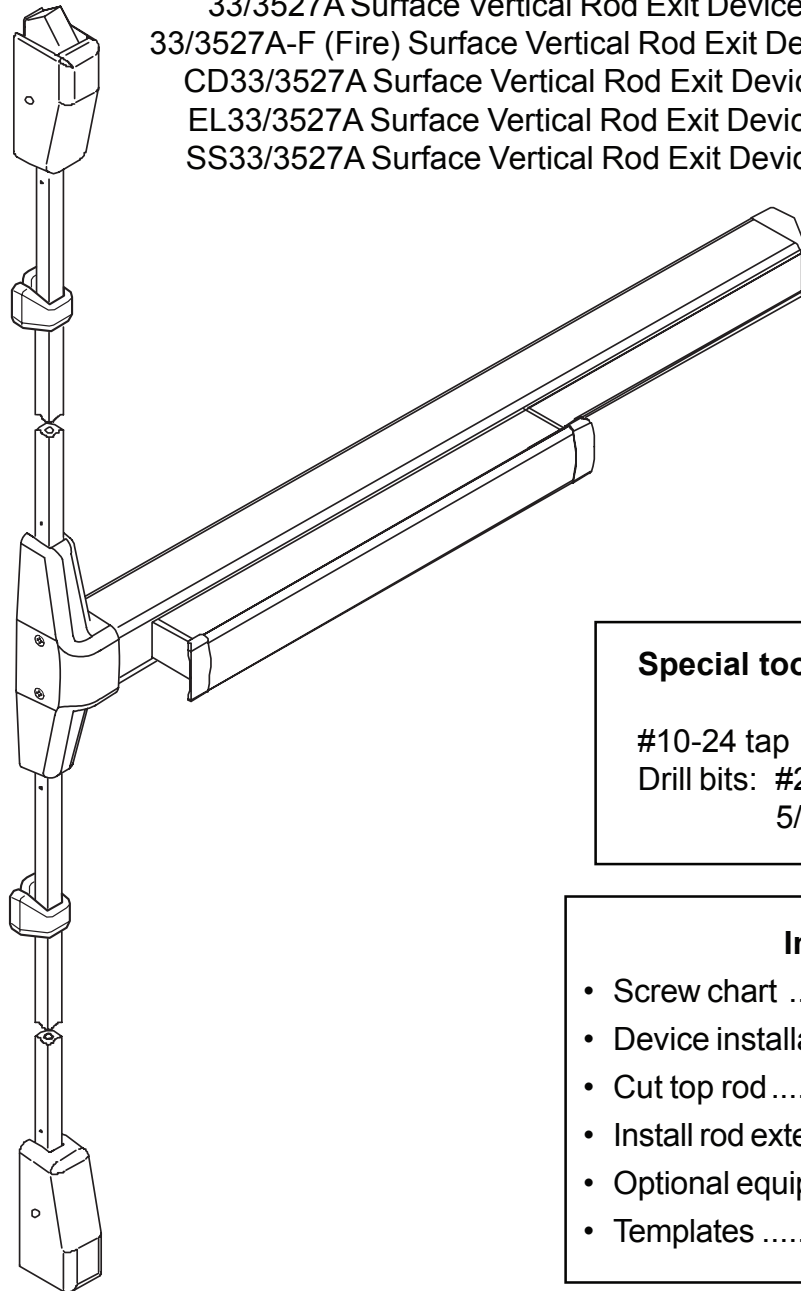
# VON DUPRIN®

Surface Vertical Rod Exit Device

Installation Instructions

**Devices covered by these instructions:**

- 33/3527A Surface Vertical Rod Exit Device
- 33/3527A-F (Fire) Surface Vertical Rod Exit Device
- CD33/3527A Surface Vertical Rod Exit Device
- EL33/3527A Surface Vertical Rod Exit Device
- SS33/3527A Surface Vertical Rod Exit Device



**Special tools needed:**

- #10-24 tap
- Drill bits: #25, 1/8", 1/4",  
5/16", 13/32"

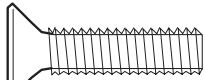
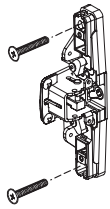
**Index:**

- Screw chart ..... 2
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- Cut top rod ..... 7
- Install rod extension ..... 7
- Optional equipment ..... 8
- Templates ..... 9-14

**Please give these instructions to building owner after device is installed**

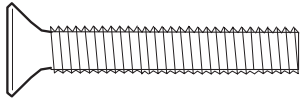
# SCREW CHART

**A**



1/4-20 x 1" \_\_\_\_\_

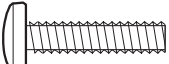
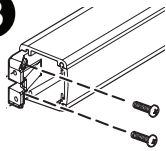
Trim mount or sex bolts:  
(1-3/4" door)



1/4-20 x 1-1/2" \_\_\_\_\_

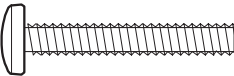
(2-1/4" door)

**B**



#10-24 X 3/4" \_\_\_\_\_

Surface mount or  
Sex bolts (1-3/4" door)



#10-24 X 1-1/8" \_\_\_\_\_

Sex bolts (2-1/4" door)

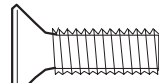
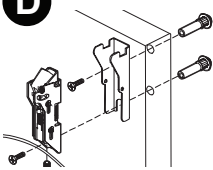
**C**



#10-16 X 3/8" Thread cutting \_\_\_\_\_

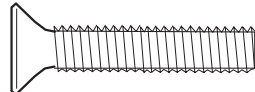
End cap

**D**



1/4-20 X 3/4" \_\_\_\_\_

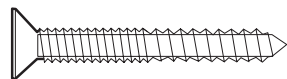
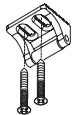
1-3/4" door



1/4-20 X 1-1/4" \_\_\_\_\_

2-1/4" door

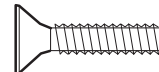
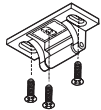
**E**



#10-12 x 10-24 x 1-1/4" combination \_\_\_\_\_

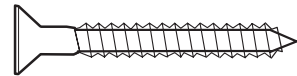
Metal or wood frame

**F**



#10-24 X 3/4" \_\_\_\_\_

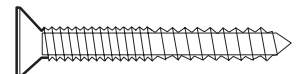
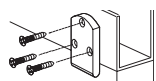
Metal frame



#10-24 X 1-1/4" wood screw \_\_\_\_\_

Wood frame

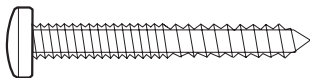
**G**



#10-12 x 10-24 x 1-1/4" combination \_\_\_\_\_

Metal or wood frame

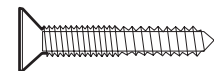
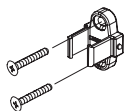
**H**



#10-12 x 10-24 x 1-1/4" combination \_\_\_\_\_

Variable floor surfaces

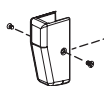
**I**



#8-16 x 8-32 x 1" combination \_\_\_\_\_

Metal or wood door

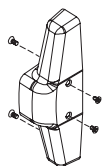
**J**



#8-32 X 1/4" \_\_\_\_\_

Latch covers

**K**

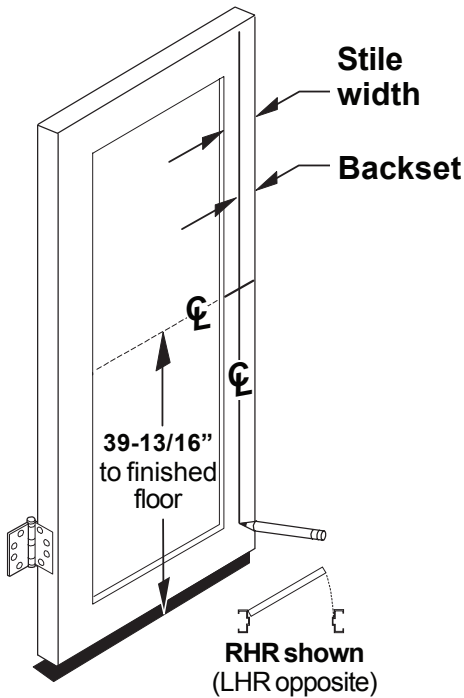


#8-18 x 3/8" thread cutting \_\_\_\_\_

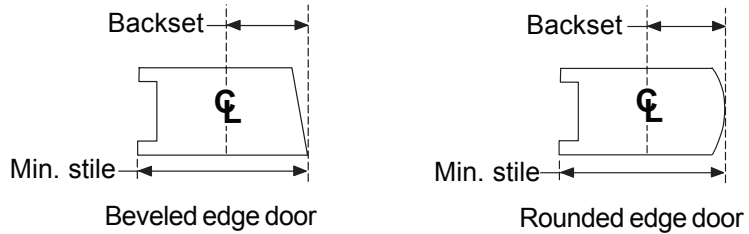
Center case cover

# 1

Figure backset and draw device center lines (☉) on door as shown.



Backset is measured from outer edge of door as shown. Minimum stile is less glass stop (rectangular glass stop is recommended for stiles less than 2-1/8")



Backset	Min. stile	Application
1-3/16"	2" - 2-3/4"	Two vertical rod devices
1-1/2"	2-3/4" - 3-3/4"	
1-7/8"	3-3/4" - 5"	
2-1/2"	5" to flush	
1-11/32"	2" - 2-3/4"	Single door
1-1/2"	2-3/4" - 3-3/4"	
1-7/8"	3-3/4" - 5"	
2-1/2"	5" to flush	
2-7/32"	3" min.	Vertical rod and rim device

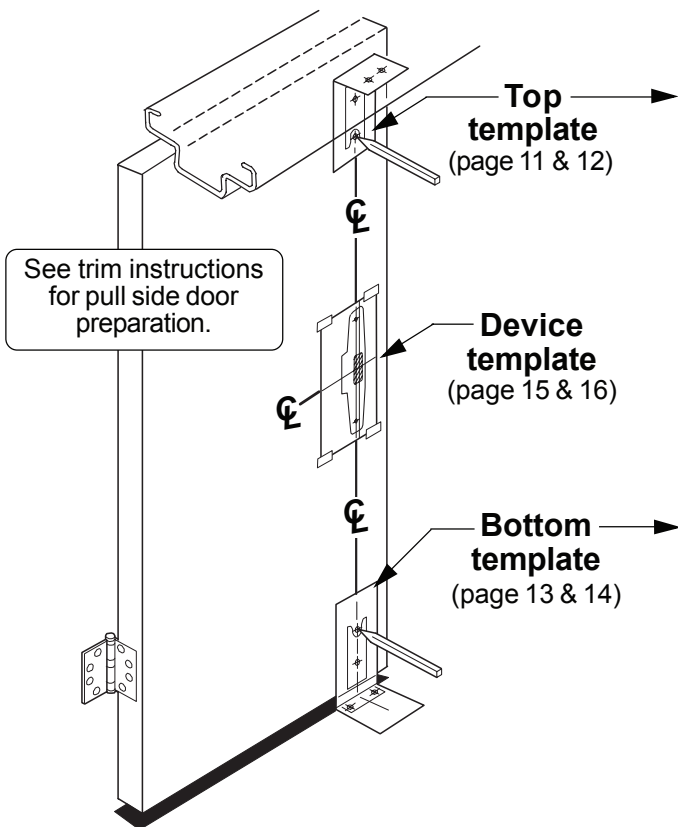
**Note:** For 299/299F top strike use minimum backsets shown below.

Double doors: 1-3/8" min. backset  
2-3/16" min. stile

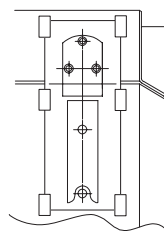
Single door: 1-7/8" min. backset  
2-11/16" min. stile

# 2

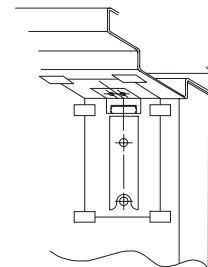
Tape templates to door and prepare door and frame per templates.



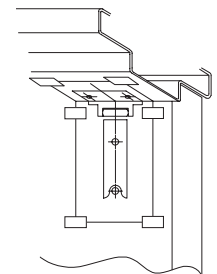
260U strike



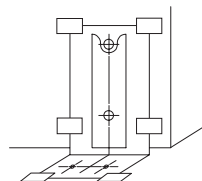
265 strike



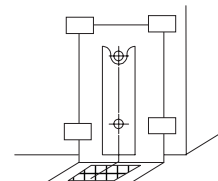
\*299/299F strike



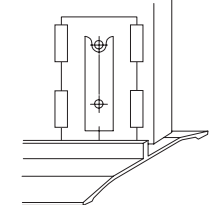
248L-4 strike



304L strike



Latch track



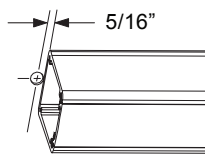
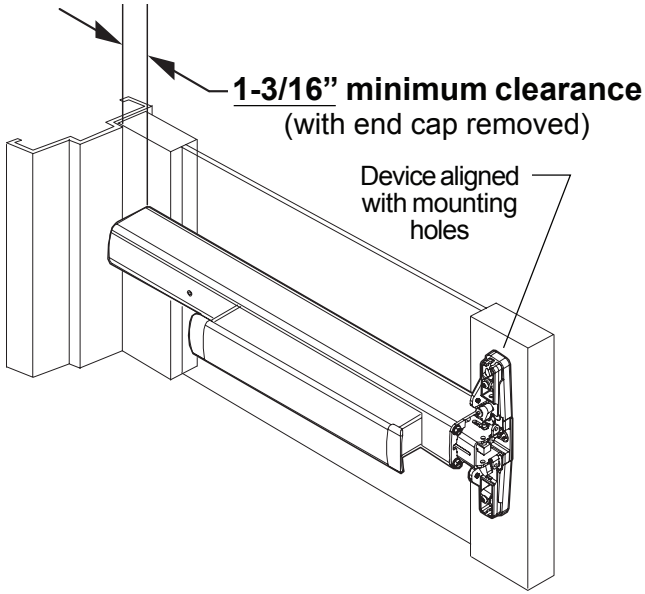
\*For 299/299F top strike use minimum backsets shown below.

Double doors: 1-3/8" min. backset, 2-3/16" min. stile

Single door: 1-7/8" min. backset, 2-11/16" min. stile

# 3

## Measure to determine length to cut device.



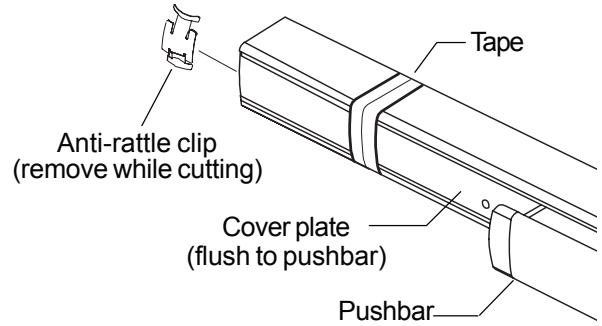
### Note

If 5/8" diameter wire access hole has been predrilled in door, cut device 5/16" from center of hole.

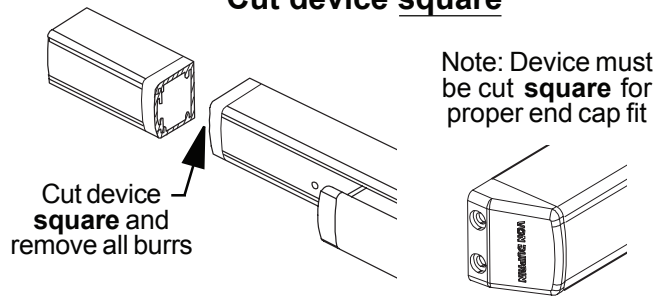
# 4

## Cut device to length.

### Prepare device for cutting

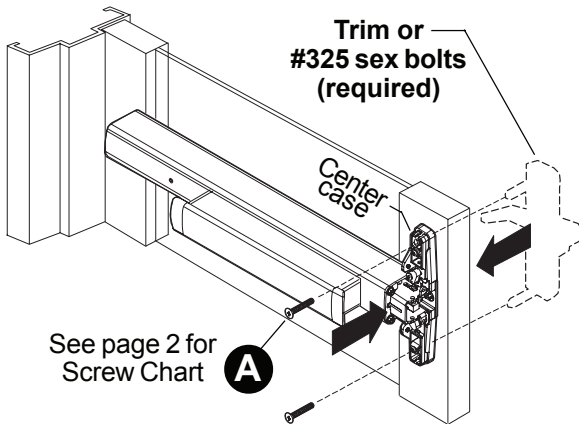
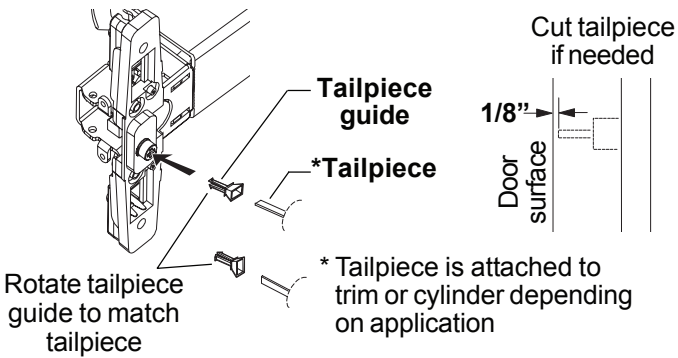


### Cut device square



# 5

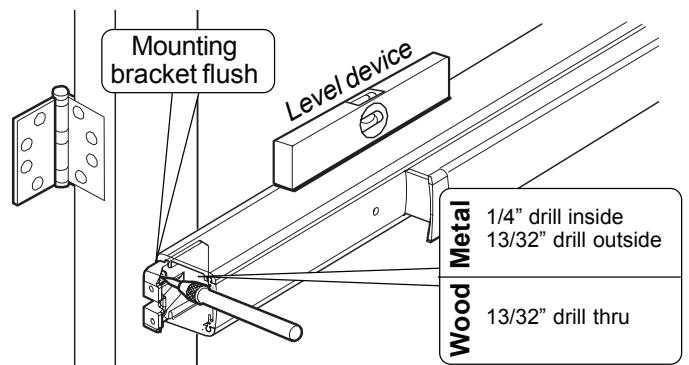
## Install tailpiece guide and trim (or sex bolts) and secure device center case to door.



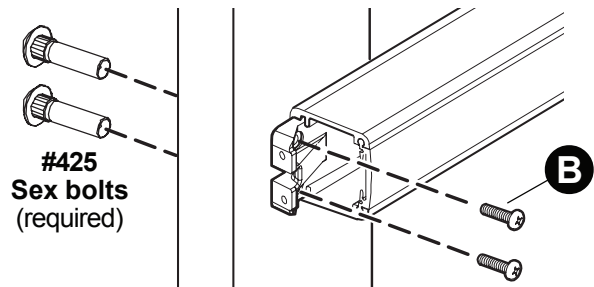
# 6

## Install hinge stile mounting bracket.

### Mark and prepare 2 mounting holes

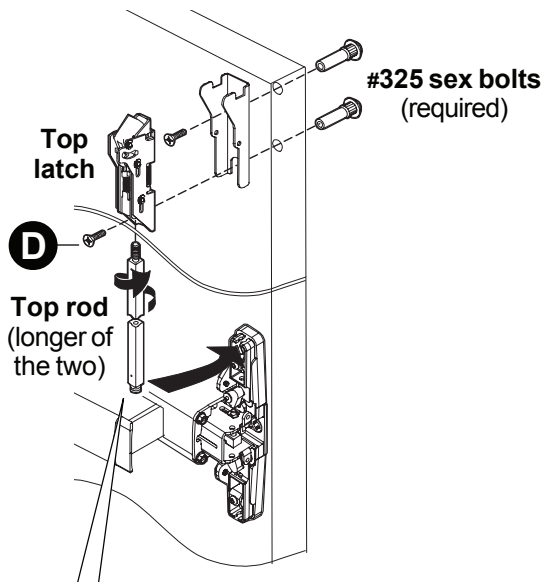


### Secure mounting bracket



# 7

## Install top latch and rod.



If top rod is too long, see "Cut top rod" on page 7

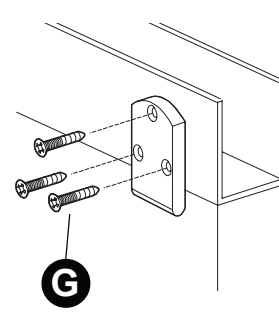
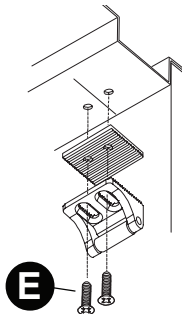
If top rod is too short, see "Install rod extension" on page 7

# 8

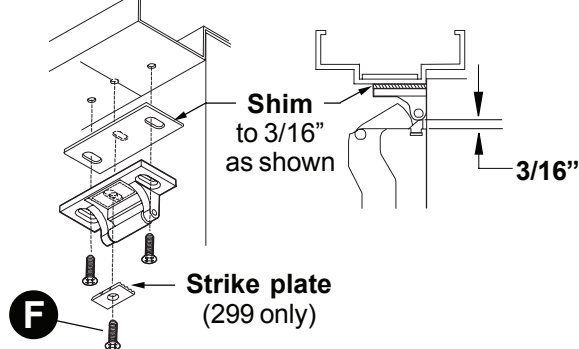
## Install top strike.

**265 strike**  
For panic device application only

**260U strike**  
For panic device application only



**299/299F strike**



# 9

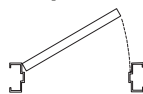
## Adjust top rod until latch bolt acts as shown.

Adjust rod by threading rod into latch clockwise to shorten, or counterclockwise to lengthen.

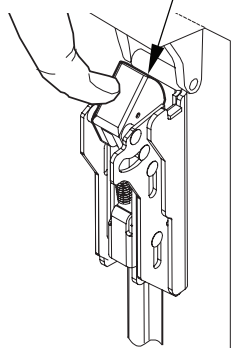
**With door closed:**



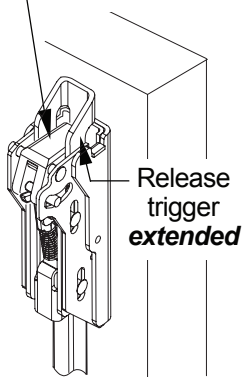
**With door open:**



Latch bolt **deadlocked**  
(will not push in)



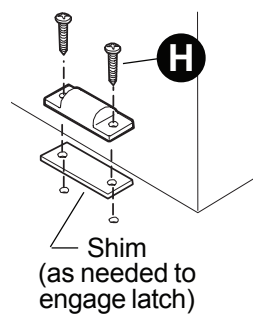
Latch bolt stays **retracted**



# 10

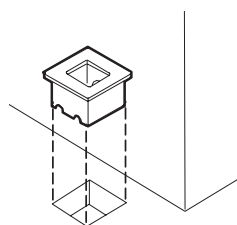
## Install bottom strike, latch, and rod.

**248L-4 strike**



Use 248L-4 strike for panic device application only. Use 304L for fire doors

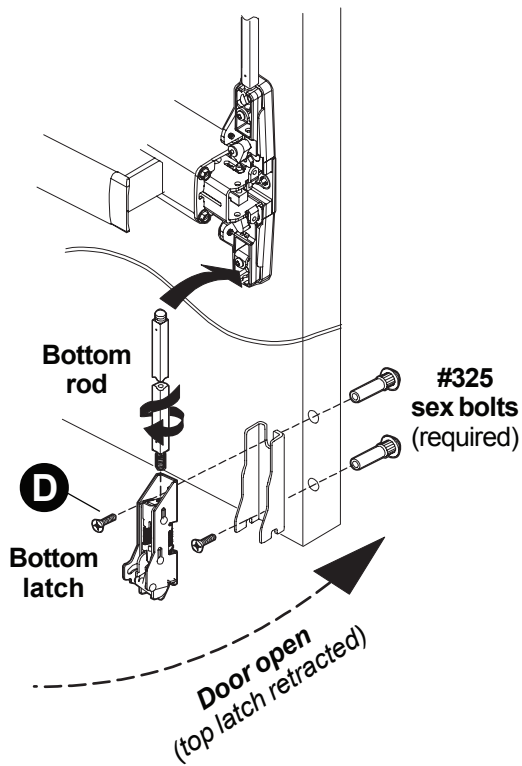
**304L strike**



Grout strike into floor

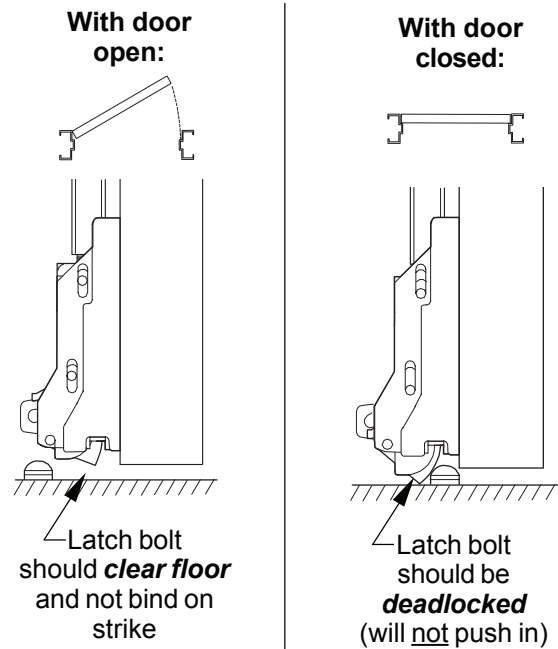
# 11

## Install bottom rod.



# 12

## Adjust bottom rod with door open (top latch retracted).

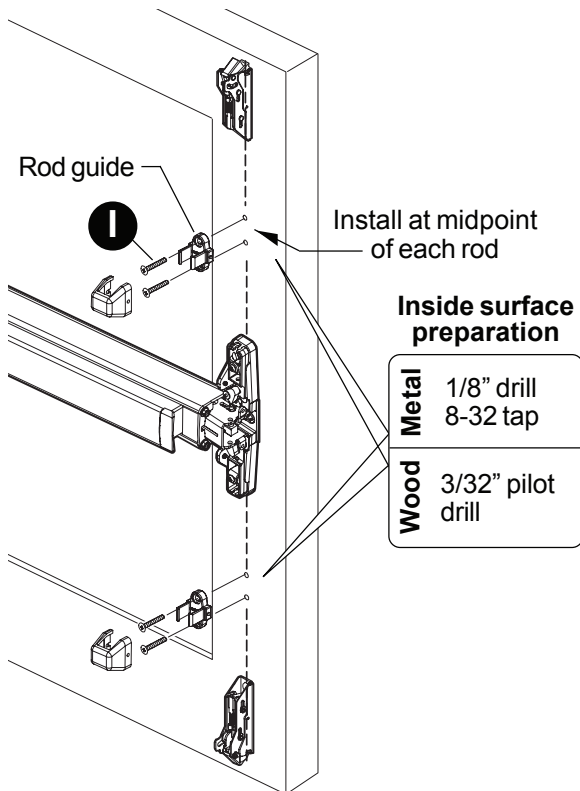


Open and close door a few times and check for deadlocking when door is closed

Readjust rods if needed

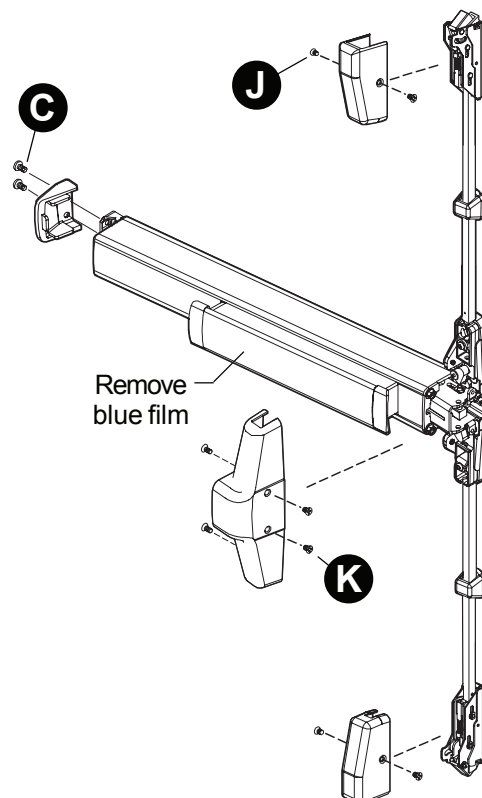
# 13

## Install rod guides.



# 14

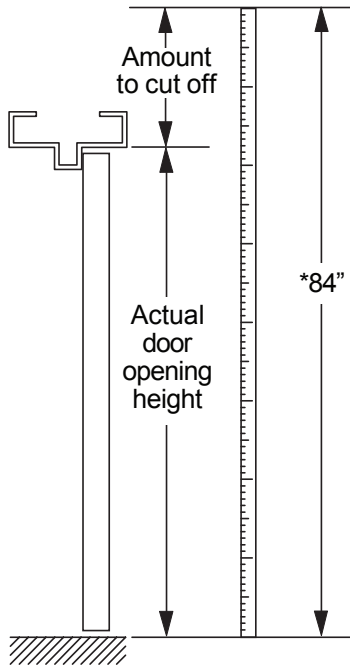
## Install covers and end cap.



# CUT TOP ROD

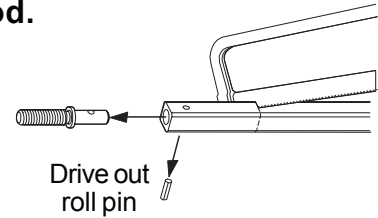
## 1. Measure amount to cut off rod as shown below.

Note: Rod cutting is required for doors shorter than 7'.



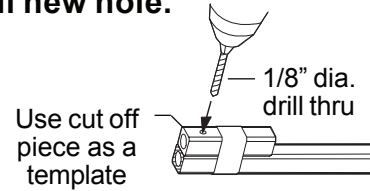
\*Rods are factory sized for 7' (84") door. Measure actual door height and subtract that number from 84" to get amount to cut off top rod.

## 2. Cut rod.



Drive out roll pin

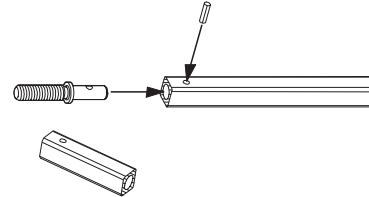
## 3. Drill new hole.



Use cut off piece as a template

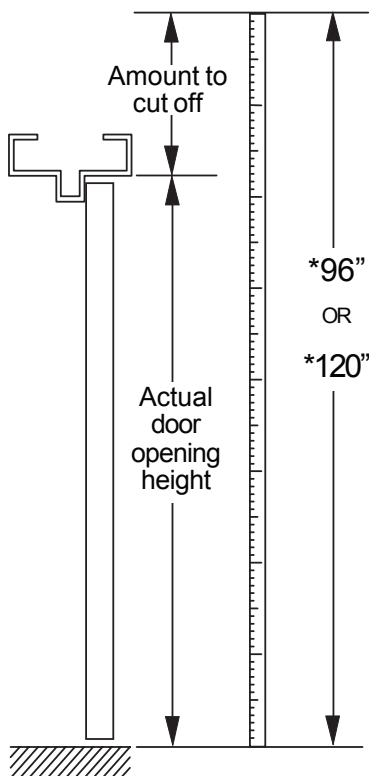
1/8" dia. drill thru

## 4. Reinstall rod end and roll pin.



# INSTALL ROD EXTENSION

## 1. Measure door opening to determine amount to cut off rod extension.

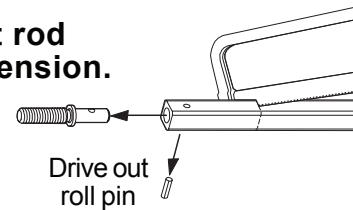


### \*Standard door heights:

With no extension	7' (84")
With 1' extension	8' (96")
With 3' extension	10' (120")

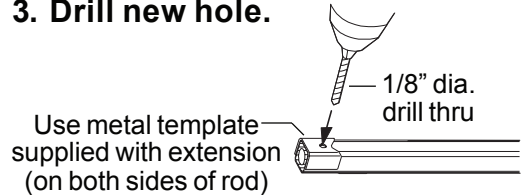
\*Rods are factory sized for door heights shown above. Measure actual door height and subtract that number from 96" (for 1' extension) or 120" (for 3' extension) to get amount to cut off extension.

## 2. Cut rod extension.



Drive out roll pin

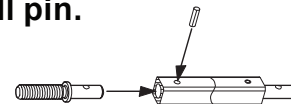
## 3. Drill new hole.



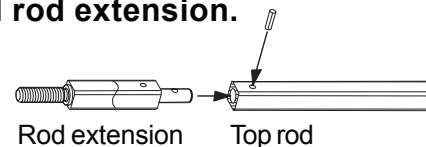
Use metal template supplied with extension (on both sides of rod)

1/8" dia. drill thru

## 4. Reinstall rod end and roll pin.



## 5. Connect top rod and rod extension.

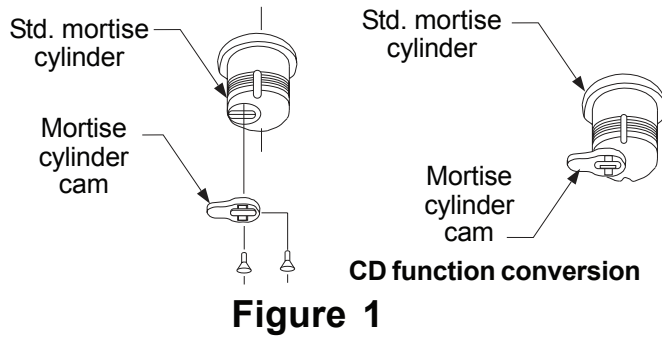


Rod extension Top rod

# OPTIONAL EQUIPMENT

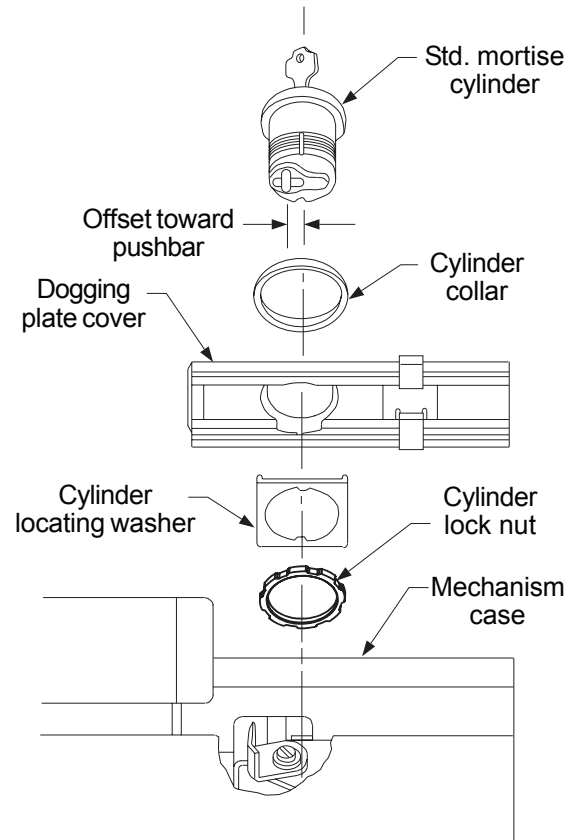
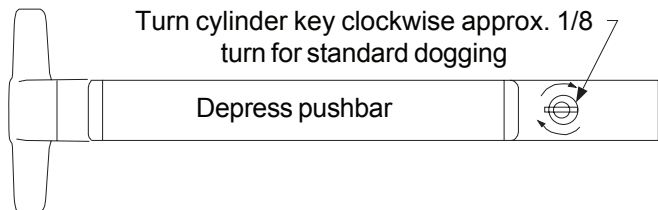
## CD (CYLINDER DOGGING)

1. Remove mortise cylinder cam and reinstall in reverse (Figure 1).
2. Insert key and rotate cam to install the cylinder to the cover plate (Figure 2).
3. Remove key to slide cover plate in position in the mechanism case.



**Figure 1**

### Dogging procedure



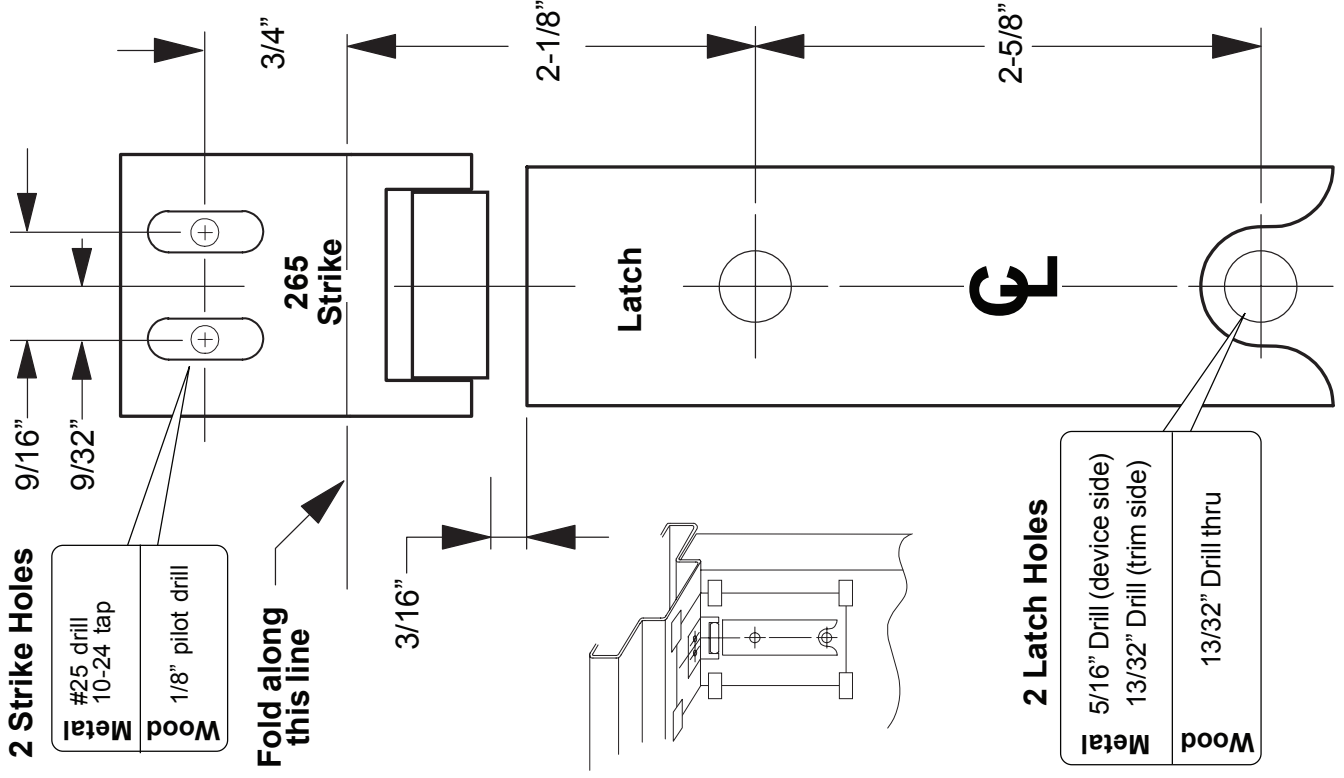
**Figure 2**



# TOP TEMPLATE

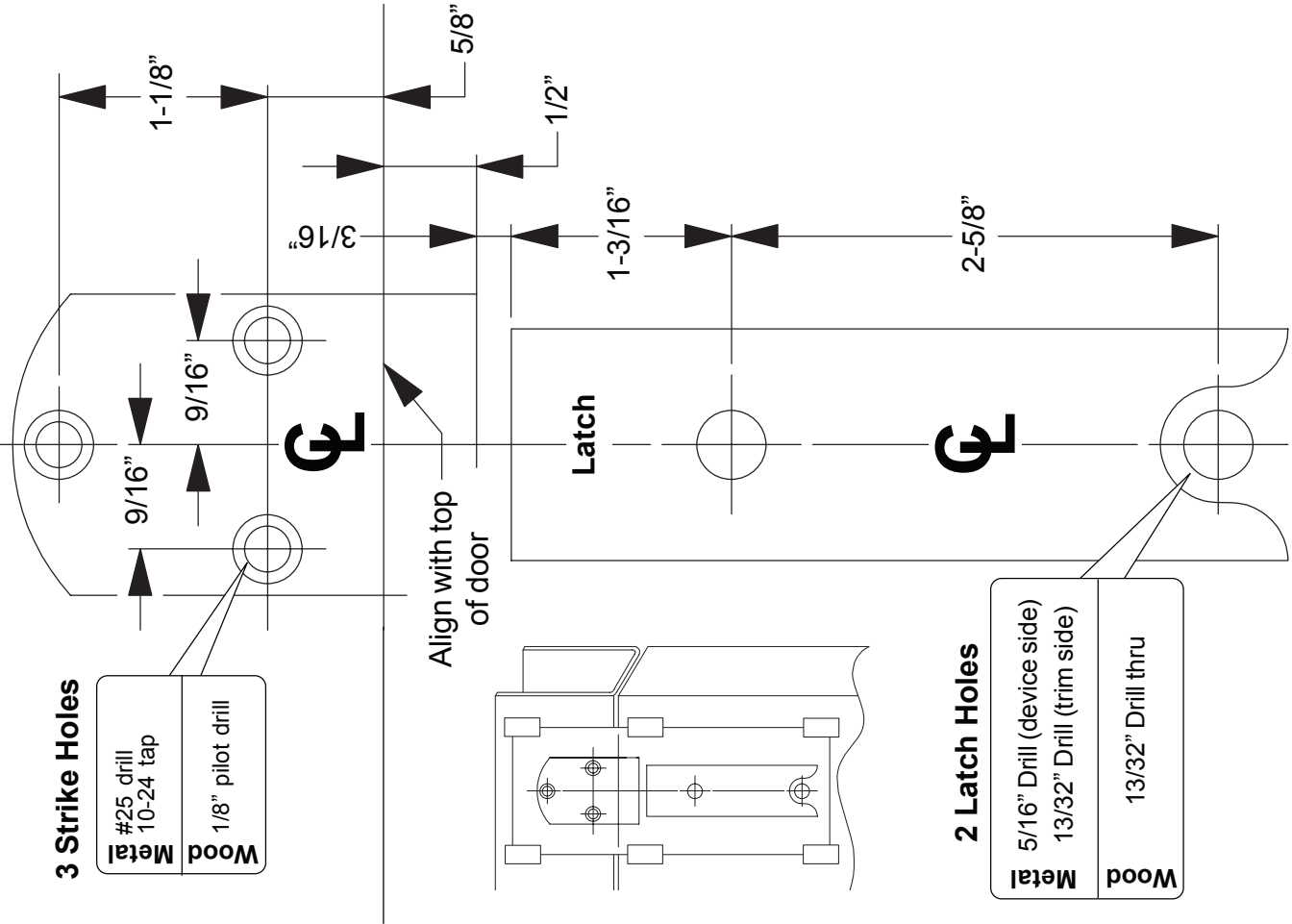
## TOP LATCH & 265 STRIKE

For panic device application only



## TOP LATCH AND 260U STRIKE

For panic device application only



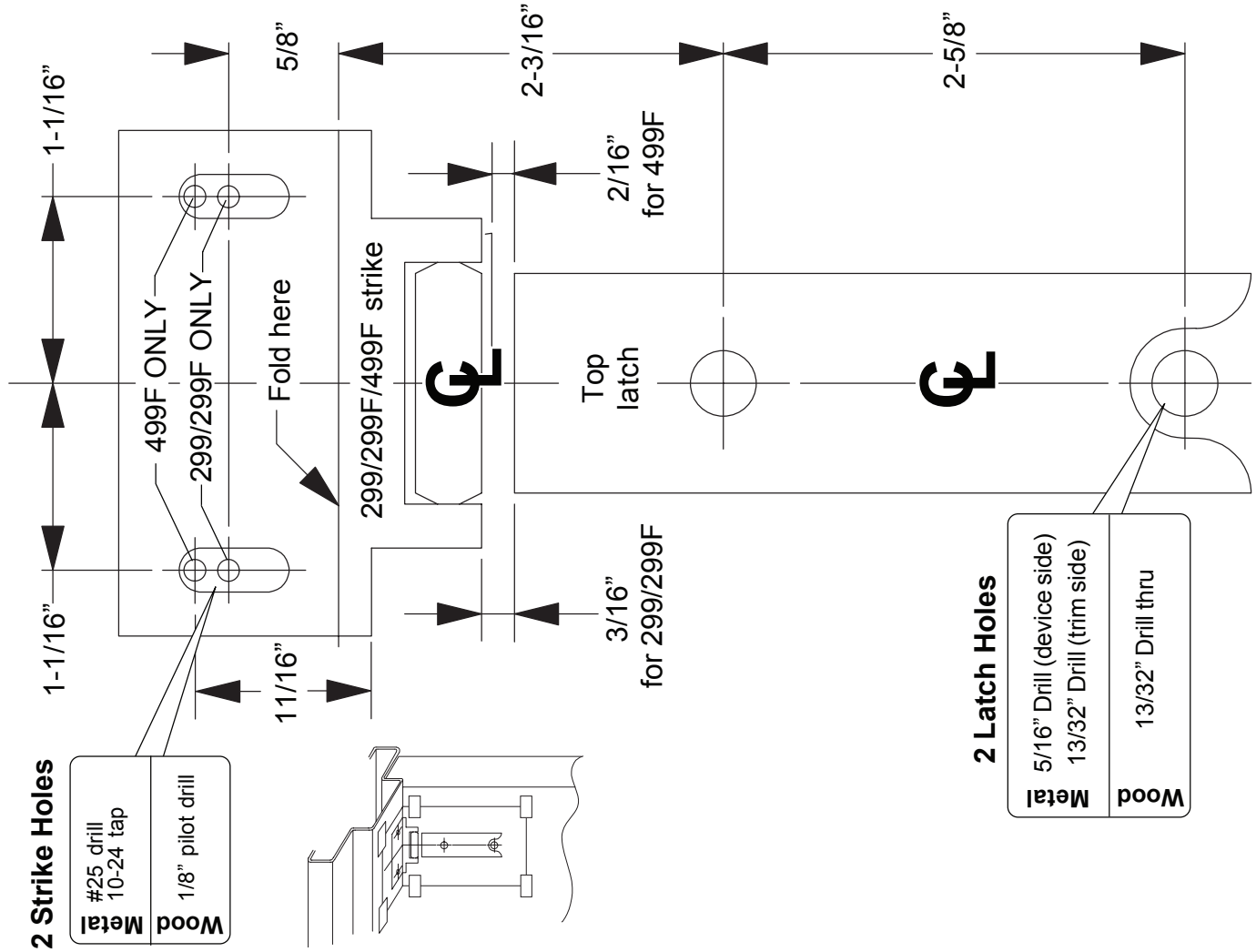
# TOP TEMPLATE - CONTINUED

**Note:** For 299/299F top strike use minimum backsets shown below.

Double doors: 1-3/8" min. backset, 2-3/16" min. stile

Single door: 1-7/8" min. backset, 2-11/16" min. stile

## TOP LATCH & 299/299F/499F STRIKE



### 2 Strike Holes

Wood	1/8" pilot drill
Metal	#25 drill 10-24 tap

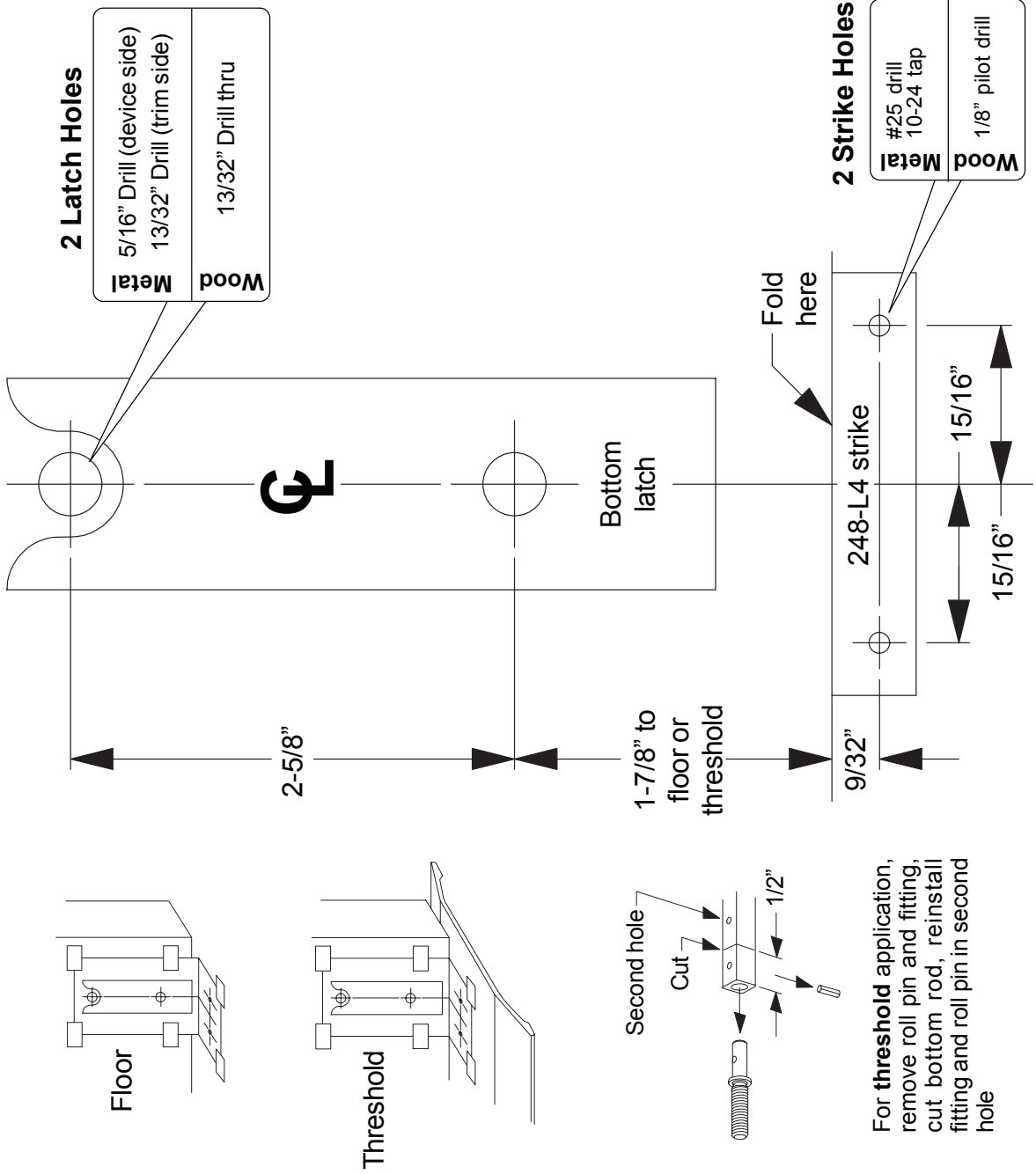
### 2 Latch Holes

Wood	13/32" Drill thru
Metal	5/16" Drill (device side) 13/32" Drill (trim side)

# BOTTOM TEMPLATE

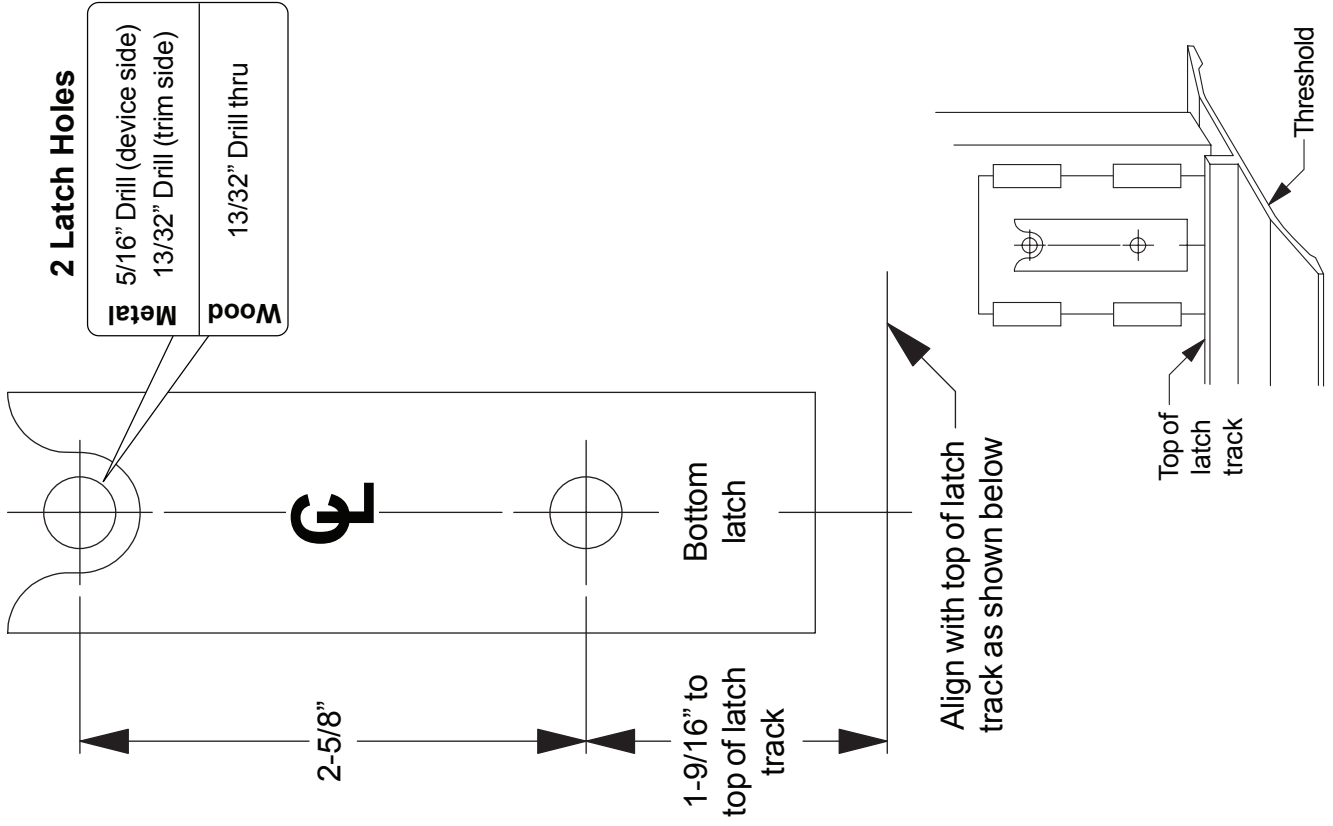
## BOTTOM LATCH AND 248-L4 STRIKE

For panic device application only

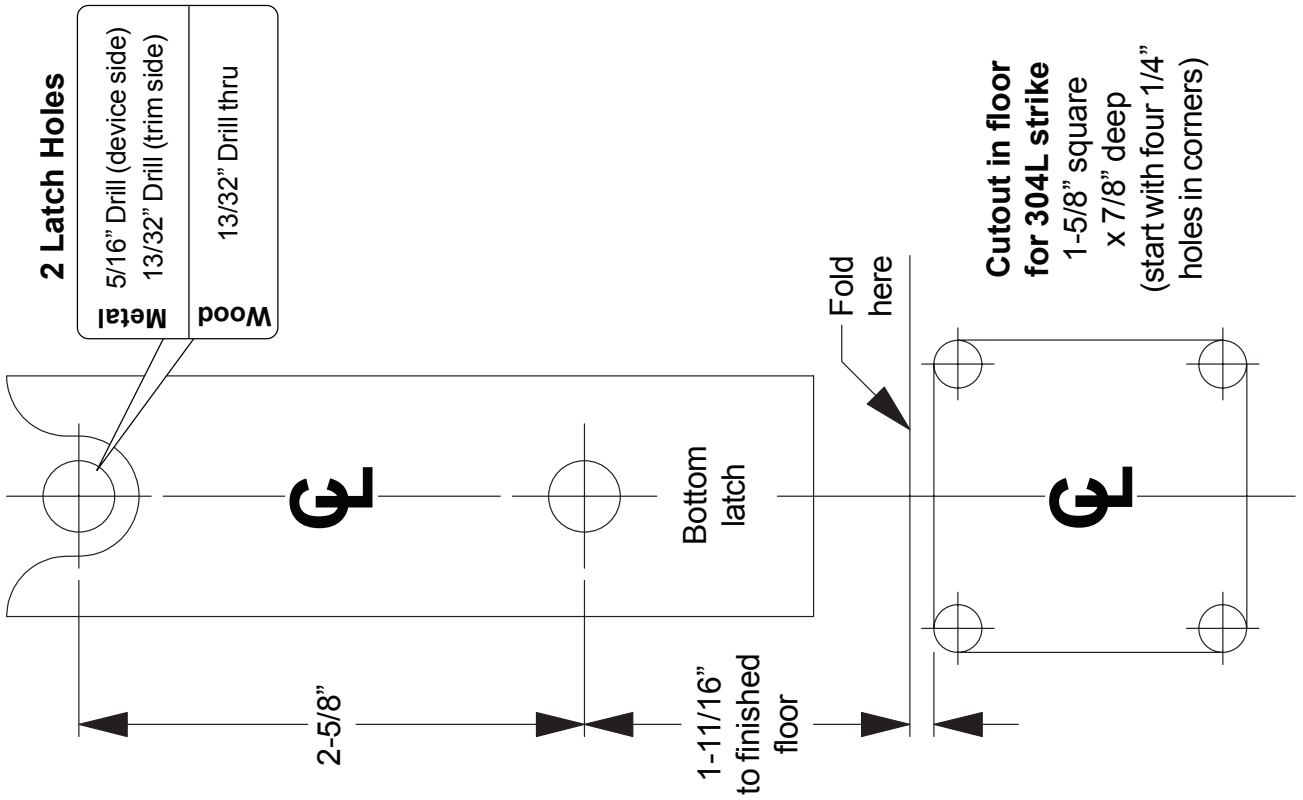


# BOTTOM TEMPLATE - CONTINUED

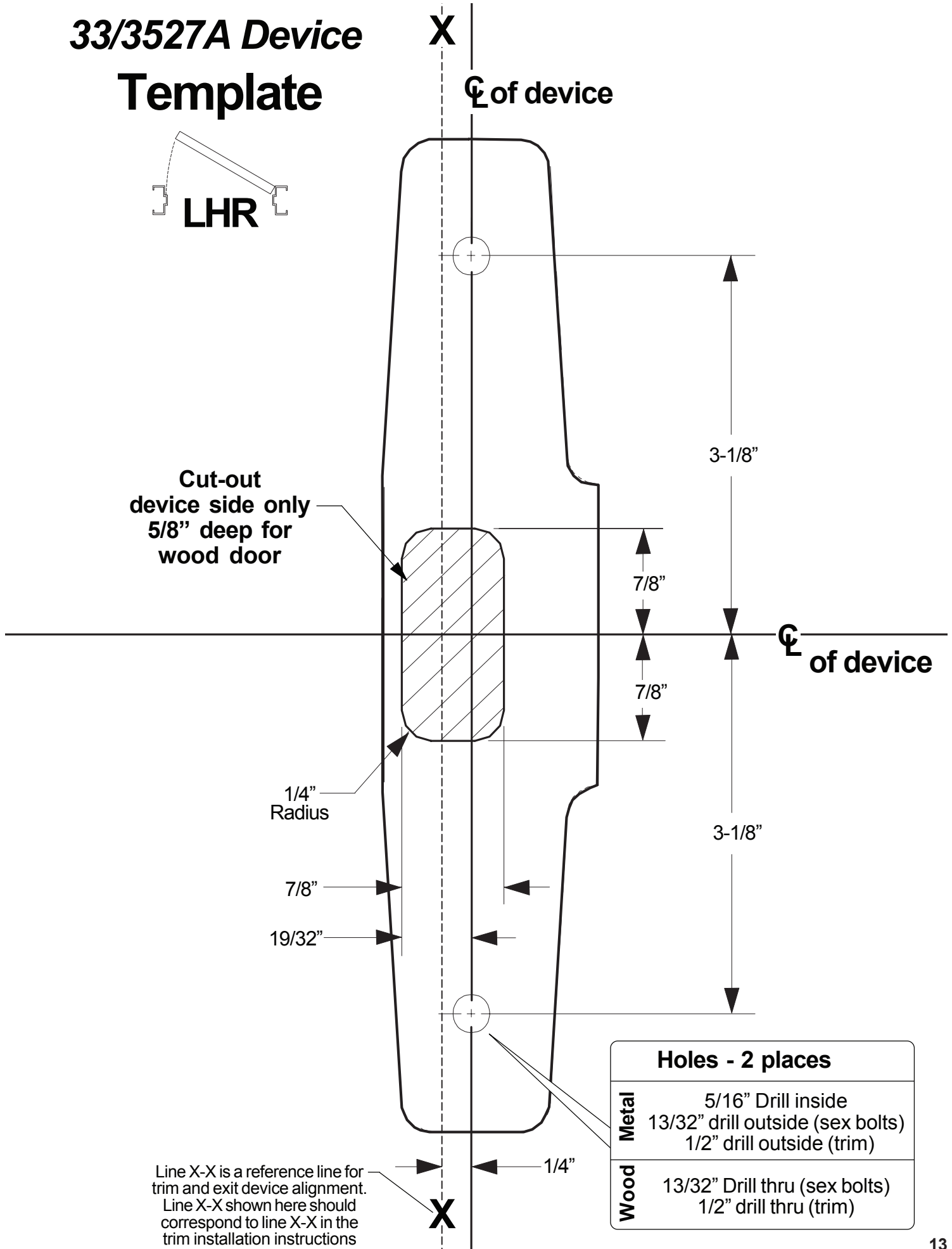
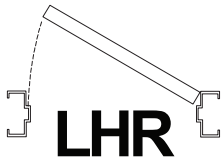
## BOTTOM LATCH AND LATCH TRACK



## BOTTOM LATCH AND 304L STRIKE



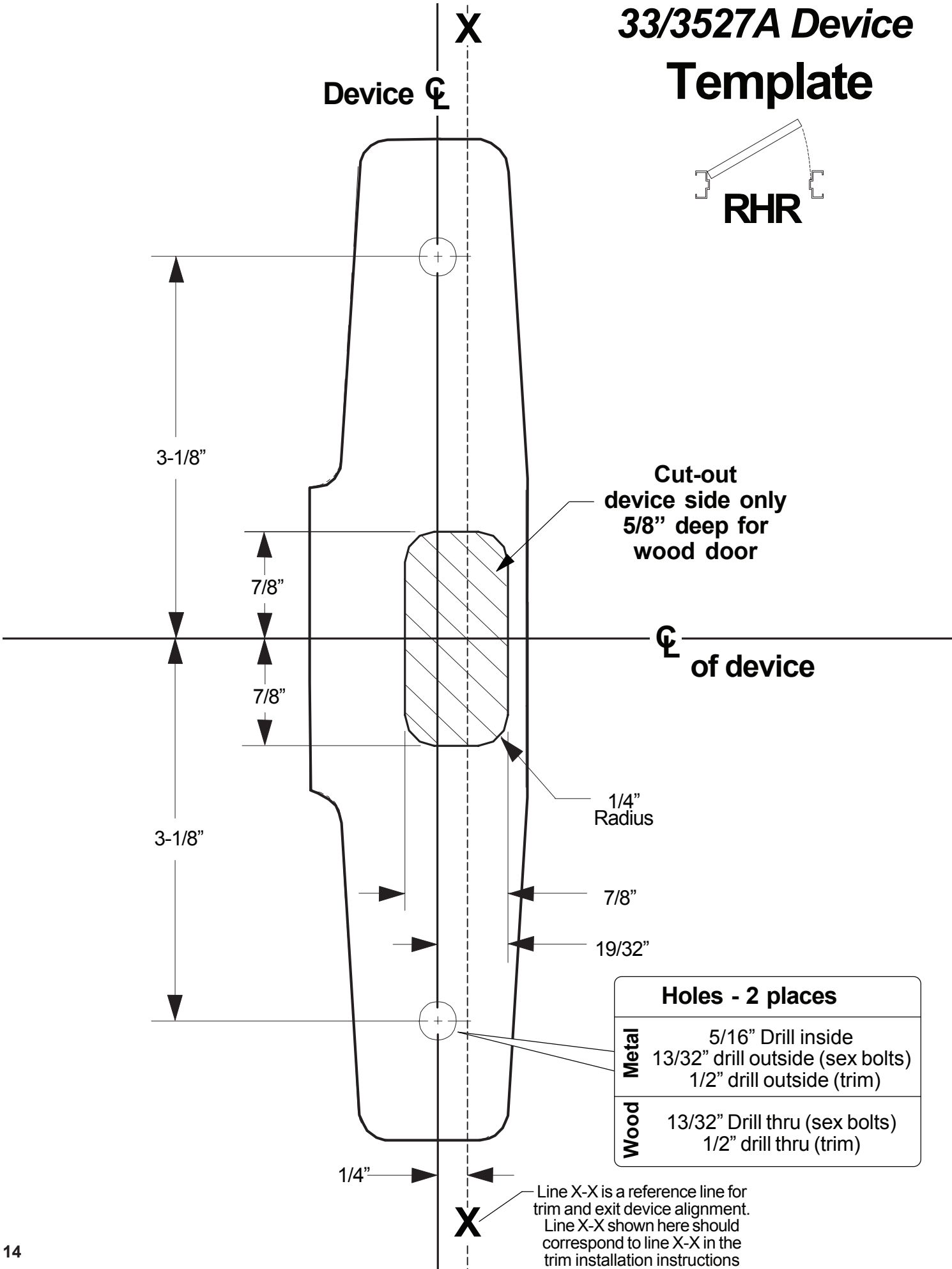
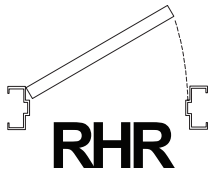
# 33/3527A Device Template



Line X-X is a reference line for trim and exit device alignment. Line X-X shown here should correspond to line X-X in the trim installation instructions

Holes - 2 places	
<b>Metal</b>	5/16" Drill inside 13/32" drill outside (sex bolts) 1/2" drill outside (trim)
<b>Wood</b>	13/32" Drill thru (sex bolts) 1/2" drill thru (trim)

# 33/3527A Device Template



Holes - 2 places	
<b>Metal</b>	5/16" Drill inside 13/32" drill outside (sex bolts) 1/2" drill outside (trim)
<b>Wood</b>	13/32" Drill thru (sex bolts) 1/2" drill thru (trim)

Line X-X is a reference line for trim and exit device alignment. Line X-X shown here should correspond to line X-X in the trim installation instructions



**Customer Service**

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