



47986707

# 7847

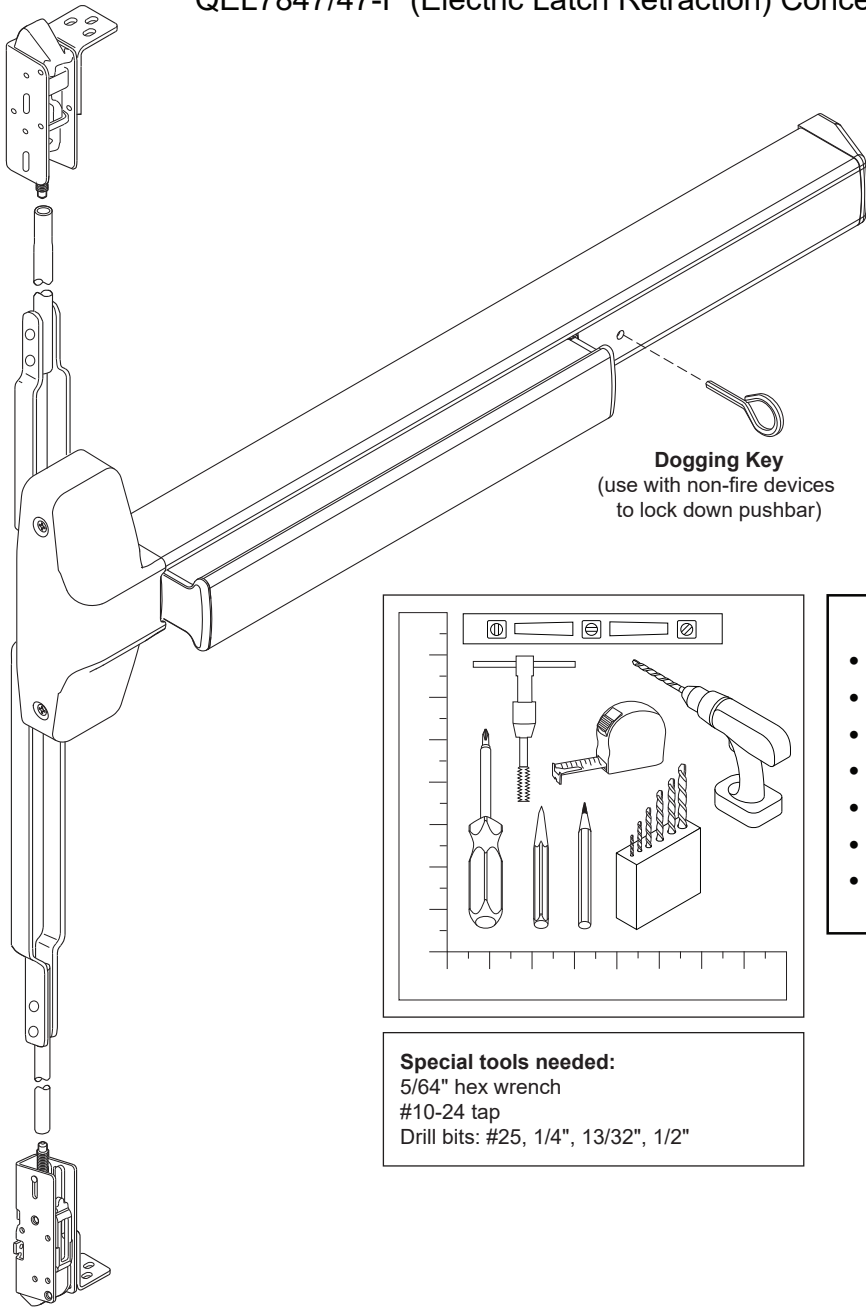
# VON DUPRIN®

Concealed Vertical Rod Exit Device  
Metal Door Applications

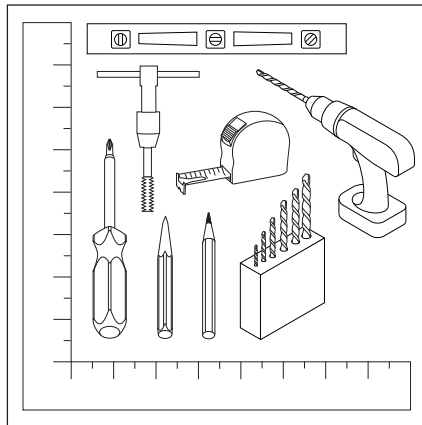
Installation Instructions

### Devices covered by these instructions:

- 7847 Concealed Vertical Rod Exit Device
- 7847-F (Fire) Concealed Vertical Rod Exit Device
- CD7847 (Cylinder Dogging) Concealed Vertical Rod Exit Device
- QEL7847/47-F (Electric Latch Retraction) Concealed Vertical Rod Exit Device



**Dogging Key**  
(use with non-fire devices  
to lock down pushbar)



**Special tools needed:**  
5/64" hex wrench  
#10-24 tap  
Drill bits: #25, 1/4", 13/32", 1/2"

### Index:

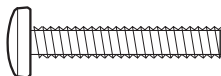
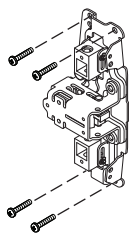
- Screw chart ..... 2
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**Customer Service**  
1-877-671-7011    [www.allegion.com/us](http://www.allegion.com/us)

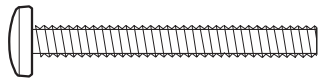
# SCREW CHART

**A**



#10-24 x 1"

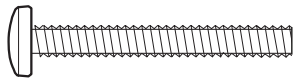
Surface mount or  
Sex bolts (1-3/4" door)



#10-24 x 1-1/2"

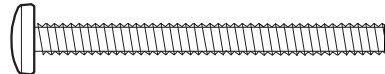
Sex bolts (2-1/4" door)

- Packaged with trim -



#10-24 x 1-3/8"

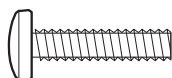
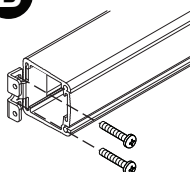
785 trims (1-3/4" door)



#10-24 x 1-7/8"

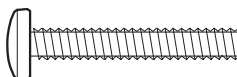
785 trims (2-1/4" door)

**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)

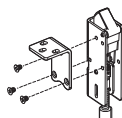
**C**



#10-16 X 3/8" Thread cutting

Endcap

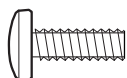
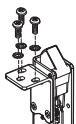
**D**



#10-32 X 1/4"

Bracket to latch

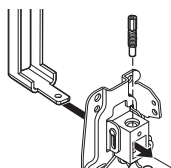
**E**



#10-24 X 1/2"

Bracket to door

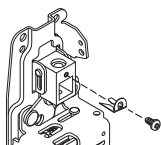
**F**



Rod adjusting screw

Retaining clip

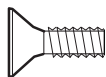
**G**



#8-32 X 5/16"

Retaining clip

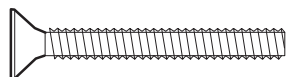
**H**



#10-24 X 1/2"

338 strike

**I**



#10-24 X 1-1/2"

Ratchet release

**J**

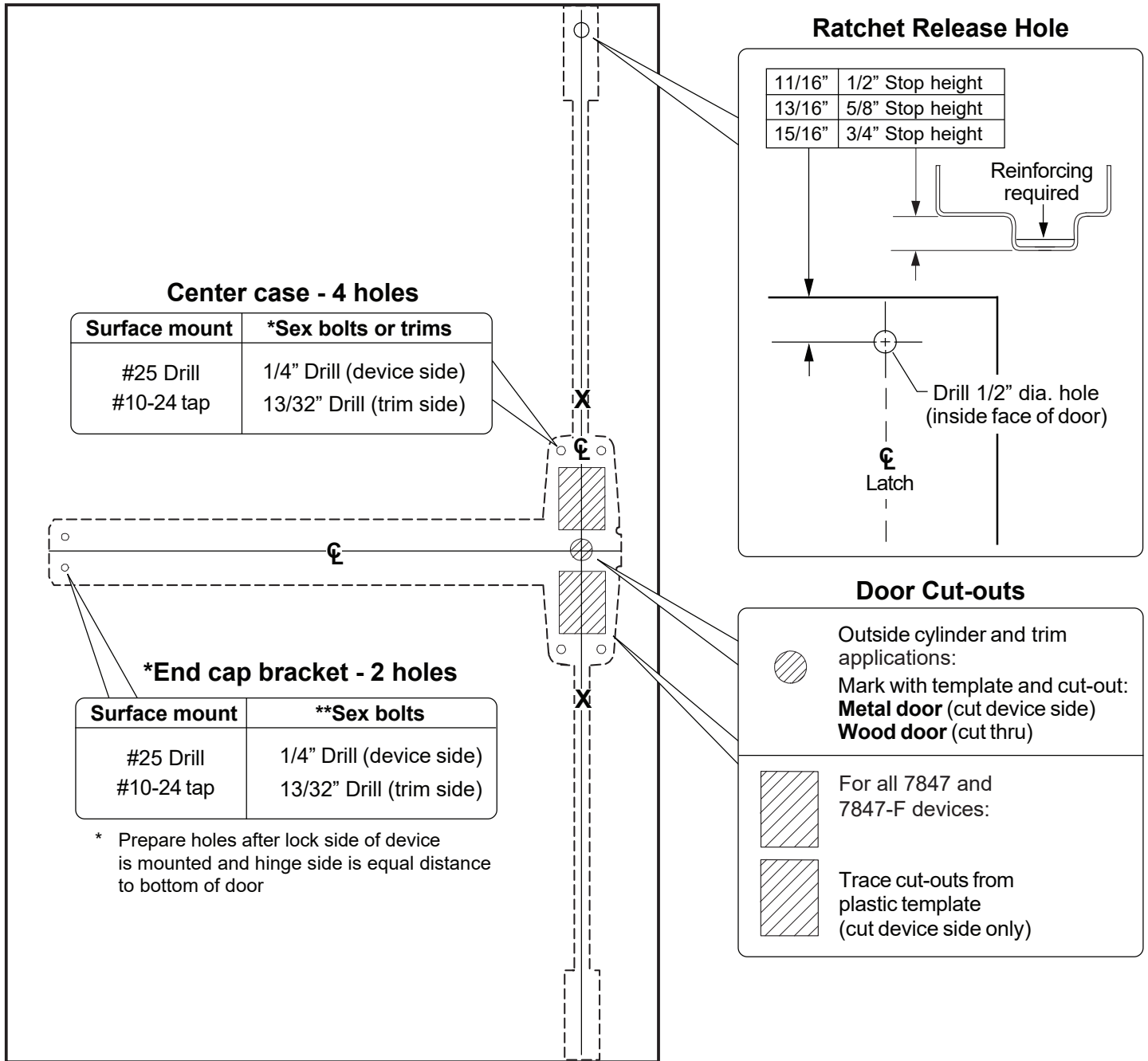


#8-18 x 3/8" Thread cutting

Center case cover

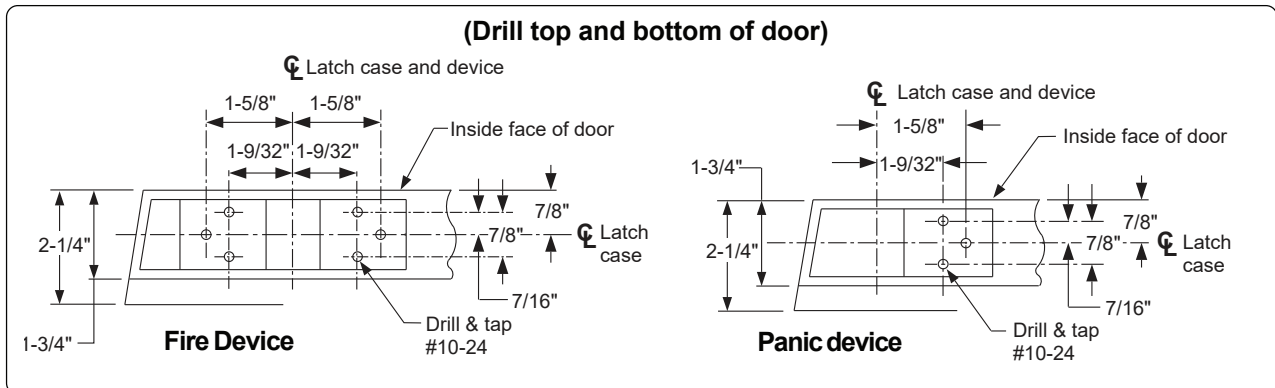
# DOOR PREPARATION CHART

Go to instructions on next page before using preparation chart

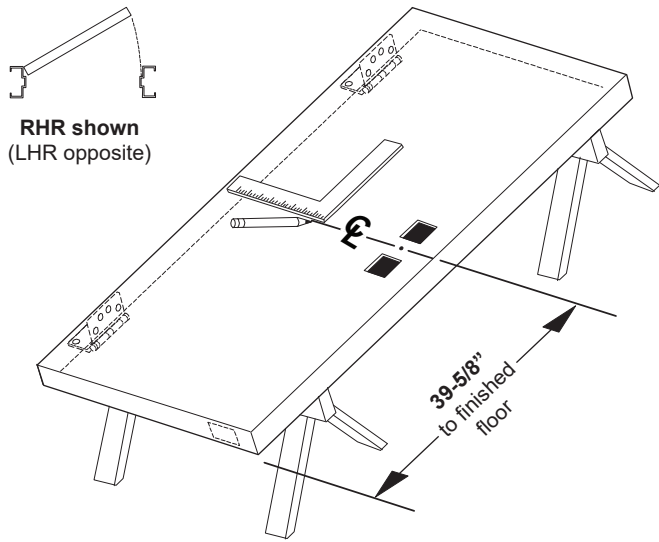


## Latch Cases

(Drill top and bottom of door)

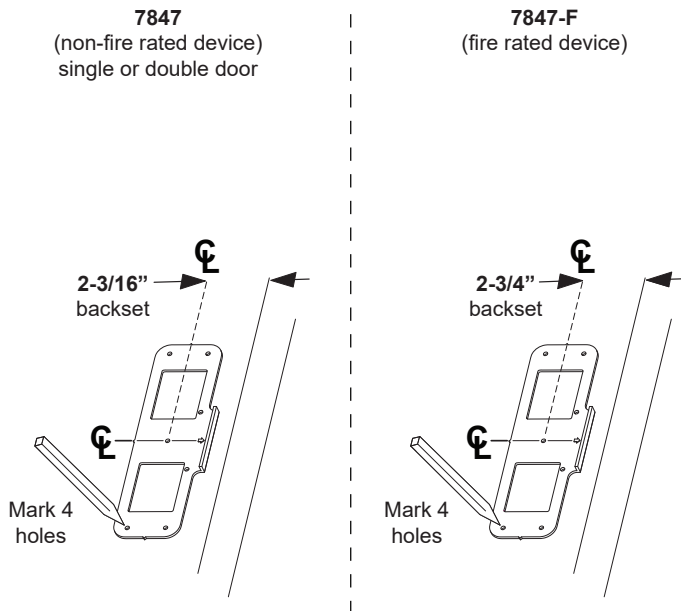


# 1 Draw Horizontal Device Center Line (☉)

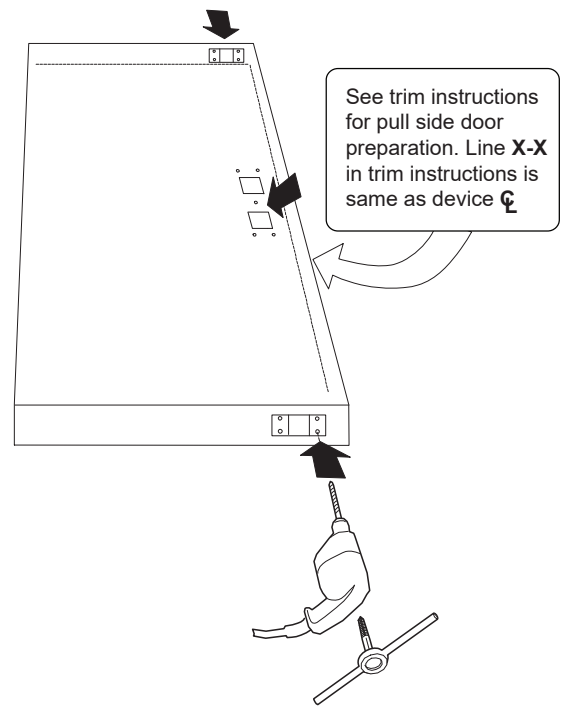


# 2 Determine Correct Backset, then Mark 4 Holes for Device Center Case Using Template

Mark centerline using measuring tape. Place template on centerline mark.

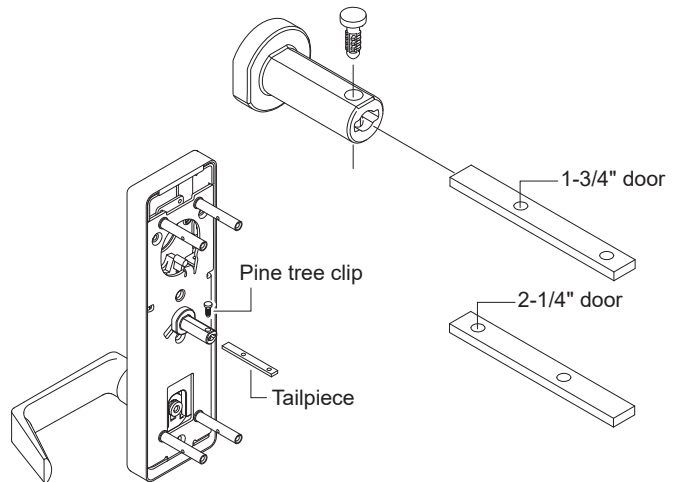


# 3 Prepare Door per Preparation Chart on Page 3



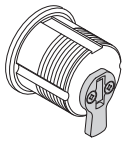
# 4 Adjust Tailpiece if Needed

Make sure tailpiece is installed at correct length for 1-3/4" thick or 2-1/4" thick door. If necessary, remove pine tree clip, rotate tailpiece, and reinstall pine tree clip.



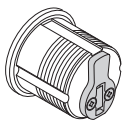
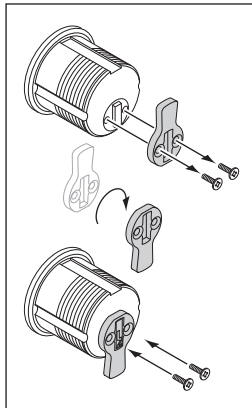
## 5 If Using a Cylinder, Remove Cam and Rotate 180°

Cam must be in position shown **with key removed**. If necessary, remove cam screws, place cam in correct position, and reinstall cam screws.



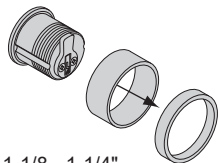
Standard Orientation with key removed.

Rotate cam if necessary as shown here.

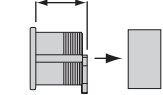


For NL and E-trims, use this orientation.

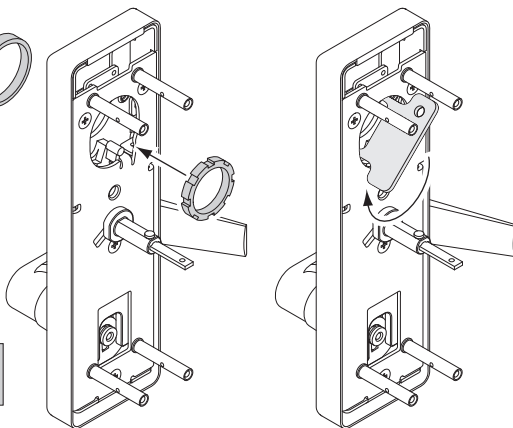
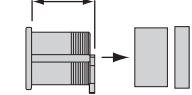
## 6 If Necessary, Install Cylinder.



1-1/8 - 1-1/4"  
(29-32 mm)

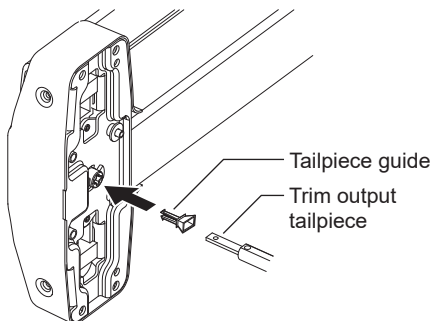


1-3/8 - 1-1/2"  
(35-38 mm)



## 7 If Using a Cylinder with a Tailpiece, Prepare Device and Cylinder

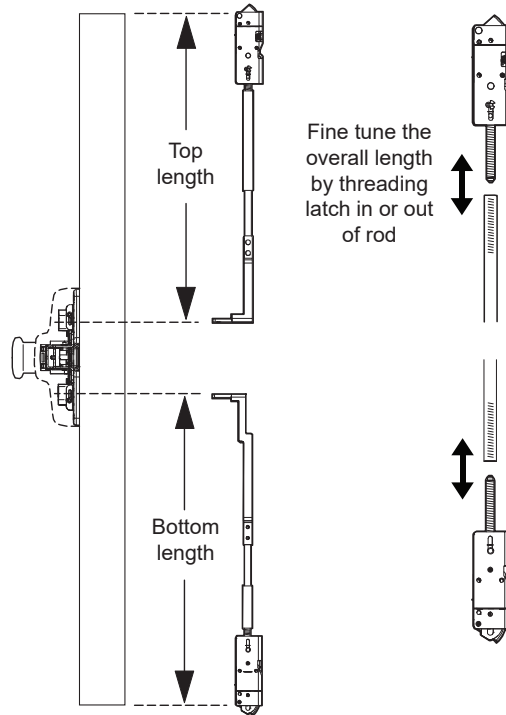
a. Install tailpiece guide.



Tailpiece guide  
Trim output tailpiece

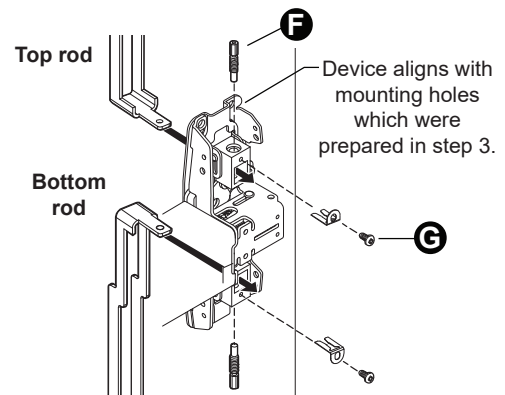
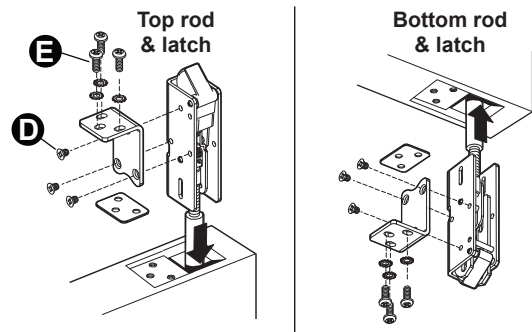
## 8 Assemble Rods and Latches and Adjust Length for Proper Door Height

Follow red and blue instruction cards on rods to set initial rod length

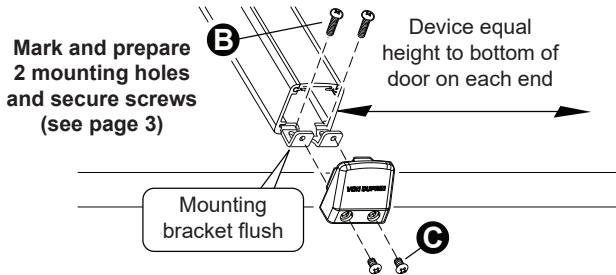
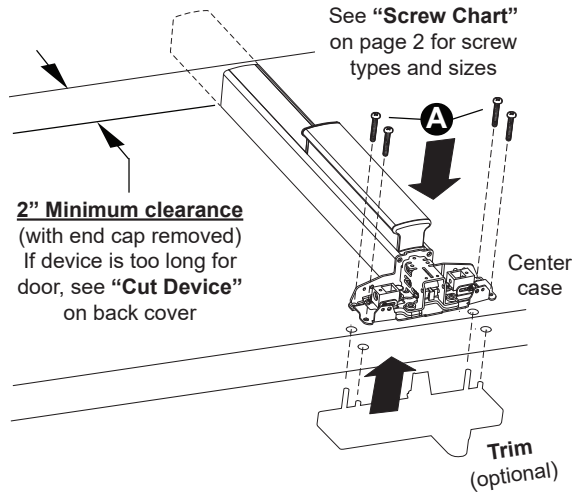


## 9 Install Rods and Latches as Shown

Note: Fire devices use brackets on both sides of latches

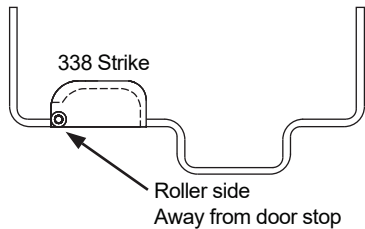
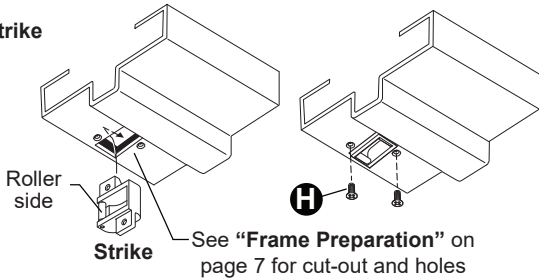


**10** Secure Device to Door as Shown, then Hang Door on Frame

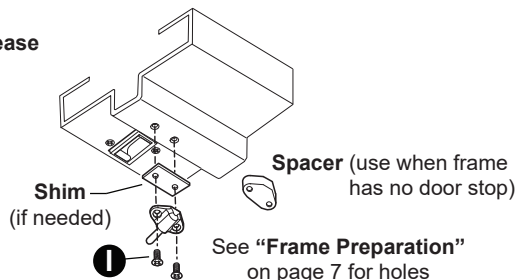


**11** Install Top Strike and Ratchet Release

**338 Top strike**



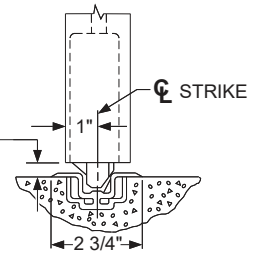
**Ratchet release**



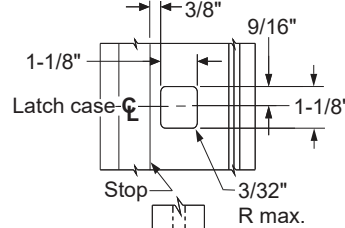
**12** Install Bottom Strike or Prepare Threshold

**385-A bottom strike**

1/4" undercut for 7847

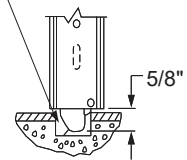


**Threshold application**

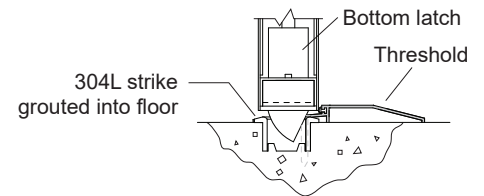
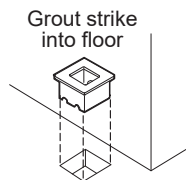


**Flat threshold application**

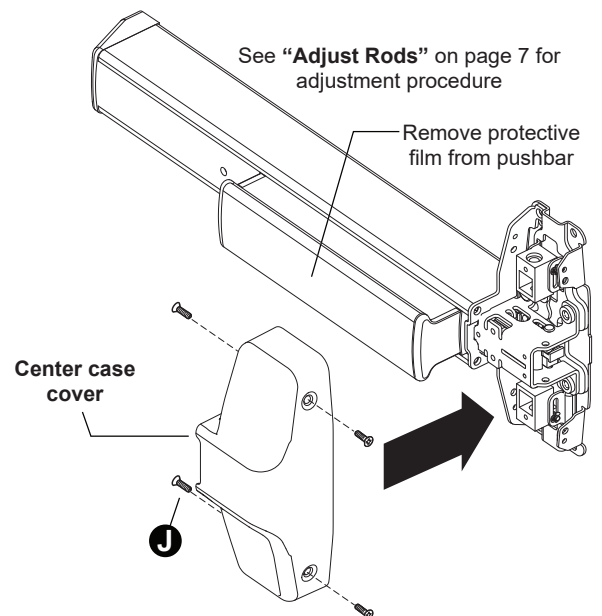
Remove material as necessary to accommodate 5/8" latch bolt throw



**304L strike**

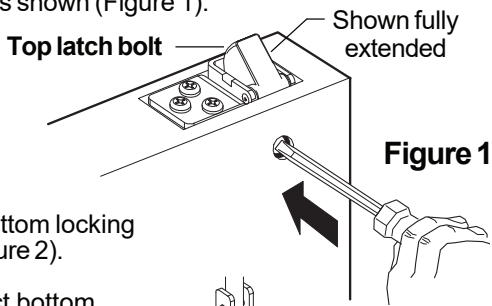


**13** Adjust Rods and Install Center Case Cover

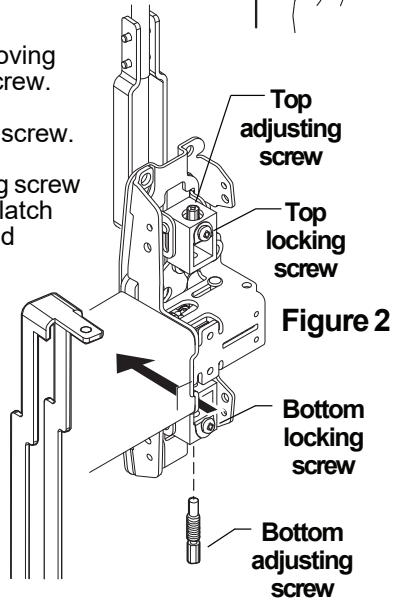


# ADJUST RODS

1. Open door and release top latch bolt as shown (Figure 1).

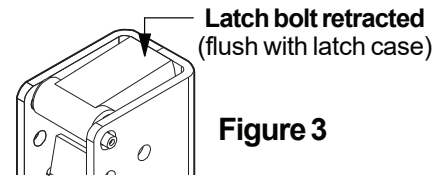


2. Loosen bottom locking screw (Figure 2).
3. Disconnect bottom vertical rod by removing bottom adjusting screw.
4. Loosen top locking screw.
5. Rotate top adjusting screw clockwise until top latch bolt is fully extended (Figure 1).

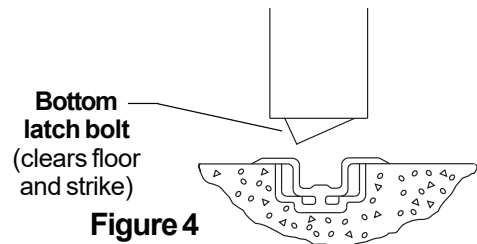


6. Check top latch bolt for deadlocking (latch bolt should not push in).
7. Turn top locking screw in. Do not over-tighten.

8. Depress pushbar and release.
9. Make sure top latch bolt stays retracted as shown.



10. Install bottom adjusting screw through bottom rod (Figure 2).
11. With top latch bolt still retracted, adjust bottom rod so latch bolt clears floor and bottom strike.



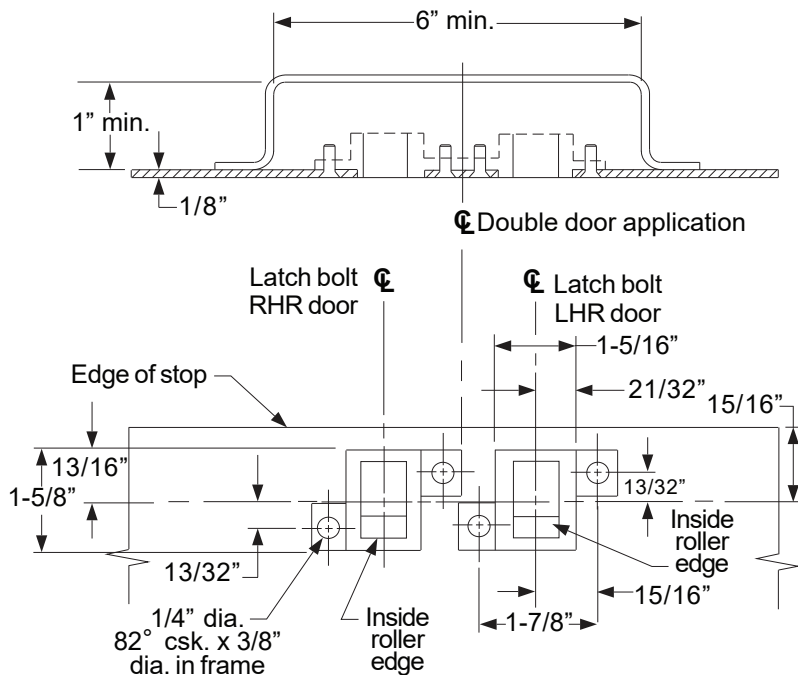
12. Turn bottom locking screw in. Do not over-tighten.
13. Check device operation by opening and closing door several times from the outside.

## Redo adjustment procedure if :

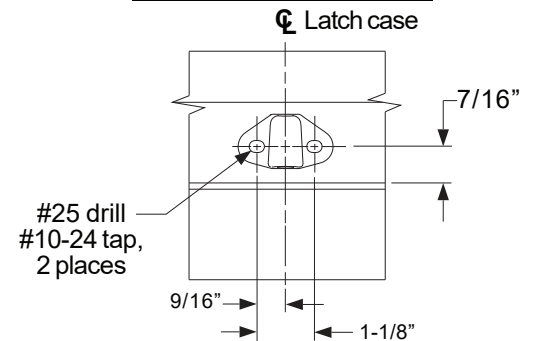
- Top latchbolt is not held retracted
- Bottom latchbolt does not clear floor and bottom strike

# FRAME PREPARATION

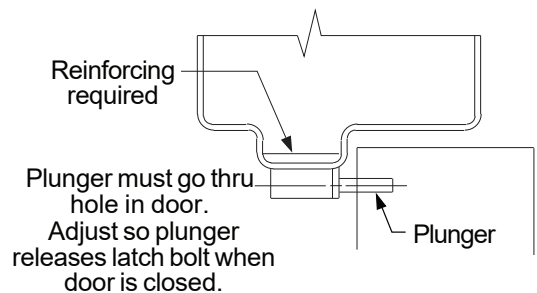
## TOP STRIKE



## RATCHET RELEASE



DO NOT USE SLOTS FOR POSITIONING. DRILL HOLES AS INDICATED HERE.



# OPTIONAL EQUIPMENT - CONTINUED

## CD (CYLINDER DOGGING)

1. Remove mortise cylinder cam and reinstall in reverse (Figure 6).
2. Insert key and rotate cam to install the cylinder to the cover plate (Figure 7).
3. Remove key to slide cover plate in position in the mechanism case.

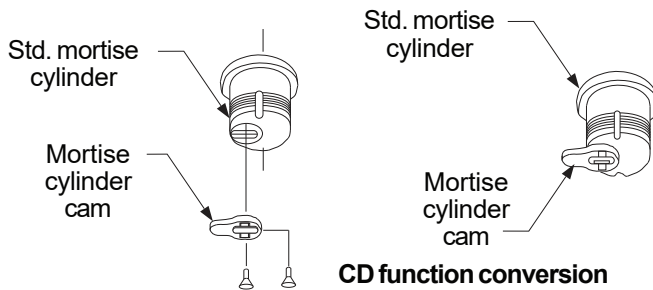


Figure 6

### Dogging procedure

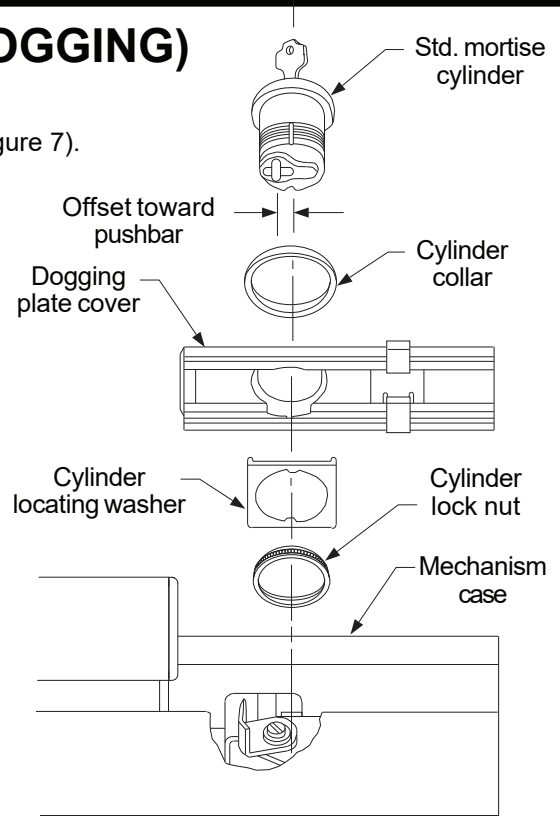
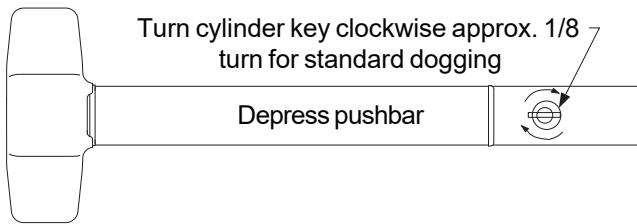
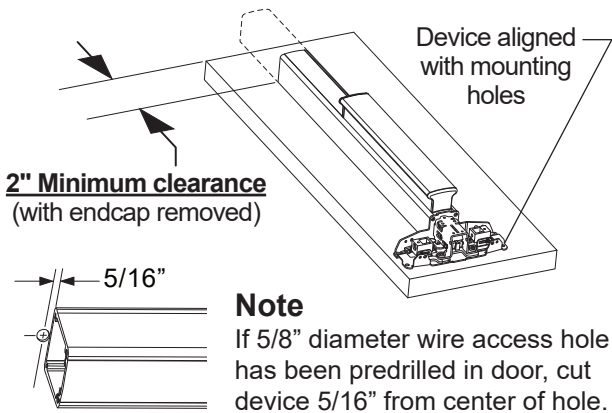


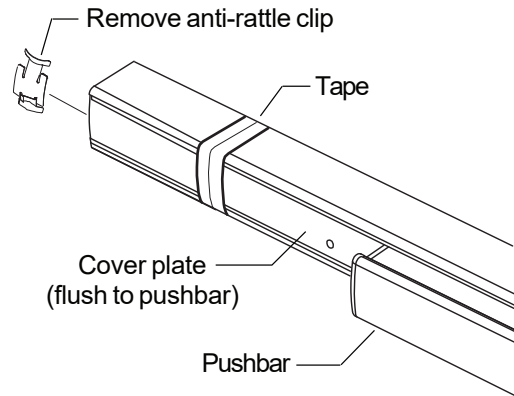
Figure 7

## CUT DEVICE

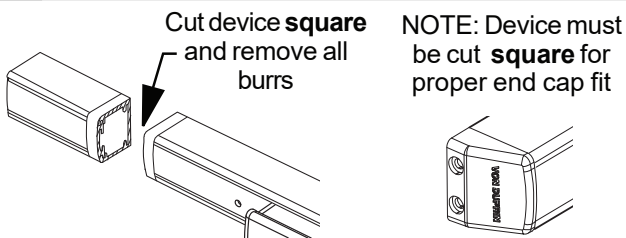
### 1 Measure amount to cut off device.



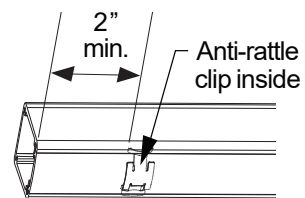
### 2 Tape and mark area being cut.



### 3 Cut device square.



### 4 Slide anti-rattle clip into device.





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