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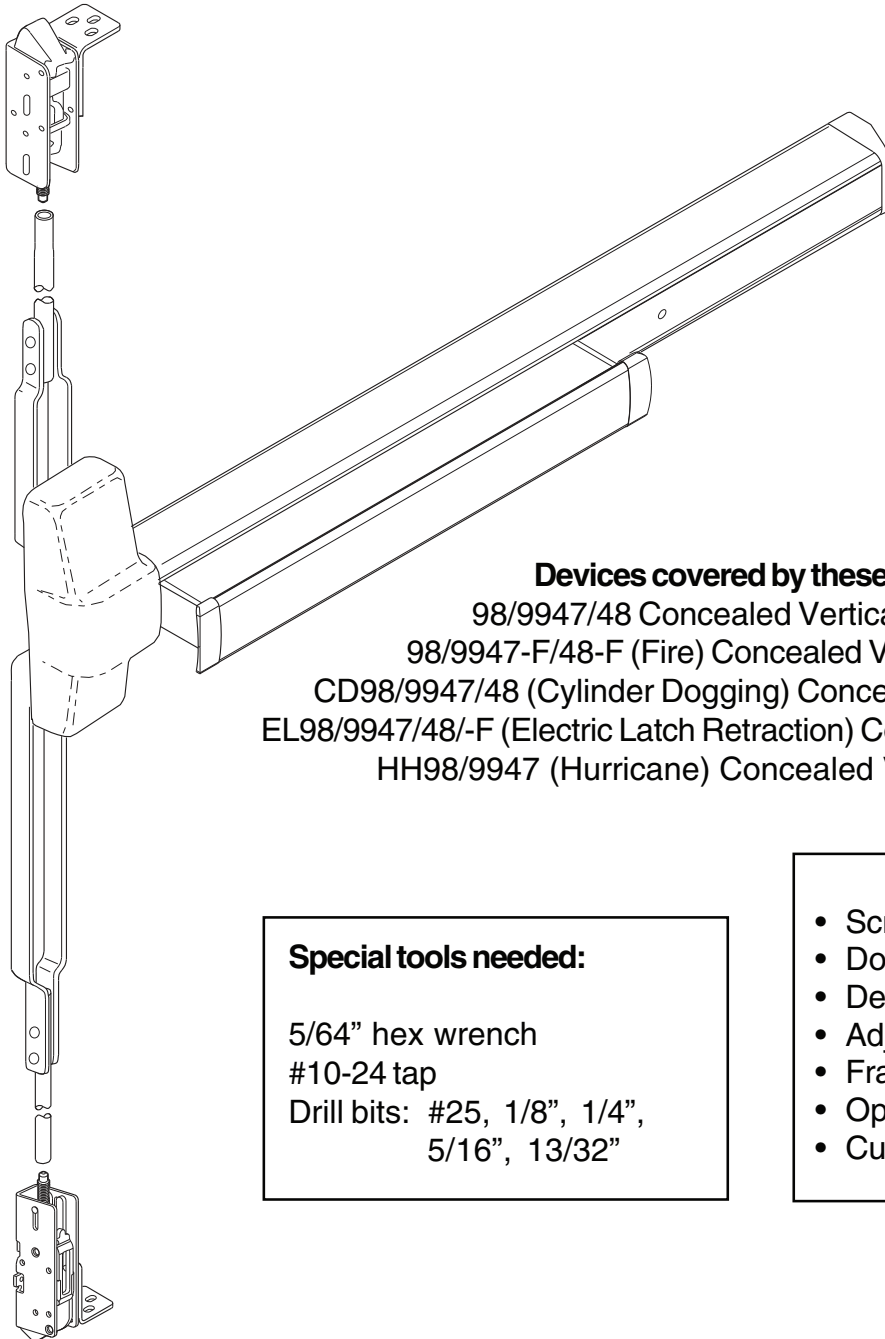
911376-00

Concealed Vertical Rod Exit Device
Metal Door Applications

98/9947

VON DUPRIN®

Installation Instructions



Devices covered by these instructions:

- 98/9947/48 Concealed Vertical Rod Exit Device
- 98/9947-F/48-F (Fire) Concealed Vertical Rod Exit Device
- CD98/9947/48 (Cylinder Dogging) Concealed Vertical Rod Exit Device
- EL98/9947/48/-F (Electric Latch Retraction) Concealed Vertical Rod Exit Device
- HH98/9947 (Hurricane) Concealed Vertical Rod Exit Device

Special tools needed:

5/64" hex wrench
 #10-24 tap
 Drill bits: #25, 1/8", 1/4",
 5/16", 13/32"

Index:

- Screw chart 2
- Door preparation chart 3
- Device installation 4-6
- Adjust rods 7
- Frame preparation chart 7
- Optional equipment 8
- Cut device 8

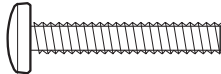
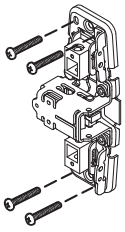


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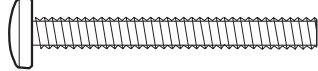
SCREW CHART

A



#10-24 x 1"

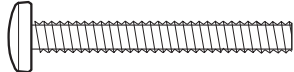
Surface mount or
Sex bolts (1-3/4" door)



#10-24 x 1-1/2"

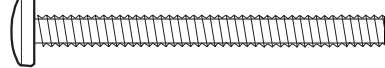
Sex bolts (2-1/4" door)

- Packaged with trim -



#10-24 x 1-3/8"

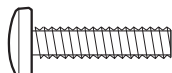
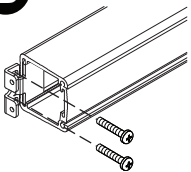
990 trims (1-3/4" door)



#10-24 x 1-7/8"

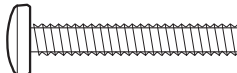
990 trims (2-1/4" door)

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)

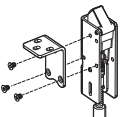
C



#10-16 X 3/8" Thread cutting

End cap

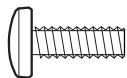
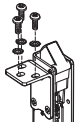
D



#10-32 X 1/4"

Bracket to latch

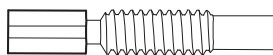
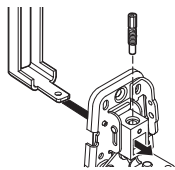
E



#10-24 X 1/2"

Bracket to door

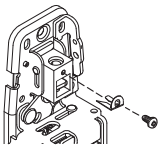
F



Rod adjusting screw

Retaining clip

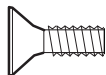
G



#8-32 X 5/16"

Retaining clip

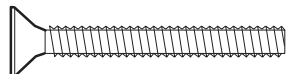
H



#10-24 X 1/2"

338 strike

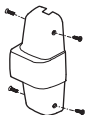
I



#10-24 X 1-1/2"

Ratchet release

J

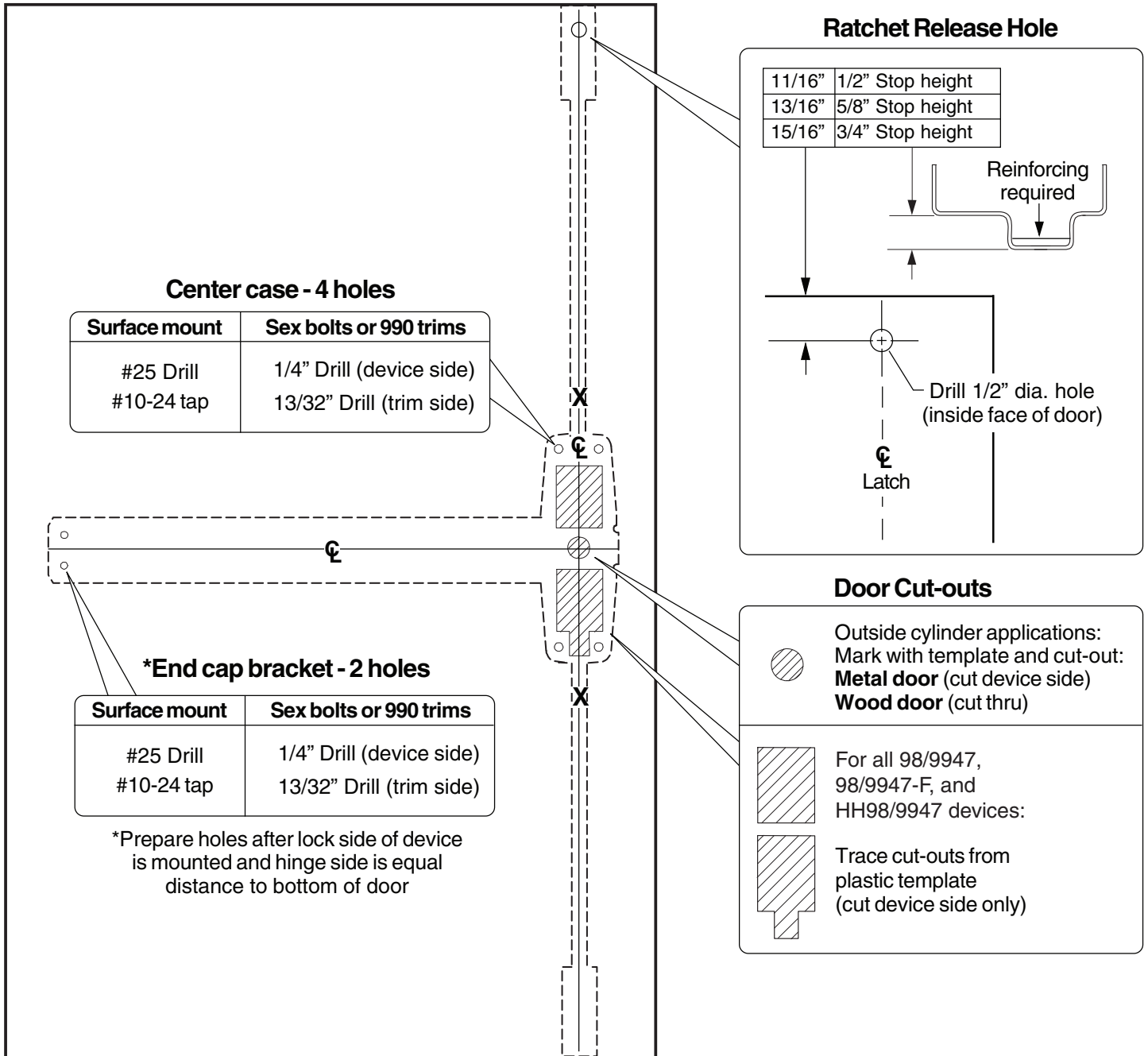


#8-18 x 3/8" Thread cutting

Center case cover

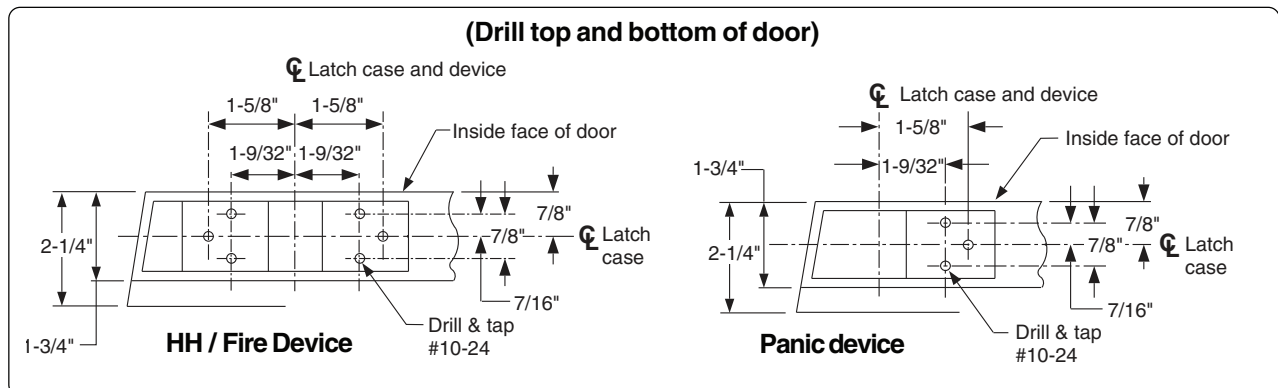
DOOR PREPARATION CHART

Go to instructions on next page before using preparation chart

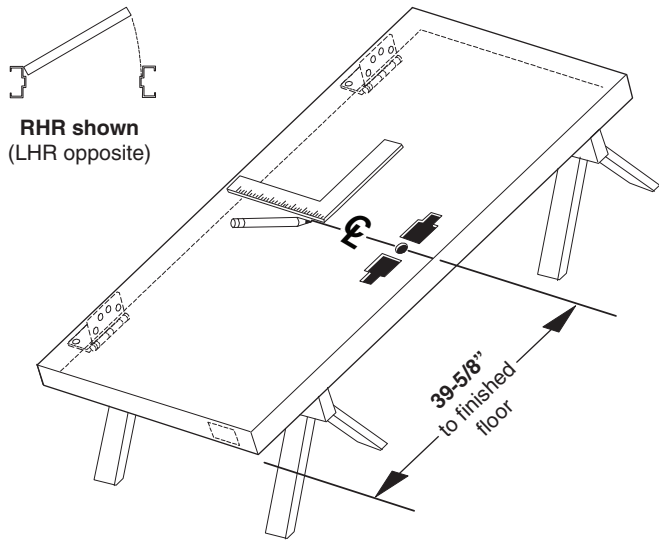


Latch Cases

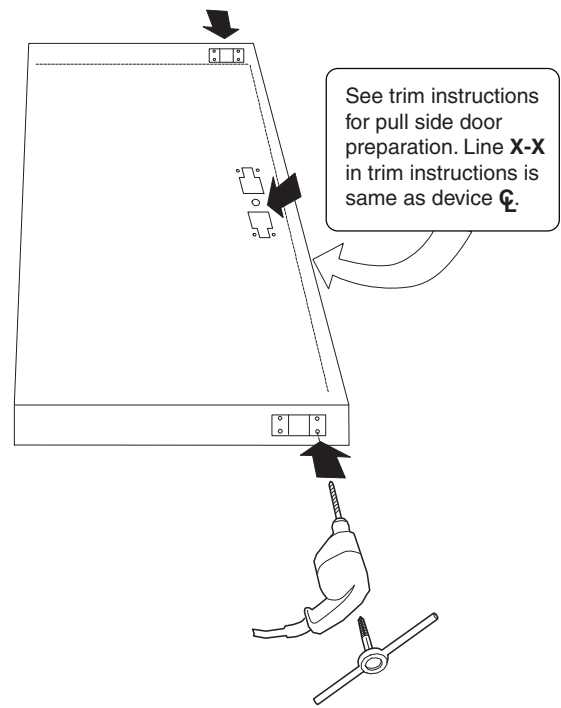
(Drill top and bottom of door)



1 Draw Horizontal Device Center Line (☿)

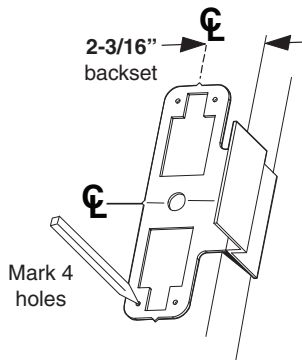


3 Prepare Door per Preparation Chart on Page 3

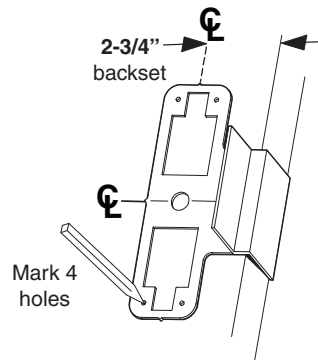


2 Determine Correct Backset, then Mark 4 Holes for Device Center Case Using Template

98/9947
(non-fire rated device)
single or double door



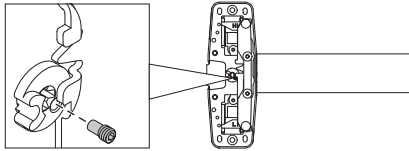
98/9947-F
(fire rated device)
or **98/9947**
double door with
98/9975 (mortise device)
on opposite door
or **HH98/9947**
(hurricane rated device)



4 If Necessary, Remove NL Drive Screw

NL drive screw

Factory installed on back of center case



With the NL drive screw removed, key locks and unlocks lever, knob, or thumb piece. For the trims listed below, **REMOVE** NL drive screw.

996L 996K	696TP 697TP	990TP
--------------	----------------	-------

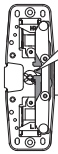
With the NL drive screw installed, key retracts latch bolt. **DO NOT** remove NL drive screw for the following applications:

NL, EO, DT trims and 98/99-2 double cylinder devices (i.e. TP-2, L-2, and K-2).

*996L-BE	*E996L	*696TP-BE	*990TP-BE
*996K-BE	*E996L-BE	*697TP-BE	

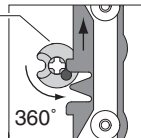
* If the trim being installed is "BE" (i.e. 996L-BE), the trim lock tumbler on the back of the device must be in the **UP** position before device is installed. This allows the trim to be unlocked at all times.

trim lock tumbler in UP position



Correct Orientation (RHR shown)

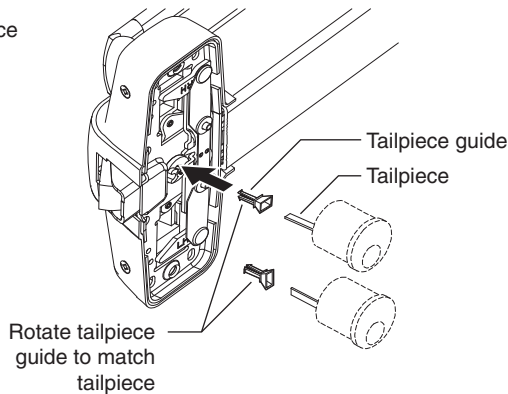
If necessary, remove drive screw and rotate cam until trim lock tumbler is in UP position, then reinstall drive screw



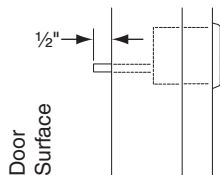
Incorrect Orientation

5 If Using a Cylinder with a Tailpiece, Prepare Device and Cylinder

a. Install tailpiece guide.

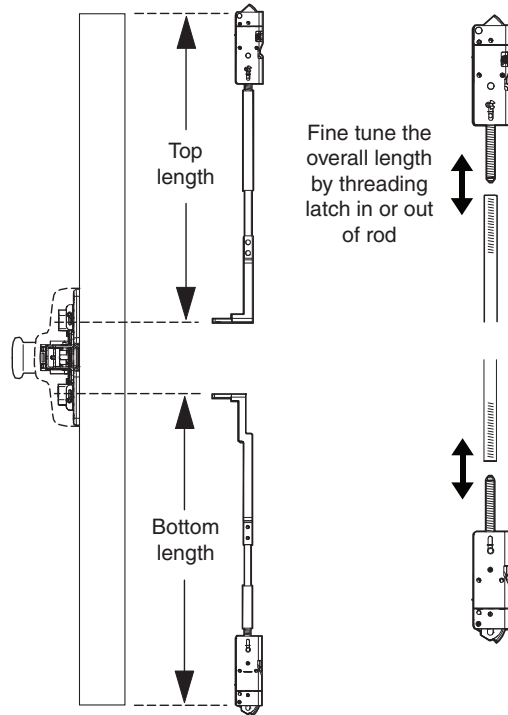


b. Cut tailpiece as needed.



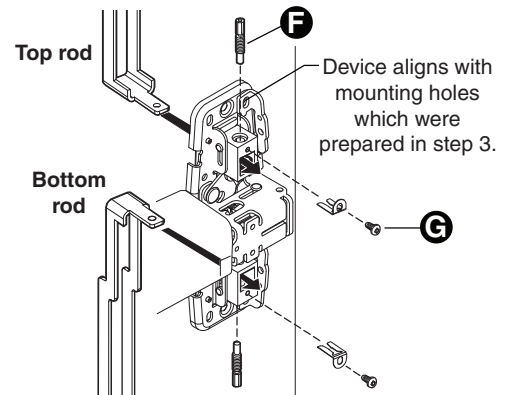
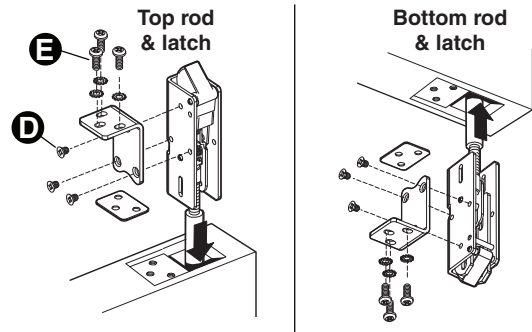
6 Assemble Rods and Latches and Adjust Length for Proper Door Height

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

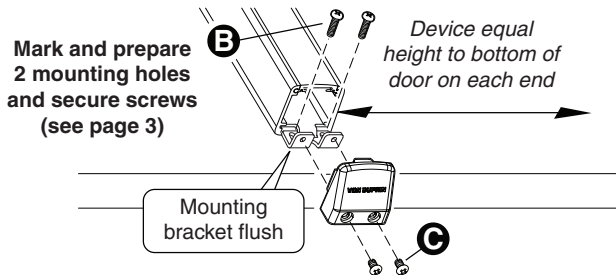
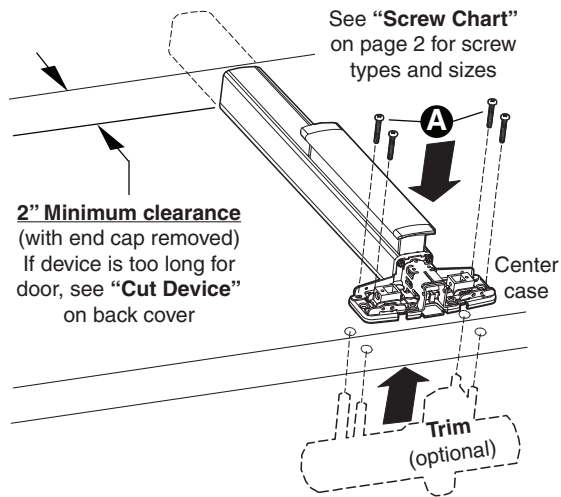


7 Install Rods and Latches as Shown

Note: Fire / HH devices use brackets on both sides of latches

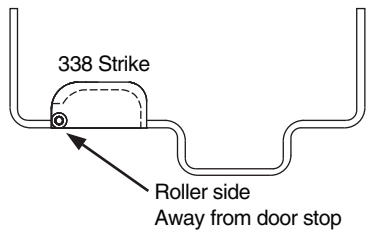
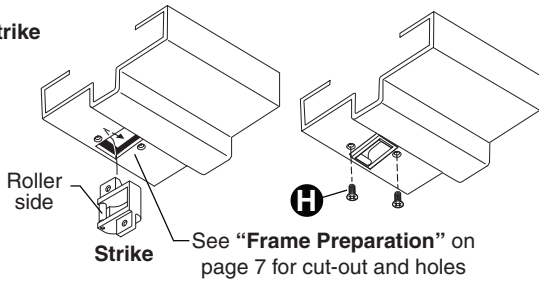


8 Secure Device to Door as Shown, then Hang Door on Frame

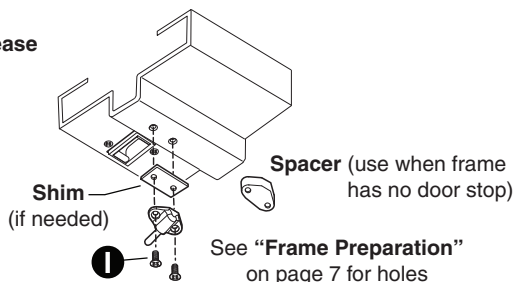


9 Install Top Strike and Ratchet Release

338 Top strike



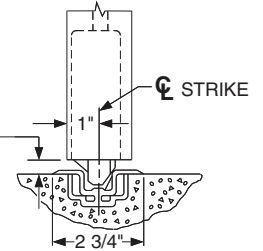
Ratchet release



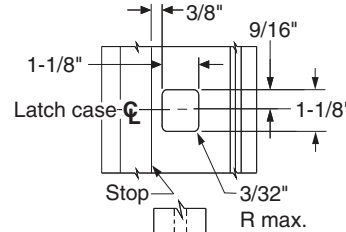
10 Install Bottom Strike or Prepare Threshold

385-A bottom strike

1/4" undercut for 98/9947A
3/4" max undercut for 98/9948A

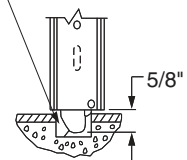


Threshold application

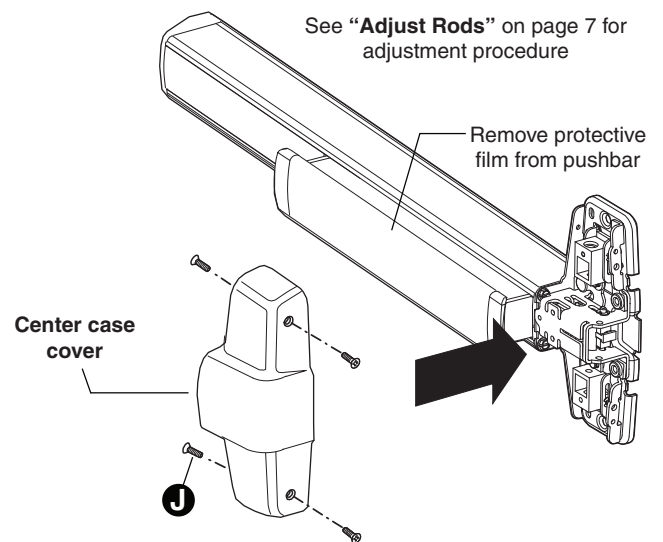


Flat threshold application

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

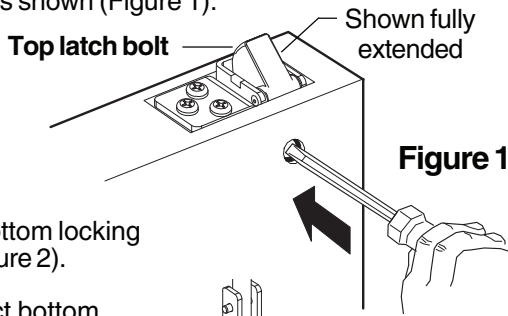


11 Adjust Rods and Install Center Case Cover

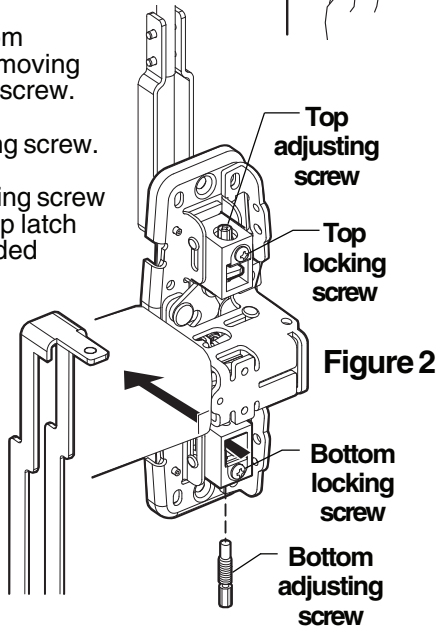


ADJUST RODS

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

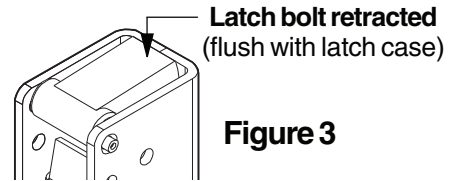


2. Loosen bottom locking screw (Figure 2).
3. Disconnect bottom vertical rod by removing bottom adjusting screw.
4. Loosen top locking screw.
5. Rotate top adjusting screw clockwise until top latch bolt is fully extended (Figure 1).
6. Check top latch bolt for deadlocking (latch bolt should not push in).
7. Turn top locking screw in. Do not over-tighten

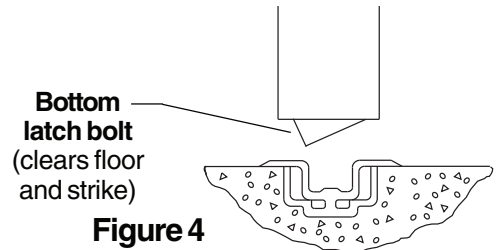


8. Depress pushbar and release.

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.



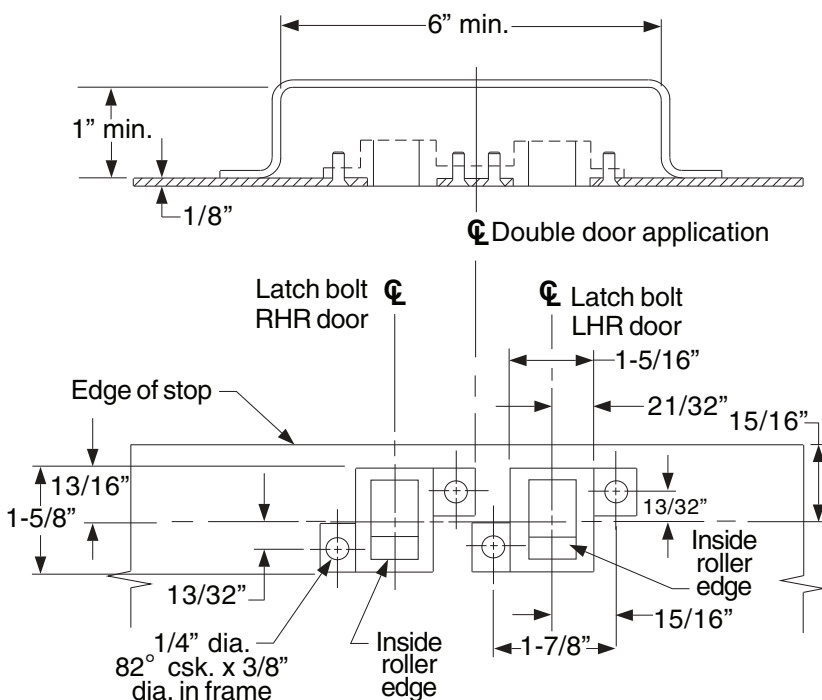
12. Turn bottom locking screw in. Do not over-tighten.
13. Check device operation by opening and closing door several times from the outside.

Redo adjustment procedure if :

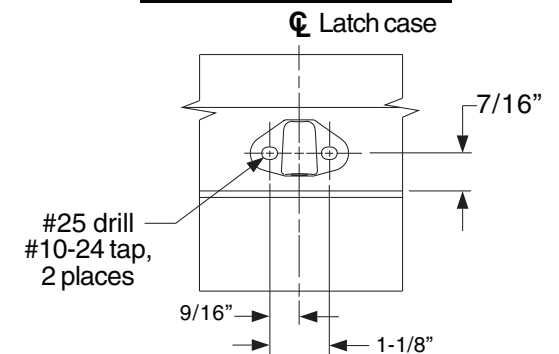
- Top latchbolt is not held retracted
- Bottom latchbolt does not clear floor and bottom strike

FRAME PREPARATION

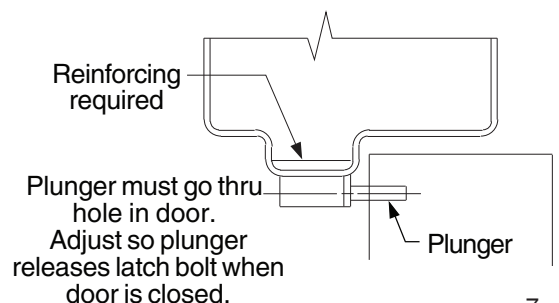
TOP STRIKE



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.

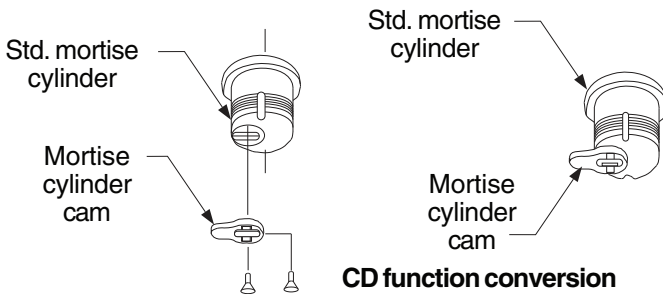


Figure 6

Dogging procedure

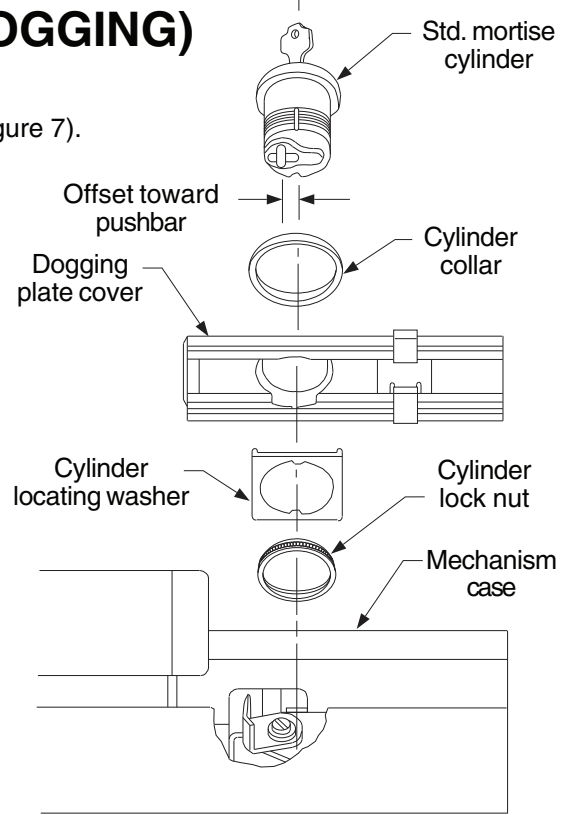
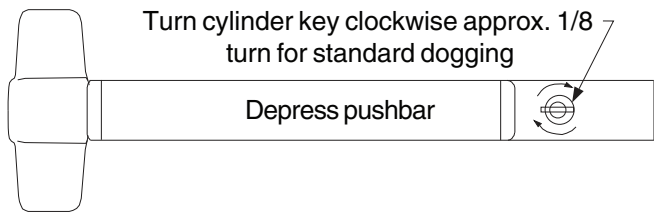
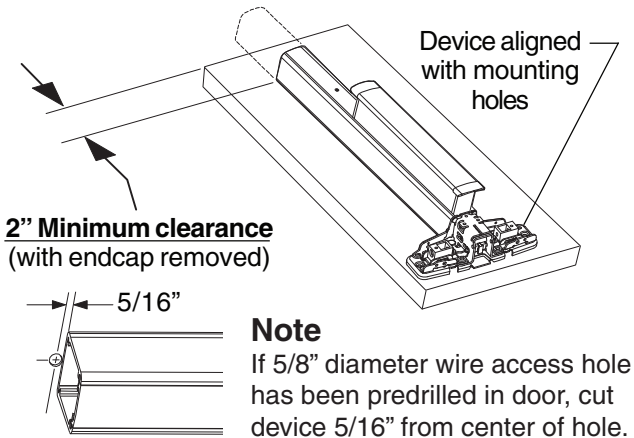


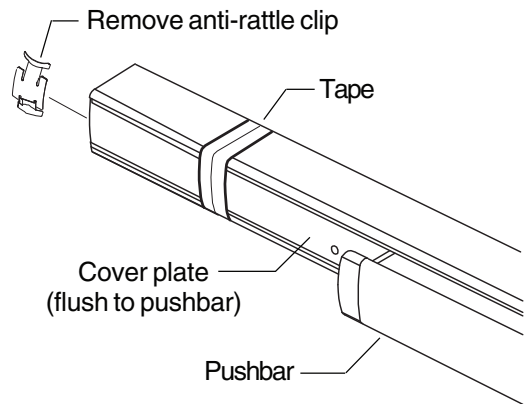
Figure 7

CUT DEVICE

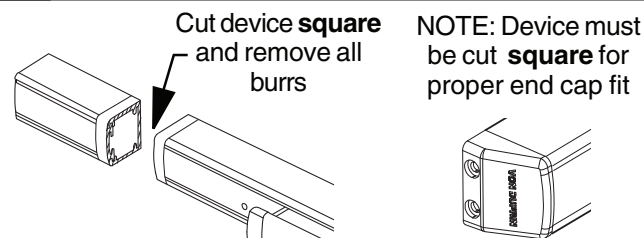
1 Measure amount to cut off device.



2 Tape and mark area being cut.



3 Cut device square.



4 Slide anti-rattle clip into device.

