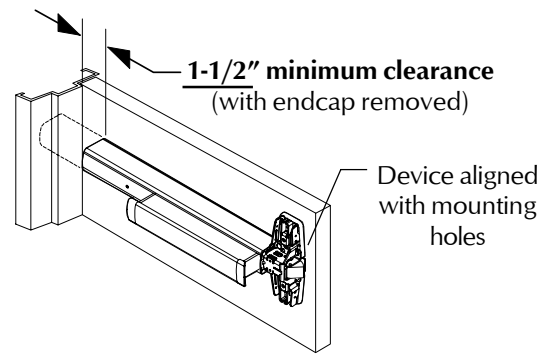


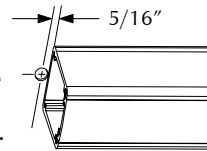
CUT DEVICE

1 Measure amount to cut off device.

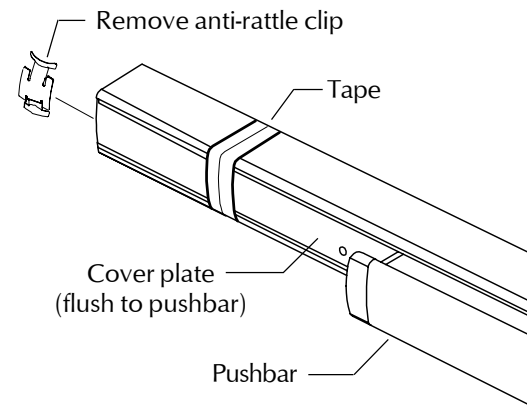


Note

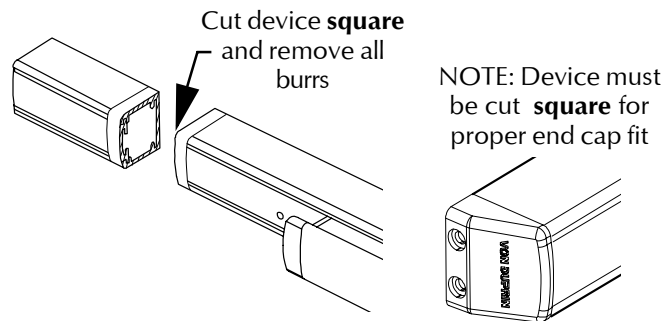
If 5/8" diameter wire access hole has been predrilled in door, cut device 5/16" from center of hole.



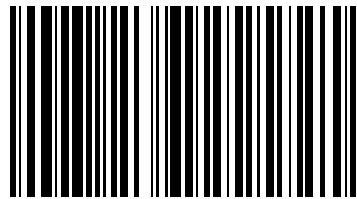
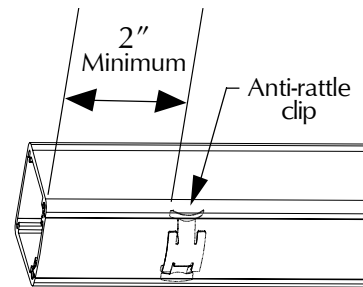
2 Tape and mark area being cut.



3 Cut device square.



4 Slide anti-rattle clip into device.



911378-00

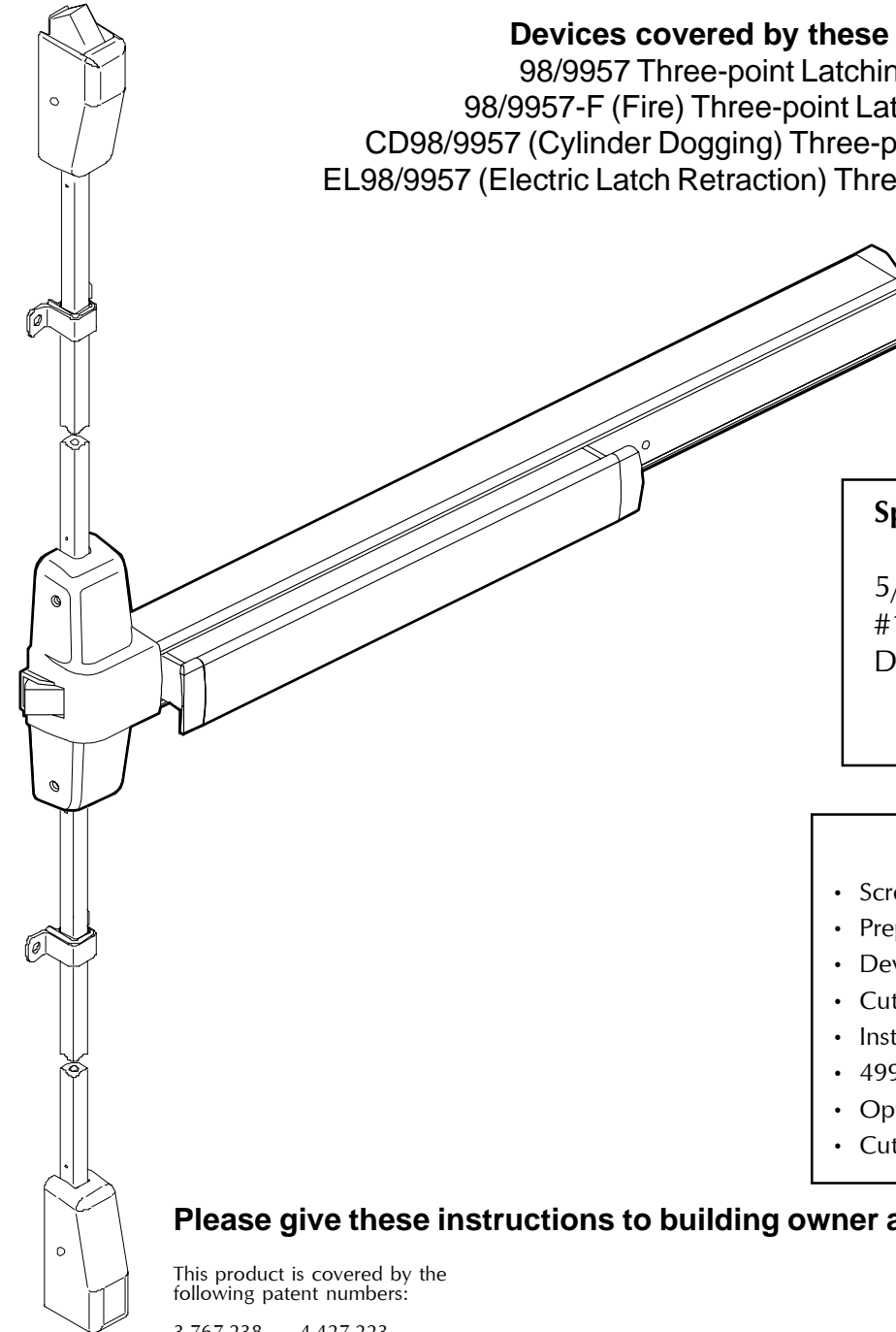
VON DUPRIN® Installation Instructions



98/9957 Three-point Latching Exit Device

Devices covered by these instructions:

98/9957 Three-point Latching Exit Device
98/9957-F (Fire) Three-point Latching Exit Device
CD98/9957 (Cylinder Dogging) Three-point Latching Exit Device
EL98/9957 (Electric Latch Retraction) Three-point Latching 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
• Preparation chart	3
• Device installation	4-7
• Cut top rod	8
• Install rod extension	8
• 499F strike installation	9
• Optional equipment	9-11
• Cut device	12

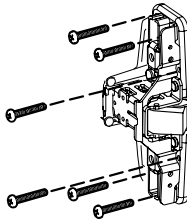
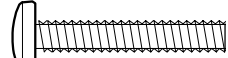
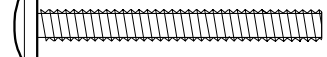
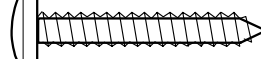
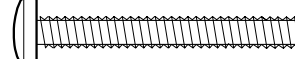
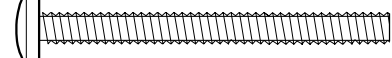
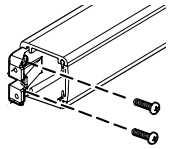
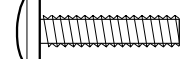
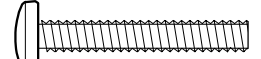



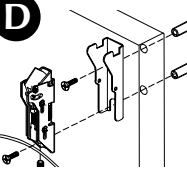


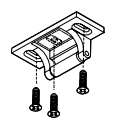
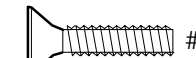

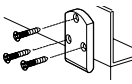
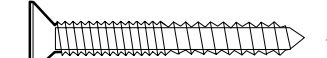

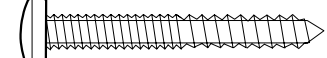


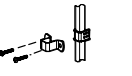
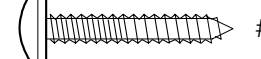

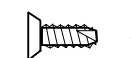
Please give these instructions to building owner after device is installed

This product is covered by the following patent numbers:

3,767,238 4,427,223
3,854,763 4,466,643
4,167,280 4,741,563



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)
	 #10 x 1-1/4" Wood screw ————— Surface mount (wood)
	- 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
	 #10 x 1-1/4" Wood screw ————— Surface mount (wood)
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 	 #10-24 X 3/4" ————— Metal frame
	 #10 X 1-1/2" Wood screw ————— Wood frame
F 	 #10-12 X 10-24 X 1-1/4" Combination ————— Metal or wood frame
G 	 #10-12 X 10-24 X 1-1/4" Combination ————— Variable floor surfaces
H 	 #8-32 X 1/4" ————— Latch covers
I 	 #10-12 X 10-24 X 1" Combination ————— Metal or wood door
J 	 #8-18 X 3/8" Thread cutting ————— Center case cover

EL (ELECTRIC LATCH RETRACTION)

EL ADJUSTMENT PROCEDURE

- A. Check for proper function:**
1. Make sure device is not dogged.
 2. Depress pushbar and make sure latch bolt(s) retract and extend fully (see Figure 3).
 3. Electrically energize solenoid and hold.
 4. Check latch bolt(s) for full retraction. Must clear strike (see Figure 3).
 5. Release solenoid and check latch bolt extension (see Figure 3).
 6. Continue to Section B if device does not function electrically.

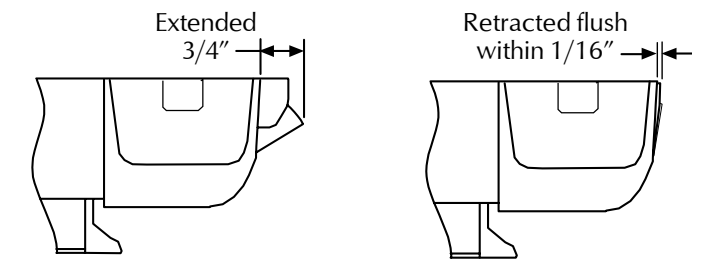


Figure 3

- B. Determine if dogging rod adjustment is too long or short:**
1. The dogging rod adjustment is too **long** if latch bolt does not retract and clear strike (see Section C for adjustment).
 2. The dogging rod adjustment is too **short** if latch bolt does not fully extend **or** latch bolt fully retracts but solenoid releases while energized (see Section D for adjustment).

- C. Adjust solenoid if dogging rod is too long** (see Figure 4):

1. Remove end cap ① and dogging cover ②.
2. Loosen cap screw ③.
3. Hold plunger ⑤ depressed in solenoid housing ⑥.
Note: Push hard against plunger ⑤ to overcome an internal spring in solenoid housing ⑥.
4. Turned threaded bushing ④ in to shorten dogging rod ⑦ so latch bolt fully retracts.
5. Tighten cap screw ③.
Note: Cap screw ③ must be tightened against flat on threaded bushing ④. Apply a few drops of Loc-Tite 222 to threads of cap screw ③.
6. Replace dogging cover ② and end cap ①.
7. Return to Section A to check for proper function.

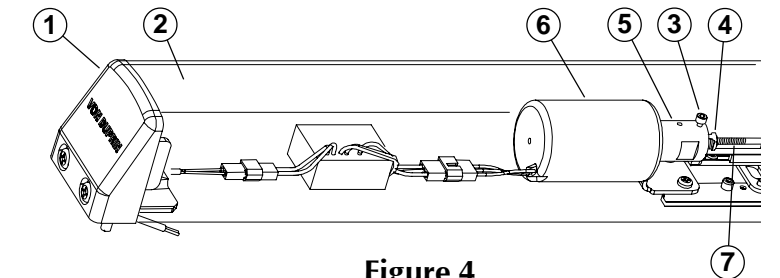


Figure 4

- D. Solenoid adjustment if dogging rod adjustment is too short** (see Figure 4):

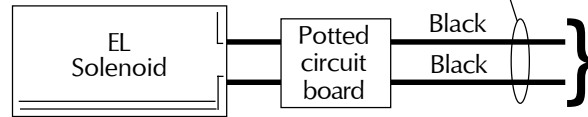
1. Remove end cap ① and dogging cover ②.
2. Loosen cap screw ③.
3. Hold plunger ⑤ depressed in solenoid housing ⑥.
4. Turn threaded bushing ④ out to lengthen dogging rod ⑦ so plunger ⑤ just bottoms in solenoid housing ⑥ and latch bolt is fully retracted.
Note: Push hard against plunger ⑤ to overcome an internal spring in solenoid housing ⑥.
5. Tighten cap screw ③.
Note: Cap screw ③ must be tightened against flat on threaded bushing ④. Apply a few drops of Loc-Tite 222 to threads of cap screw ③.
6. Replace dogging cover ② and end cap ①.
7. Return to Section A to check for proper function.

OPTIONAL EQUIPMENT - CONTINUED

EL (ELECTRIC LATCH RETRACTION)

EL WIRING

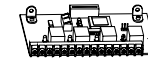
12 AWG required for distances up to 200'
14 AWG permitted for distances 0-100'



Solenoid draws 16 A inrush current from PS873. Solenoid must be wired to a PS873 logic board:



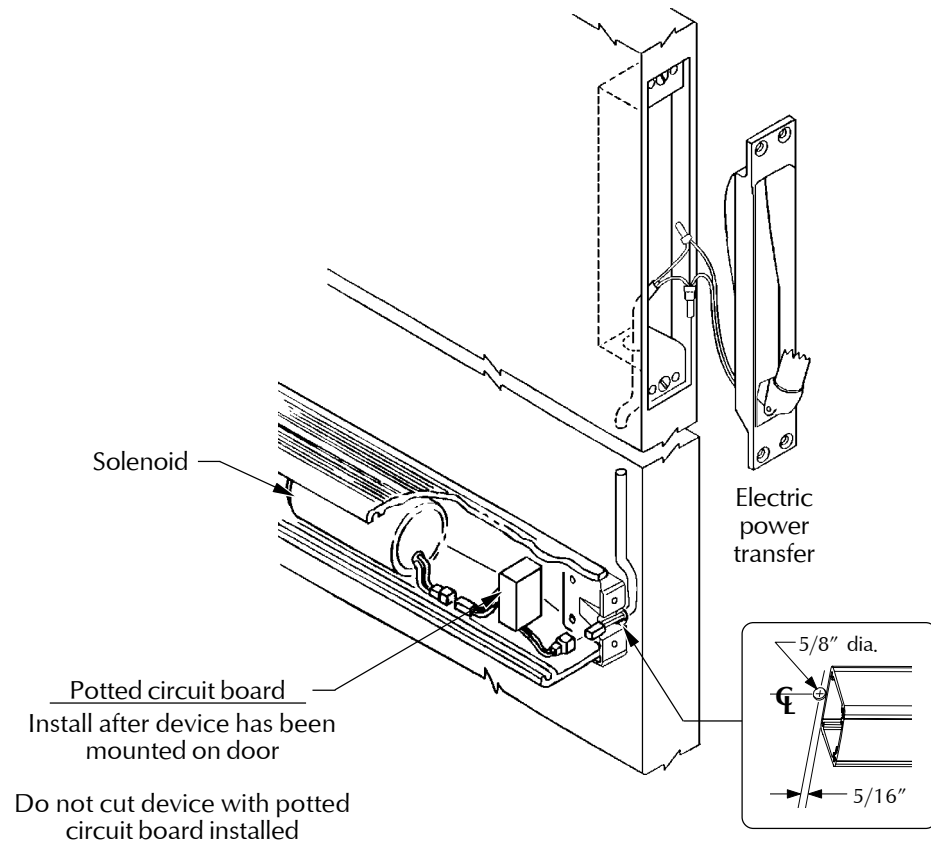
If 871-2 logic board, refer to Von Duprin instructions 941352.



If other 873 logic board, refer to Von Duprin instructions 941356.

Electrical Specifications

Voltage: 24 VDC
Current: 16 A inrush (0.3 sec.)
0.25 A holding



Potted circuit board
Install after device has been mounted on door

Do not cut device with potted circuit board installed

NOTE

When power is applied to the **potted circuit board**, the solenoid receives a momentary signal to retract and a separate signal to hold as long as power is applied. When attempting to retract solenoid again, power must be removed from the circuit and reapplied.

Troubleshooting solenoid operation

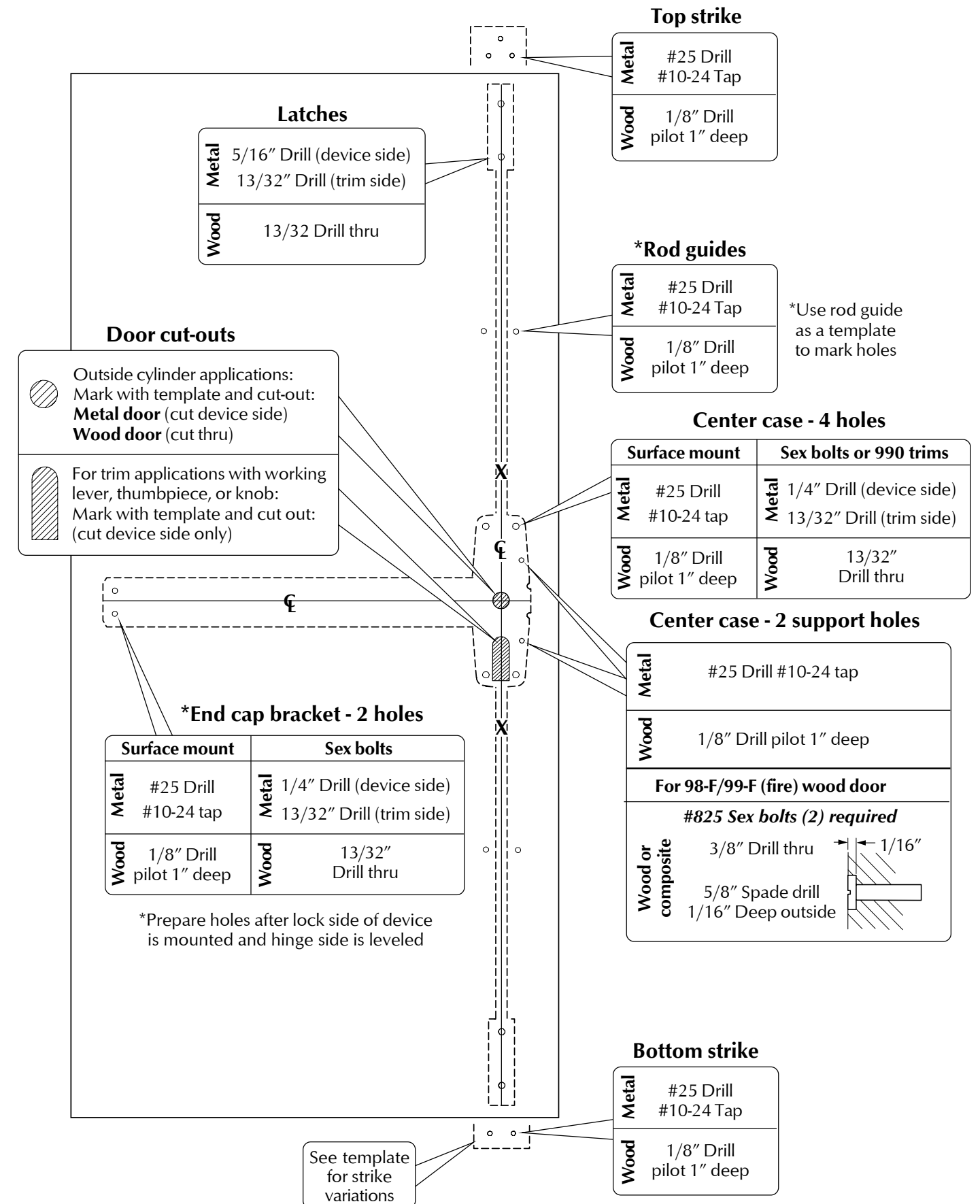
If the solenoid fails to retract the latch bolt when power is applied, recheck wiring for proper connections.

If solenoid retracts latch bolt momentarily but will not remain in energized position:

1. Check wiring for proper connections, gauge, and distances.
2. Check for latch bolt binding caused by improper strike installation, warped door etc. Also check adjustment of vertical rods.

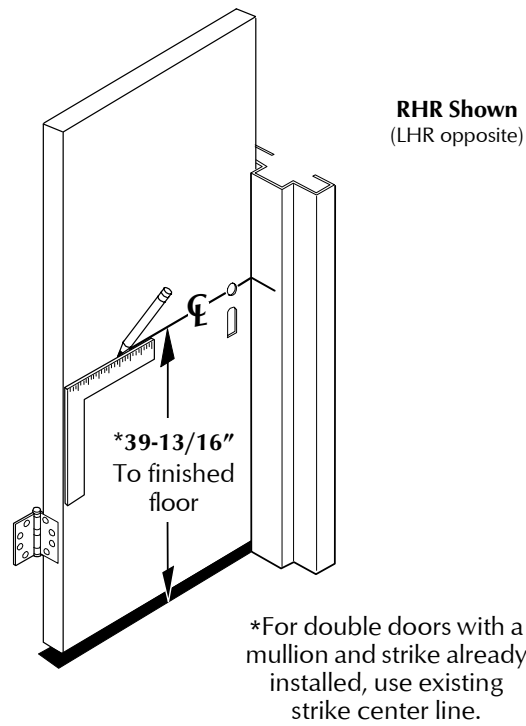
PREPARATION CHART

Go to instructions on next page before using Preparation Chart



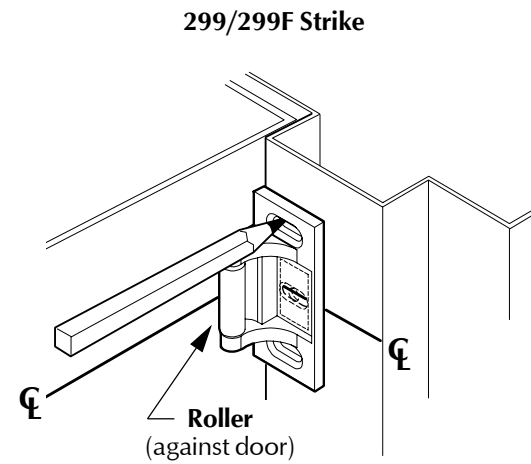
1

Draw horizontal device and strike center line (C).



2

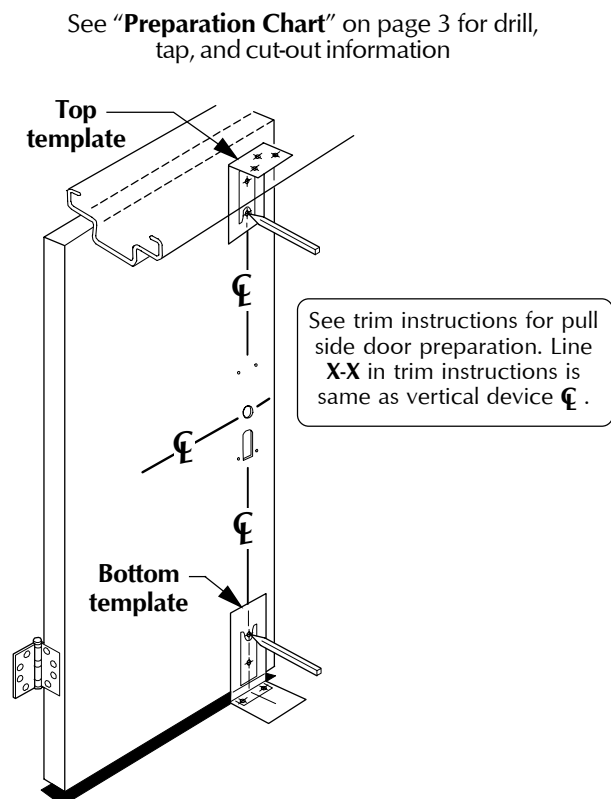
Align strike on C and mark the two slotted holes.



For 499F Strike see page 9.

5

Mark vertical C with template and use top and bottom templates to prepare door and frame.



6

If using an outside cylinder, check NL drive screw and install tailpiece guide.

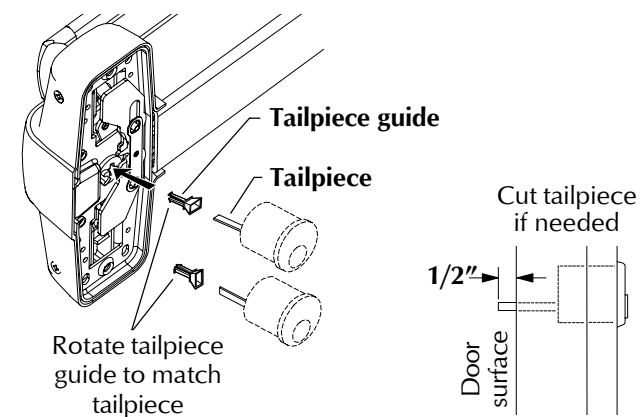
NL drive screw

When installing trim that has a functional lever, knob, or thumb piece AND an outside cylinder to lock and unlock the trim, remove NL drive screw from back of device.

DO NOT remove NL drive screw for the following trims: **NL, EO, DT, TP-2, L-2, and K-2.**

With "BE" trim, device may need rehanded. Look for instructions on back of trim.

Note: When the NL drive screw is left in back of device, the outside cylinder will function only as a Night Latch.

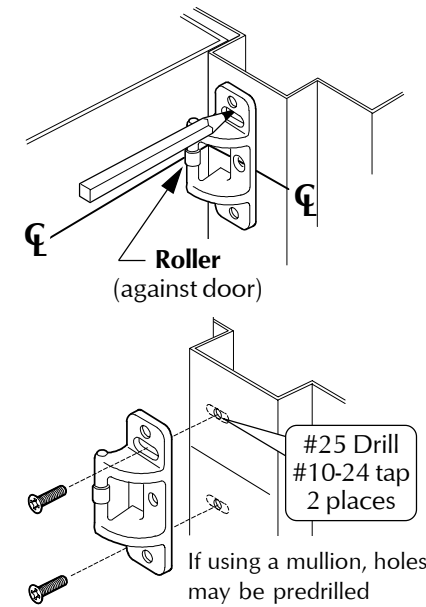


OPTIONAL EQUIPMENT

499F STRIKE INSTALLATION

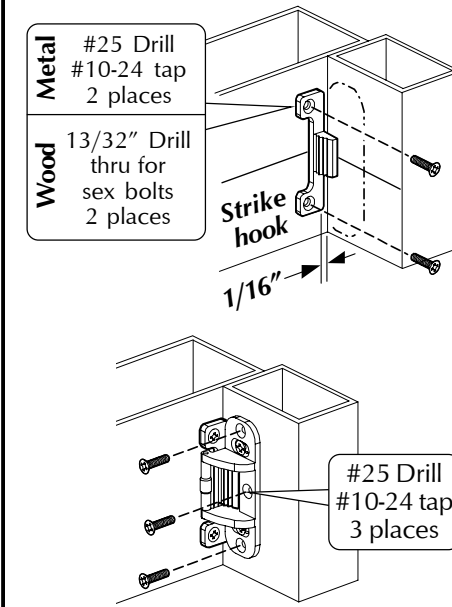
1

Prepare and install screws through 2 strike slots.



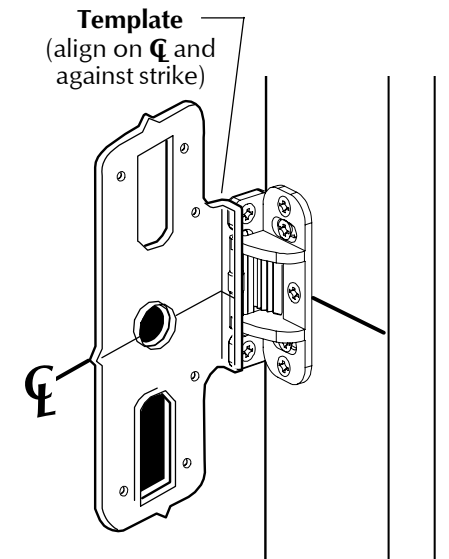
2

Install strike hook and additional strike screws.



3

Template aligns as shown.



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.

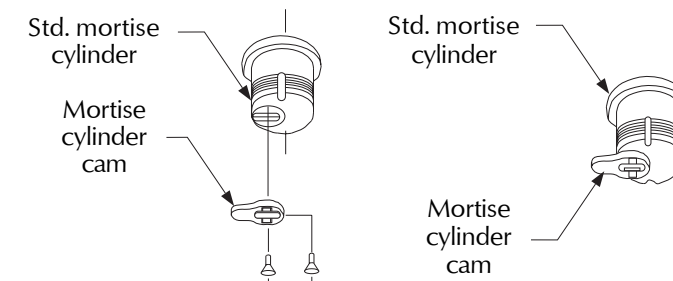


Figure 1

Dogging procedure

Depress pushbar and turn cylinder key clockwise approx. 1/8 turn

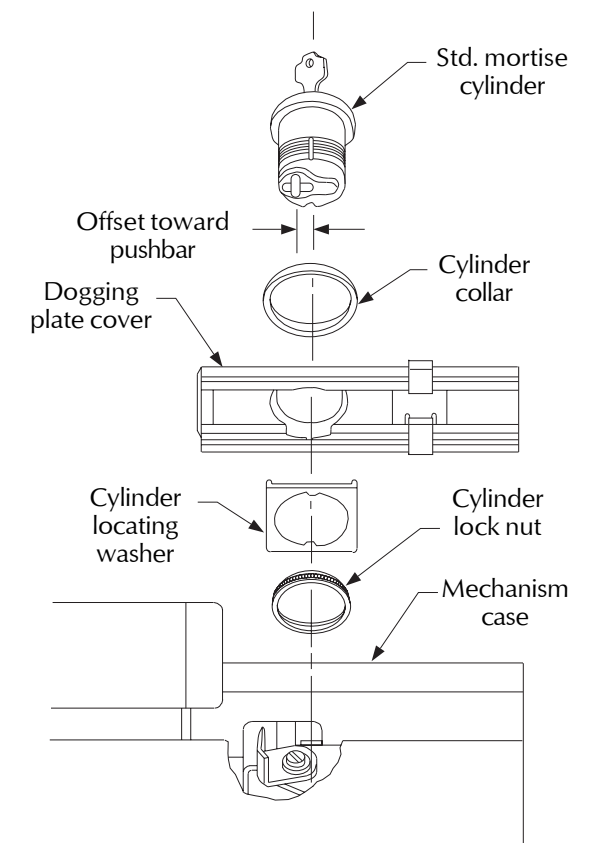
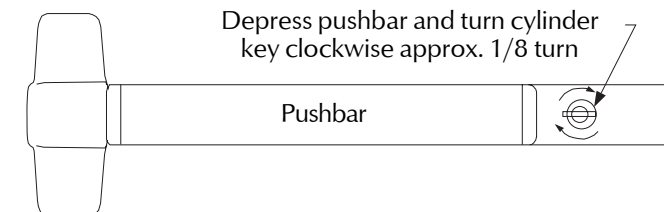
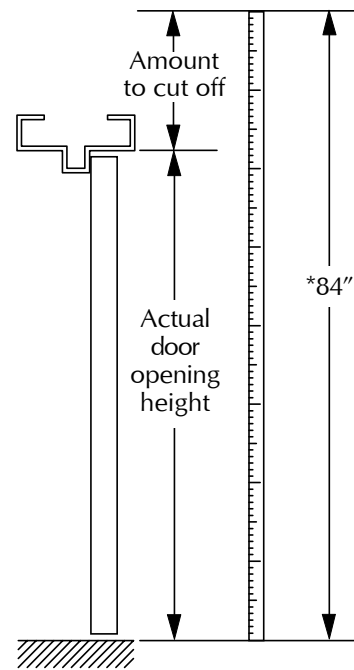


Figure 2

CUT TOP ROD

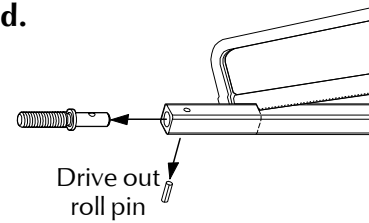
1. Measure amount to cut off rod as shown below.

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

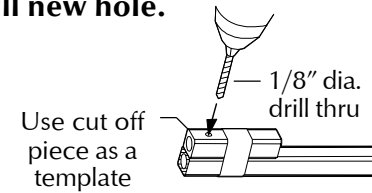


*Rods are factory sized for 7' (84") door. Measure actual door height and subtract that number from 84" to get amount to cut off top rod.

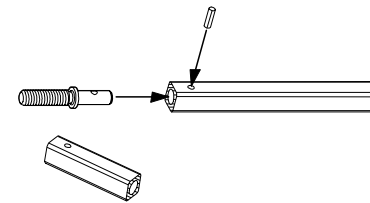
2. Cut rod.



3. Drill new hole.



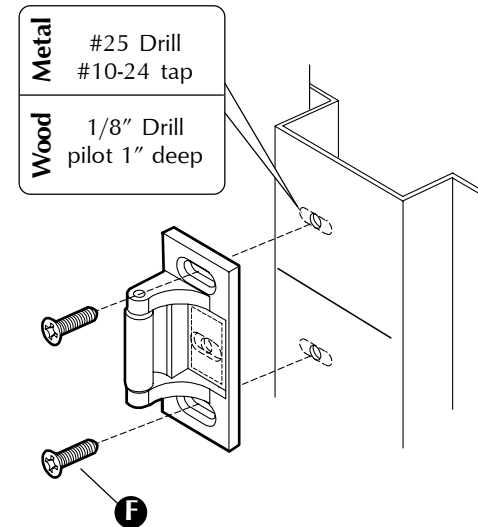
4. Reinstall rod end and roll pin.



3

Prepare 2 holes and install a screw thru each slot.

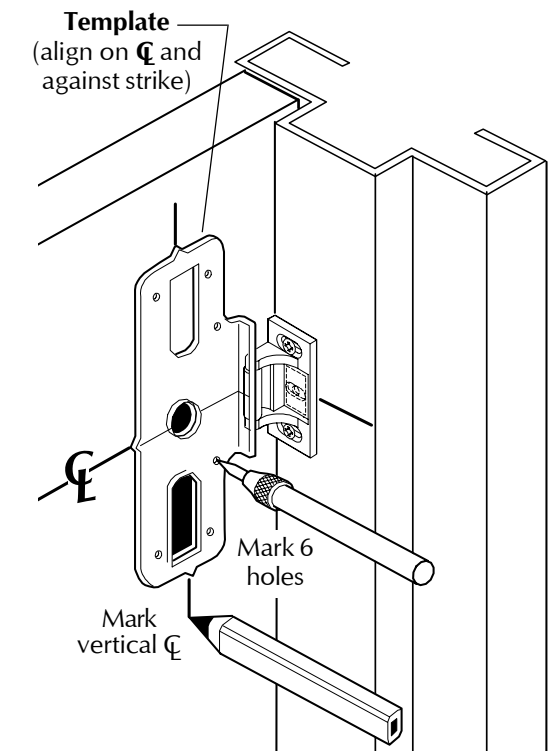
299/299F Strike



See "Screw Chart" on page 2 for screw types and sizes

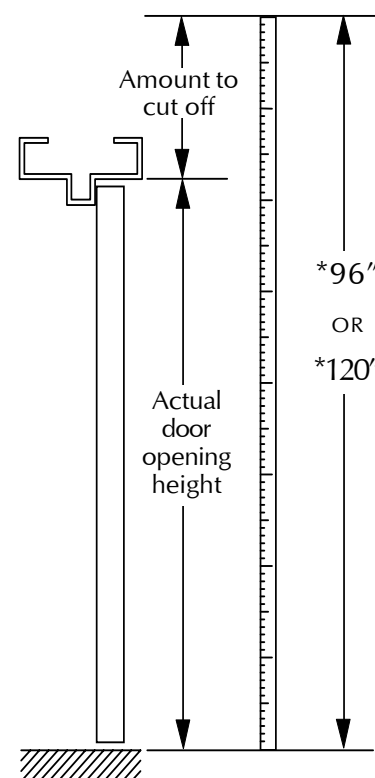
4

Position template against strike and on \mathcal{C} and mark door.



INSTALL ROD EXTENSION

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

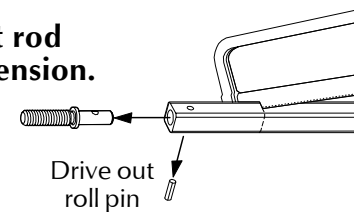


*Standard door heights:

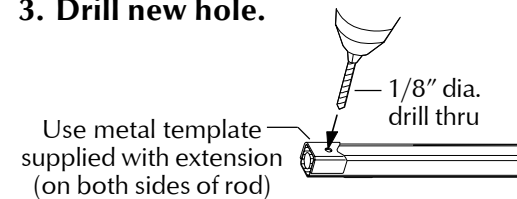
With no extension 7' (84")
With 1' extension 8' (96")
With 3' extension 10' (120")

*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.

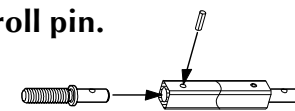
2. Cut rod extension.



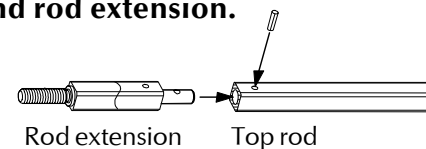
3. Drill new hole.



4. Reinstall rod end and roll pin.

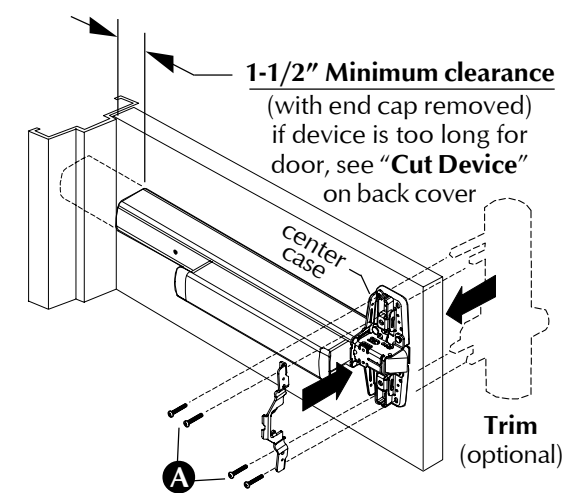


5. Connect top rod and rod extension.



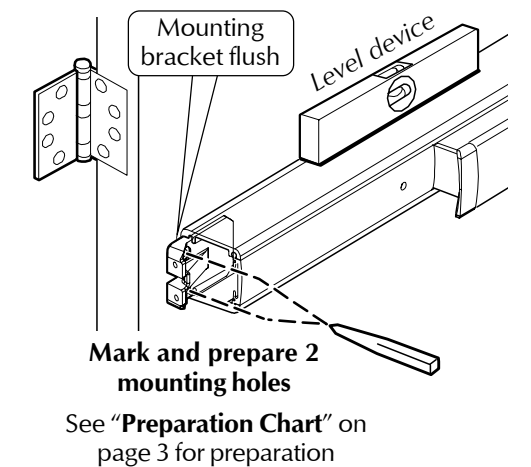
7

Install trim (if using) and secure device center case to door.



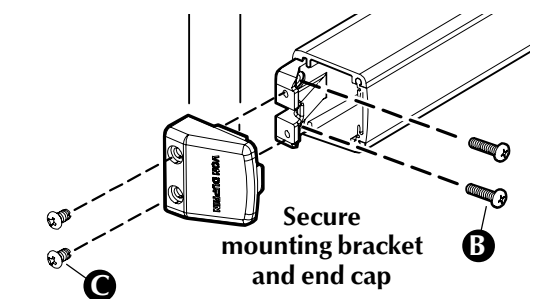
8

Install mounting bracket and end cap.



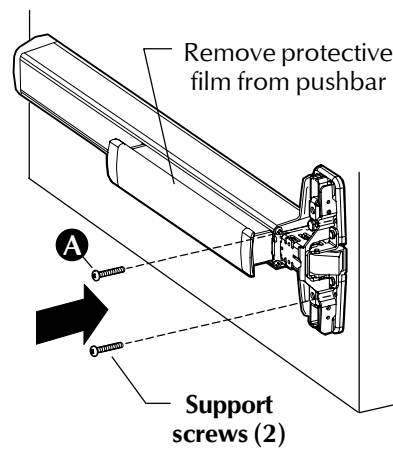
Mark and prepare 2 mounting holes

See "Preparation Chart" on page 3 for preparation

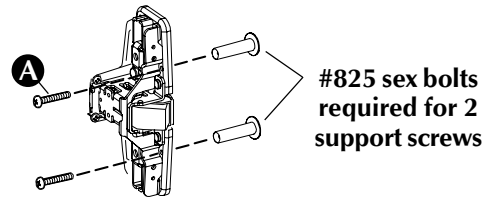


9

Install 2 support screws, and center case cover.

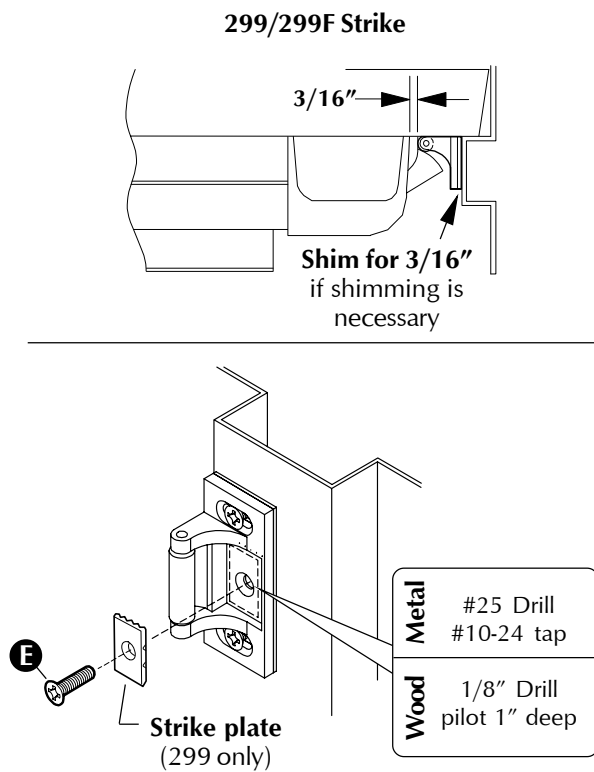


For 98/9957F (fire rated) devices on wood or composite door:



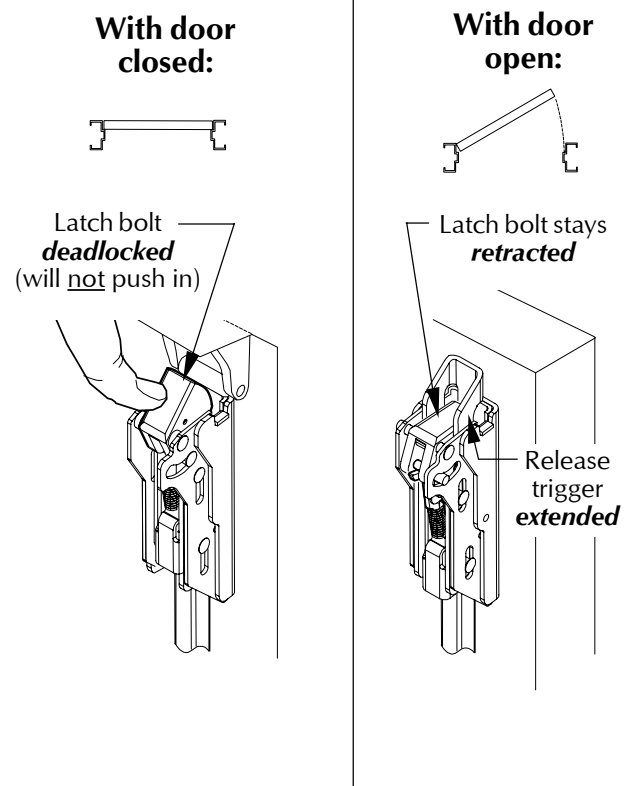
10

Adjust and secure strike.



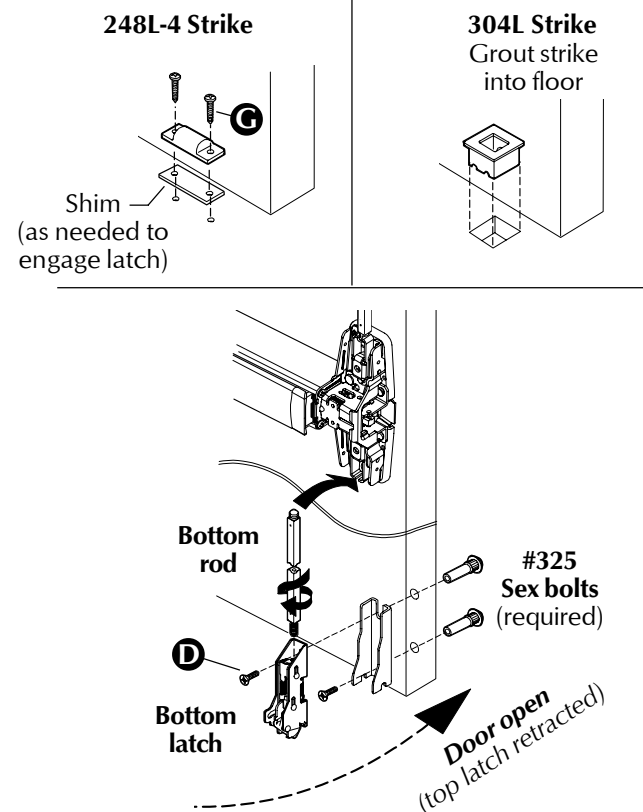
13

Adjust top rod (screw rod into or out of latch) until adjusted as shown.



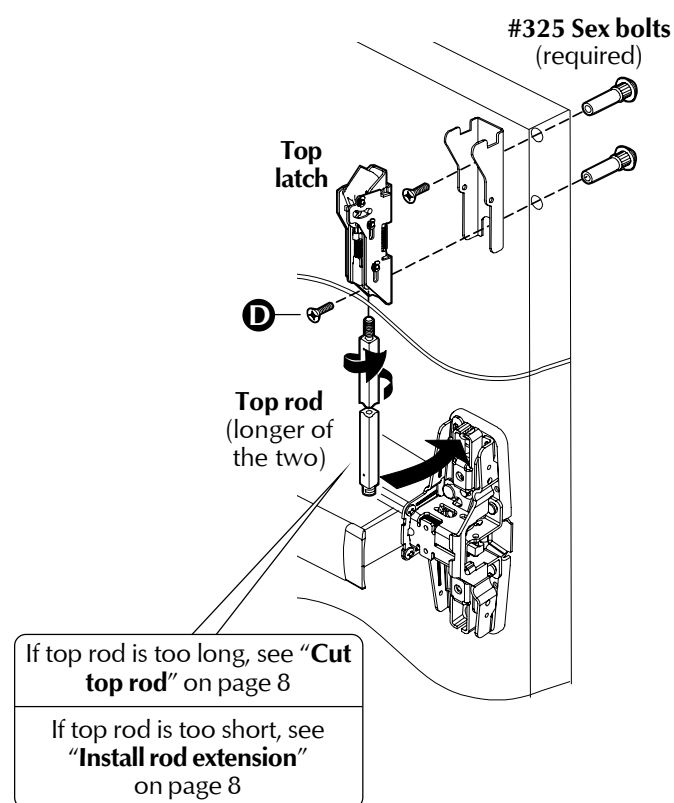
14

Install bottom strike, latch, and rod.



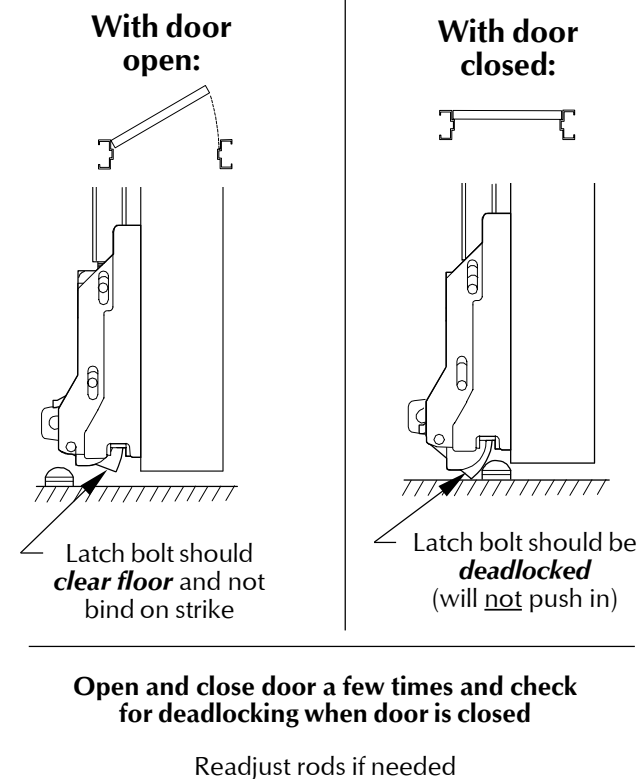
11

Install top latch and rod.



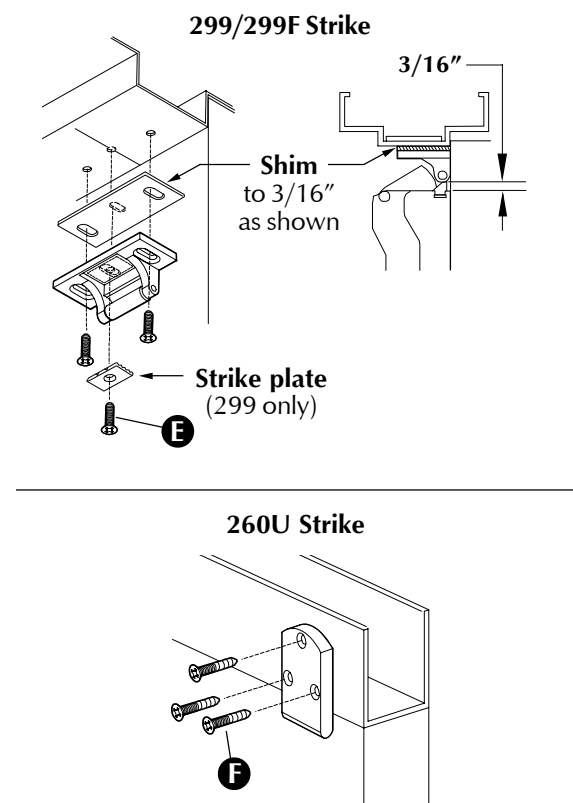
15

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



12

Install top strike.



16

Install rod guides and covers.

