



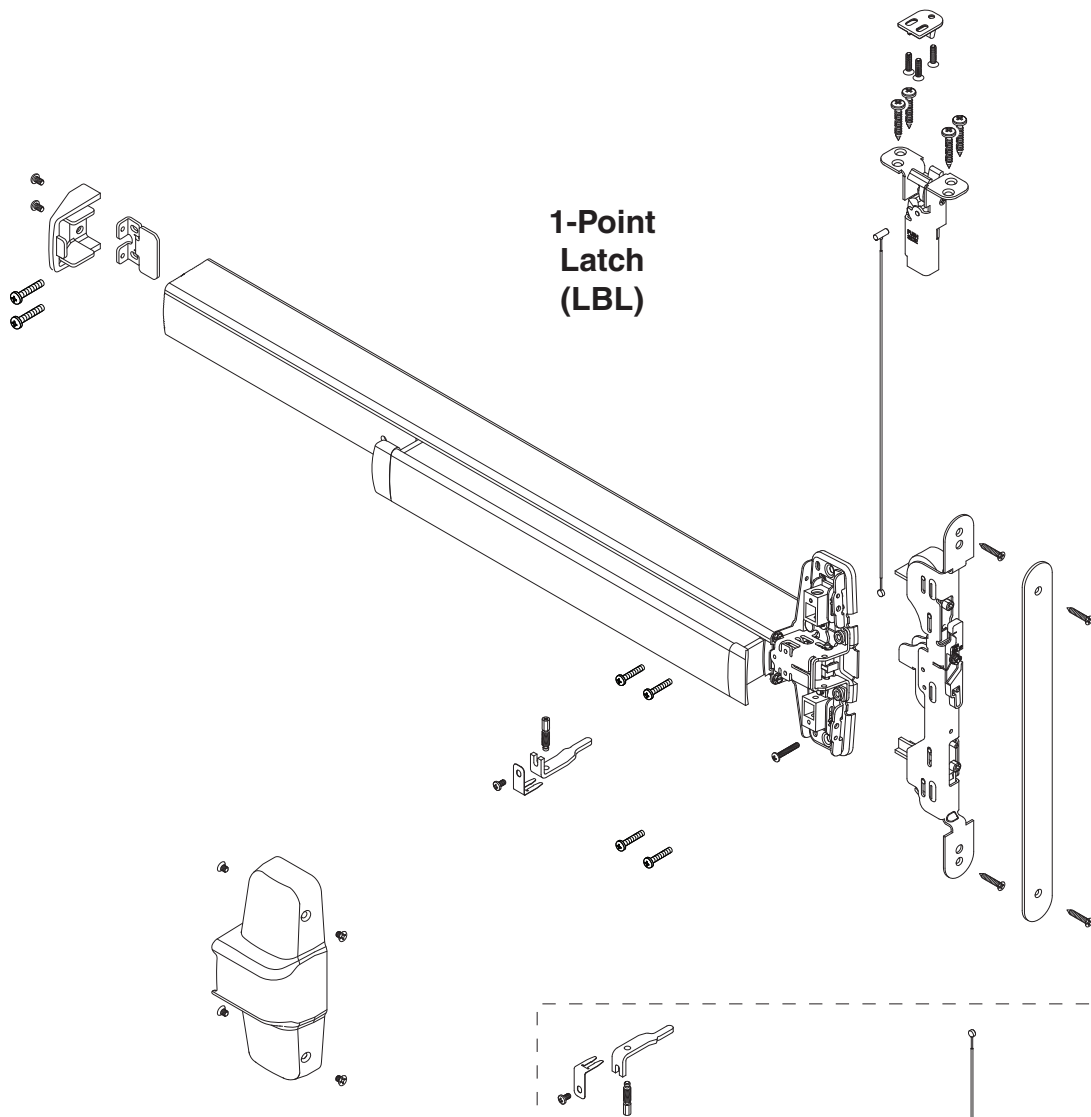
24739468

98/9950WDC

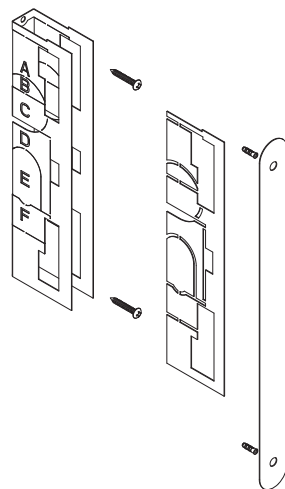
VON DUPRIN®

Installation Instructions

1-Point Latch (LBL)



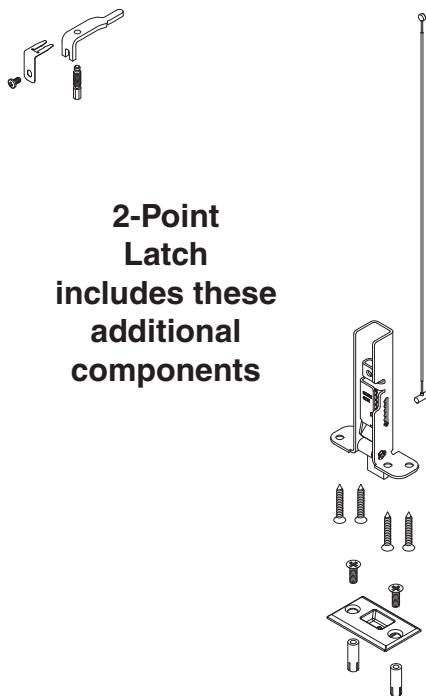
**Fire-Rated
Devices
include these
additional
components**



**Metal Edge
Wrap required
for 60 and
90-minute
applications**



2-Point Latch includes these additional components



NOTE: If door does not have a cutout for cabling inside lock stile, door must be routed. Refer to 98/9950WDC wood door template #24663650.

1 OVERVIEW AND DOOR PREPARATION

98/9950WDC

Instead of traditional rods, concealed vertical cables are utilized, making use of a proven technology that enables quick installation and allows for easy maintenance. Simplified sizing, ease of adjustment and greater door integrity make the Wood Door Concealed exit device a more secure solution, without the complexity associated with traditional concealed systems. Another key benefit of the system is the ability to make adjustments to the system by simply removing the scalp plate from the edge of the door.

If you have any questions or comments please visit the resources below or give us a call so we can help get you on your way. Thank you for your continued support of Von Duprin.

Technical Support hot line: 877-671-7011

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ADJUSTMENT

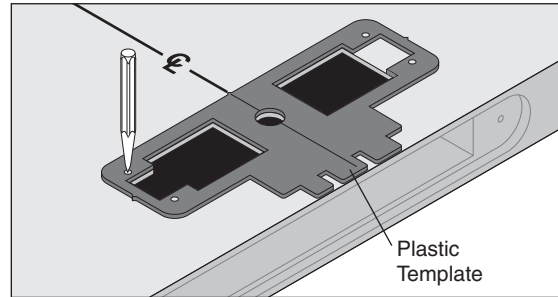
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1 (continued)

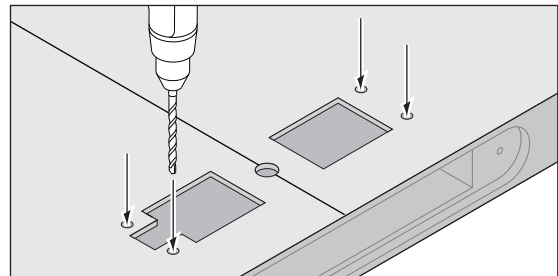
1a For 60 and 90-minute applications, install metal edge wrap.



1d If necessary, align plastic template to mark 4 holes.



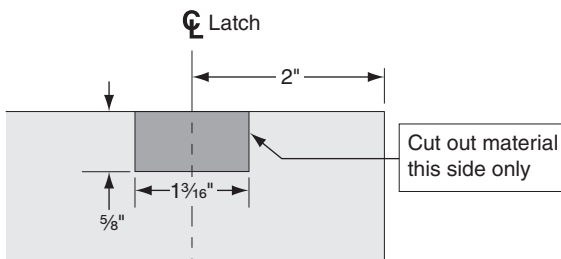
1e Prepare center case mounting holes as required.



Surface Mount	OR	Sex Bolts or 990 Trims
1/8" Drill Pilot 1 1/2" Deep		5/16" Device side 13/32" Trim side

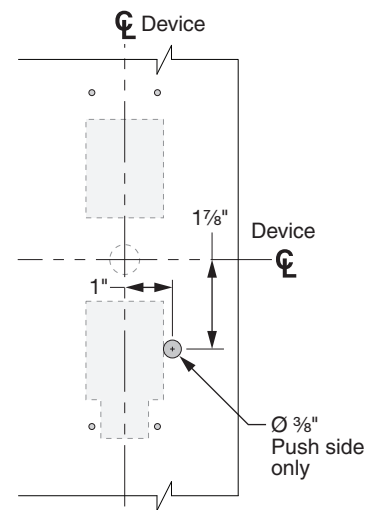
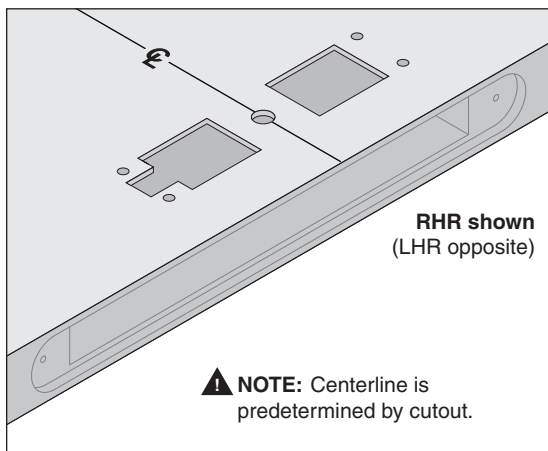
1f Prepare center slide mounting hole.

1b If necessary, prepare door for top strike cutout.



Push side of door, RHR shown

1c With door laying flat, draw horizontal device center line (CL).



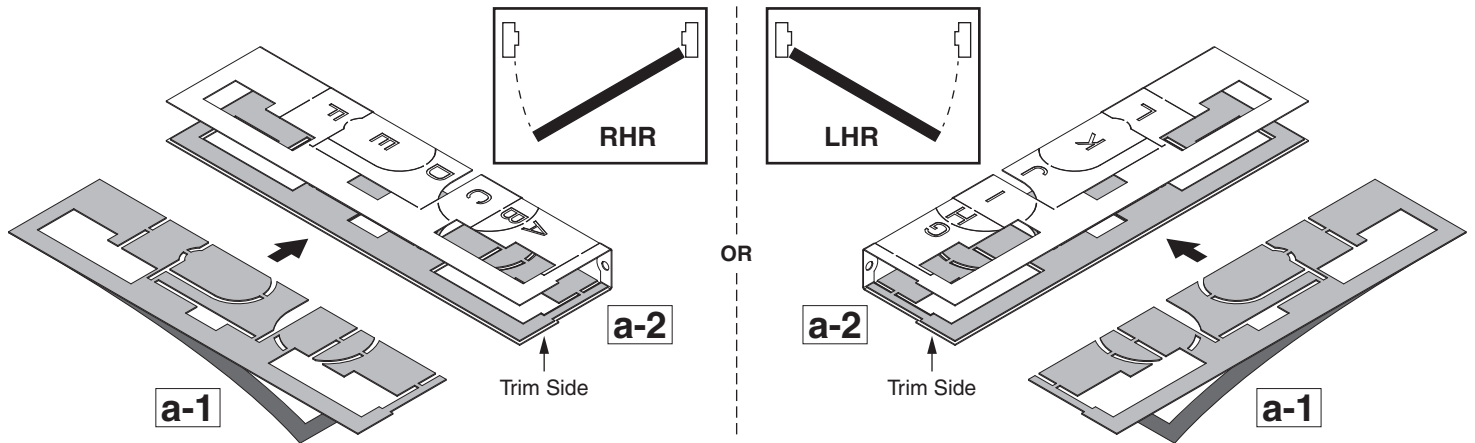
Push side of door, RHR shown
(LHR opposite)

2 FIRE BARRIER

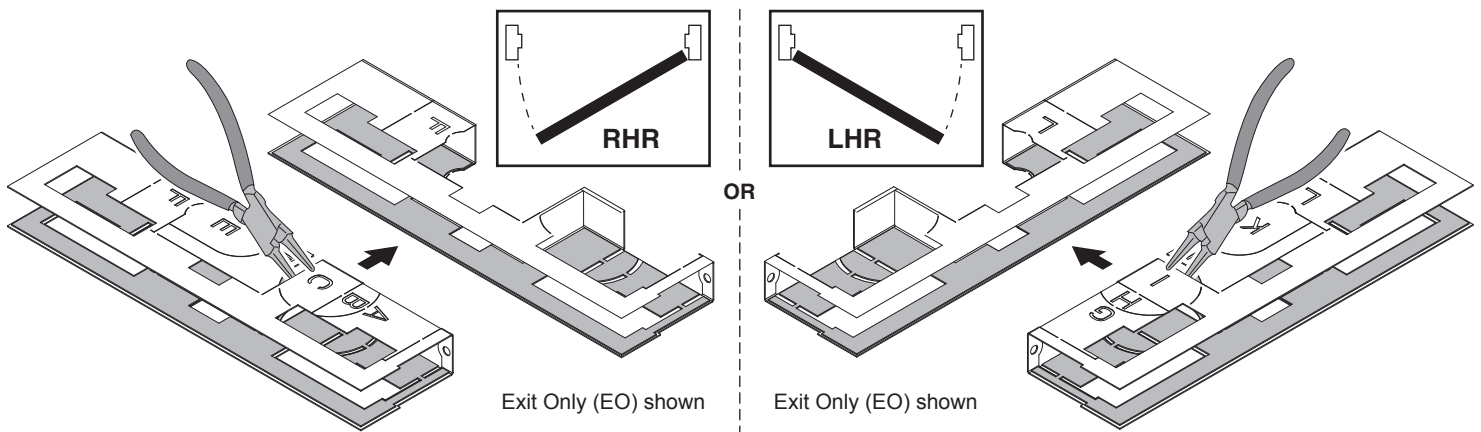
- ⚠ Fire application only
- ⚠ Fire components must be installed to maintain fire rating of opening.

2a Peel adhesive backing from intumescent and apply to trim side of fire barrier.

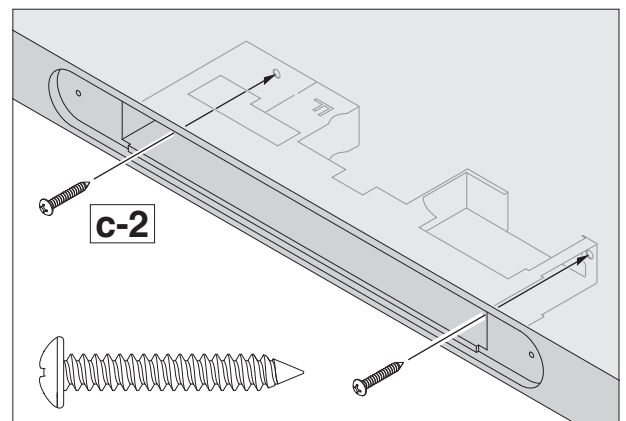
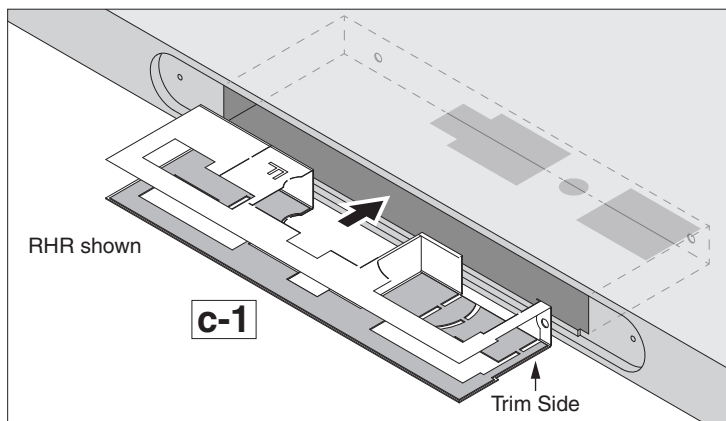
- ⚠ Intumescent must be properly aligned before exposed adhesive contacts fire barrier. Adhesive is permanent and not repositionable.



2b Remove appropriate knockouts for device and trim.

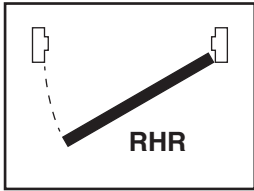
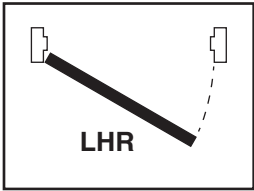


2c With fire barrier in correct orientation, slide barrier into door pocket. Secure fire barrier to inside of pocket with 2 screws.



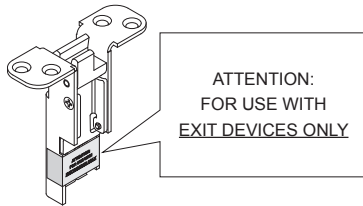
2 (continued)

FIRE BARRIER KNOCKOUT TABLE

Trim Model	Trim Function	 RHR	 LHR
Exit Only	EO	Right Hand Reverse (RHR) Remove the knockouts listed below	Left Hand Reverse (LHR) Remove the knockouts listed below
990	DT	A B C D E J K	D E G H I J K
990	NL	A B C D E H I J K	B C D E G H I J K
996	L-NL		
996	K-NL		
990	TP	A B C D E H I J K L	B C D E F G H I J K
990	TP-BE		
996	L		
996	L-BE		
996	L-DT		
996	K		
996	K-BE		
996	K-DT		
VR910	DT		
VR910	NL		
VR914	DT		
VR914	NL		
AD-993	-		
CO-993	-		
696	DT	A B C D E K	E G H I J K
697	DT		
392-7	-		
696	NL	A B C D E H I K	B C E G H I J K
697	NL		
696	TP	A B C D E F H I K	B C E G H I J K L
696	TP-BE		
697	TP		
697	TP-BE		
110	NL-MD	A B C D E H I K	B C E G H I J K
110WD	NL-OP		
IVES 8190	-	Drill thru barrier	Drill thru barrier

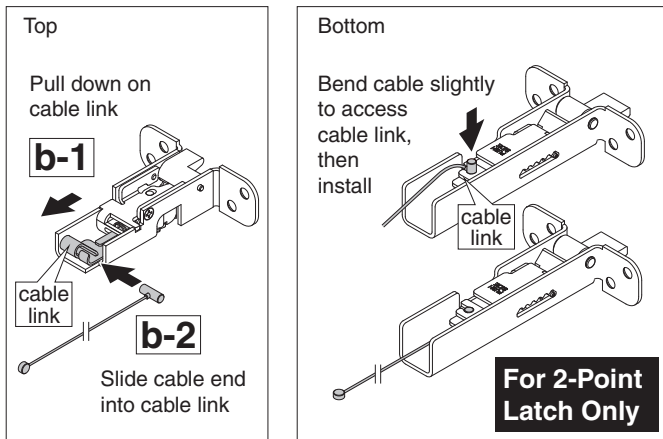
3 LATCH INSTALLATION

- 3a** Confirm top latch is marked for EXIT DEVICES ONLY, then remove label.



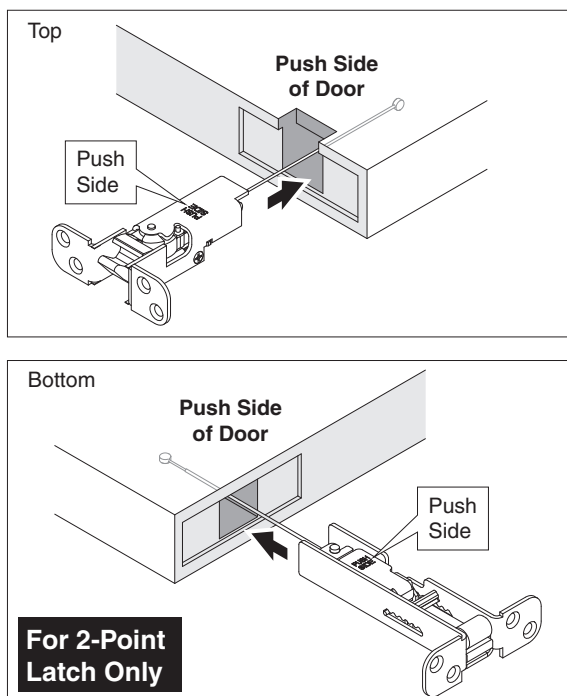
- 3b** Connect cable end fitting(s) to latch(es).

- ▲** For 2-point latches, the top cable is the longer of the two cables. Top cable is silver, bottom cable is black.

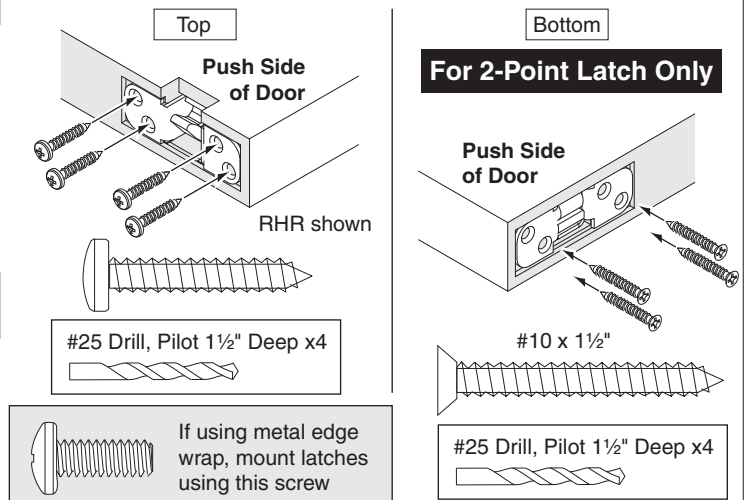


- 3c** Slide latch(es) into door pocket.

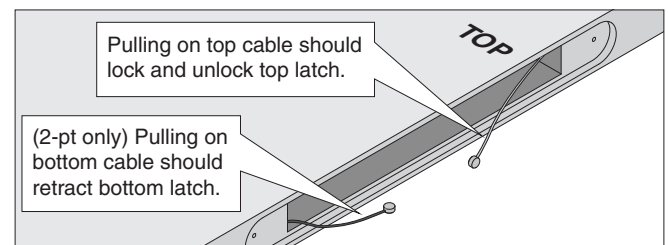
- ▲** Clear cable channel of debris first if necessary.



- 3d** Secure latch(es).

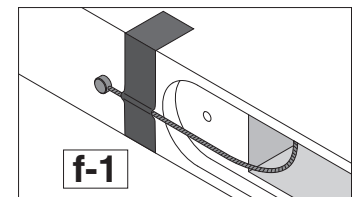


- 3e** Perform cable binding check at mortise pocket.



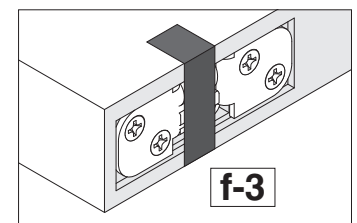
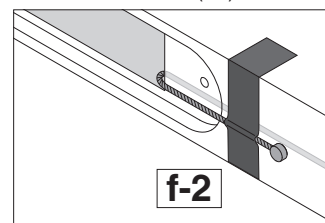
- 3f** Prepare door for hanging.

Pull top cable taut and tape cable end to door edge (f-1).



For 2-Point Latch Only

Pull bottom cable taut enough so bottom bolt will not drag against floor, and tape cable end to door edge (f-2). This holds cable in place, preventing it from dropping into door channel. Tape bottom bolt in place (f-3).



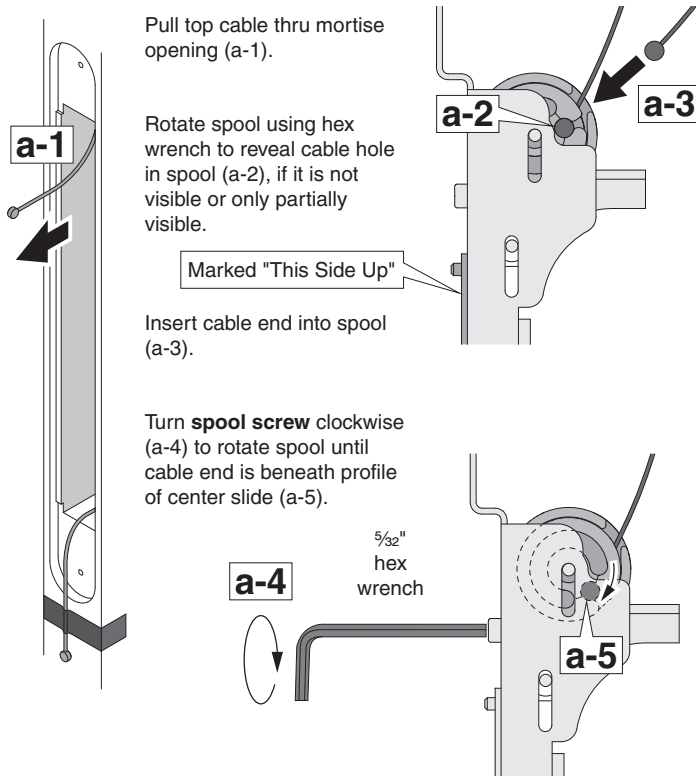
- 3g** Hang door on frame.

- ▲** For 2-point latches, bottom latch cannot be in locked position while hanging door on frame. Latch must be retracted.

4 CABLE INSTALLATION

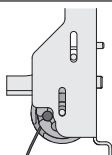
4a Insert cable end fitting(s) into center slide.

⚠ Be sure to attach top cable to top end of center slide (marked "This Side Up")



a-6 For 2-Point Latch Only

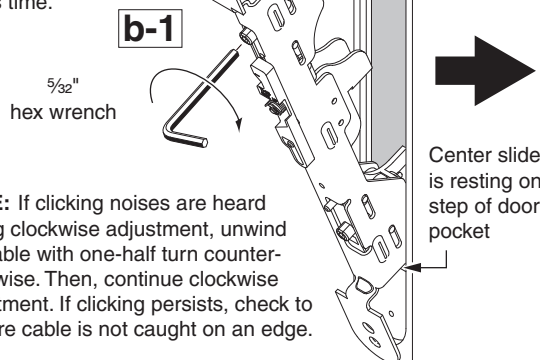
Remove tape from door edge, then repeat process to install bottom cable into bottom spool.



4b Take up top cable slack only.

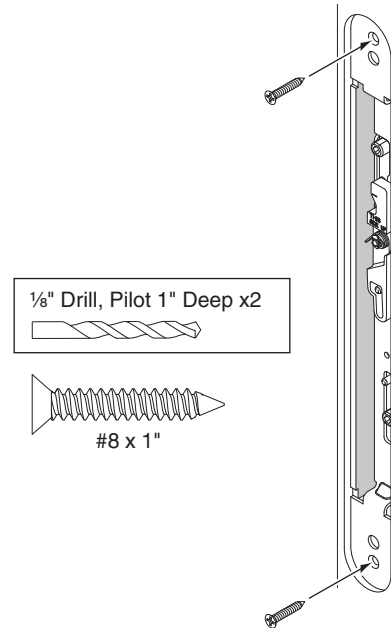
Position center slide as shown. Turn **top spool screw** clockwise to tighten (b-1) until center slide is no longer hanging outside door.

⚠ Do not adjust bottom cable at this time.



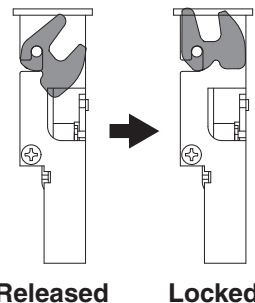
⚠ NOTE: If clicking noises are heard during clockwise adjustment, unwind the cable with one-half turn counter-clockwise. Then, continue clockwise adjustment. If clicking persists, check to be sure cable is not caught on an edge.

4c Secure center slide.



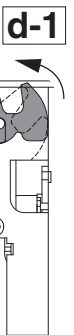
4d Adjust top spool.

⚠ NOTE: Top latch must be placed in locked position prior to making top adjustment.

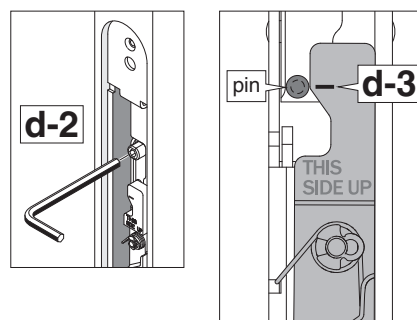


Put top latch in locked position (d-1).

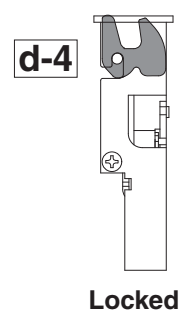
⚠ If latch won't lock, **top spool screw** was overtightened in Step 4b and needs to be backed out counter-clockwise.



Turn **top spool screw** (d-2) until pin is centered to the line (d-3).



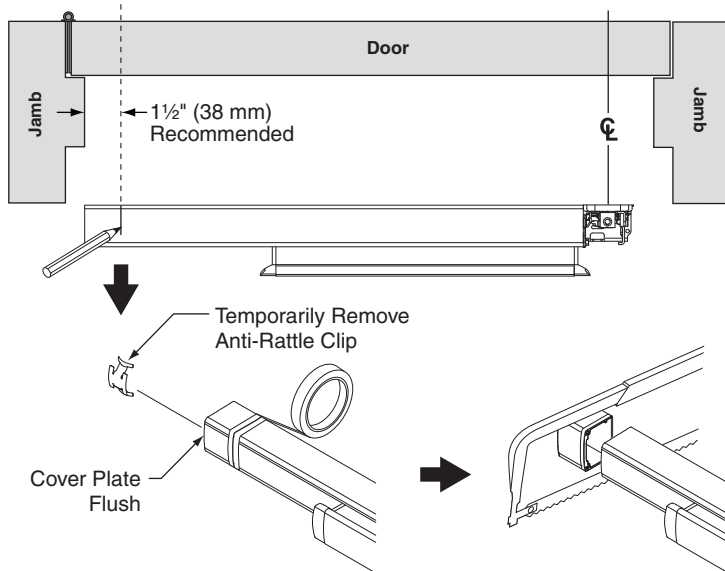
Confirm top latch is still locked (d-4).



⚠ NOTE: No further top spool adjustment needed. Put hex wrench away until Step 8b.

5 DEVICE INSTALLATION

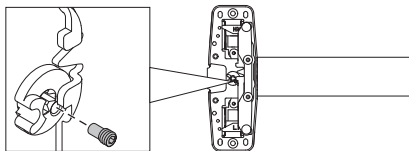
5a If necessary, cut device.



5b 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.

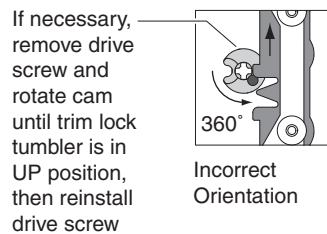
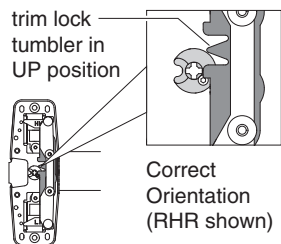
996L	696TP	990TP
996K	697TP	

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).

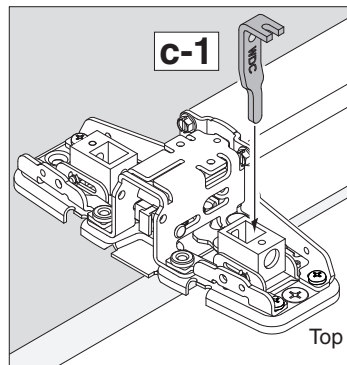
*996L-BE	*E996L	*696TP-BE	*990TP-BE
*996K-BE	*E996L-BE	*697TP-BE	

* 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.

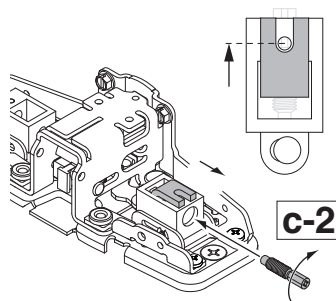


5c Install lift finger(s) and retainer clip(s).

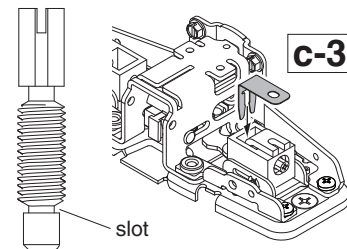
With device center case hanging over edge of table, slide L-shaped lift finger thru upper block of center case.



Insert **lift finger screw** and turn clockwise with screwdriver to raise lift finger until the slot aligns with diameter of screw hole.

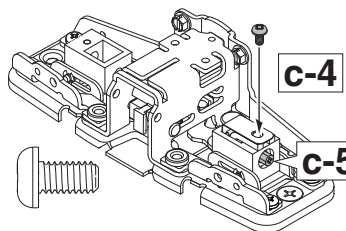


Install retainer clip against lift finger, snapping it into the slot of the **lift finger screw**.

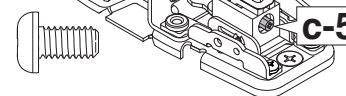


Lightly tighten **locking screw** (c-4).

⚠ It may be necessary to rotate the **lift finger screw** to realign retainer clip and lift finger holes.

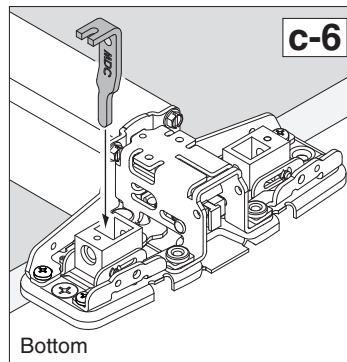


⚠ Confirm **lift finger screw** is free to rotate (c-5).



For 2-Point Latch Only

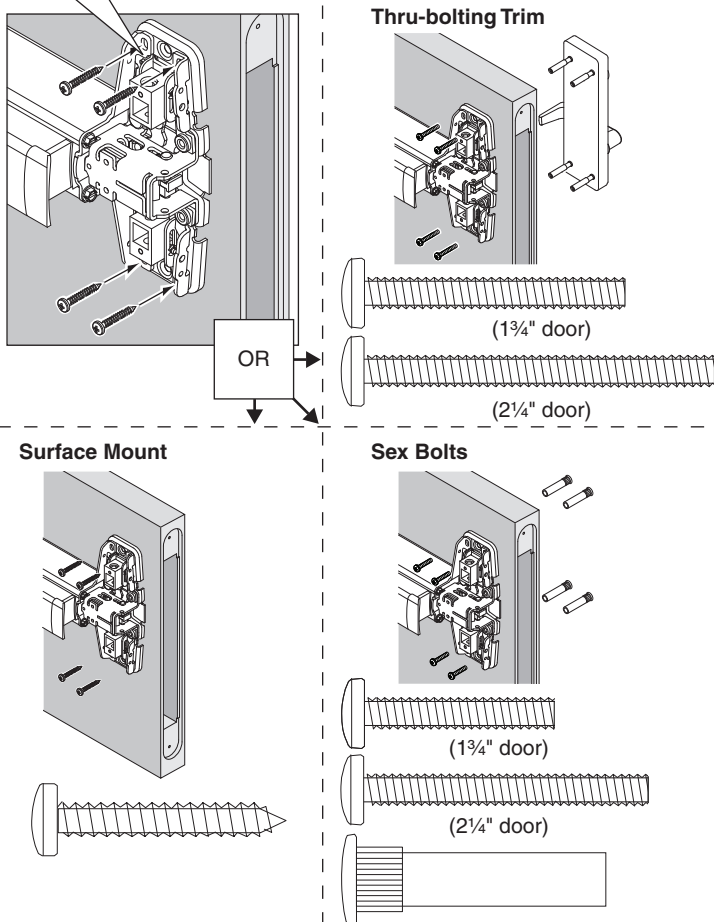
Repeat steps c-1 thru c-5 for lower block of center case.



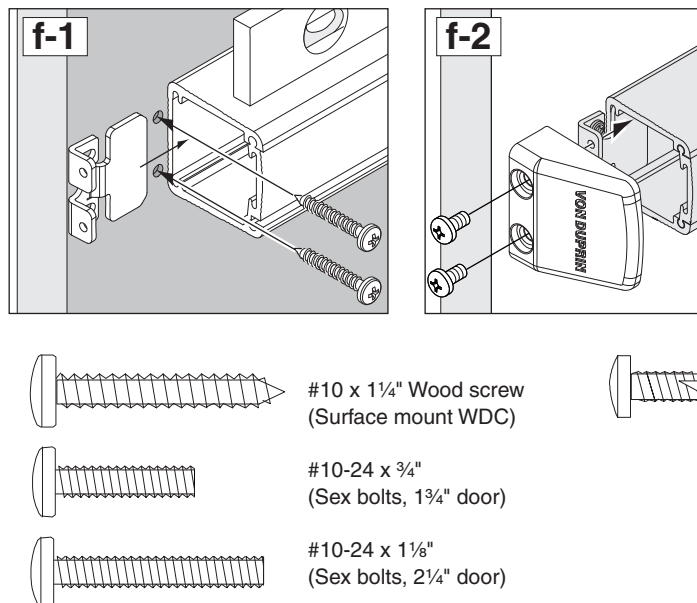
5 (continued)

5d Attach center case to door.

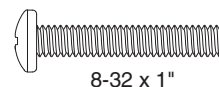
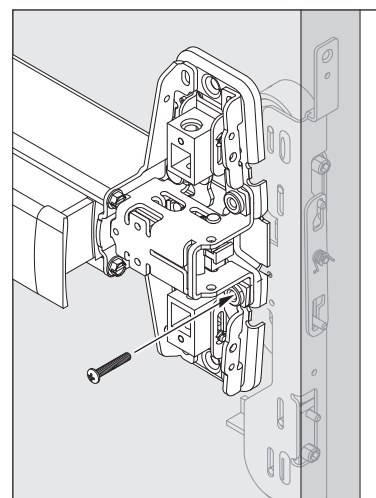
⚠ Do not overtighten center case to door (door edge cover plate won't fit).



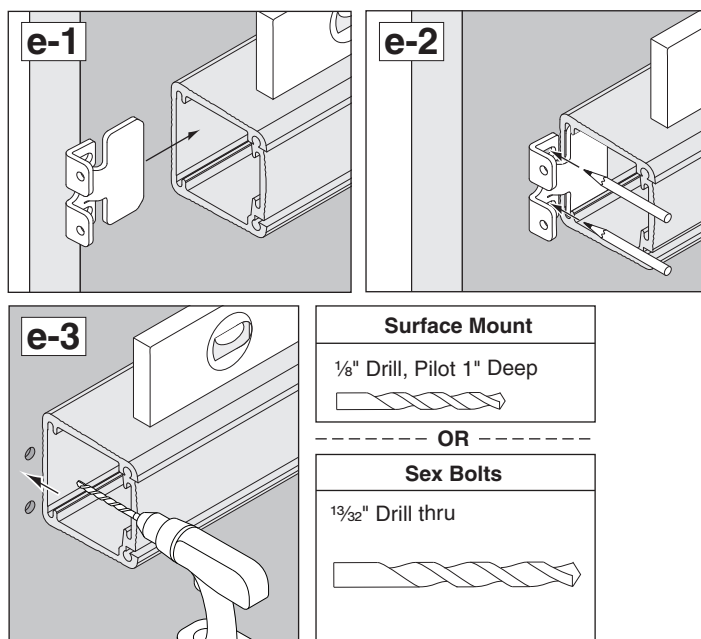
5f Install end cap bracket and end cap.



5g Secure center slide to face of door.

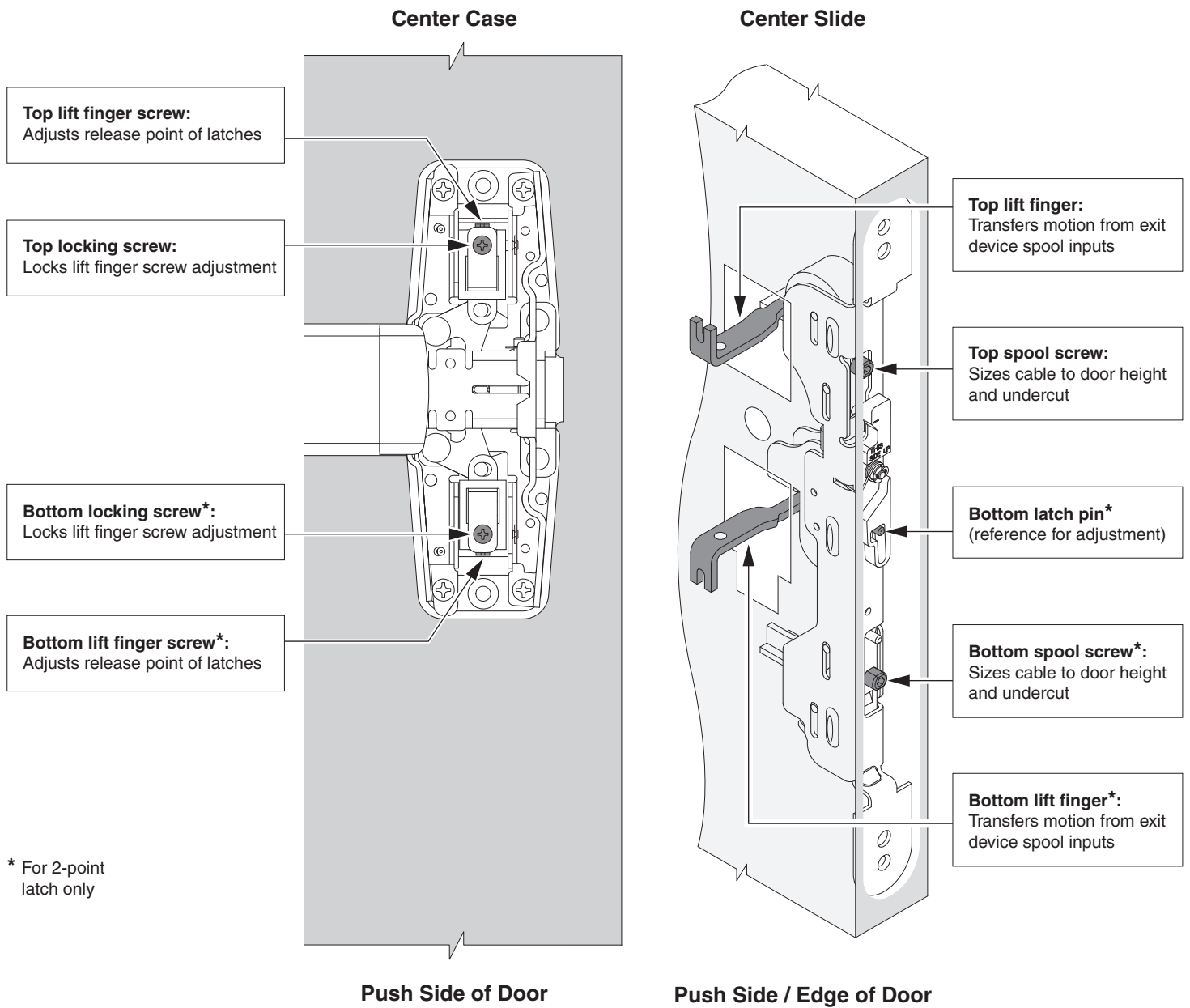


5e Mark and prepare 2 holes.



6 DEVICE ADJUSTMENT

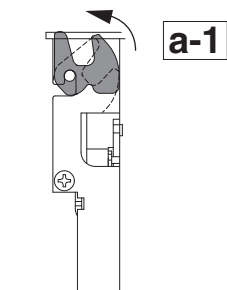
ADJUSTMENT COMPONENTS



6 (continued)

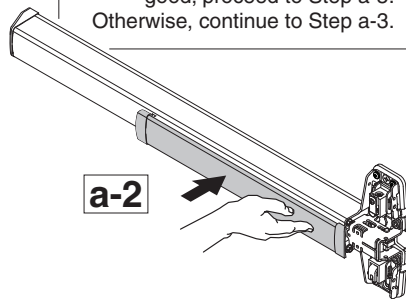
6a Adjust device for top latch retraction position.

Put top latch in locked position.

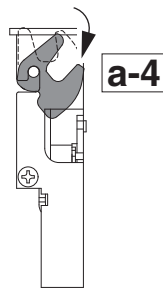
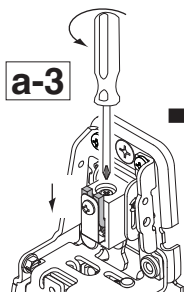


Depress and **HOLD** push pad (or dog device) until Step a-6.

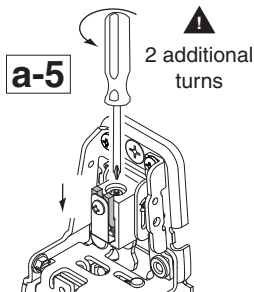
If top latch releases, adjustment is good; proceed to Step a-5. Otherwise, continue to Step a-3.



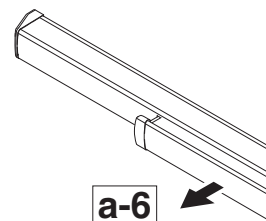
Maintain downward pressure on screwdriver and turn **top lift finger screw** counterclockwise to lower lift finger. With other hand, press on top latchbolt. **STOP** as soon as top latch releases.



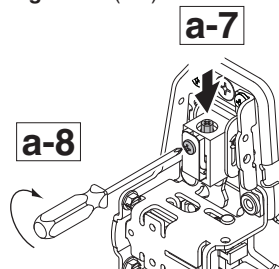
Turn **top lift finger screw** counterclockwise an additional 2 full turns.



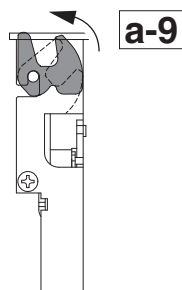
Release push pad.



While pressing down on **top lift finger screw** (a-7) so it is seated, tighten **top locking screw** (a-8).

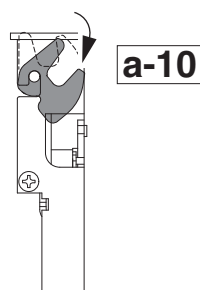


Using your finger, put top latch in locked position.



Locked

With pushpad depressed, you should be able to release top latch with your finger as shown below.

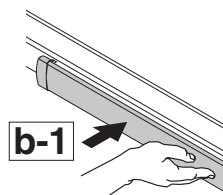


Released

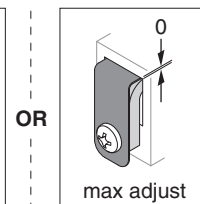
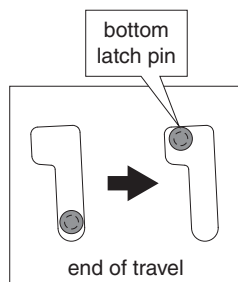
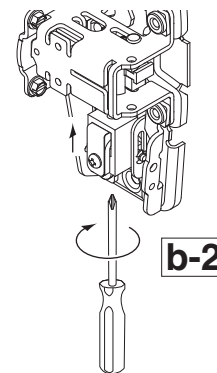
6b Adjust device for bottom latch retraction position.

For 2-Point Latch Only

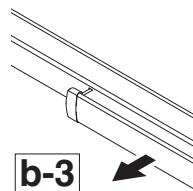
Depress and **HOLD** push pad (or dog device) until Step b-3.



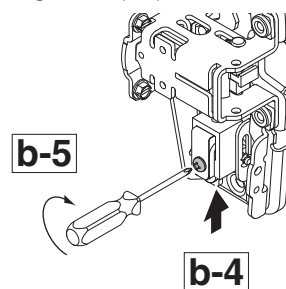
Maintain upward pressure on screwdriver and turn **bottom lift finger screw** (b-2) counterclockwise to adjust. Continue adjusting until **bottom latch pin** reaches end of travel or until **bottom lift finger** reaches max adjust. If **bottom latch pin** does not move, see Troubleshooting on back page.



Release push pad.



Push up on **bottom lift finger screw** (b-4) so it is seated, and tighten the **bottom locking screw** (b-5).

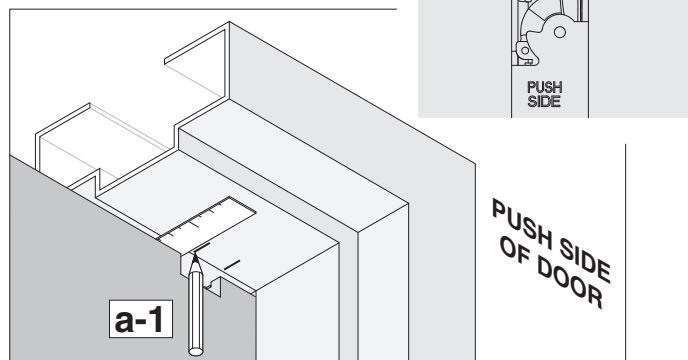


7 STRIKES AND FIRE PIN

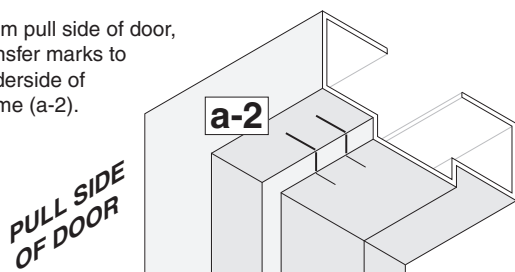
7a Prepare door frame for top strike.

⚠ If using a door seal or gasket, install first.

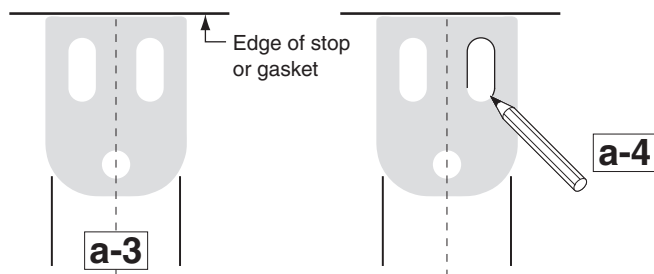
From push side of door, with door nearly closed, use straight edge to transfer location of inside edges of top latch housing to underside of stop (a-1).



From pull side of door, transfer marks to underside of frame (a-2).

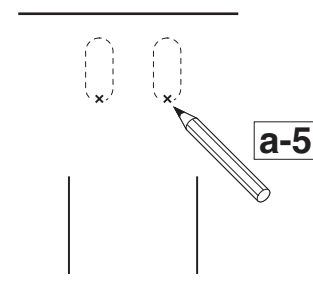


With flat end of strike against stop, center strike to marks on frame (a-3). Use a pencil to trace contour of the two slotted holes (a-4).



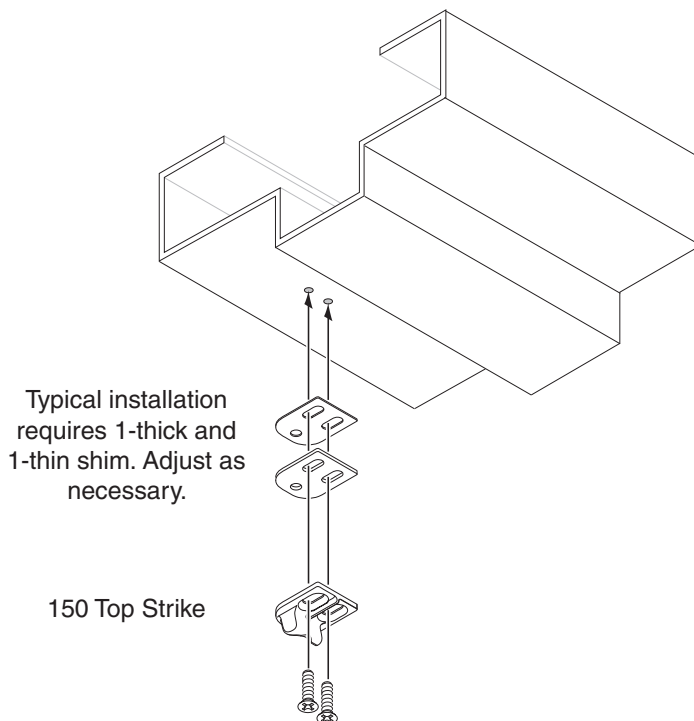
Mark the bottom center point of each slot (a-5) and prepare door frame as shown.

⚠ Do not drill 3rd hole at this time.



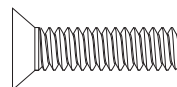
Metal	
Center punch + 1/16" Pilot	
#25 x 3/4" Deep x2	
#10-24	
OR	
Wood	
1/8" Drill	
Pilot 1" Deep x2	

7b Install 2 top strike screws using the slot features on the strike.

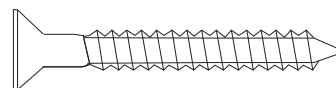


Typical installation requires 1-thick and 1-thin shim. Adjust as necessary.

(metal)



(wood)



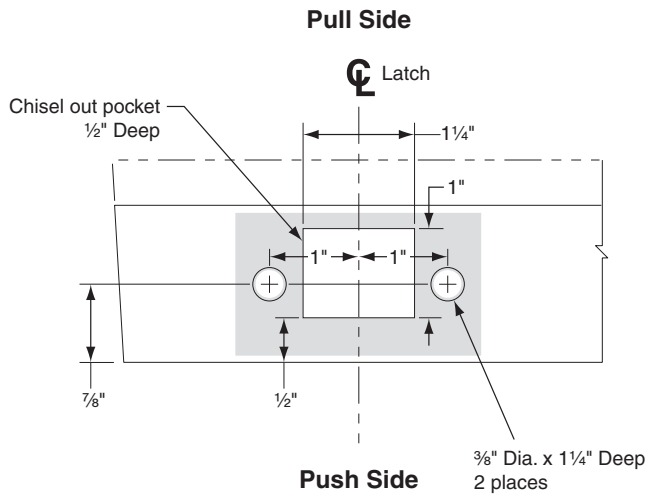
7c Perform top latch functional test.

- c-1. Close door.
- c-2. With door closed, top latch should be secure.
- c-3. If door fails to relatch, adjust top strike location.
- c-4. Depress pushbar. Door should begin to open when pushbar is nearly fully depressed. If necessary, refer to Step 6A to readjust top latch retraction position.

7 (continued)

7d Prepare floor for bottom strike.

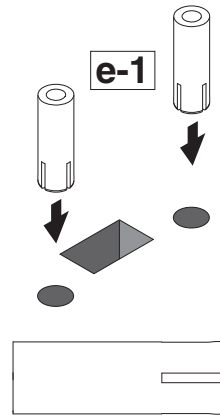
For 2-Point Latch Only



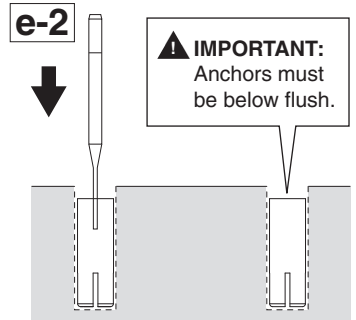
7e Install bottom strike.

For 2-Point Latch Only

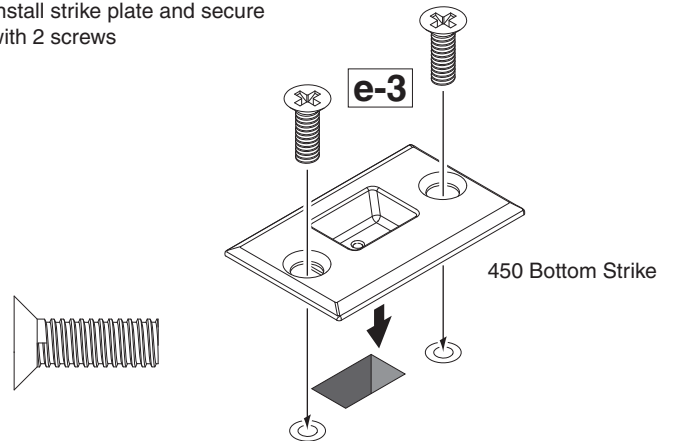
Clear holes of debris, then drop in anchors (slotted end first)



Secure the anchors using a hammer and punch



Install strike plate and secure with 2 screws



7f For Fire LBL applications only, install fire pin.

⚠ See instructions packaged with fire pin.

8 BOTTOM LATCHBOLT CLEARANCE

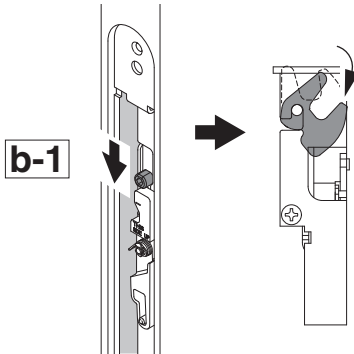
8a Remove tape holding bottom bolt in place from bottom of door.

For 2-Point Latch Only

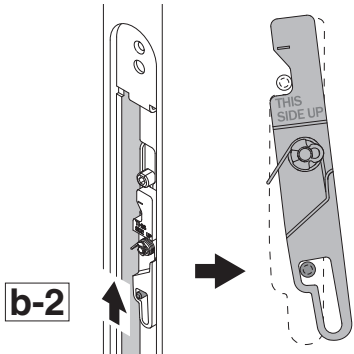
8b Adjust bottom latchbolt clearance.

For 2-Point Latch Only

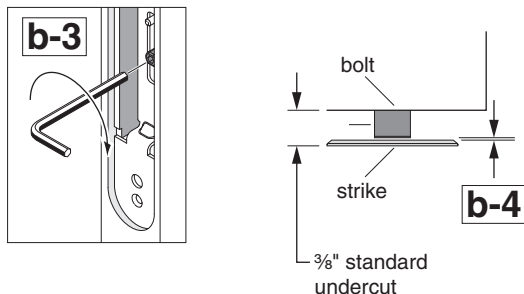
Pull **top spool screw** downward to release top latch, if not already retracted.



Push **bottom latch pin** upward. Link will tilt.



Turn **bottom spool screw** clockwise approximately 20 turns to remove slack. Continue turning until bolt just clears top of strike (b-4).



! NOTE: If clicking noises are heard during clockwise adjustment, unwind the cable with one-half turn counter-clockwise. Then, continue clockwise adjustment. If clicking persists, check to be sure cable is not caught on an edge.

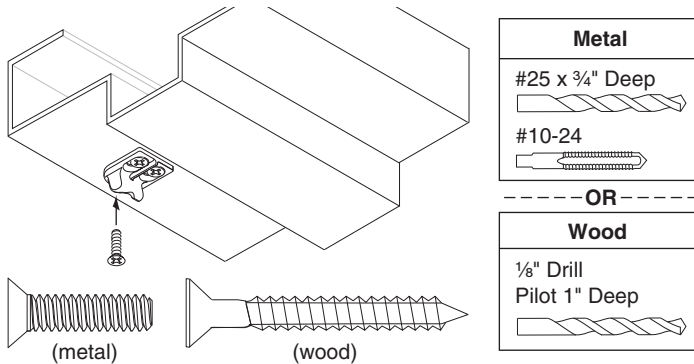
8c Perform bottom latch functional test.

For 2-Point Latch Only

- c-1. Confirm bottom latchbolt does not drag against floor when door is opened.
- c-2. With door closed, bottom latch should be secure.

9 TOP STRIKE AND COVERS

9a Adjust top strike as necessary, then install the third strike screw to fix the strike position.

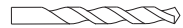


9b For fire devices, prepare door edge and cover plate.

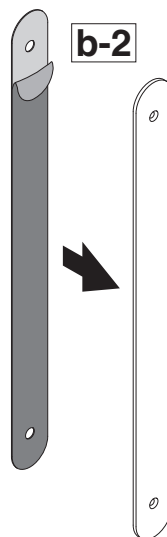
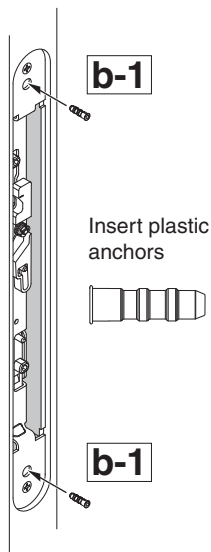
! Fire application only

! Intumescent must be properly aligned before exposed adhesive contacts cover plate. Adhesive is permanent and not repositionable.

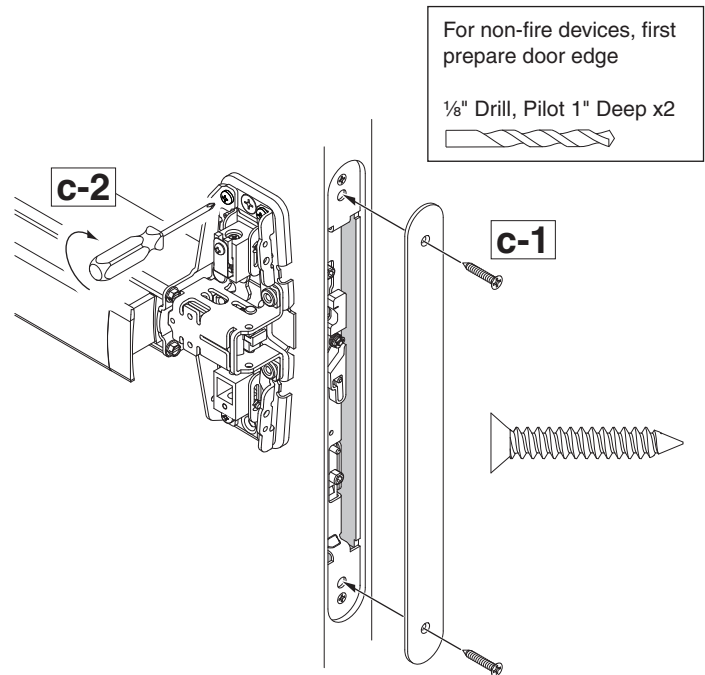
3/16" Drill, Pilot 1" Deep x2



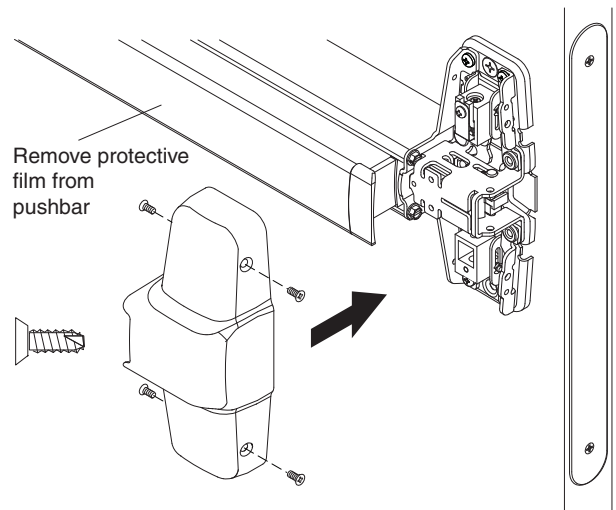
Peel adhesive backing from intumescent and apply to back side of cover plate



9c Install cover plate to door edge, then completely tighten down center case screws.



9d Install center case cover.



10 TROUBLESHOOTING

If latches do not retract when pushpad is depressed:

Remove cover plate from edge of door

Pull down on **top spool screw**. If the top latch fails to actuate, readjust top spool (Steps 4d-1 thru 4d-4).

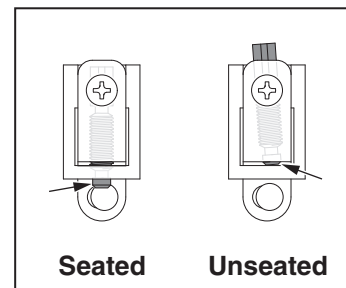
Pull up on **bottom spool screw**. If the bottom latch fails to actuate, readjust bottom latch clearance (Steps 8b-1 thru 8b-4).

If both actuate and the door is not functioning, proceed to next check.

Remove center case cover

Check **lift finger screws** to ensure they are still fully seated. If unseated, loosen **locking screw**, and while applying pressure to the head of the **lift finger screw** to seat it, tighten locking screw. If door is not functioning, proceed to next step.

With both **lift finger screws** fully seated, loosen **top and bottom locking screws**, turn **lift finger screws** clockwise to end of travel, and repeat device adjustment, Step 6.



If bottom latch pin does not move during Step 6b-2:

Loosen **bottom spool screw** 10 turns.

Customer Service

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