

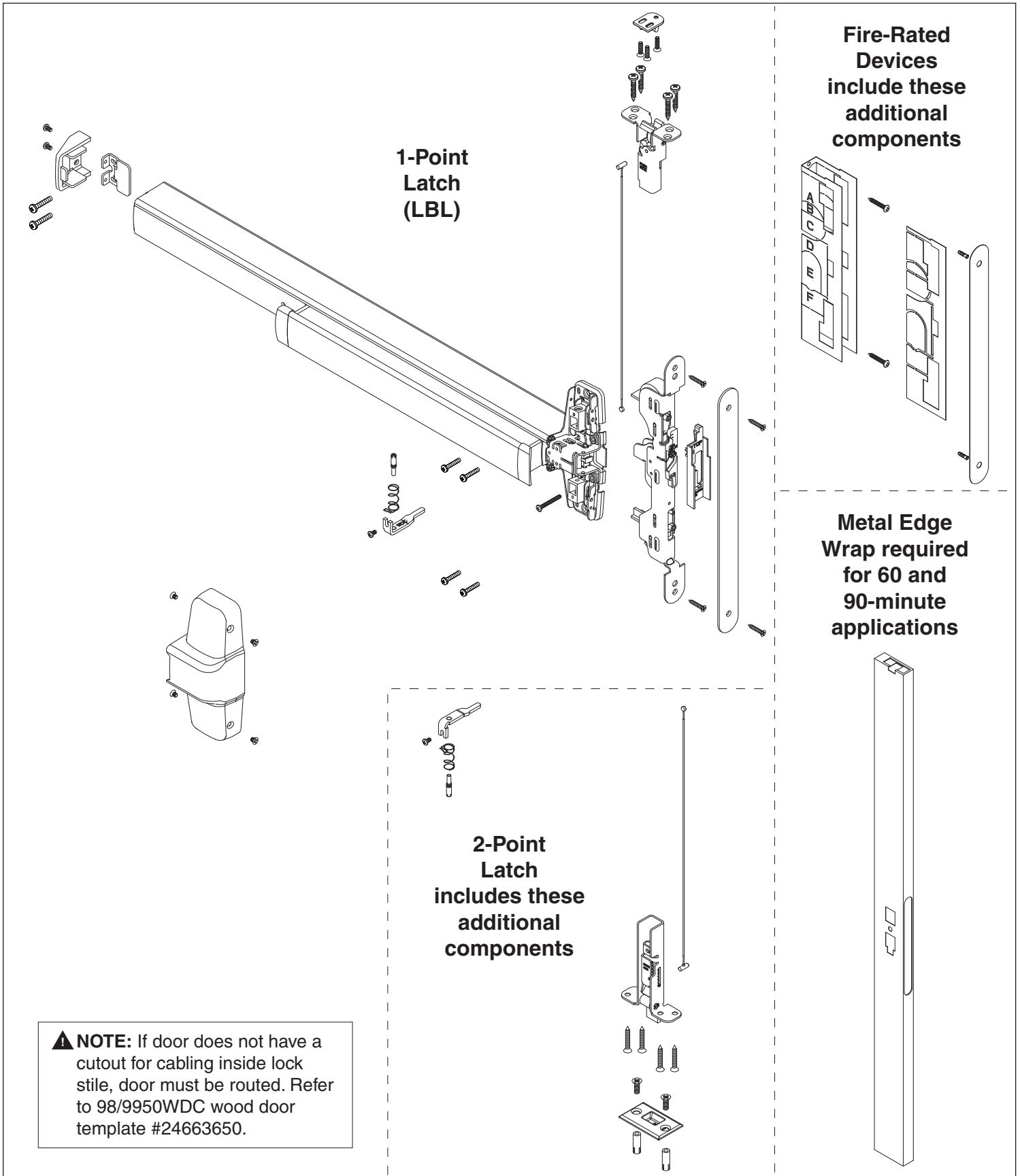


24739468

98/9950WDC

VON DUPRIN®

Installation Instructions



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

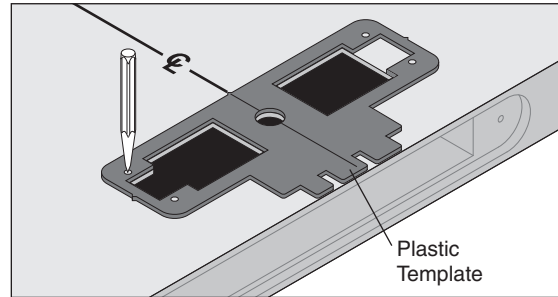
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1 (continued)

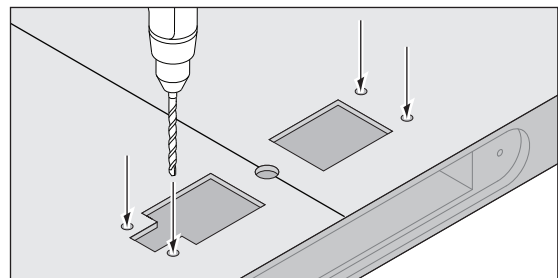
1a For 60 and 90-minute applications, install metal edge wrap.



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



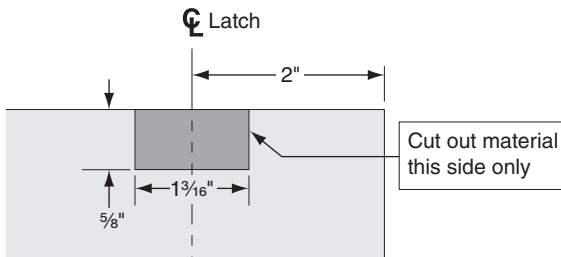
1e Prepare center case mounting holes as required.



Surface Mount	OR	Sex Bolts or 990 Trims
1/8" Drill Pilot 1 1/2" Deep		5/16" 1 3/32" Device side Trim side

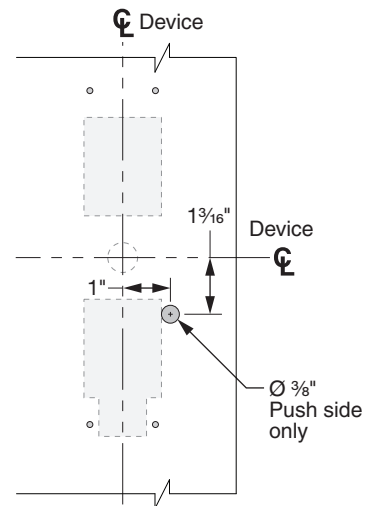
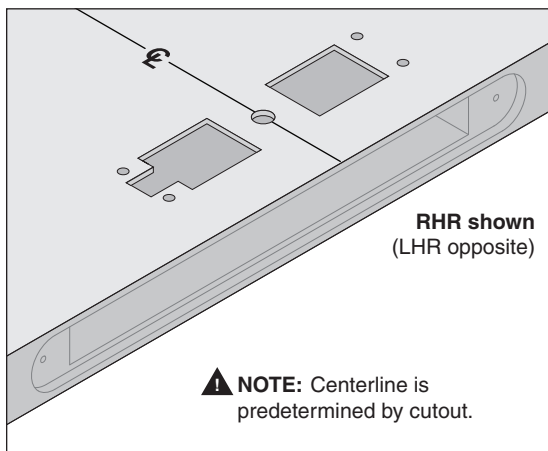
1f Prepare center slide mounting hole.

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).



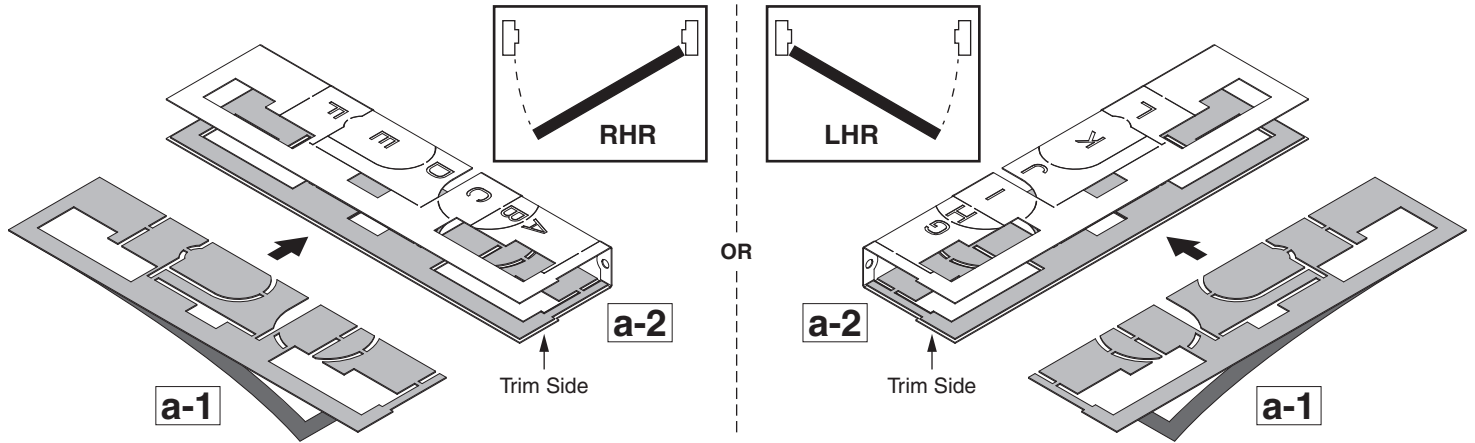
Push side of door, RHR shown
(LHR opposite)

2 FIRE BARRIER

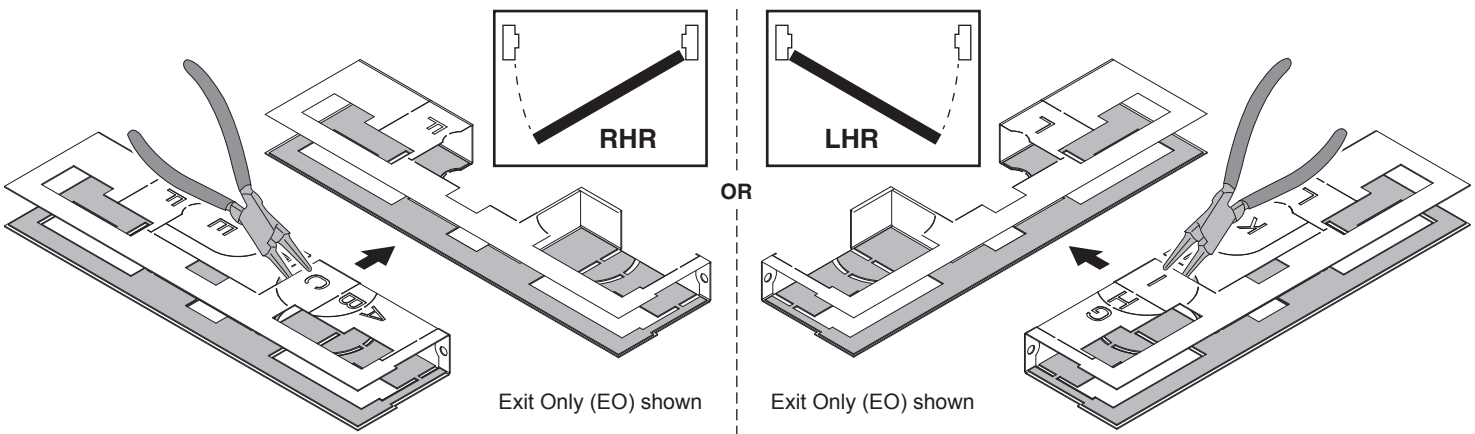
- ▲ Fire application only
- ▲ Fire components must be installed to maintain fire rating of opening.

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

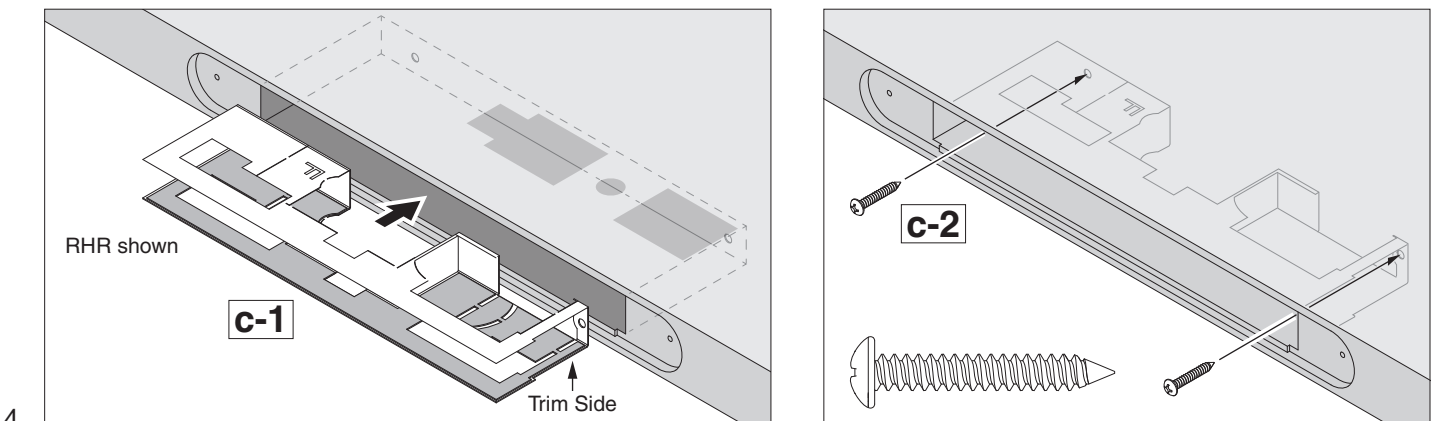
- ▲ Intumescent must be properly aligned before exposed adhesive contacts fire barrier. Adhesive is permanent and not repositionable.



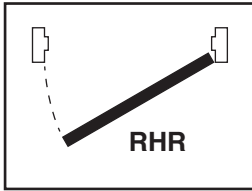
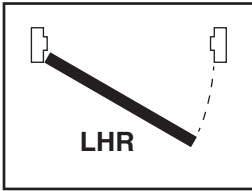
2b Remove appropriate knockouts for device and trim.



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

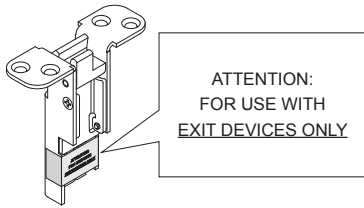


FIRE BARRIER KNOCKOUT TABLE

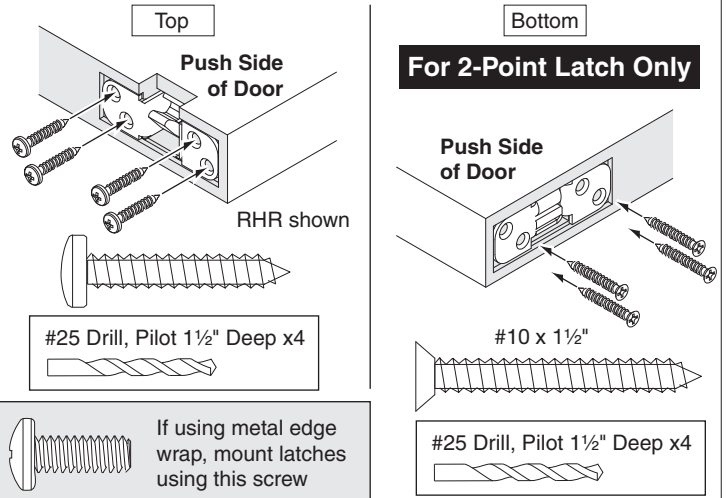
Trim Model	Trim Function	 Right Hand Reverse (RHR) Remove the knockouts listed below	 Left Hand Reverse (LHR) Remove the knockouts listed below
Exit Only	EO	A B C D E J K	D E G H I J K
990	DT		
990	NL	A B C D E H I J K	B C D E G H I J K
996	L-NL		
996	K-NL		
990	TP	A B C D E H I J K L	B C D E F G H I 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.

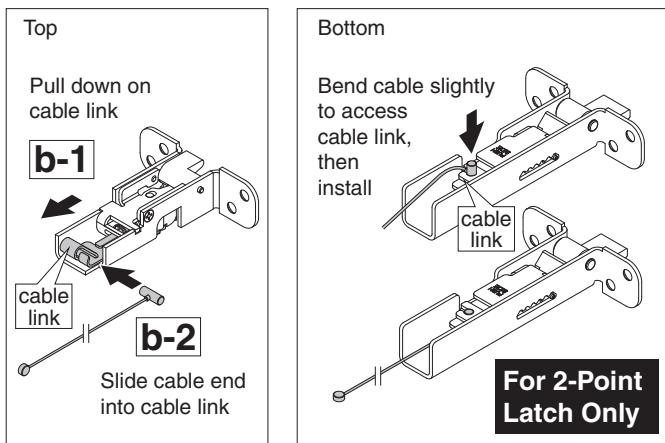


3d Secure latch(es).

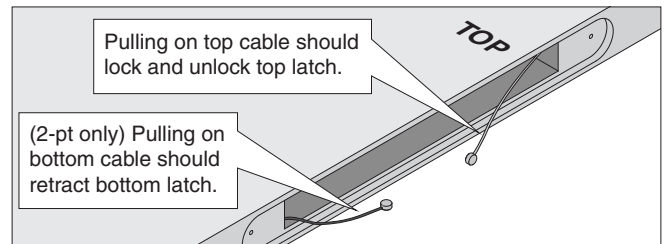


3b Connect cable end fitting(s) to latch(es).

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

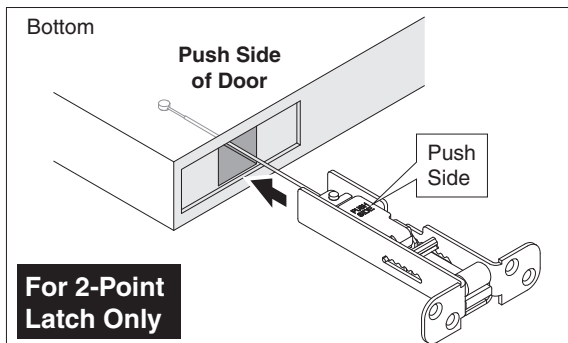
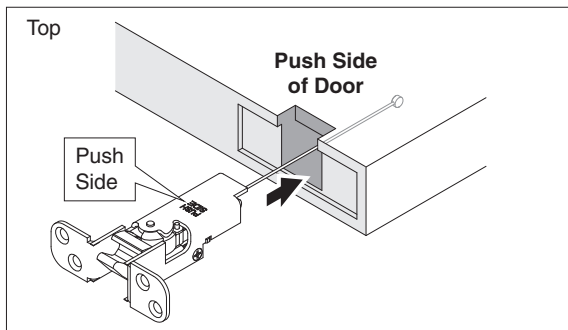


3e Perform cable binding check at mortise pocket.



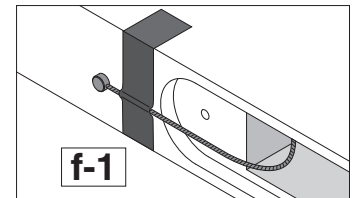
3c Slide latch(es) into door pocket.

▲ Clear cable channel of debris first if necessary.



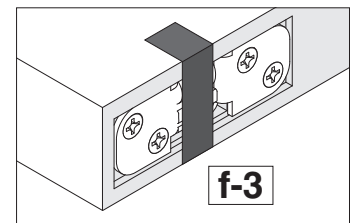
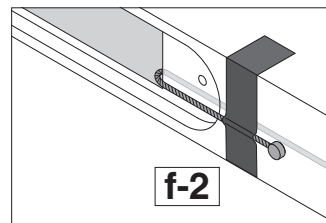
3f Prepare door for hanging.

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).



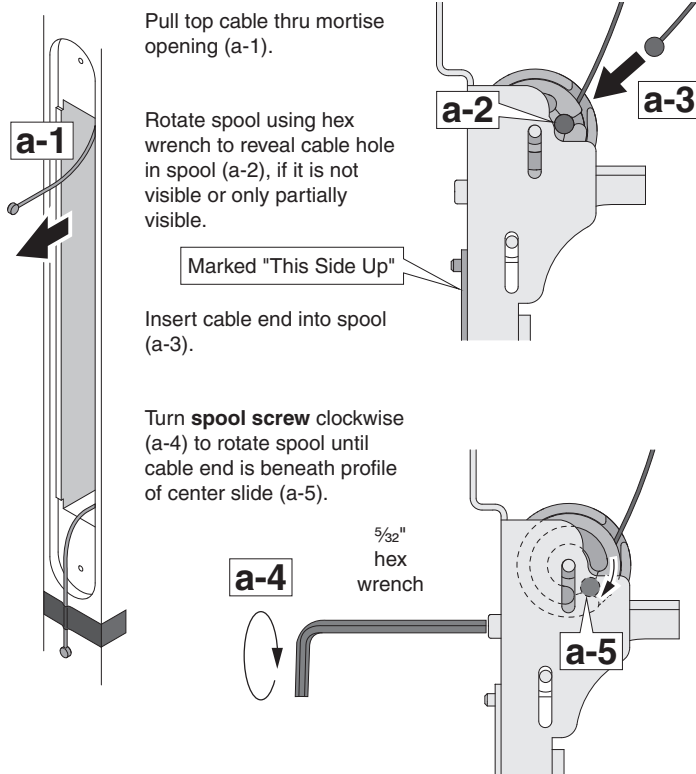
3g Hang door on frame.

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

4 CABLE INSTALLATION

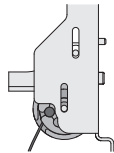
4a Insert cable end fitting(s) into center slide.

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



a-6 For 2-Point Latch Only

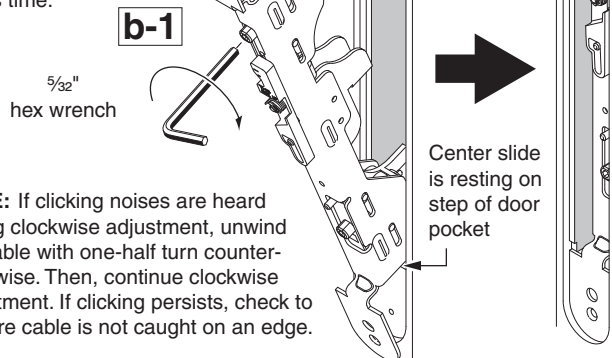
Remove tape from door edge, then repeat process to install bottom cable into bottom spool.



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.

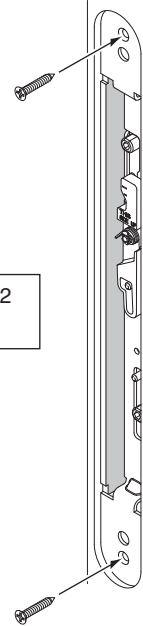
⚠ Do not adjust bottom cable at this time.



4c Secure center slide.

1/8" Drill, Pilot 1" Deep x2

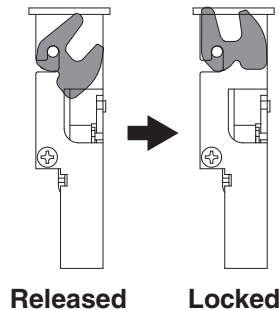
#8 x 1"



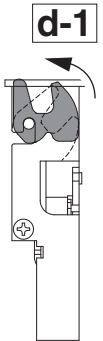
4d Adjust top spool.

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

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

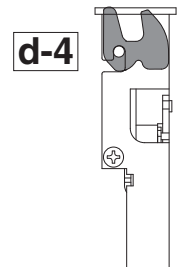
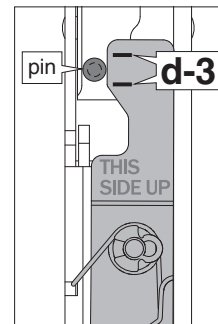
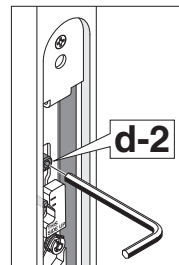


⚠ If latch won't lock, **top spool screw** was overtightened in Step 4b and needs to be backed out 5 turns counter-clockwise.



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

Confirm top latch is still locked (d-4). If not, repeat d-1 thru d-4.

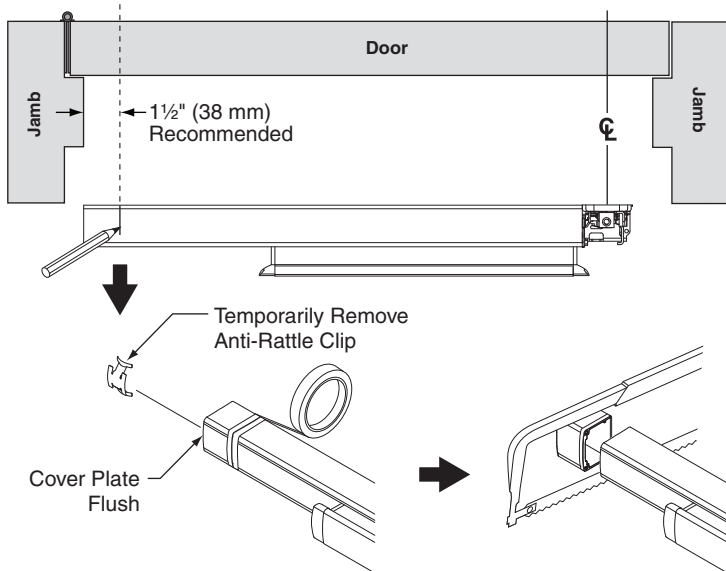


⚠ NOTE: No further top spool adjustment needed. Put hex wrench away until Step 8b.

Locked

5 DEVICE INSTALLATION

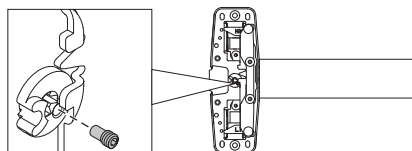
5a If necessary, cut device.



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.

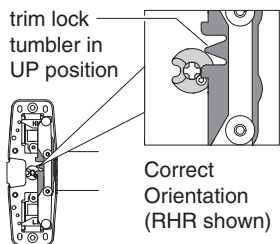
996L	696TP	990TP
996K	697TP	

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

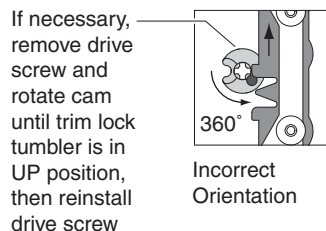
NL, EO, DT trims and 98/99-2 double cylinder devices (i.e. TP-2, L-2, and K-2).

*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.



Correct Orientation (RHR shown)

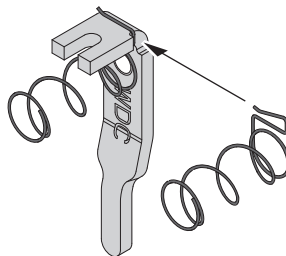


Incorrect Orientation

5c Install lift finger(s).

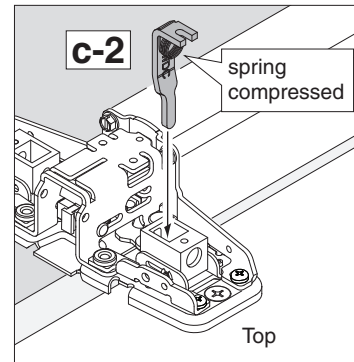
Attach spring. Spring clip wraps around L-shaped lift finger as shown.

c-1

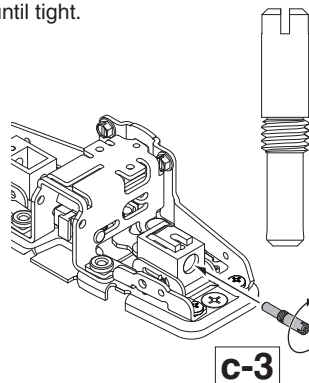


With device center case hanging over edge of table, insert lift finger with spring compressed thru upper block of center case.

c-2



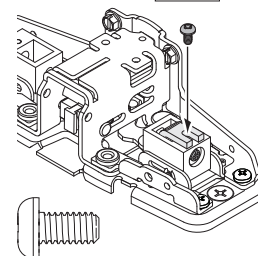
Insert **lift finger screw** and turn clockwise with screwdriver until tight.



c-3

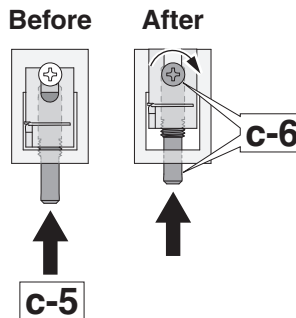
Install **locking screw** loosely.

c-4



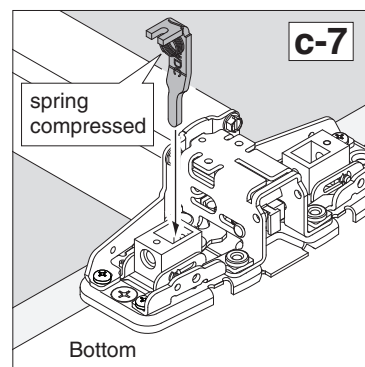
Press lift finger screw upward to preload spring (c-5).

While lift finger screw is being pressed, tighten locking screw (c-6).



For 2-Point Latch Only

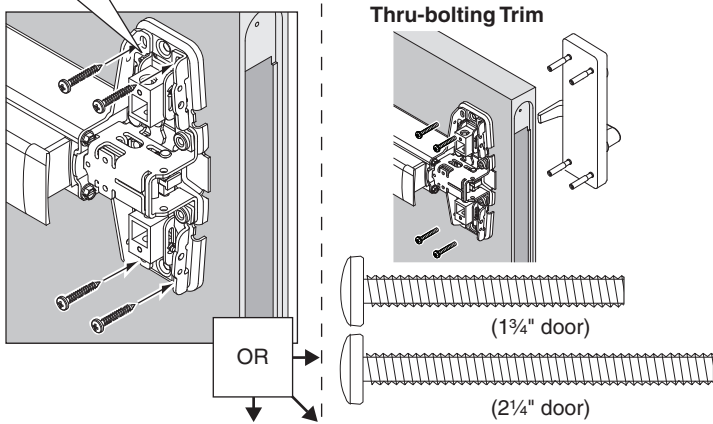
Repeat steps c-1 thru c-6 for lower block of center case.



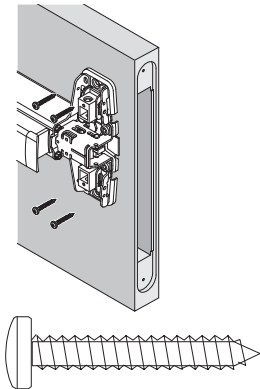
5 (continued)

5d Attach center case to door.

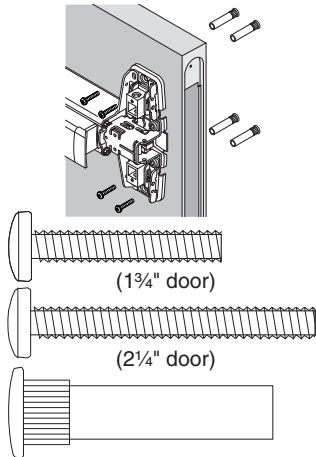
▲ Do not overtighten center case to door (door edge cover plate won't fit).



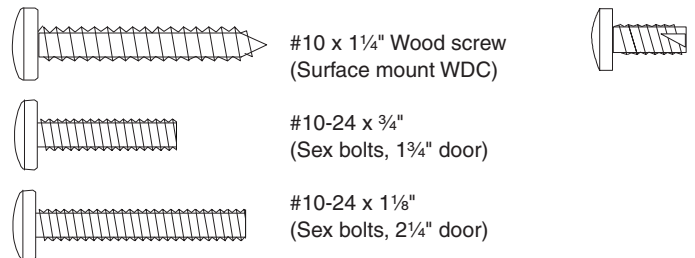
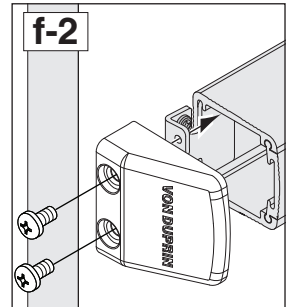
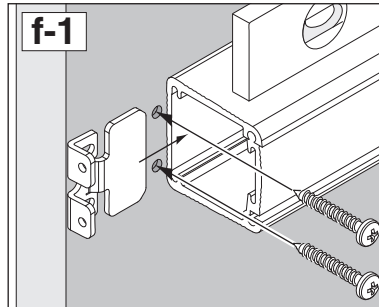
Surface Mount



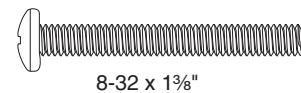
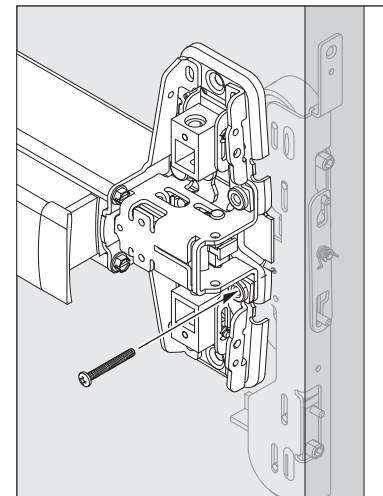
Sex Bolts



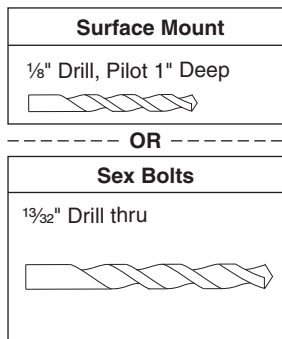
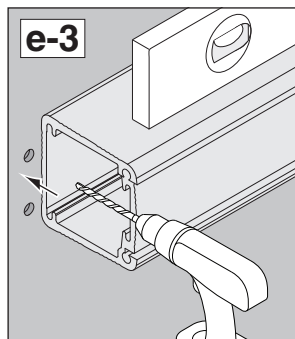
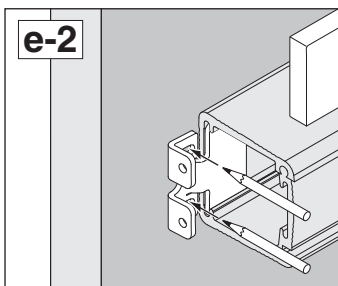
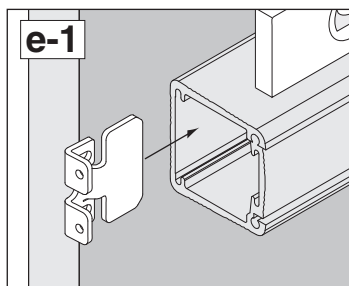
5f Install end cap bracket and end cap.



5g Secure center slide to face of door.



5e Mark and prepare 2 holes.



ADJUSTMENT COMPONENTS

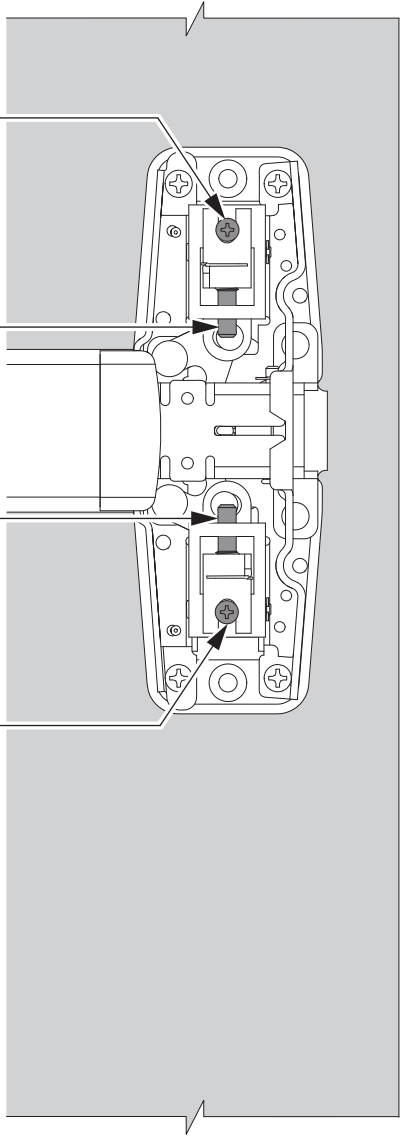
Center Case

Top locking screw:
Locks lift finger screw adjustment

Top lift finger screw:

Bottom lift finger screw*:

Bottom locking screw*:
Locks lift finger screw adjustment



Push Side of Door

Center Slide

Top lift finger:
Transfers motion from exit device spool inputs

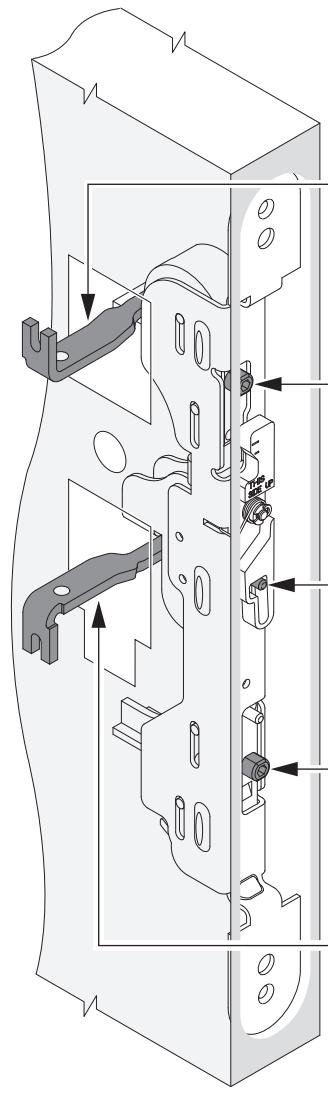
Top spool screw:
Sizes cable to door height and undercut

Bottom latch pin*:
(reference for adjustment)

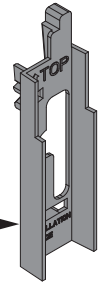
Bottom spool screw*:
Sizes cable to door height and undercut

Bottom lift finger*:
Transfers motion from exit device spool inputs

Spool locator:
Keeps spools in position during adjustment.



Push Side / Edge of Door

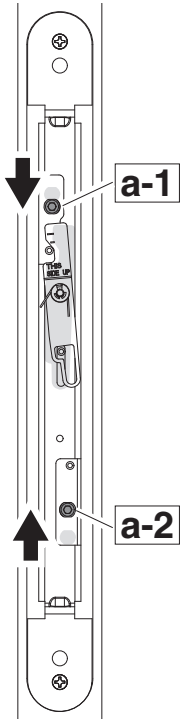


* For 2-point latch only

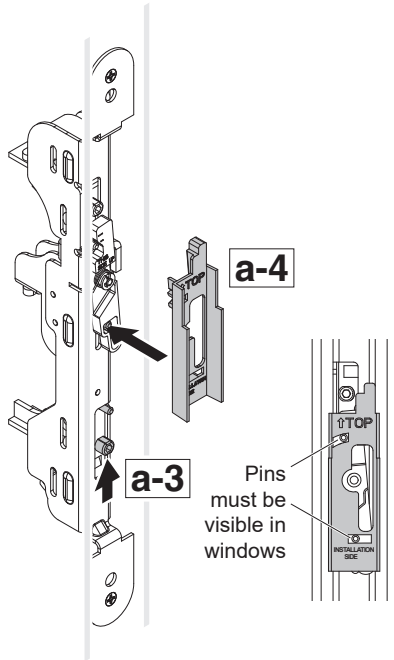
6 (continued)

6a Adjust device.

Slide top spool screw downward until it clicks (a-1). Slide bottom spool screw upward (a-2).

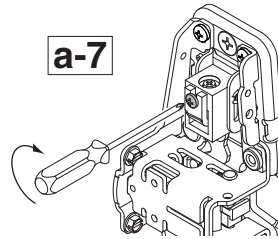


While sliding bottom spool screw upward (a-3), attach spool locator (a-4). Once locator snaps into place, let go of spool screw. Pins must be visible in locator windows.



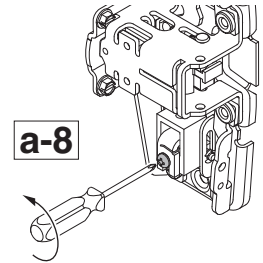
Tighten the top adjustment locking screw.

NOTE: Locking screw must be tight.

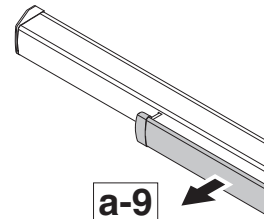


For 2-Point Latch Only

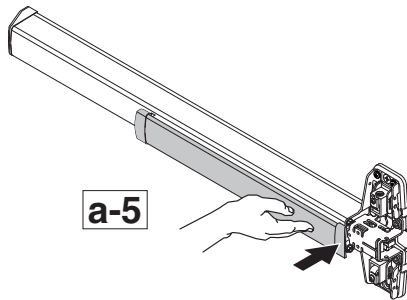
Repeat steps a-6 and a-7 for bottom adjustment locking screw. Lift finger will move.



Undog device or release push pad.

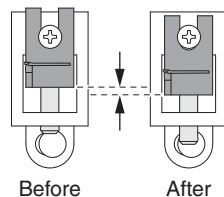
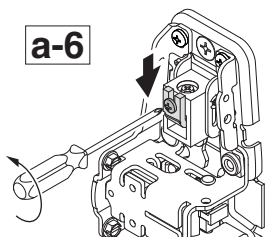


Dog device or depress and hold push pad at the end nearest the center case.

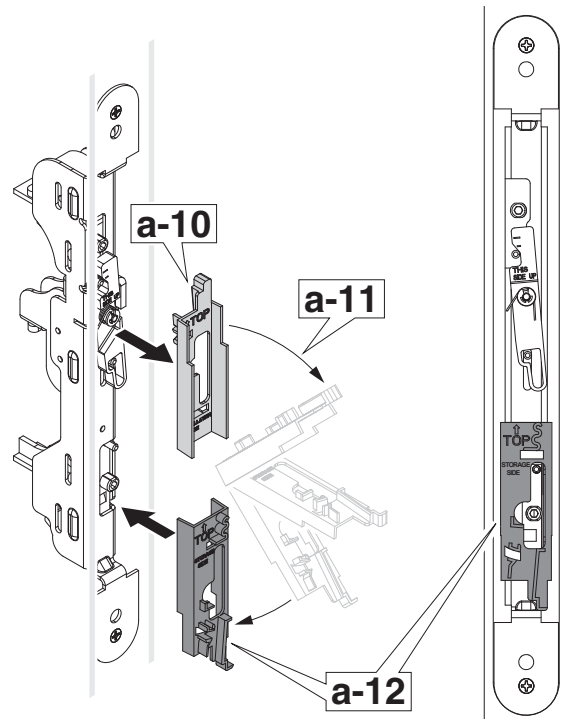


Loosen the top adjustment locking screw.

Lift finger will move (movement may be small or large). Automatic adjustment occurs here.



Remove spool locator (a-10), rotate 180° (a-11), and reinsert into door pocket for storage as shown below (a-12).

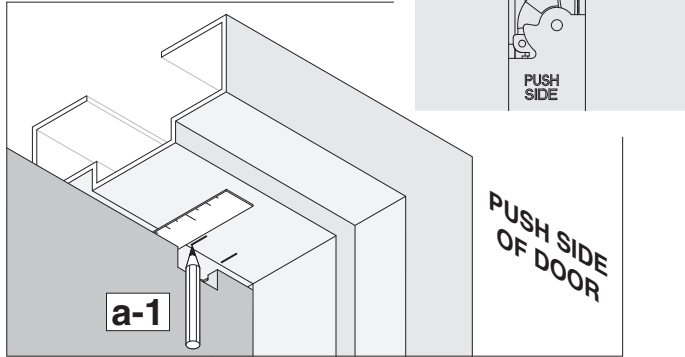


7 STRIKES AND FIRE PIN

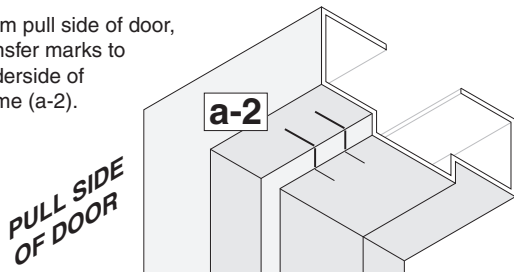
7a Prepare door frame for top strike.

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

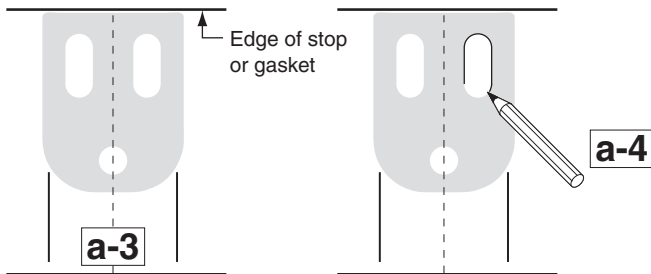
From push side of door, with door nearly closed, use straight edge to transfer location of inside edges of top latch housing to underside of stop (a-1).



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

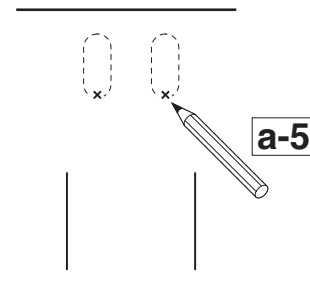


With flat end of strike against stop, center strike to marks on frame (a-3). Use a pencil to trace contour of the two slotted holes (a-4).



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

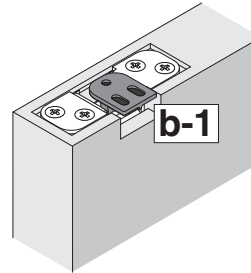
▲ Do not drill 3rd hole at this time.



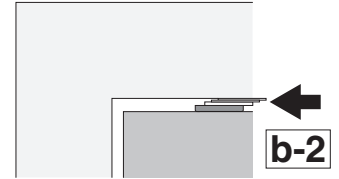
Metal	
Center punch + 1/16" Pilot	
#25 x 3/4" Deep x2	
#10-24	
OR	
Wood	
1/8" Drill	
Pilot 1" Deep x2	

7b Shim, then install 2 top strike screws using the slot features on the strike.

Place top latch in locked position and place strike on top of latch bolt (b-1).

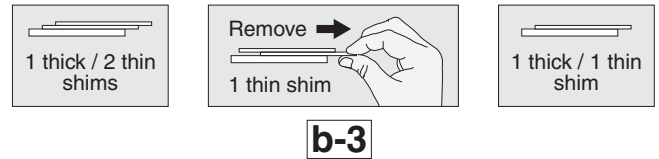


Close door and measure the gap between strike and frame by stacking as many shims as possible. In the example shown, the gap is 1 thick and 2 thin shims (b-2).

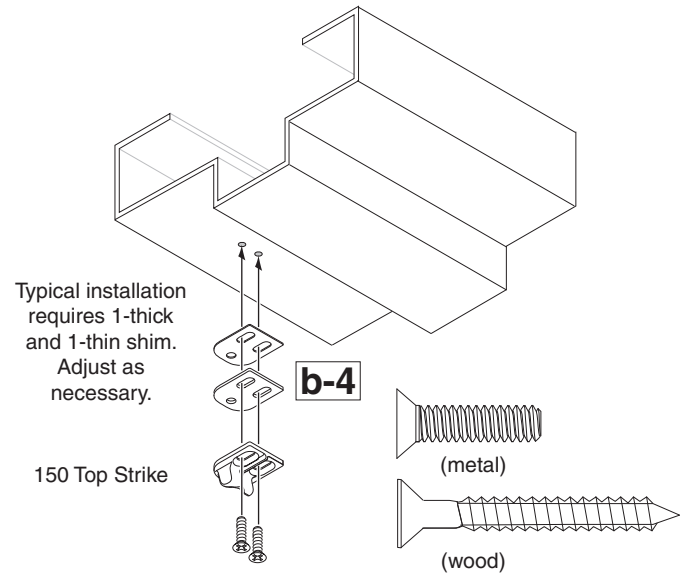


Remove 1 thin shim from the measurement (b-3).

Note: 1 thick shim is same as 2 thin shims



Screw strike to frame using those shim(s) (b-4).



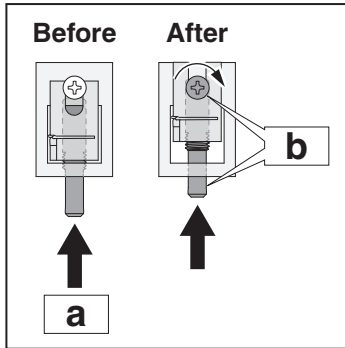
Typical installation requires 1-thick and 1-thin shim. Adjust as necessary.

▲ NOTE: 3rd screw is not installed at this time.

7 (continued)

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,
 - Reset automatic adjusting fingers by pressing lift finger upward to preload spring (a).
 - While lift finger is being pressed, tighten locking screw (b).
 - Repeat adjustment (Step 6).

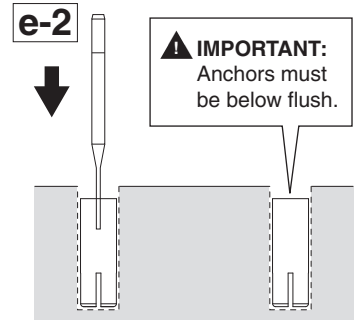
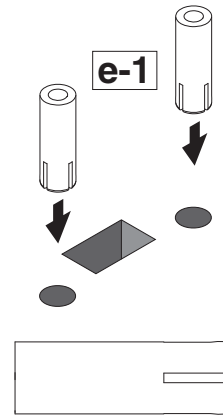


7e Install bottom strike.

For 2-Point Latch Only

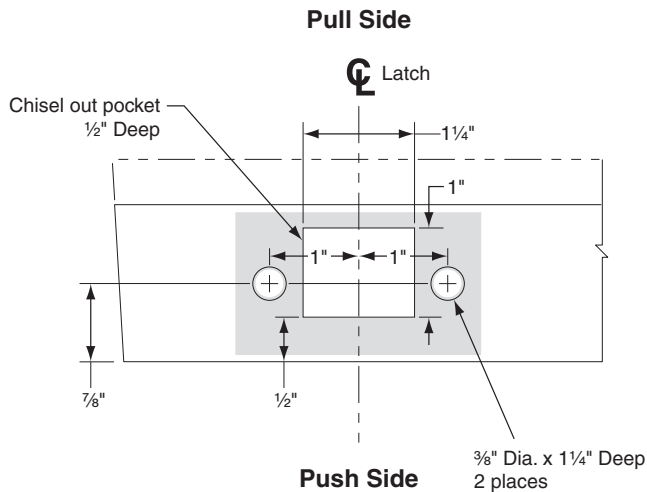
Clear holes of debris, then drop in anchors (slotted end first)

Secure the anchors using a hammer and punch

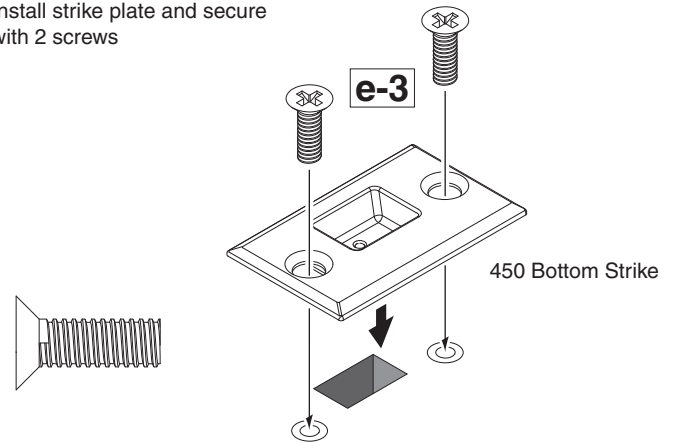


7d Prepare floor for bottom strike.

For 2-Point Latch Only



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

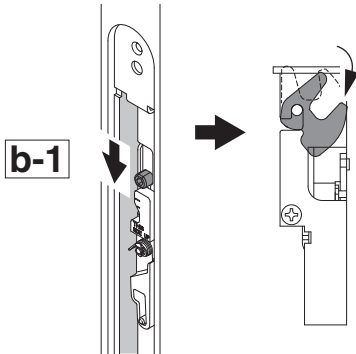
8a Remove tape holding bottom bolt in place from bottom of door.

For 2-Point Latch Only

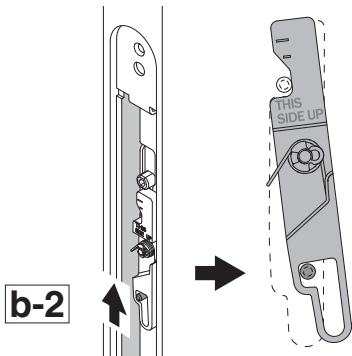
8b Adjust bottom latchbolt clearance.

For 2-Point Latch Only

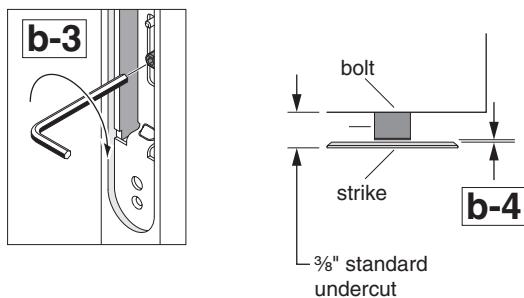
Pull **top spool screw** downward to release top latch, if not already retracted.



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.

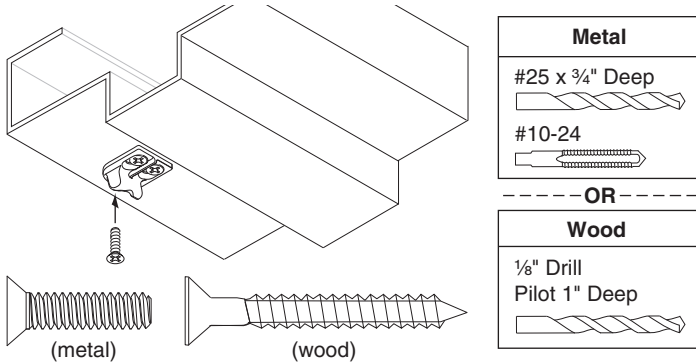
8c Perform bottom latch functional test.

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.

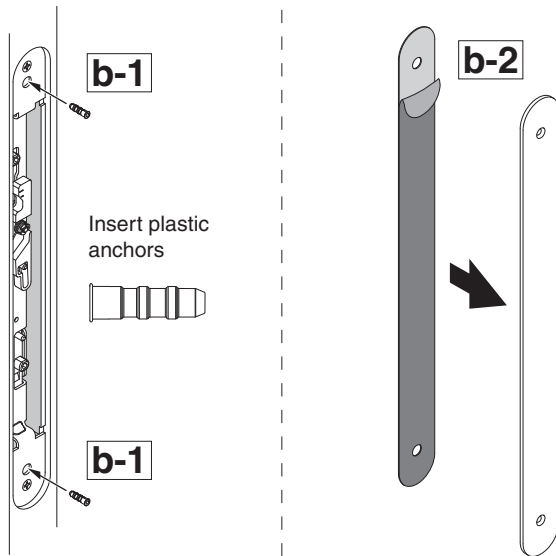


9b For fire devices, prepare door edge and cover plate.

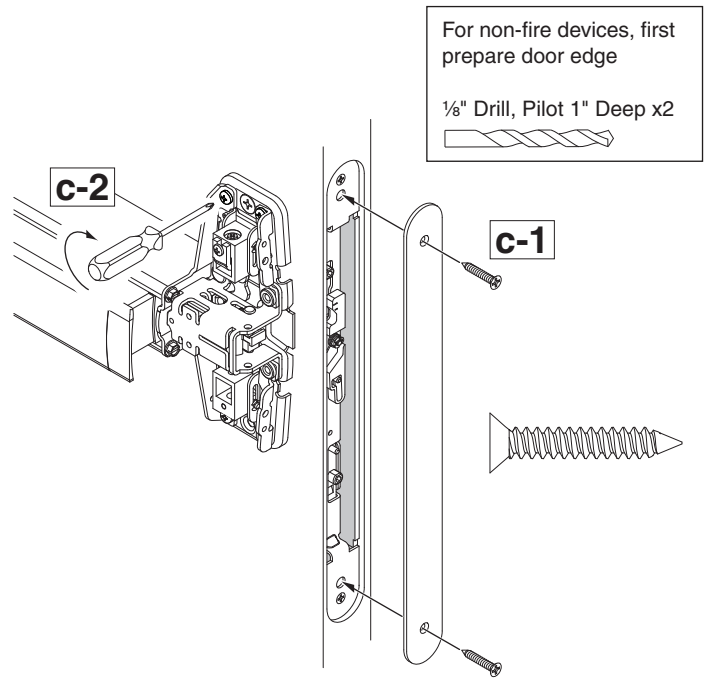
- Fire application only**
- Intumescent must be properly aligned before exposed adhesive contacts cover plate. Adhesive is permanent and not repositionable.**

3/16" Drill, Pilot 1" Deep x2

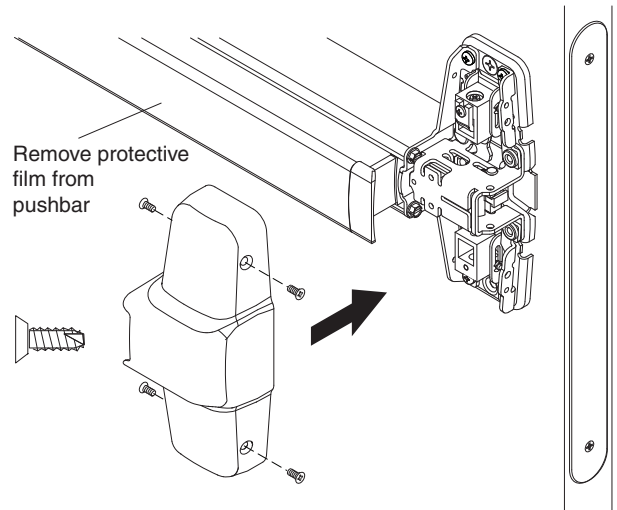
Peel adhesive backing from intumescent and apply to back side of cover plate



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



9d Install center case cover.



10 TROUBLESHOOTING

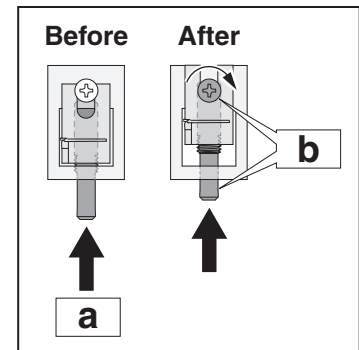
If latches do not retract when pushpad is depressed:

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 steps.

Remove center case cover

- Reset automatic adjusting fingers by pressing lift finger upward to preload spring (a).
- While lift finger is being pressed, tighten locking screw. (b)
- Repeat adjustment (Step 6).



If bottom bolt does not stay up while door is open:

- Confirm mounting screw is securing center slide to face of door (Step 5g).
- Confirm top latch is sufficiently shimmed (Step 7b).
- Turn top spool screw in Step 4d-2 one click (¼ turn) counterclockwise (CCW).

Customer Service

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