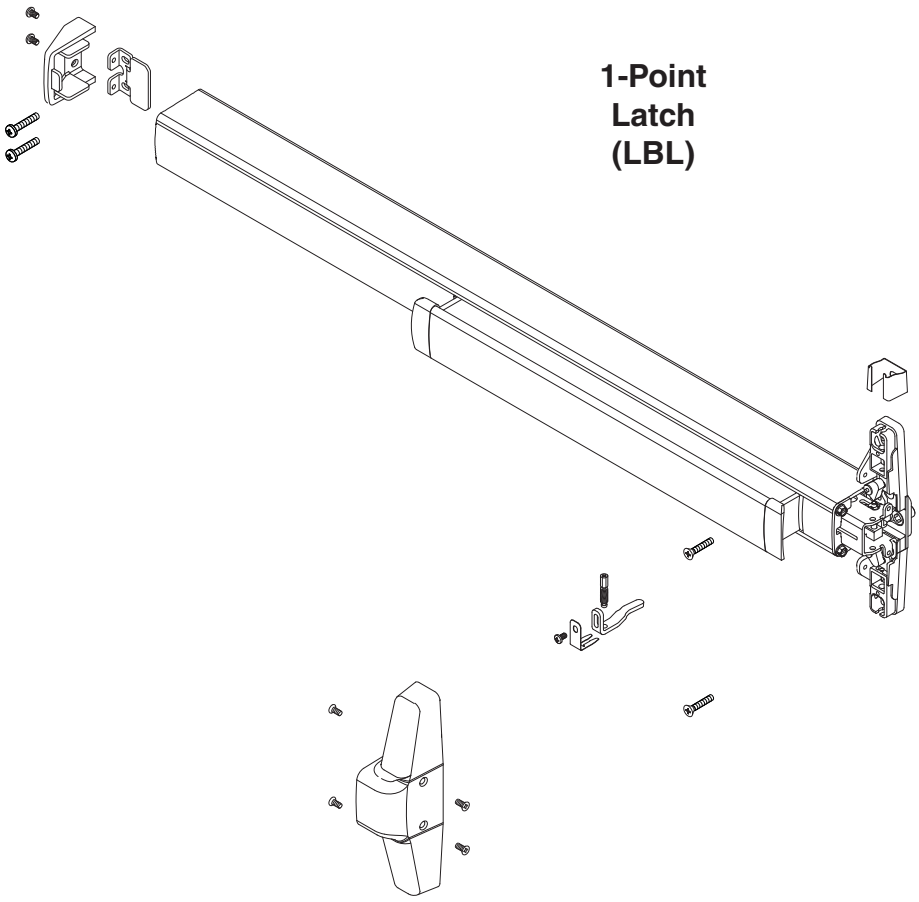
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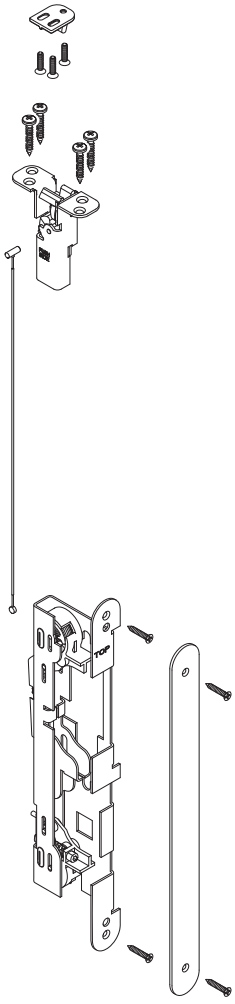
33/3550AWDC

VON DUPRIN

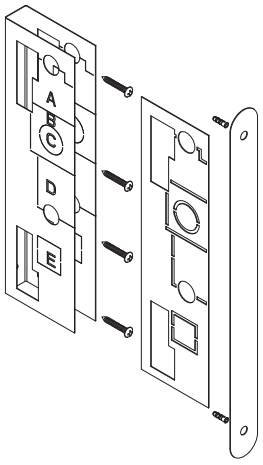
Installation Instructions



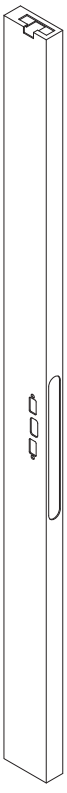
1-Point Latch (LBL)

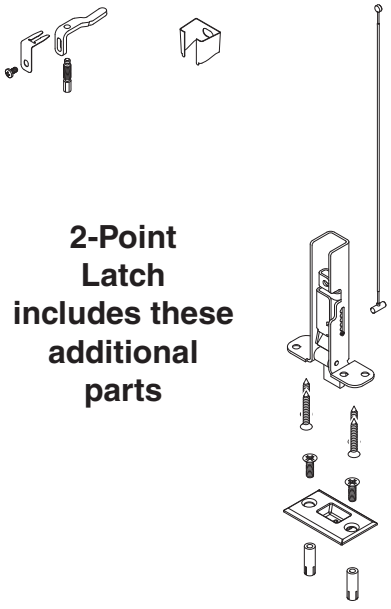


Fire-Rated Devices include these additional components



Metal Edge Wrap required for 60 and 90-minute applications





2-Point Latch includes these additional parts

⚠ **NOTE:** If door does not have a cutout for cabling inside lock stile, door must be routed. Refer to 33/3550AWDC wood door template #24731408.

1 OVERVIEW AND DOOR PREPARATION

33/3550AWDC

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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TABLE OF CONTENTS

INSTALLATION

1. Overview and Door Preparation pg 2-3
2. Fire Barrier pg 4-5
3. Latch Installation pg 6
4. Cable Installation pg 7
5. Device Installation pg 8-9

ADJUSTMENT

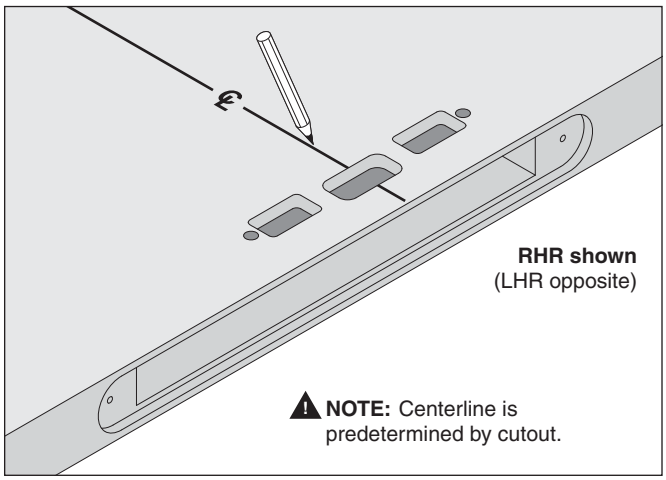
6. Device Adjustment pg 10-11
7. Strikes and Fire Pin pg 12-13
8. Bottom Latchbolt Clearance pg 14
9. Top Strike and Covers pg 15
10. Troubleshooting pg 16

1 (continued)

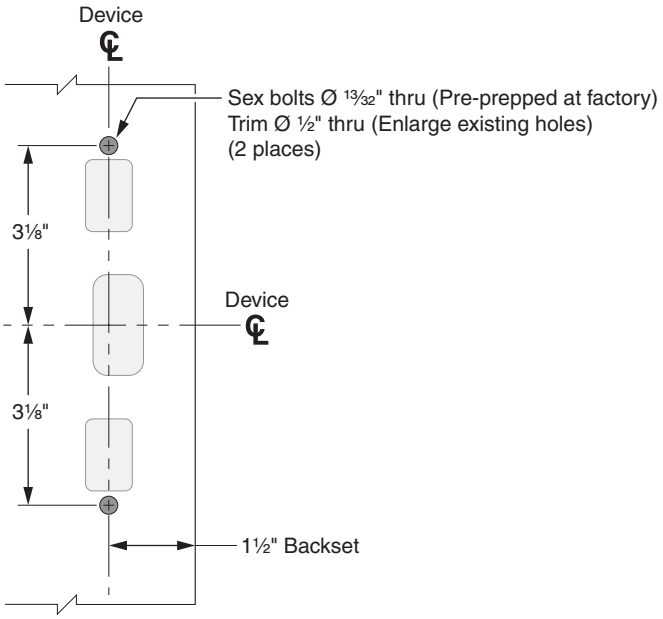
1a For 60 and 90-minute applications, install metal edge wrap.



1b With door laying flat, draw horizontal device center line (℄).

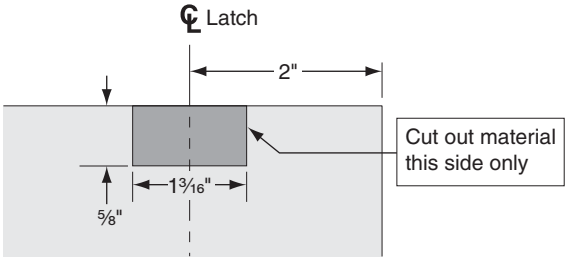


1c If necessary, prepare center case mounting holes.



RHR shown
(LHR opposite)

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



Push side of door, RHR shown

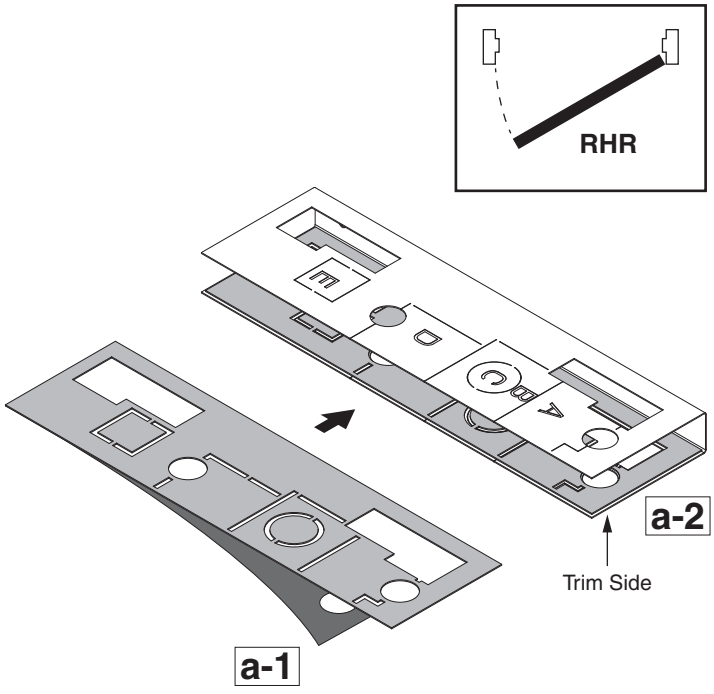
2 FIRE BARRIER

⚠ **Fire application only**

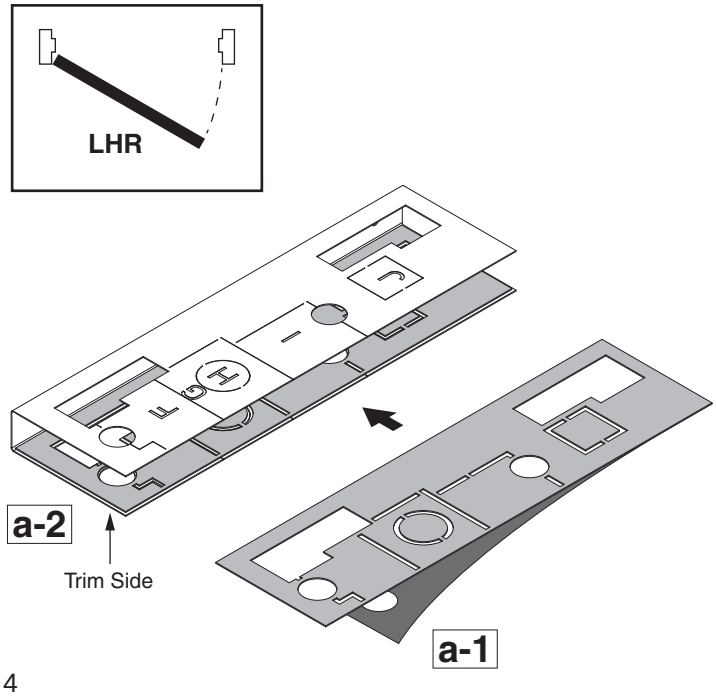
⚠ **Fire components must be installed to maintain fire rating of opening.**

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

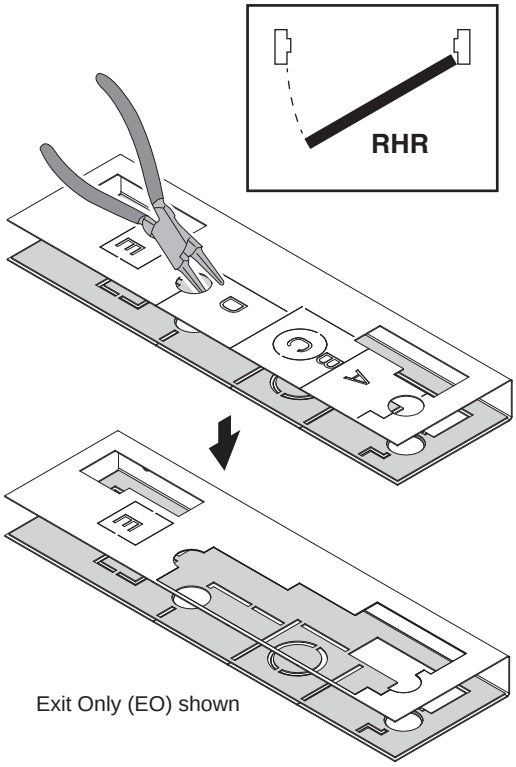
⚠ **Intumescent must be properly aligned before exposed adhesive contacts fire barrier. Adhesive is permanent and not repositionable.**

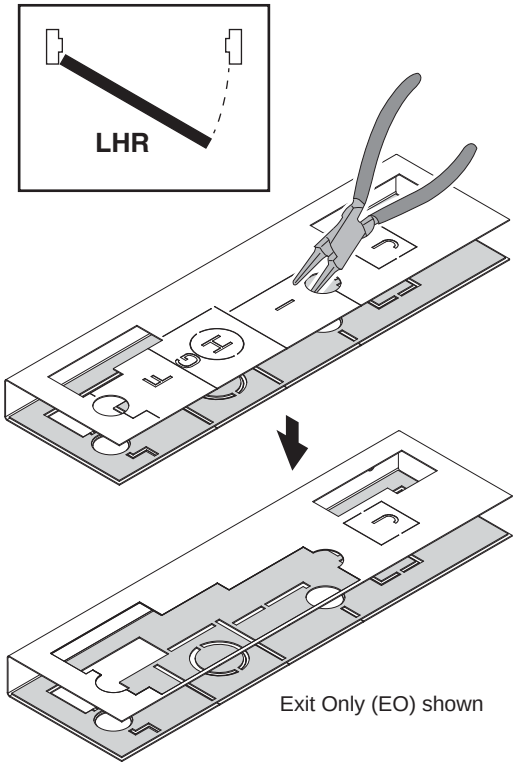


OR



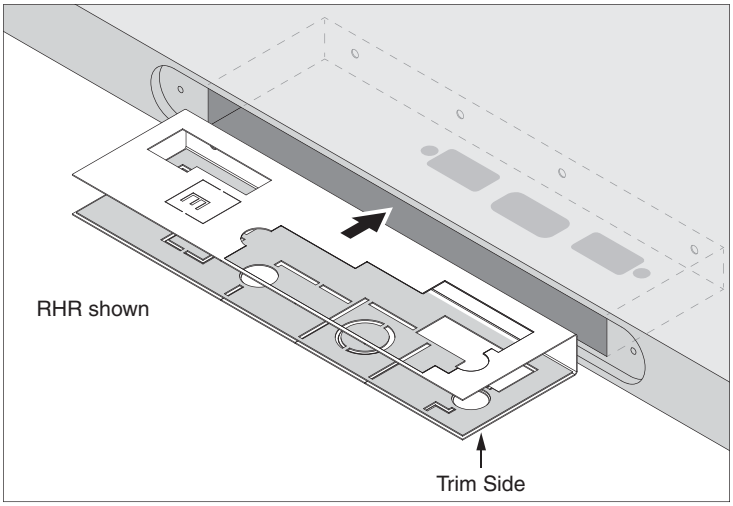
2b Remove appropriate knockouts for device and trim.



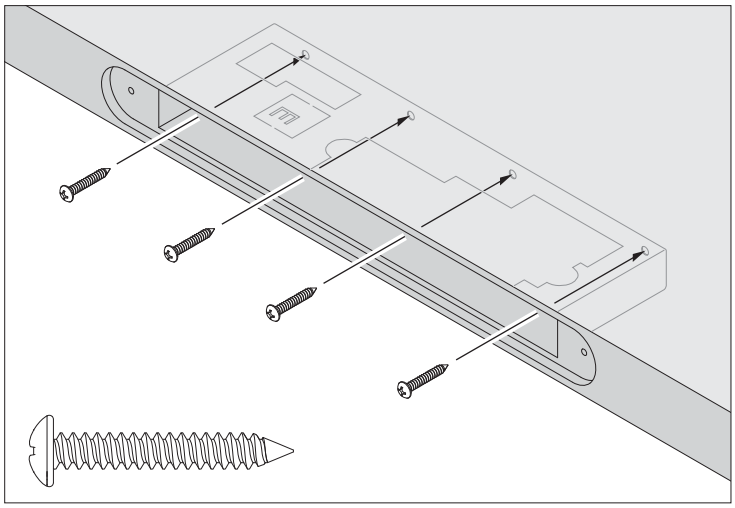


2 (continued)

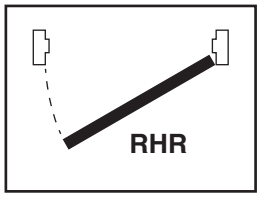
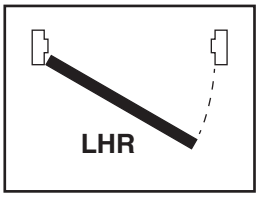
2c With fire barrier in correct orientation, slide barrier into door pocket.



2d Secure fire barrier to inside of pocket with 4 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	F G H I
386	DT	A B C D H	C F G H I
386	NL		
388	NL	A B C D G H	B C F G H I
550	DT	A B C D E J	E F G H I J
392-6	-	A B C D (If mounted below, remove E, J)	F G H I (If mounted below, remove E, J)
360	L	A B C D F G H	A B C F G H I
360	L-BE		
360	L-DT		
360	T		
360	T-BE		

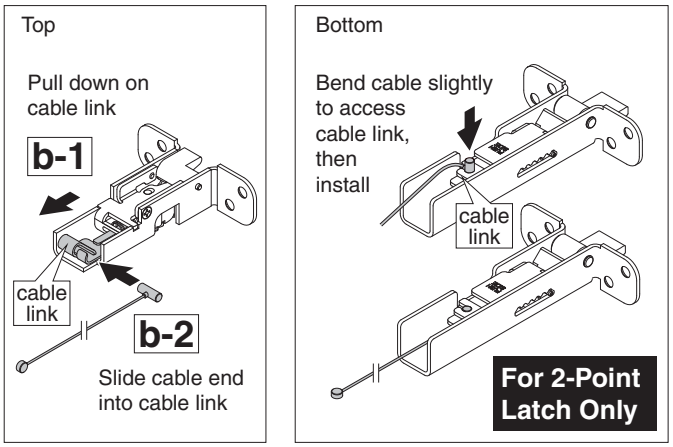
3 LATCH INSTALLATION

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



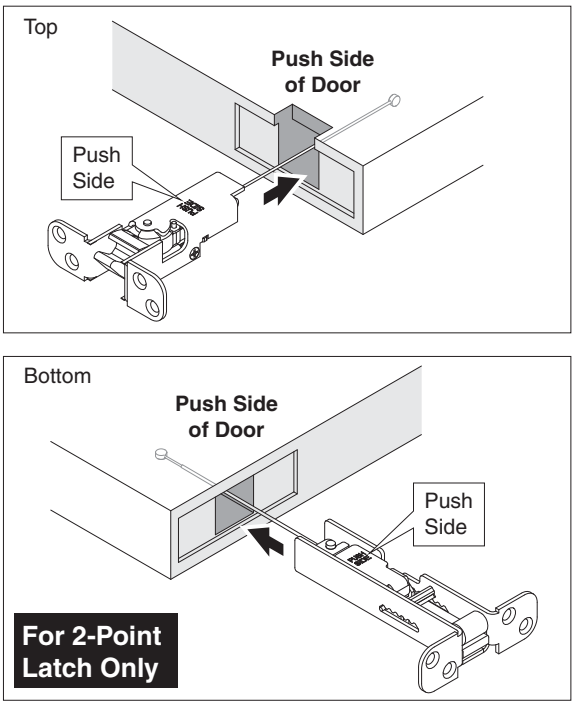
3b Connect cable end fitting(s) to latch(es).

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

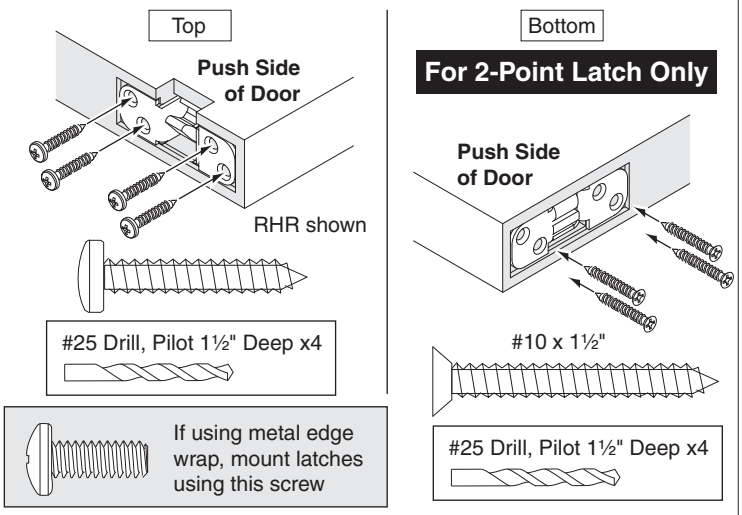


3c Slide latch(es) into door pocket.

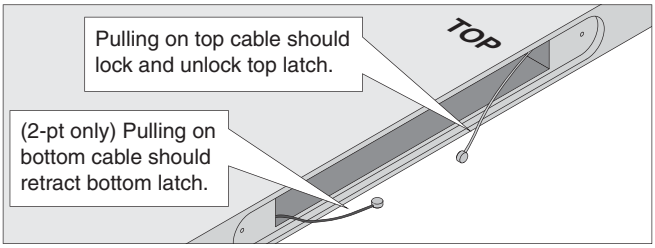
⚠ **Clear cable channel of debris first if necessary.**



3d Secure latch(es).

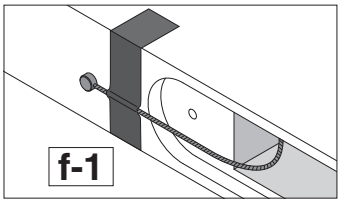


3e Perform cable binding check at mortise pocket.



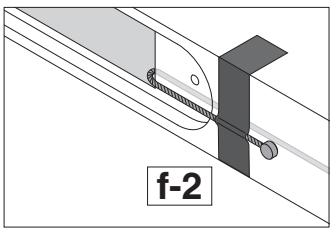
3f Prepare door for hanging.

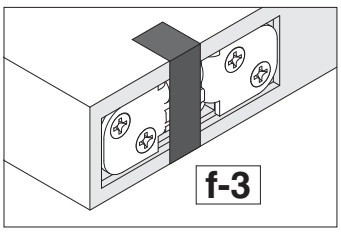
Pull top cable taut and tape cable end to door edge (f-1).



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).





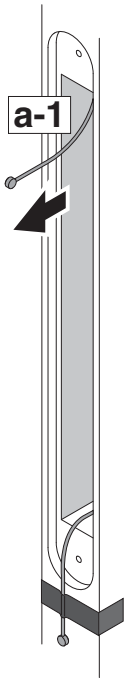
3g Hang door on frame.

⚠ **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.

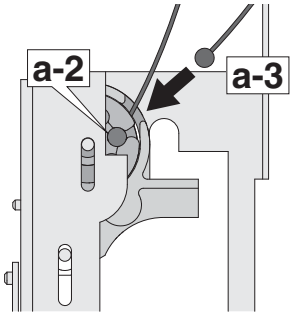
⚠ **Be sure to attach top cable to top end of center slide (marked "Top")**



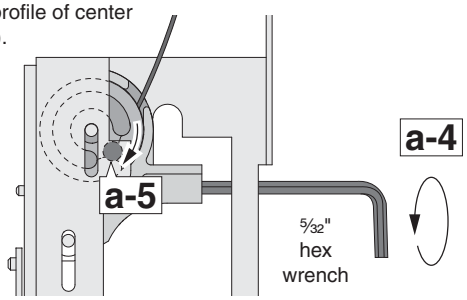
Pull top cable thru mortise opening (a-1).

Rotate spool using hex wrench to reveal cable hole in spool (a-2), if it is not visible or only partially visible.

Insert cable end into spool (a-3).

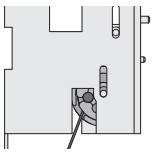


Turn **spool screw counterclockwise** (a-4) to rotate spool until cable end is beneath profile of center slide (a-5).



a-6 **For 2-Point Latch Only**

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

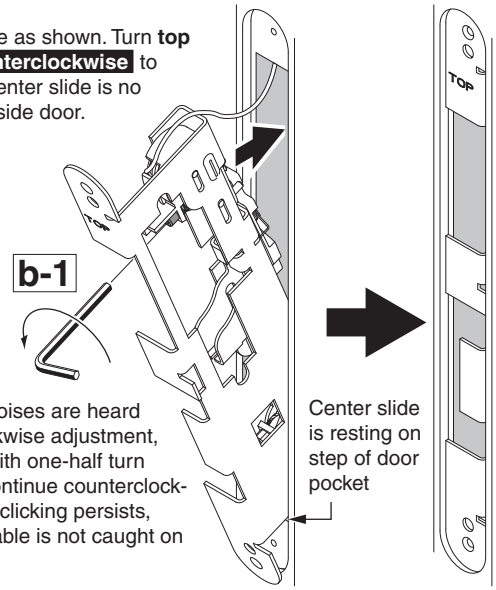


4b Take up top cable slack only.

⚠ **A flashlight would be useful during adjustment.**

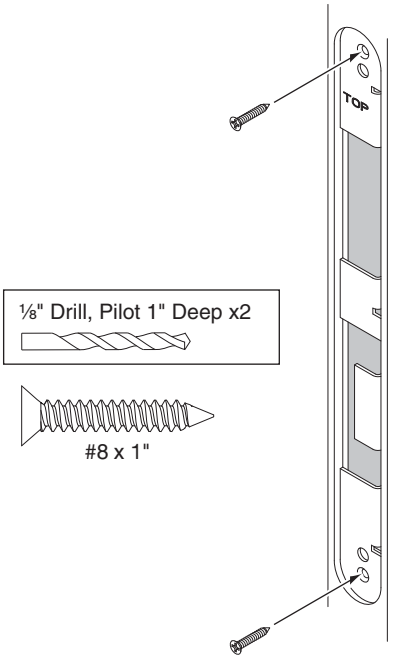
Position center slide as shown. Turn **top spool screw counterclockwise** to tighten (b-1) until center slide is no longer hanging outside door.

⚠ Do not adjust bottom cable at this time.



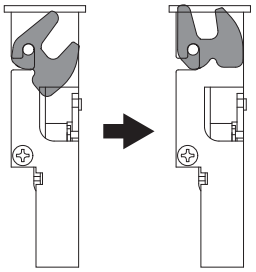
⚠ **NOTE:** If clicking noises are heard during counterclockwise adjustment, unwind the cable with one-half turn clockwise. Then, continue counterclockwise adjustment. If clicking persists, check to be sure cable is not caught on an edge.

4c Secure center slide.

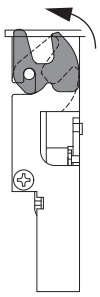


4d Adjust top spool.

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

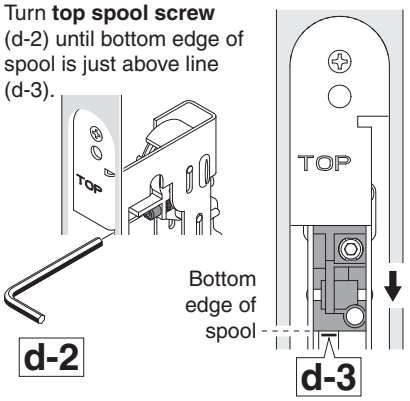


Put top latch in locked position (d-1).

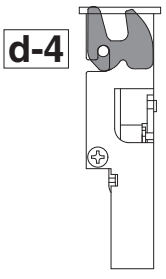


⚠ If latch won't lock, **top spool screw** was overtightened in Step 4b and needs to be backed out clockwise.

Turn **top spool screw** (d-2) until bottom edge of spool is just above line (d-3).



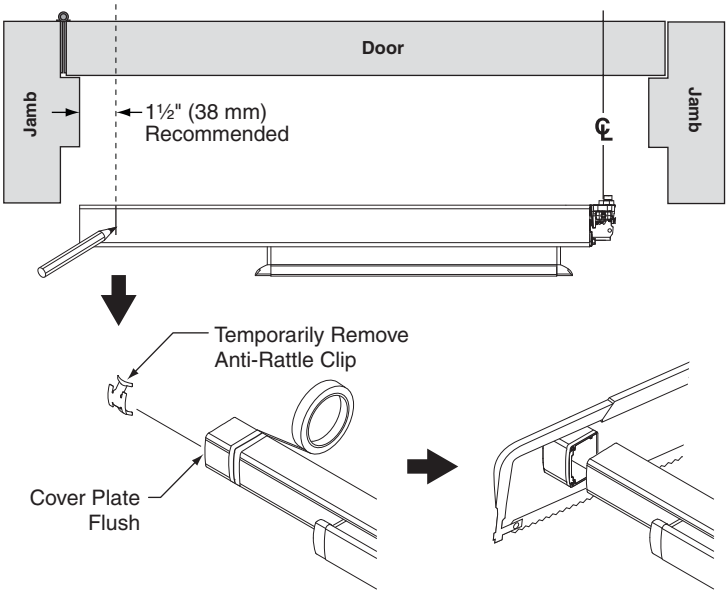
Confirm top latch is still locked (d-4).



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

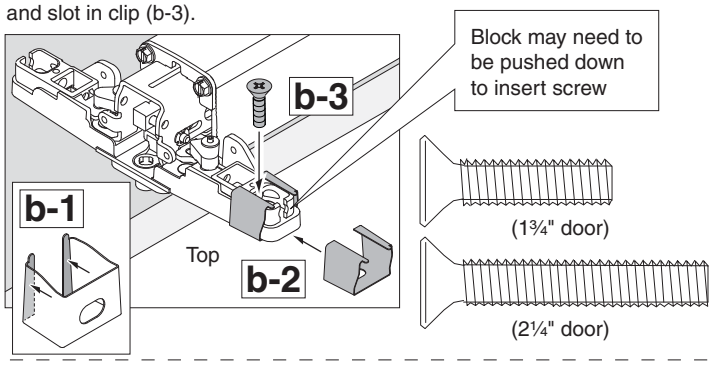
5 DEVICE INSTALLATION

5a If necessary, cut device.

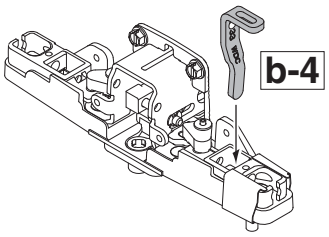


5b Install lift finger(s) and retainer clip(s).

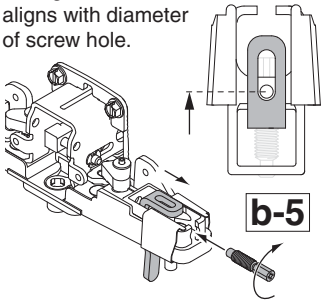
Using tube of grease provided, apply grease to interior of rod connector sleeve in locations shown (b-1). With device center case hanging over edge of table, slide rod connector sleeve over top end of center case in orientation shown (b-2), then insert mounting screw thru hole in center case and slot in clip (b-3).



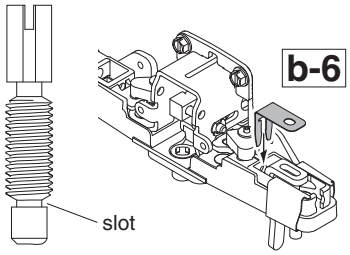
Slide L-shaped lift finger thru upper block on front of center case.



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

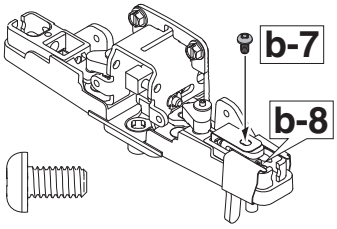


Install retainer clip against lift finger, snapping it into the slot of the **lift finger screw**.



Lightly tighten **locking screw** (b-7).

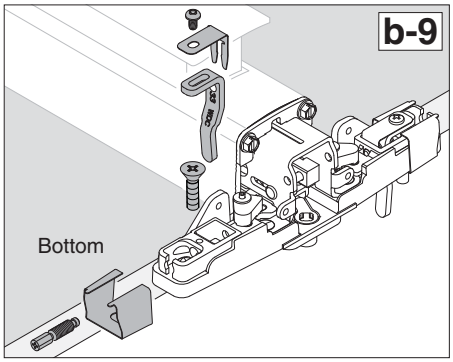
⚠ It may be necessary to rotate the **lift finger screw** to realign retainer clip and lift finger holes.



⚠ Confirm **lift finger screw** is free to rotate (b-8).

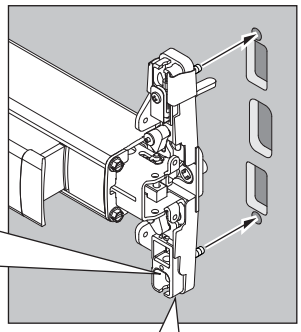
For 2-Point Latch Only

Repeat steps b-1 thru b-8 for lower block of center case.



5 (continued)

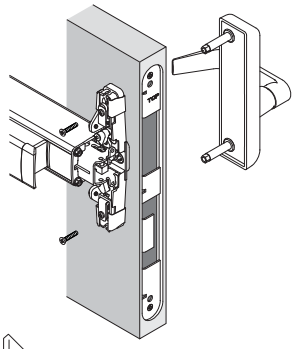
5c Attach center case to door.



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

Block may need to be pushed up to access screw.

Thru-bolting Trim

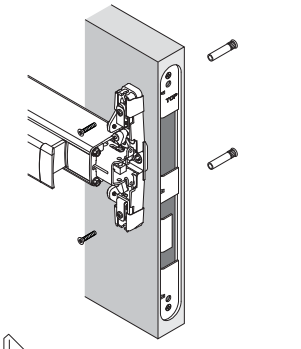


(1¾" door)

(2¼" door)

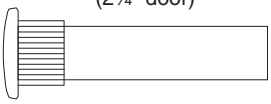
OR

Sex Bolts

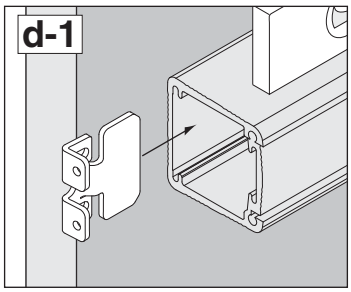


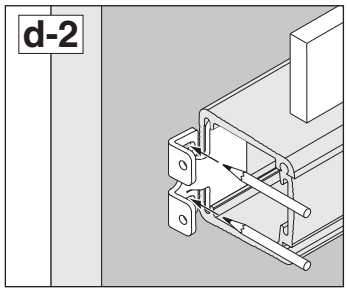
(1¾" door)

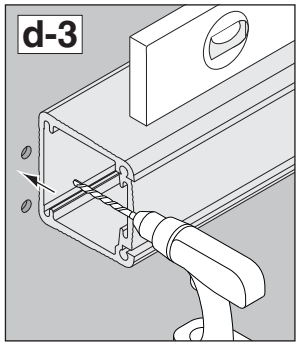
(2¼" door)



5d Mark and prepare 2 holes.

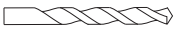






Surface Mount

⅛" Drill, Pilot 1" Deep



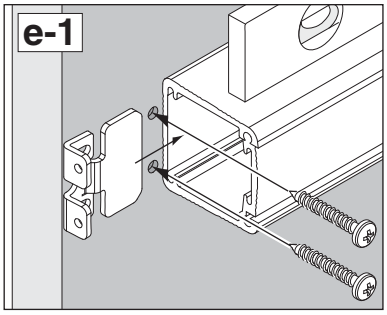
OR

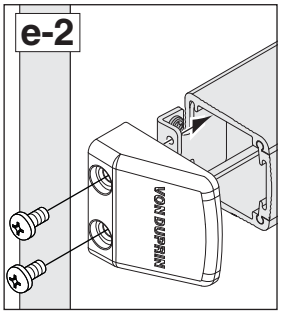
Sex Bolts

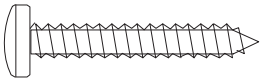
$^{13}/_{32}$" Drill thru



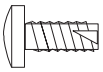
5e Install end cap bracket and end cap.

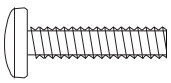




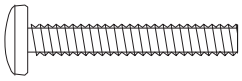


#10 x 1¼" Wood screw
(Surface mount WDC)





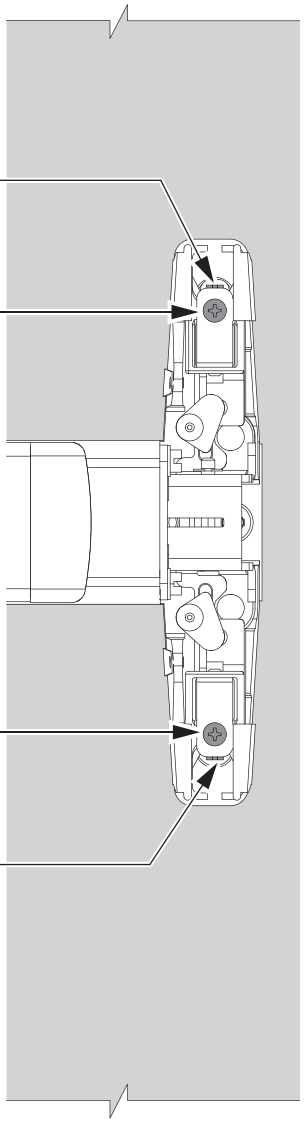
#10-24 x ¾"
(Sex bolts, 1¾" door)



#10-24 x 1⅛"
(Sex bolts, 2¼" door)

ADJUSTMENT COMPONENTS

Center Case



Top lift finger screw:
Adjusts release point of latches

Top locking screw:
Locks lift finger screw adjustment

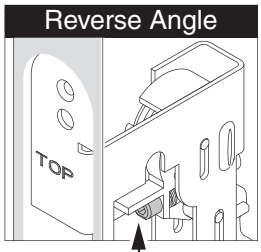
Bottom locking screw*:
Locks lift finger screw adjustment

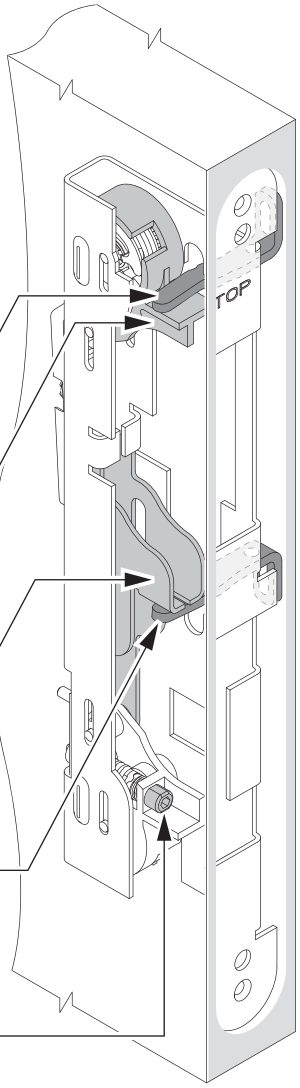
Bottom lift finger screw*:
Adjusts release point of latches

* For 2-point latch only

Push Side of Door

Center Slide





Top spool screw:
Sizes cable to door height

Top lift finger:
Transfers motion from exit device spool inputs

Top spool input:
Transfers motion from lift finger to latch

Bottom spool input*:
Transfers motion from lift finger to latch

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

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

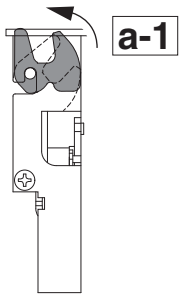
Pull Side / Edge of Door

6 (continued)

6a Adjust device for top latch retraction position.

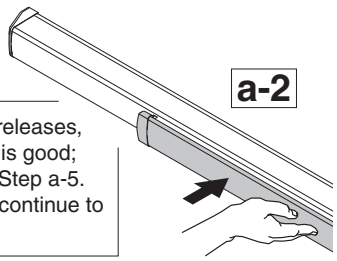
Steps marked with a ✱ symbol are different if using 360L / 360T trim.

Put top latch in locked position.



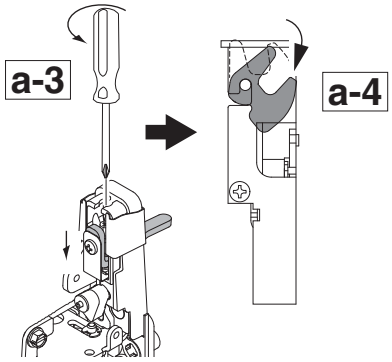
Depress and **HOLD** push pad (or dog device) until Step a-6.

✱ If using 360L / 360T trim, turn and hold lever / thumb turn instead.

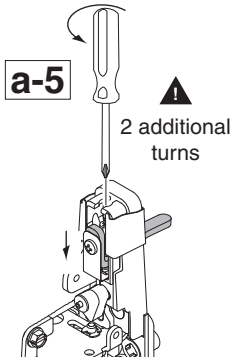


If top latch releases, adjustment is good; proceed to Step a-5. Otherwise, continue to Step a-3.

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.

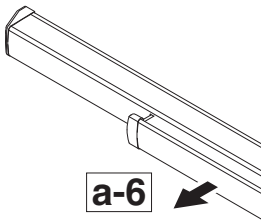


Turn **top lift finger screw** counterclockwise an additional 2 full turns.

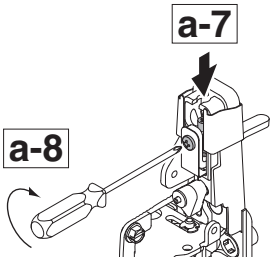


Release push pad.

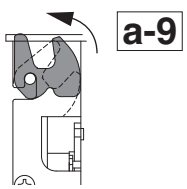
✱ If using 360L / 360T trim, release lever / thumb turn instead.



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

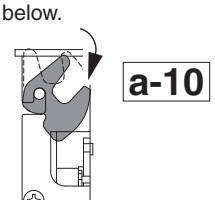


Using your finger, put top latch in locked position.



Locked

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



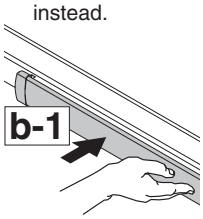
Released

6b Adjust device for bottom latch retraction positon.

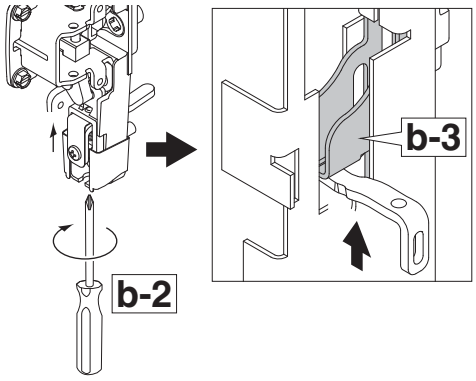
For 2-Point Latch Only

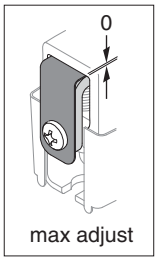
Depress and **HOLD** push pad (or dog device) until Step b-4.

✱ If using 360L / 360T trim, turn and hold lever / thumb turn instead.



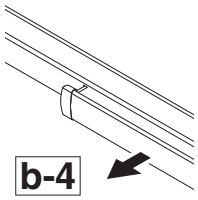
Maintain upward pressure on screwdriver and turn **bottom lift finger screw** (b-2) counter-clockwise to adjust past point where **bottom lift finger** contacts **bottom spool input** (b-3). Continue adjusting until **bottom spool input** reaches end of travel or until **bottom lift finger** reaches max adjust.



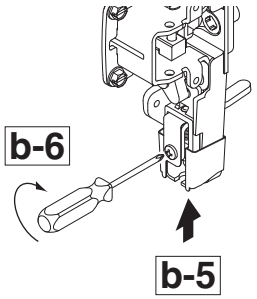


Release push pad.

✱ If using 360L / 360T trim, release lever / thumb turn instead.



Push up on **bottom lift finger screw** so it is seated, and tighten the **bottom locking screw.**

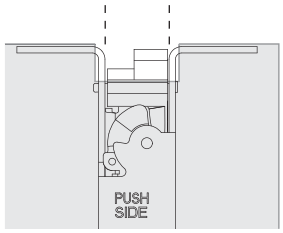


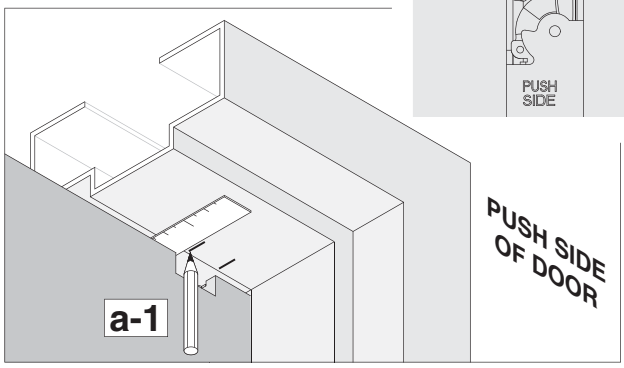
7 STRIKES AND FIRE PIN

7a Prepare door frame for top strike.

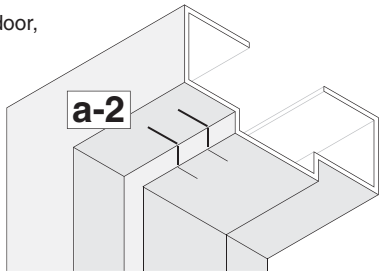
⚠ If using a door seal or gasket, install first.

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).

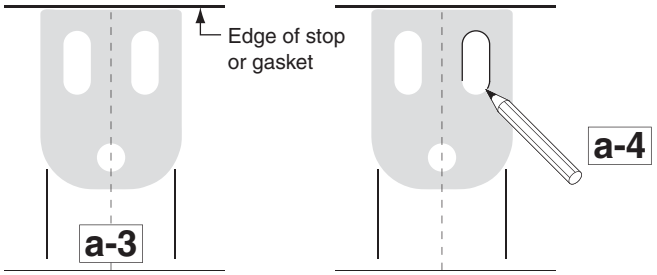




From pull side of door, transfer marks to underside of frame (a-2).

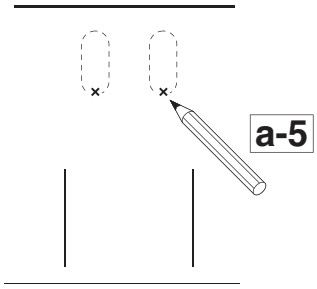


With flat end of strike against stop, center strike to marks on frame (a-3). Use a pencil to trace contour of the two slotted holes (a-4).



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

⚠ Do not drill 3rd hole at this time.

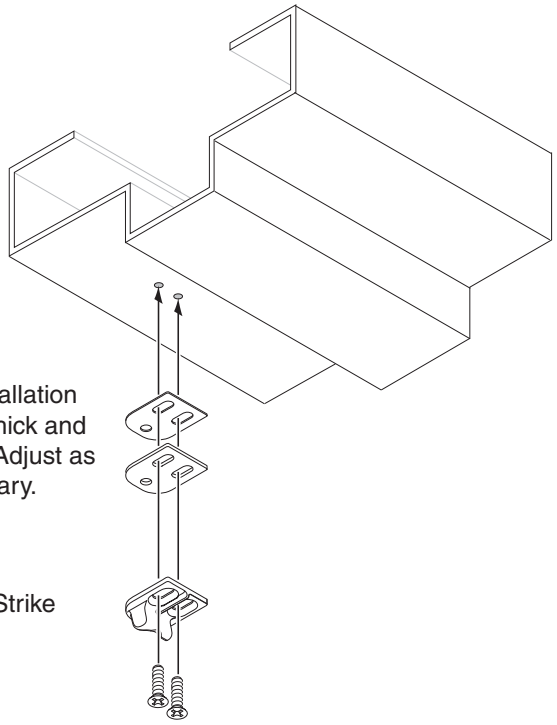


Metal
Center punch + 1/16" Pilot #25 x 3/4" Deep x2 #10-24

OR

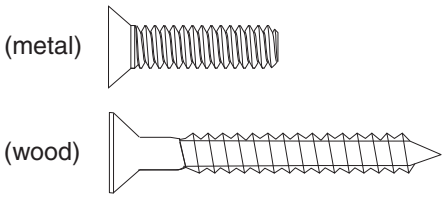
Wood
1/8" Drill Pilot 1" Deep x2

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.

150 Top Strike



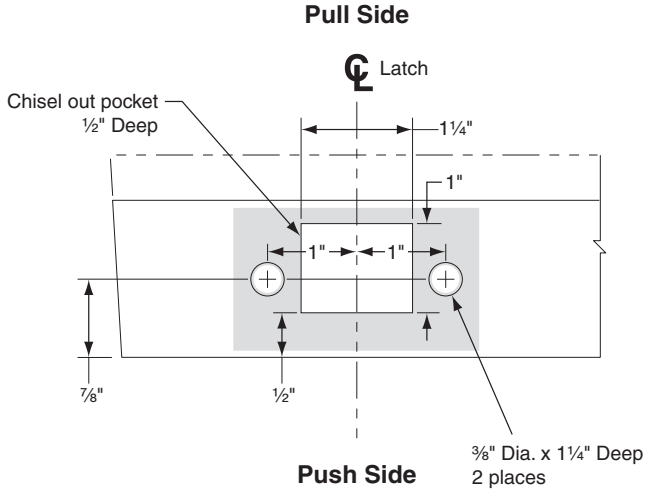
7c Perform top latch functional test.

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.

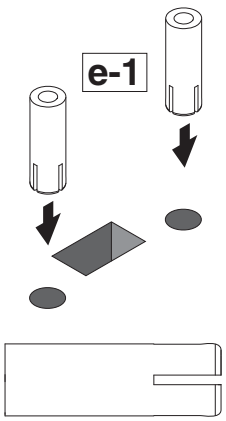
For 2-Point Latch Only



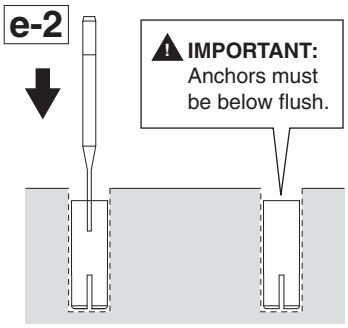
7e Install bottom strike.

For 2-Point Latch Only

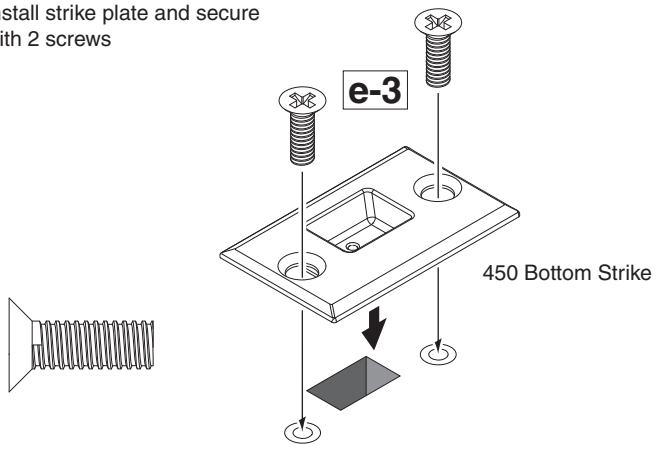
Clear holes of debris, then drop in anchors (slotted end first)



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.

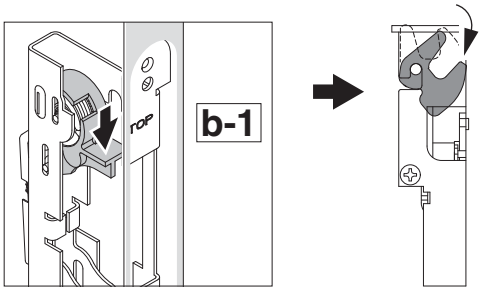
For 2-Point Latch Only

8b Adjust bottom latchbolt clearance.

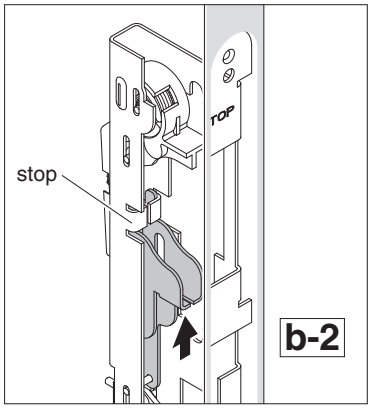
⚠ **A flashlight would be useful during adjustment.**

For 2-Point Latch Only

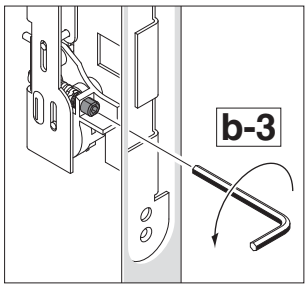
Reach inside center slide and push downward on shelf of **top spool input** to release top latch, if not already retracted. Line shown in Step 4d-3 should no longer be visible.

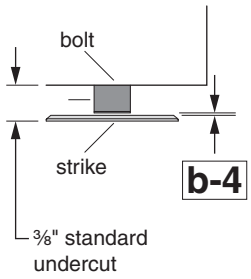


Push **bottom spool input** upward until flat of input hits stop. Input should lock in place.



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





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

8c Perform bottom latch functional test.

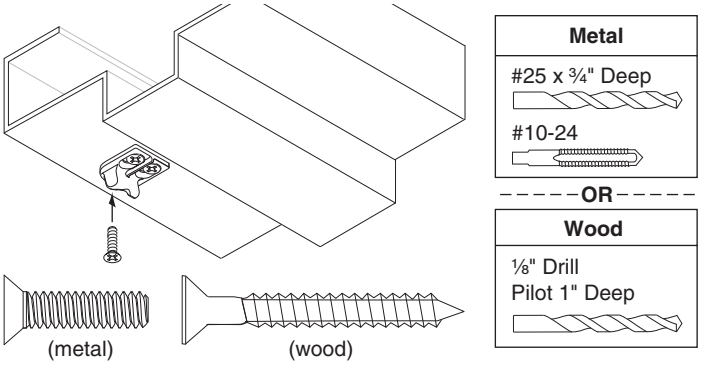
For 2-Point Latch Only

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

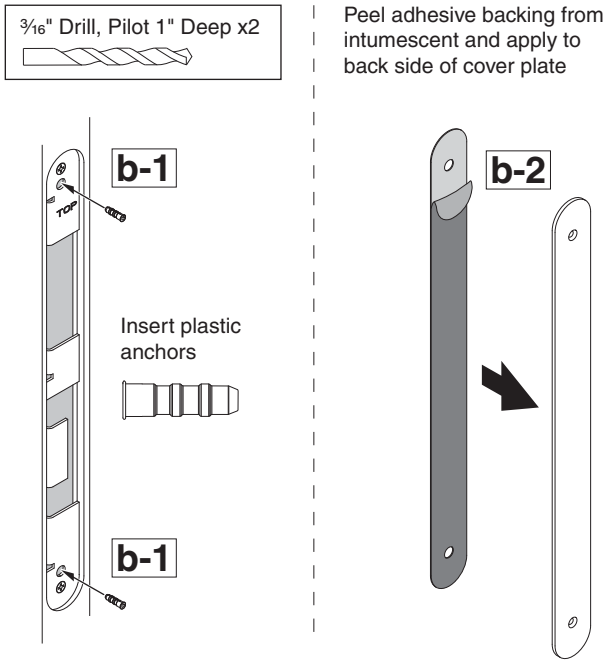
9a Adjust top strike as necessary, then install the third strike screw to fix the strike position.



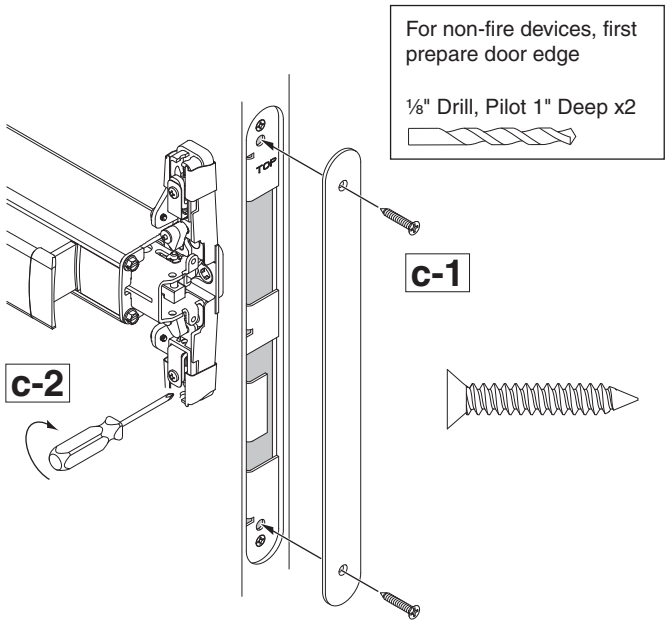
9b For fire devices, prepare door edge and cover plate.

⚠ **Fire application only**

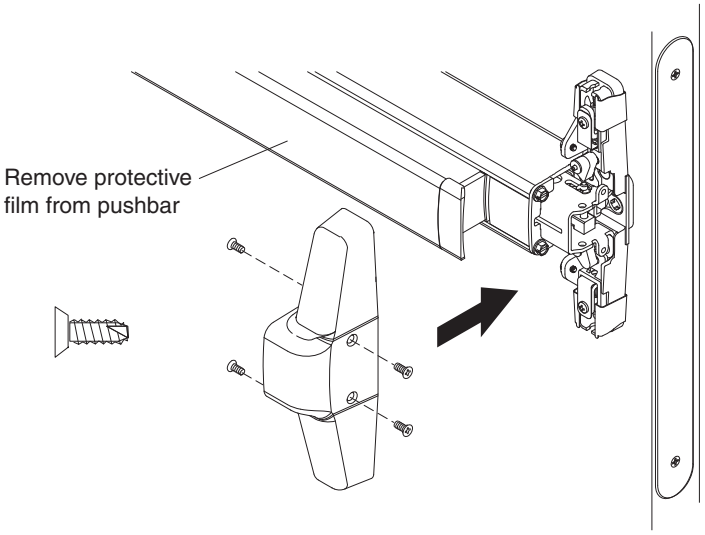
⚠ **Intumescent must be properly aligned before exposed adhesive contacts cover plate. Adhesive is permanent and not repositionable.**



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

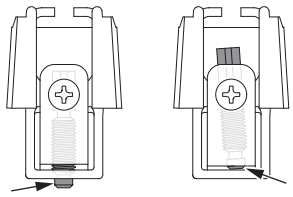
Pull up on **bottom spool input**. If the bottom latch fails to actuate, readjust bottom latch clearance (Steps 8b-1 thru 8b-4).

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.



Seated **Unseated**

If bottom spool input does not move during Steps 6b-2 / b-3:

Loosen **bottom spool screw** 10 turns.

If the 33/3550AWDC center case cover is difficult to install:

Loosen bottom screw installed in Step 5c and lift rod connector sleeve until it will go no higher, then retighten screw.

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