



911404-00

33/3547A

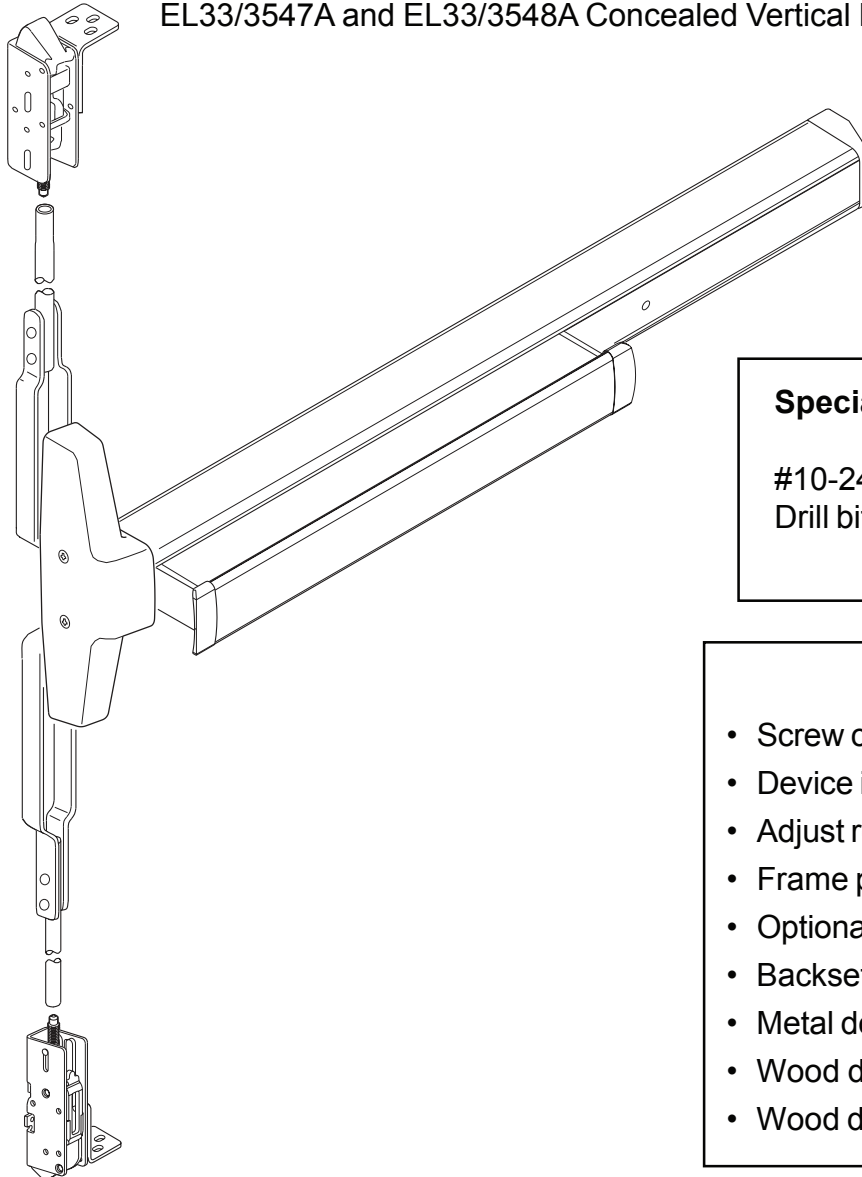
VON DUPRIN®

Concealed Vertical Rod Exit Device

Installation Instructions

Devices covered by these instructions:

- 33/3547A and 33/3548A Concealed Vertical Rod Exit Device
- 33/3547A-F and 33/3548A-F Fire Concealed Vertical Rod Exit Device
- CD33/3547A and CD33/3548A Concealed Vertical Rod Exit Device
- EL33/3547A and EL33/3548A Concealed Vertical Rod Exit Device



Special tools needed:

- #10-24 tap
- Drill bits: #25, 5/16",
13/32", 1/2"

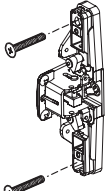
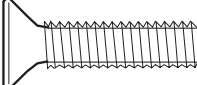
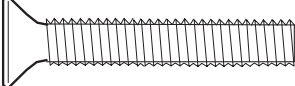
Index:

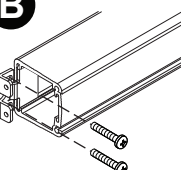
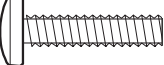
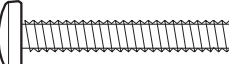
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- Wood door templates 15-16





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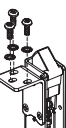

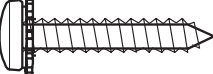
SCREW CHART



A   1/4-20 x 1" _____ Trim mount or sex bolts: (1-3/4" door)
 1/4-20 x 1-1/2" _____ (2-1/4" door)

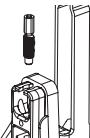
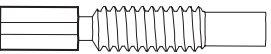
B   #10-24 X 3/4" _____ Surface mount or Sex bolts (1-3/4" door)
 #10-24 X 1-1/8" _____ Sex bolts (2-1/4" door)

C   #10-16 X 3/8" Thread cutting _____ End cap

D   #10-32 X 1/4" _____ Bracket to latch


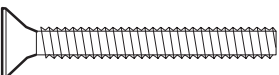
E   *#10-24 X 1/2" _____ Bracket to door
 *#10 X 1" Wood screw _____ Bracket to door
 *Used with external tooth lock washer

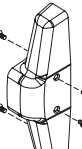

F   #10-32 X 3/8" Socket head _____ Rod attachment

G   Rod adjusting screw _____ Rod length adjustment

H   #8-32 X 5/16" _____ Retaining clip

I   #10-24 X 1/2" _____ 338 Strike

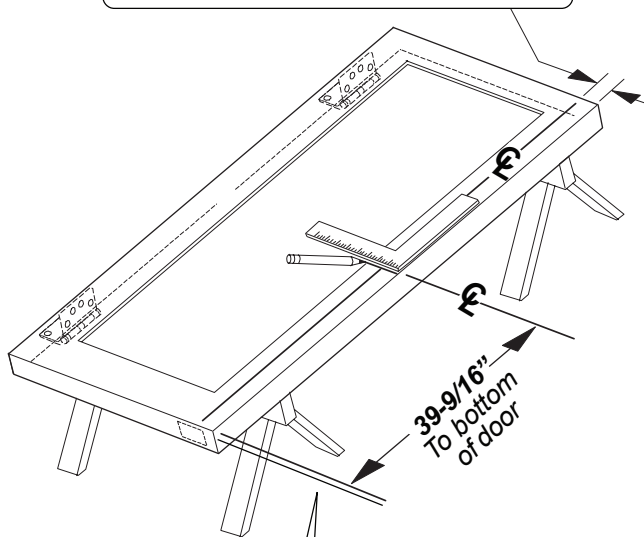
J   #10-24 X 1-1/2" _____ Ratchet release

K   #8-18 x 3/8" Thread cutting _____ Center case cover

1

Draw horizontal and vertical device center lines (☉).

See "Backset information" on page 9



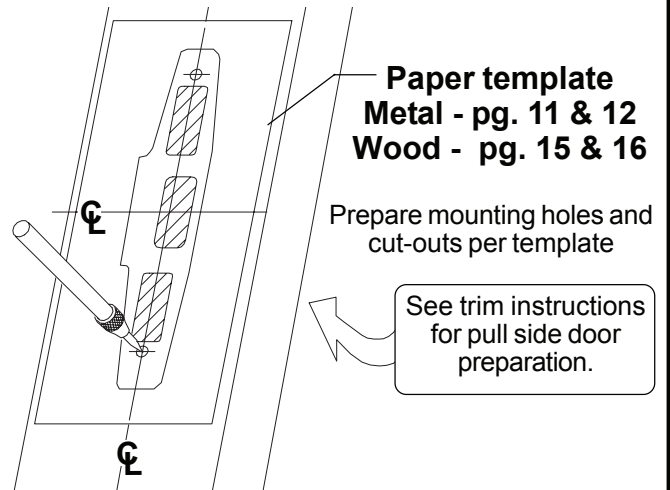
Once hung, door should have 1/4" undercut (gap) at bottom of door to finished floor

RHR shown (LHR opposite)

2

Place paper device template on door and prepare door.

For wood doors - See pages 13 & 14 for special door preparation instructions.

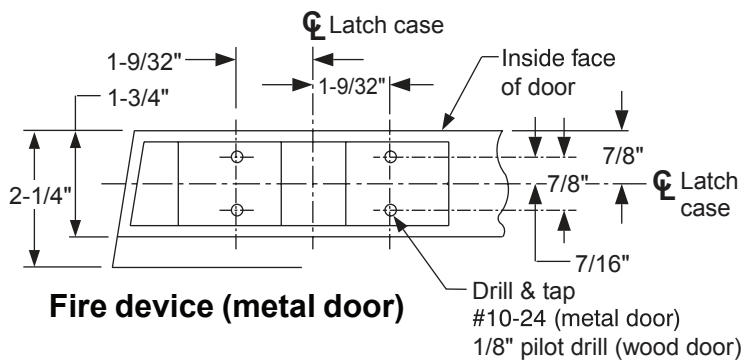


RHR shown (LHR opposite)

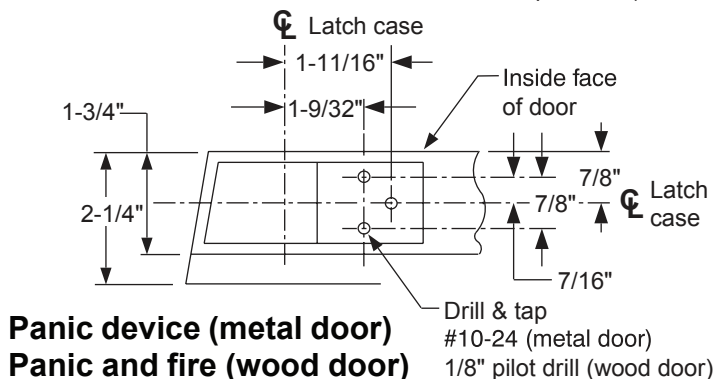
3

Prepare top and bottom of door for latch mounting brackets.

Latch cases (drill top and bottom of door)



Fire device (metal door)

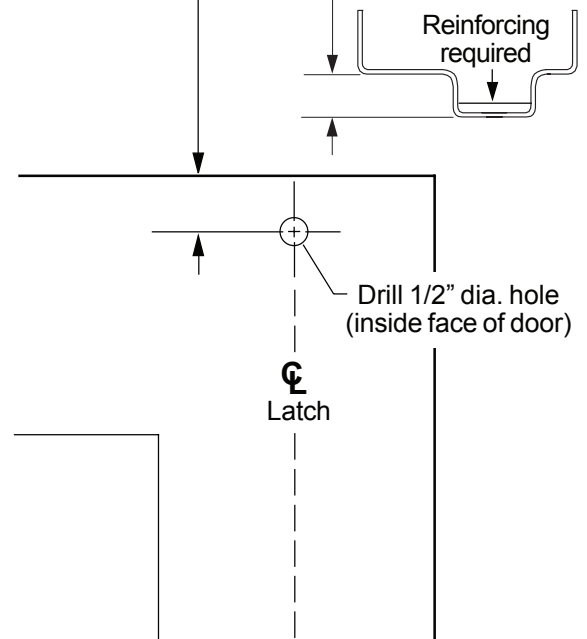


Panic device (metal door)
Panic and fire (wood door)

4

Drill ratchet release hole in door.

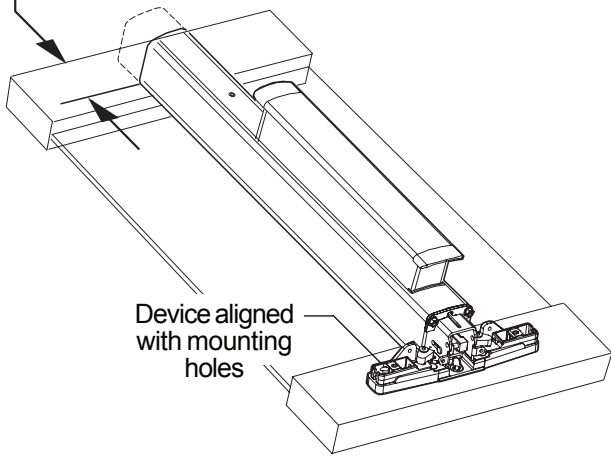
11/16"	1/2" Stop height
13/16"	5/8" Stop height
15/16"	3/4" Stop height



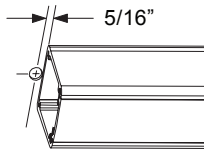
5

Measure to determine length to cut device.

1-3/16" minimum clearance
(with end cap removed)



Device aligned with mounting holes



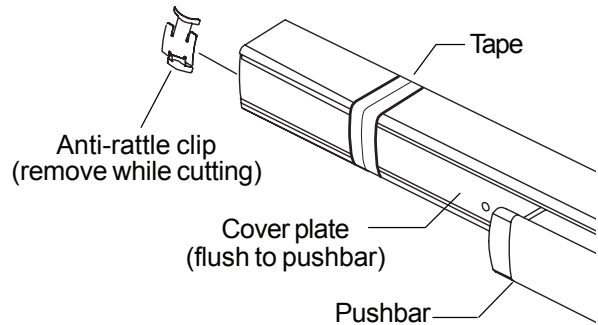
Note

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

6

Cut device to length.

Prepare device for cutting

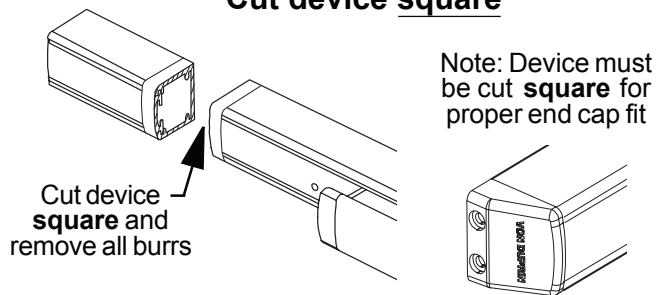


Anti-rattle clip
(remove while cutting)

Cover plate
(flush to pushbar)

Pushbar

Cut device square



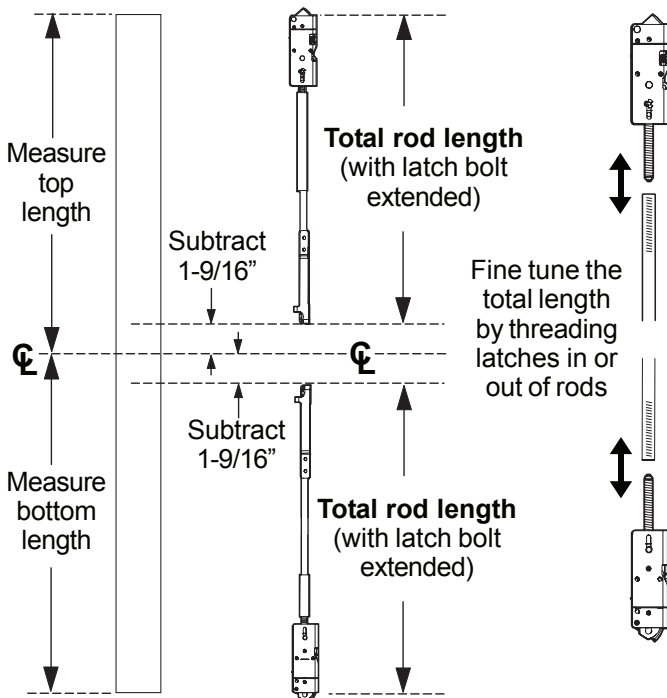
Cut device square and remove all burrs

Note: Device must be cut **square** for proper end cap fit

7

Assemble rods and latches and adjust length.

Follow white and brown instruction cards on rods to set initial rod length



Measure top length

Total rod length
(with latch bolt extended)

Subtract 1-9/16"

Fine tune the total length by threading latches in or out of rods

Measure bottom length

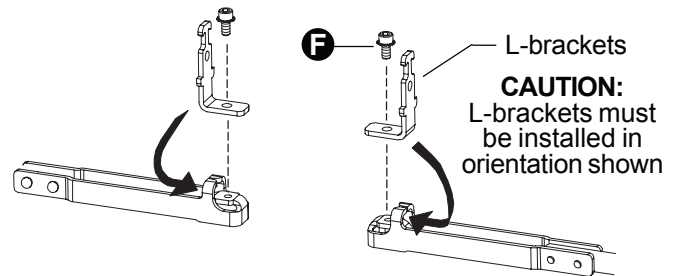
Subtract 1-9/16"

Total rod length
(with latch bolt extended)

8

Install rods as shown.

Rods are shipped with L-bracket attached. Insert rods with L-bracket pointing toward lock stile. Rotate rod until L-bracket protrudes through door cutout. If this is not possible, remove L-bracket and re-insert rod, then re-attach L-brackets.



F

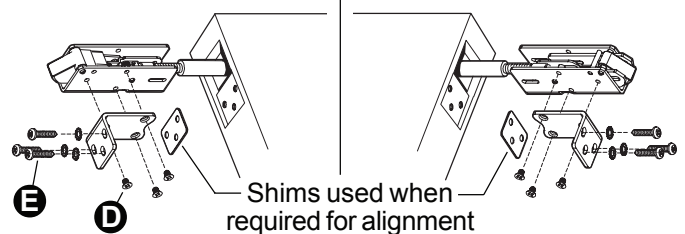
L-brackets

CAUTION:
L-brackets must be installed in orientation shown

NOTE: Fire devices on metal doors use brackets on both sides of latches

Top latch & rod

Bottom latch & rod



E

D

Shims used when required for alignment

ADJUST RODS

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

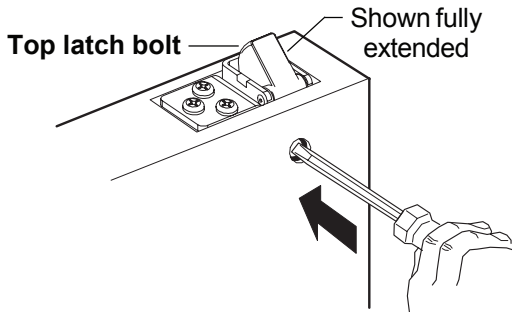


Figure 1

2. Remove bottom locking screw and retaining clip (Figure 2).
3. Disconnect bottom vertical rod by removing bottom adjusting screw.
4. Loosen top locking screw.
5. Rotate top adjusting screw clockwise until top latch bolt is fully extended (Figure 1).

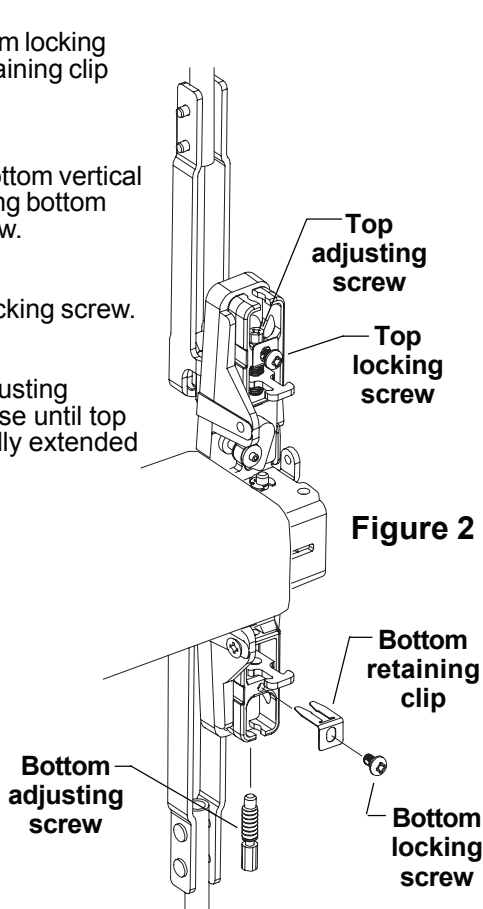
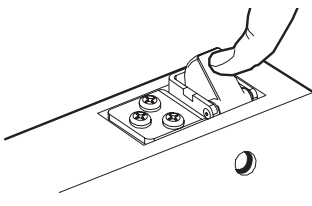


Figure 2

6. Check top latch bolt for deadlocking (latch bolt should not push in).



7. Turn top locking screw in against flat on adjusting screw. Do not over-tighten.

8. Depress pushbar and release.

9. Make sure top latch bolt stays retracted as shown.

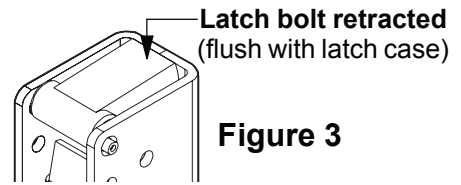


Figure 3

10. Install bottom adjusting screw through bottom rod and install bottom retaining clip and locking screw (Figure 2).

11. With top latch bolt still retracted, adjust bottom rod so latch bolt clears floor and bottom strike.

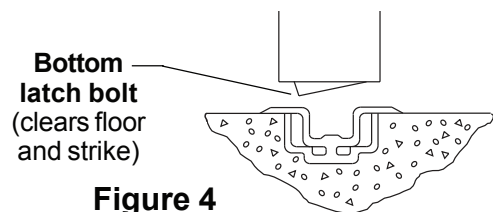


Figure 4

12. Close door and check bottom latch bolt for dead locking.

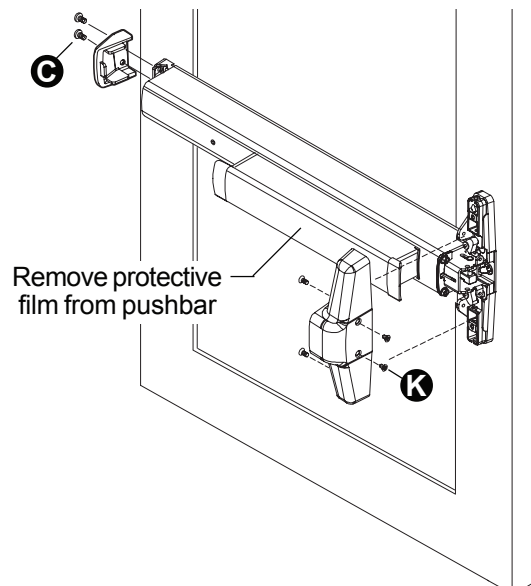
13. After bottom rod is fully adjusted per steps 11 and 12, turn bottom locking screw in against flat on adjusting screw. Do not over-tighten.

14. Check device operation by opening and closing door several times from the outside.

Redo adjustment procedure if :

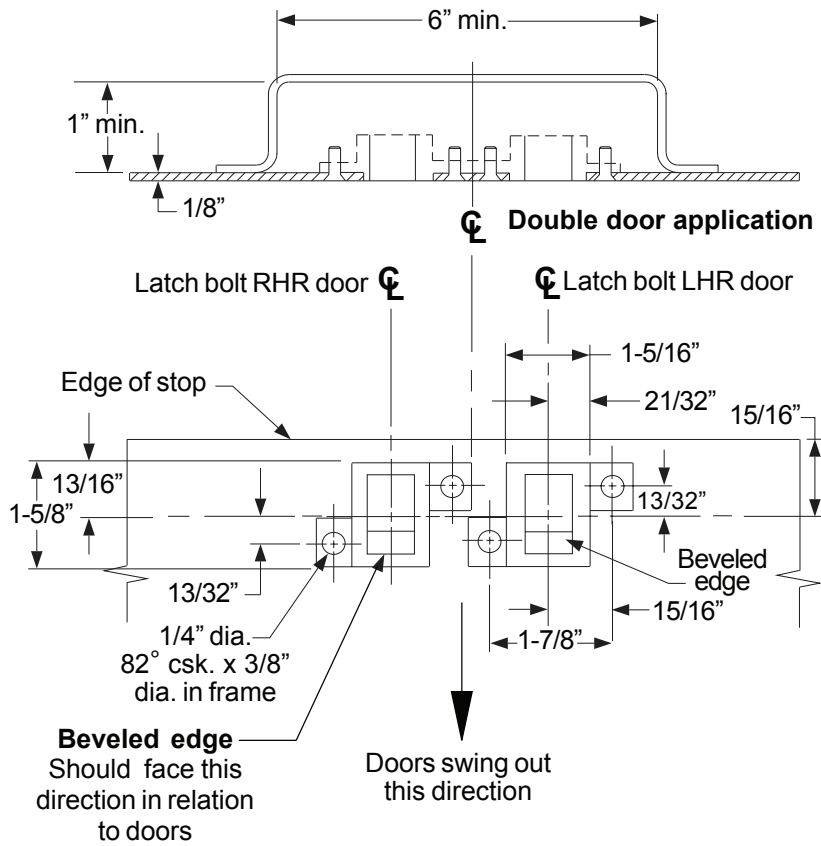
- Top latchbolt is not held retracted
- Bottom latchbolt does not clear floor and bottom strike

15. Install end cap and center case covers.

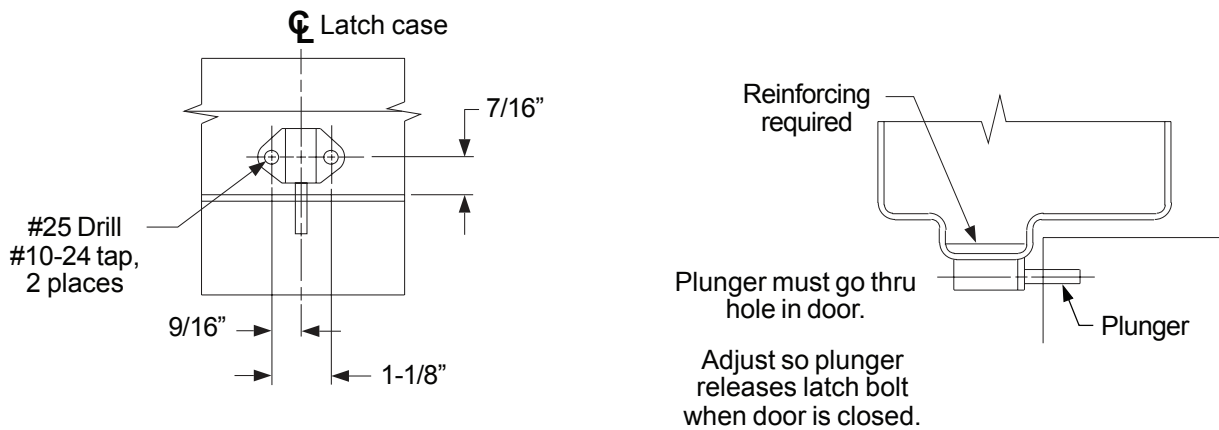


FRAME PREPARATION

338 Top strike



Ratchet release



OPTIONAL EQUIPMENT

CD (CYLINDER DOGGING)

1. Remove mortise cylinder cam and reinstall in reverse (Figure 1).
2. Insert key and rotate cam to install the cylinder to the cover plate (Figure 2).
3. Remove key to slide cover plate in position in the mechanism case.

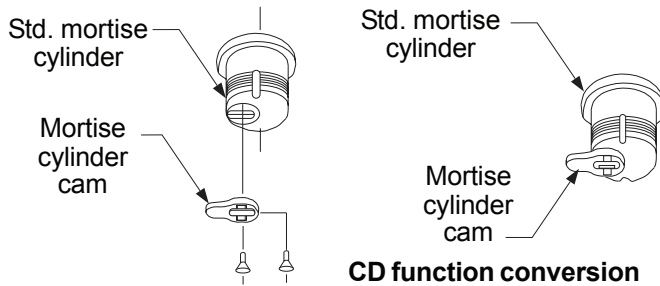


Figure 1

Dogging procedure

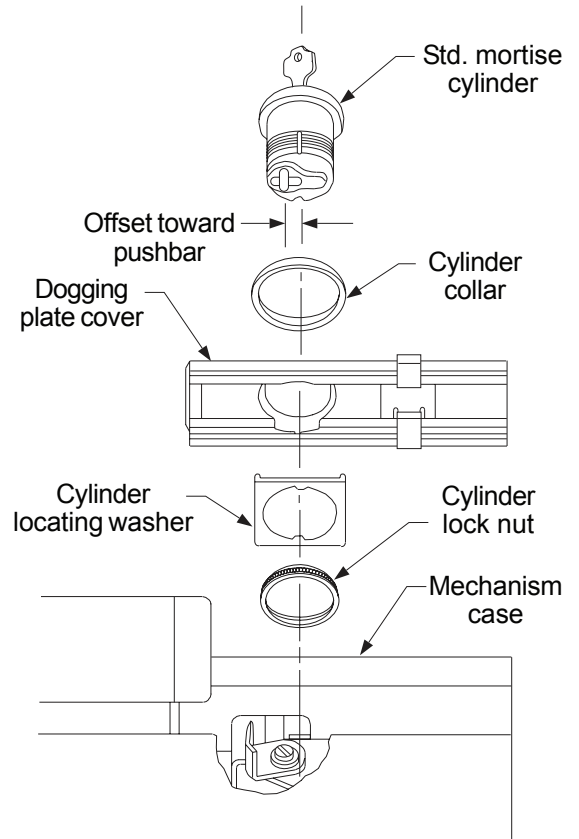
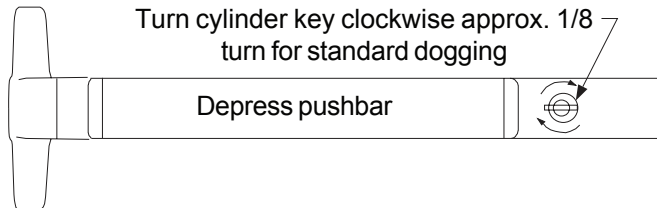
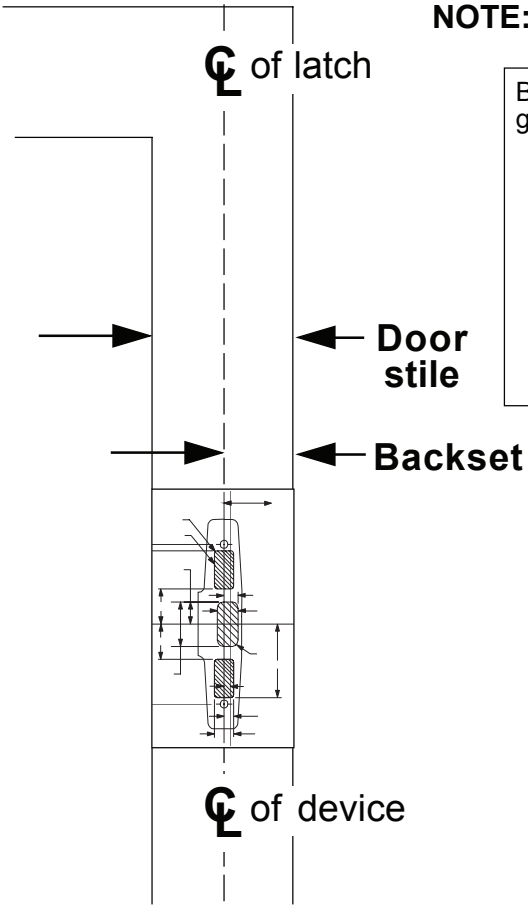


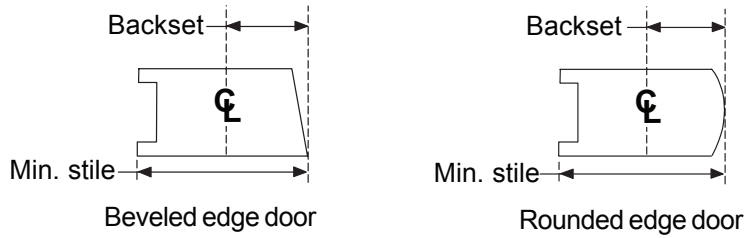
Figure 2

BACKSET INFORMATION

NOTE: For 2" stile doors see bottom half of page



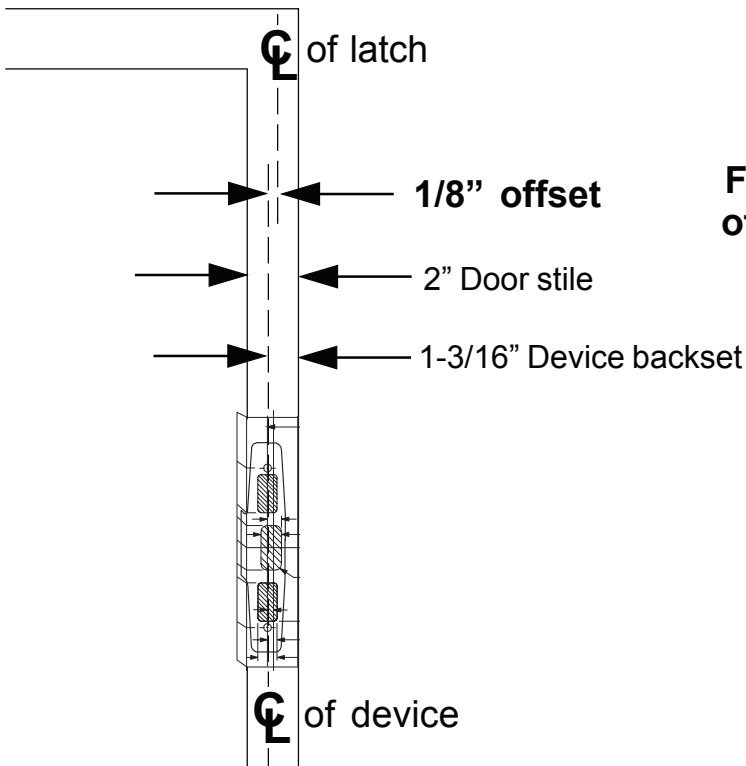
Backset is measured from outer edge of door as shown. Minimum stile is less glass stop (rectangular glass stop is recommended for stiles less than 2-1/8")



Backset Table

Door type	Backset	Min. stile	Application
Wood	1-5/16"	NA	All
Metal	1-3/16"	2-1/8" - 2-3/4"	Two vertical rod devices (panic)
	1-1/2"	2-3/4" - 3-3/4"	
	1-7/8"	3-3/4" - 5"	
	2-1/2"	5" to flush	
Metal	1-1/2"	2-1/2" - 3-3/4"	Single door (panic)
	1-7/8"	3-3/4" - 5"	
	2-1/2"	5" to flush	
Metal	2-3/4"	3-5/8" to flush	Fire applications

SPECIAL INSTRUCTIONS FOR 2" STILE DOORS



For 2" stile doors ONLY! Latch CL is offset 1/8" from Device CL as shown

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METAL DOOR RHR

33/3547A Device template

X

RHR

Backset

See "Backset Information" on page 9

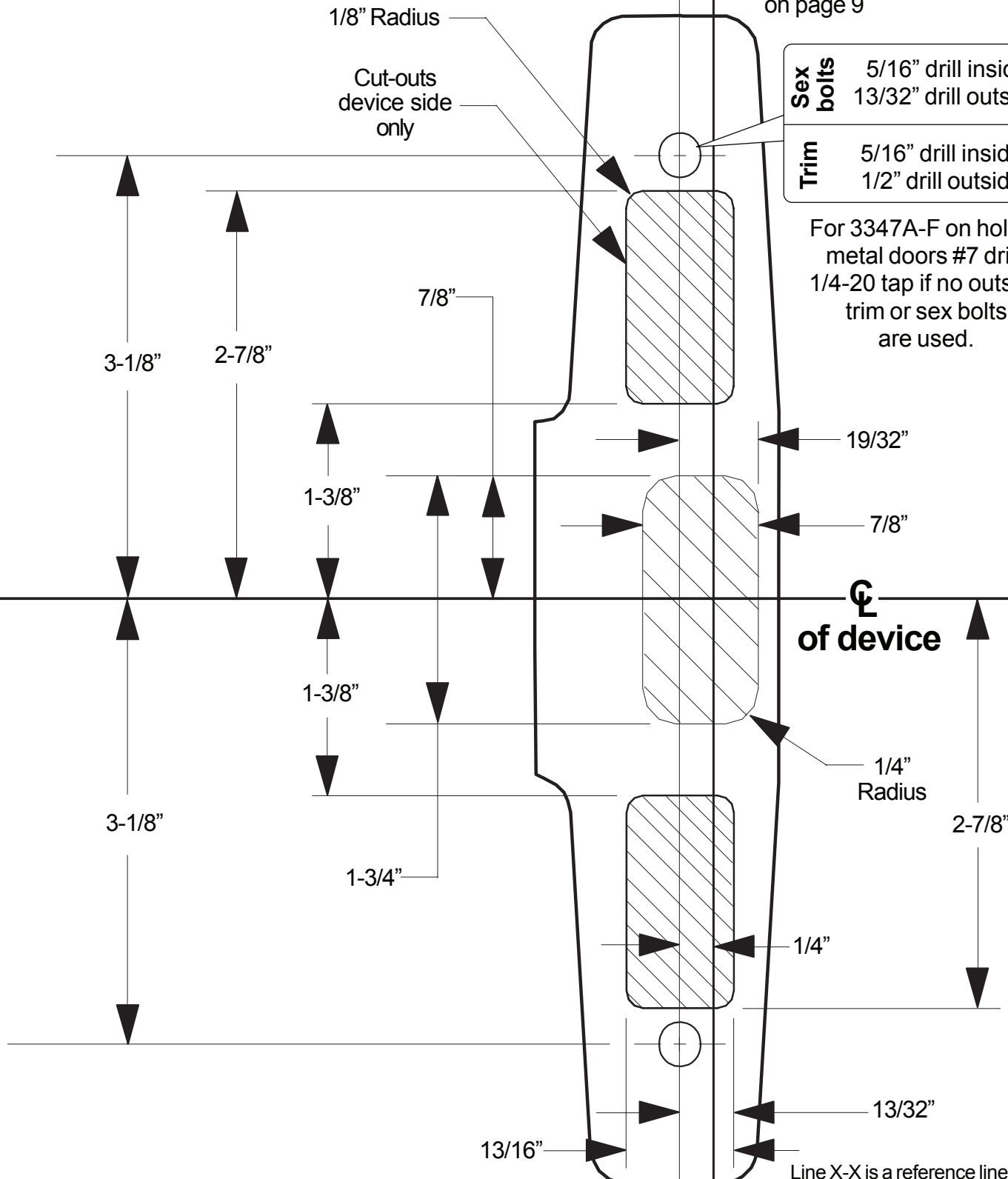
Device ϕ

1/8" Radius

Cut-outs device side only

Sex bolts	5/16" drill inside 13/32" drill outside
Trim	5/16" drill inside 1/2" drill outside

For 3347A-F on hollow metal doors #7 drill, 1/4-20 tap if no outside trim or sex bolts are used.



Line X-X is a reference line for trim and exit device alignment. Line X-X shown here should correspond to line X-X in the trim installation instructions

LHR

METAL DOOR LHR 33/3547A Device template

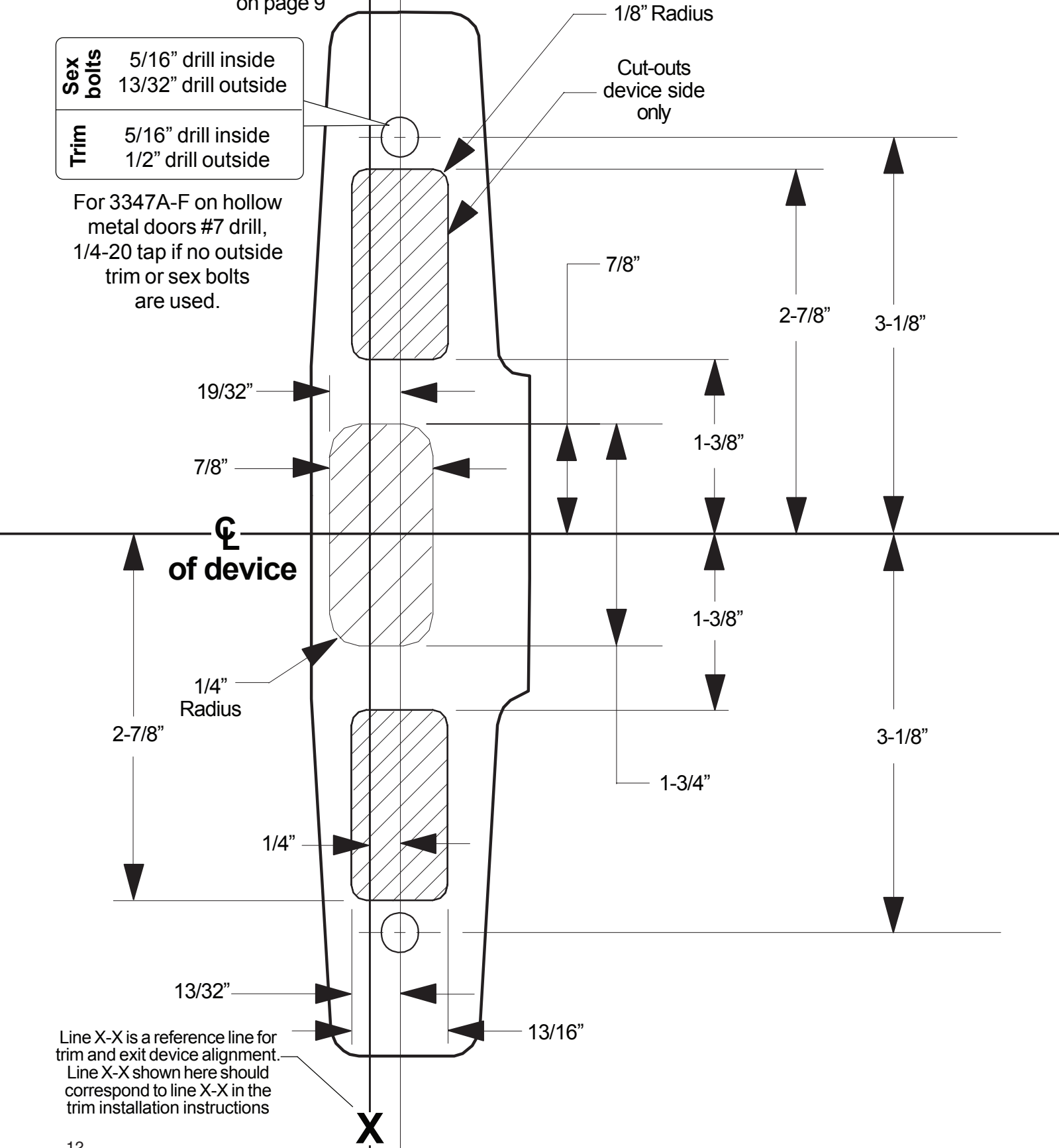
← Backset →

See "Backset Information" on page 9

☉ of device

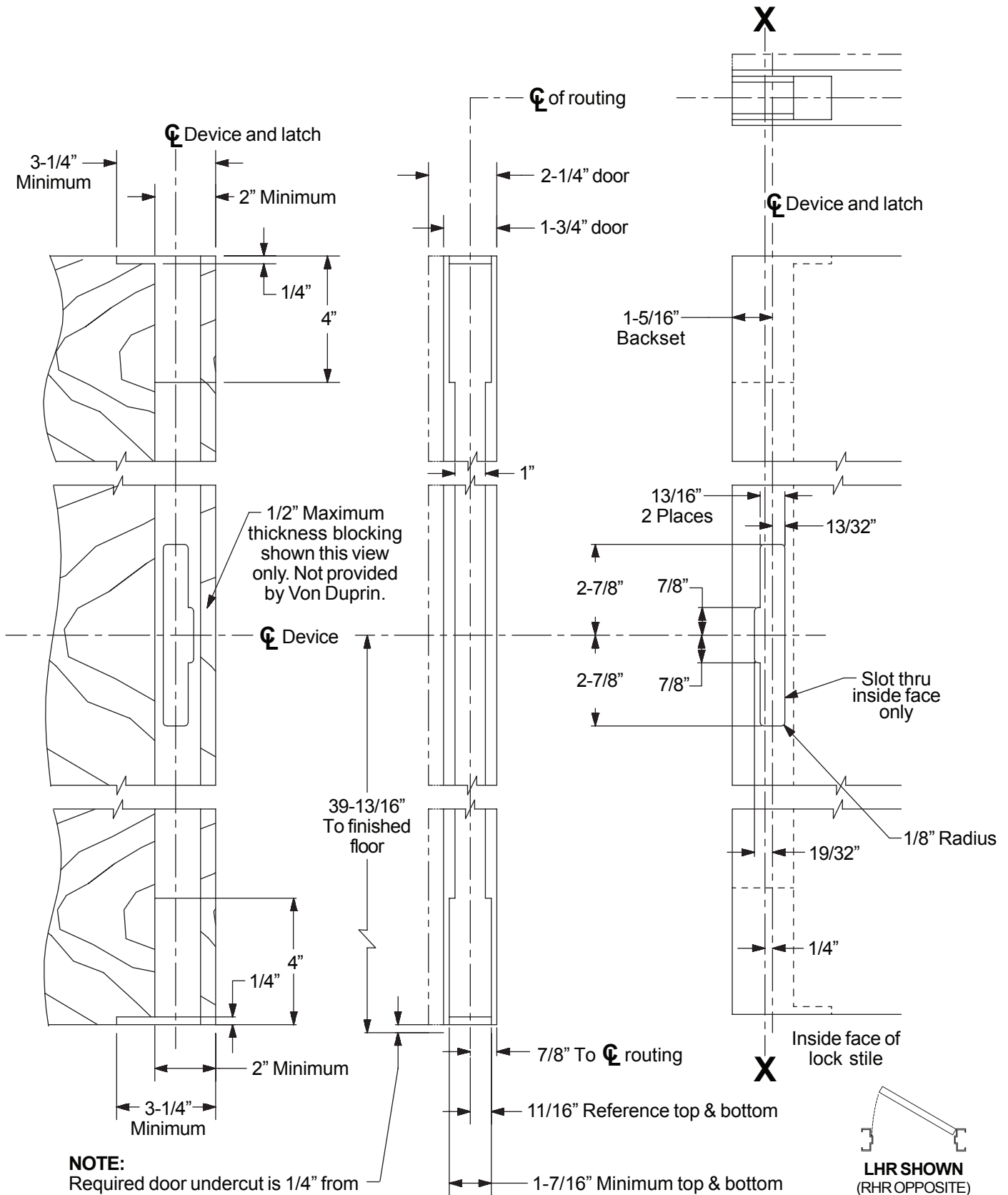
Sex bolts	5/16" drill inside 13/32" drill outside
Trim	5/16" drill inside 1/2" drill outside

For 3347A-F on hollow metal doors #7 drill, 1/4-20 tap if no outside trim or sex bolts are used.



Line X-X is a reference line for trim and exit device alignment. Line X-X shown here should correspond to line X-X in the trim installation instructions

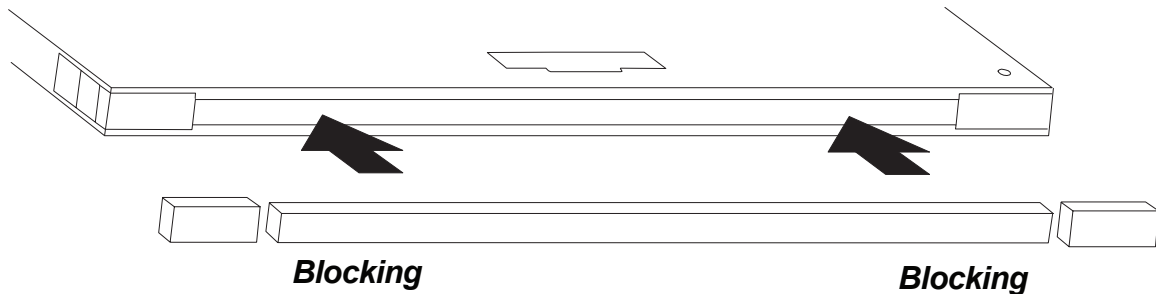
WOOD DOOR PREPARATION - DOOR ROUTING



WOOD DOOR PREPARATION - DOOR BLOCKING AND WRAP

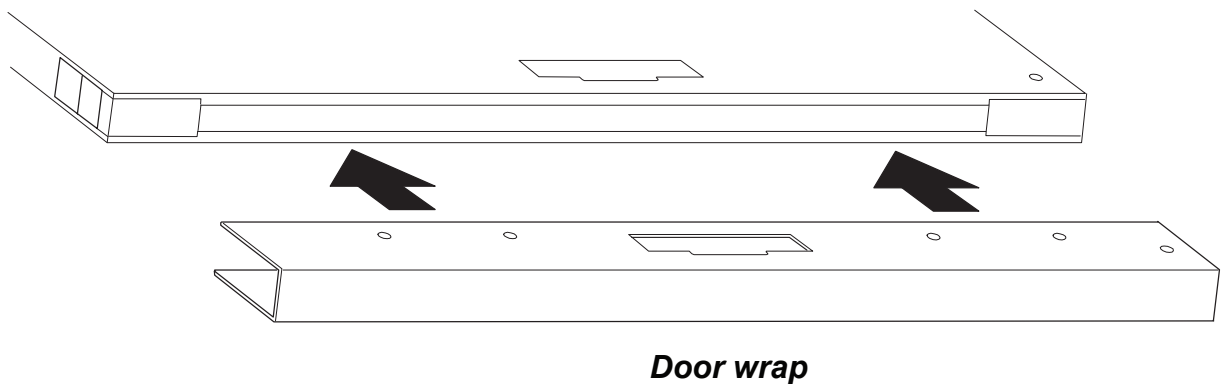
A. Install door blocking. See page 13 for door blocking dimensions.

Note: If not using door wrap, the blocking can be installed after device is installed.



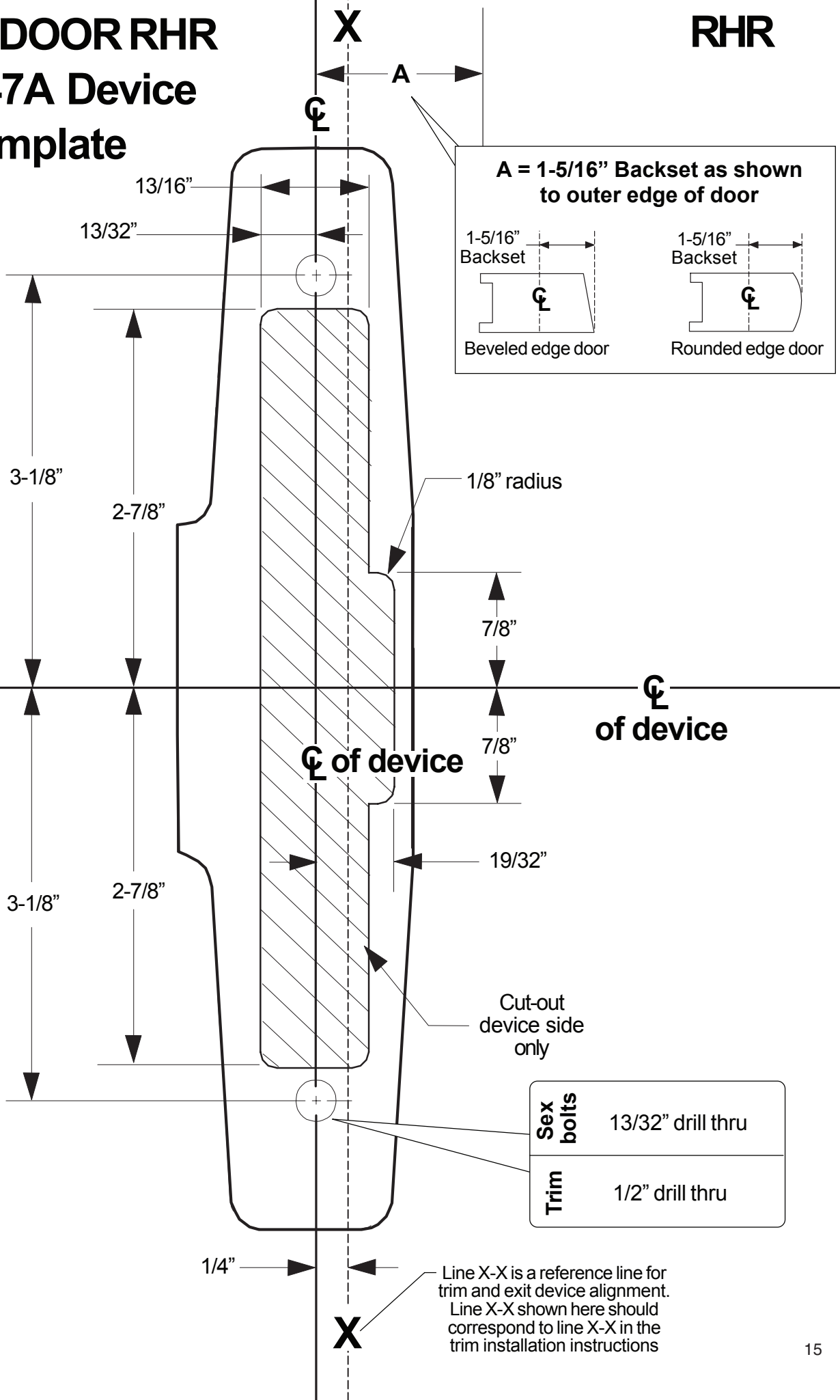
B. Install door wrap if needed. Door wrap is required for Fire rated (F) devices.

Note: Required on fire doors only, not supplied by Von Duprin
(See door manufacturer's requirements)



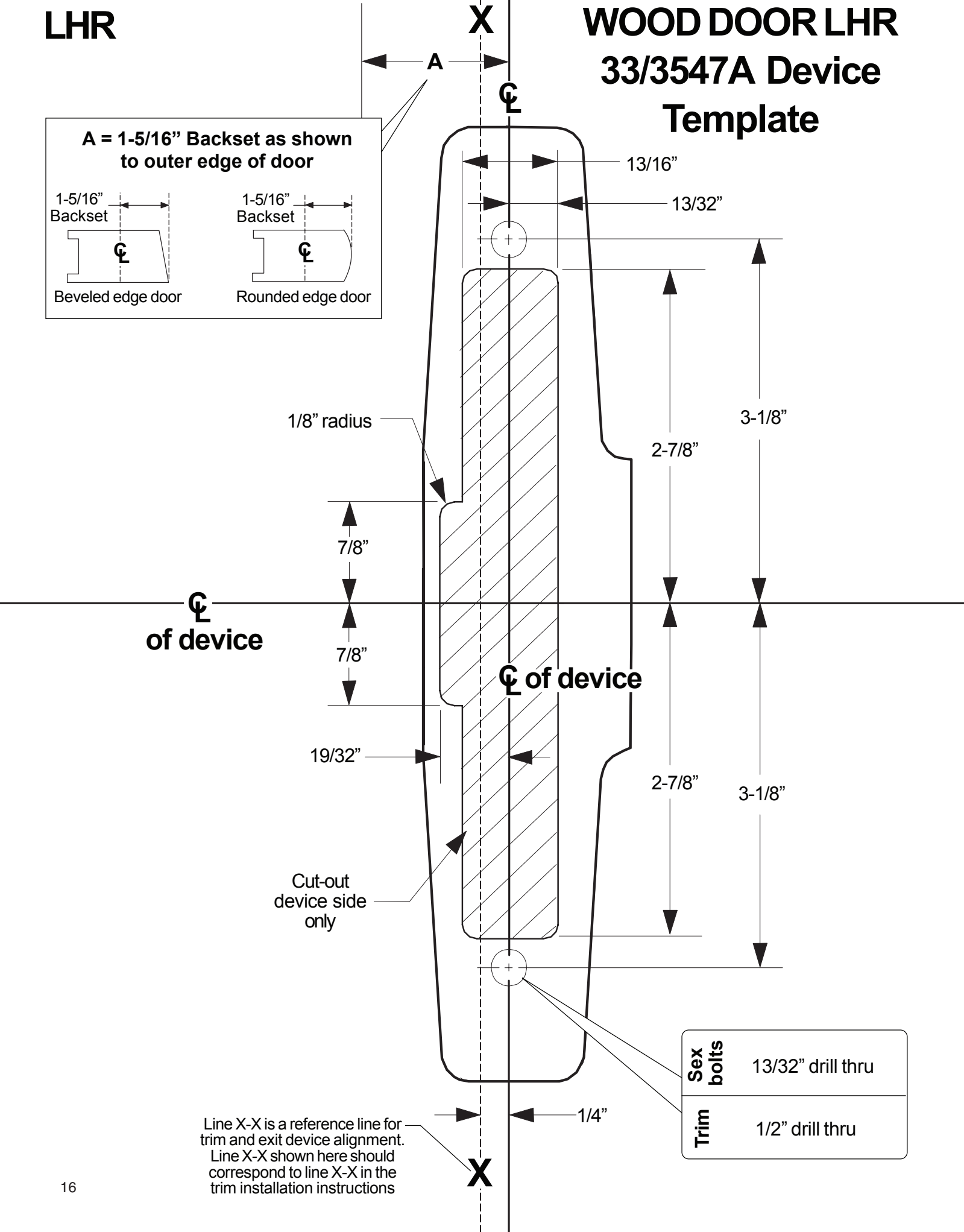
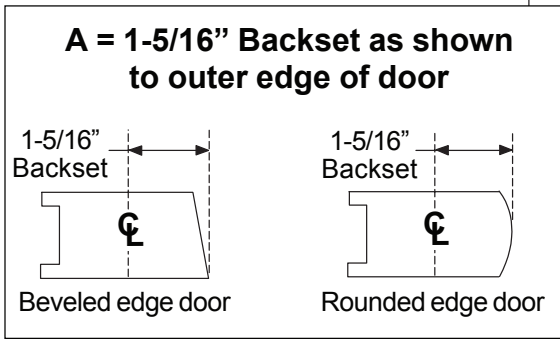
WOOD DOOR RHR 33/3547A Device Template

RHR



LHR

WOOD DOOR LHR 33/3547A Device Template



Sex bolts	13/32" drill thru
Trim	1/2" drill thru

Line X-X is a reference line for trim and exit device alignment.
Line X-X shown here should correspond to line X-X in the trim installation instructions



921043-00

Trim for 33 series Rim & Vertical Exit Devices

386DT/NL

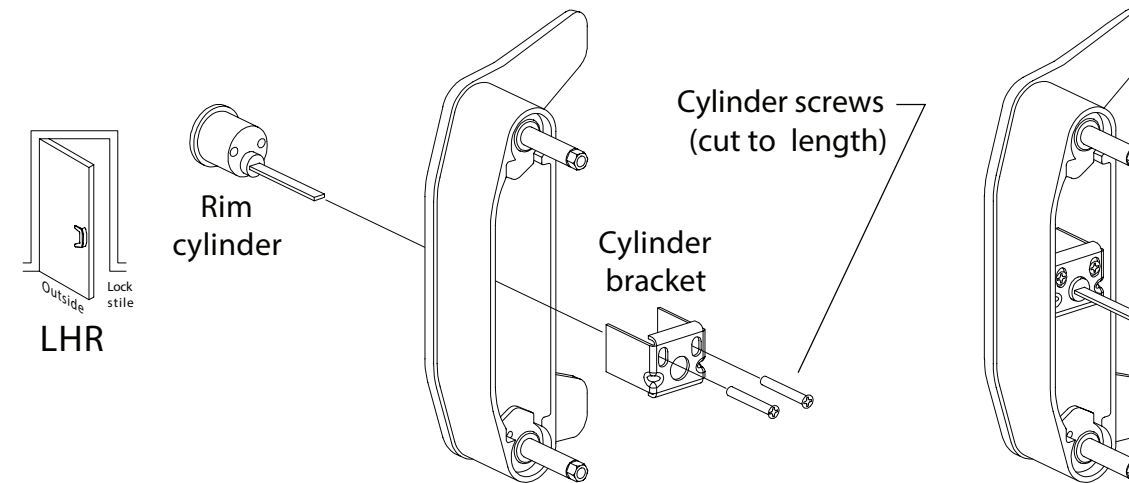
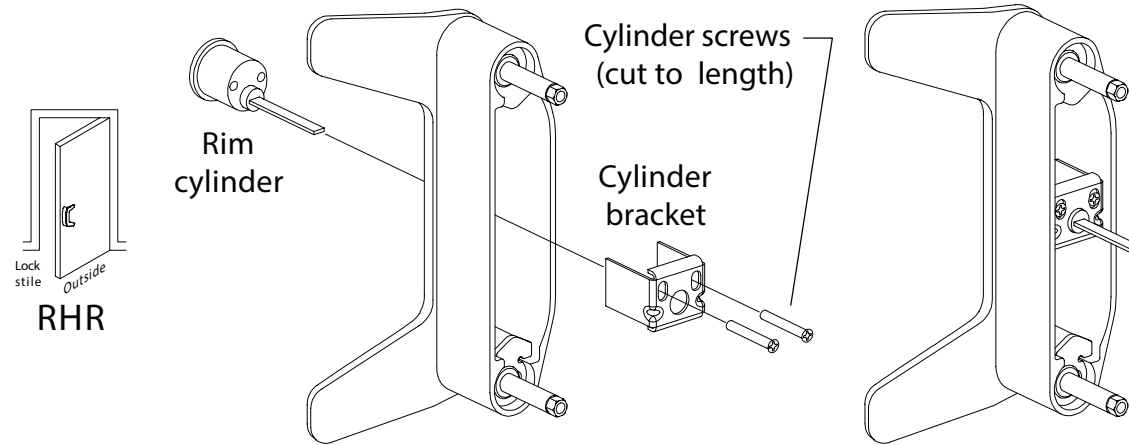
VON DUPRIN®

Installation Instructions

INSTALLATION INSTRUCTIONS

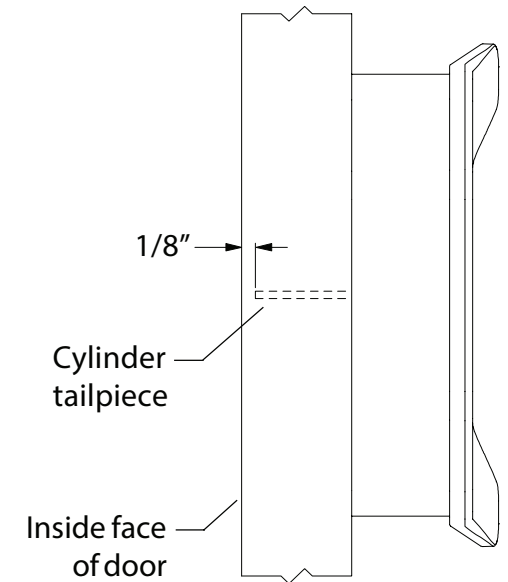
1. Prepare door for exit device. See exit device instructions for holes, line X-X, and center lines.
2. Prepare door for trim:
 - A. Transfer line X-X from inside (exit device side) of door to outside (trim side) of door. Use extra care if edge of door is beveled. Be sure line X-X is parallel to edge of door.
 - B. Locate and prepare holes as shown on other side.
3. Prepare trim:
 - A. Install cylinder (386NL trim only).
 - B. If necessary, adjust cylinder tailpiece length (386NL trim only).
4. Apply exit device and trim.

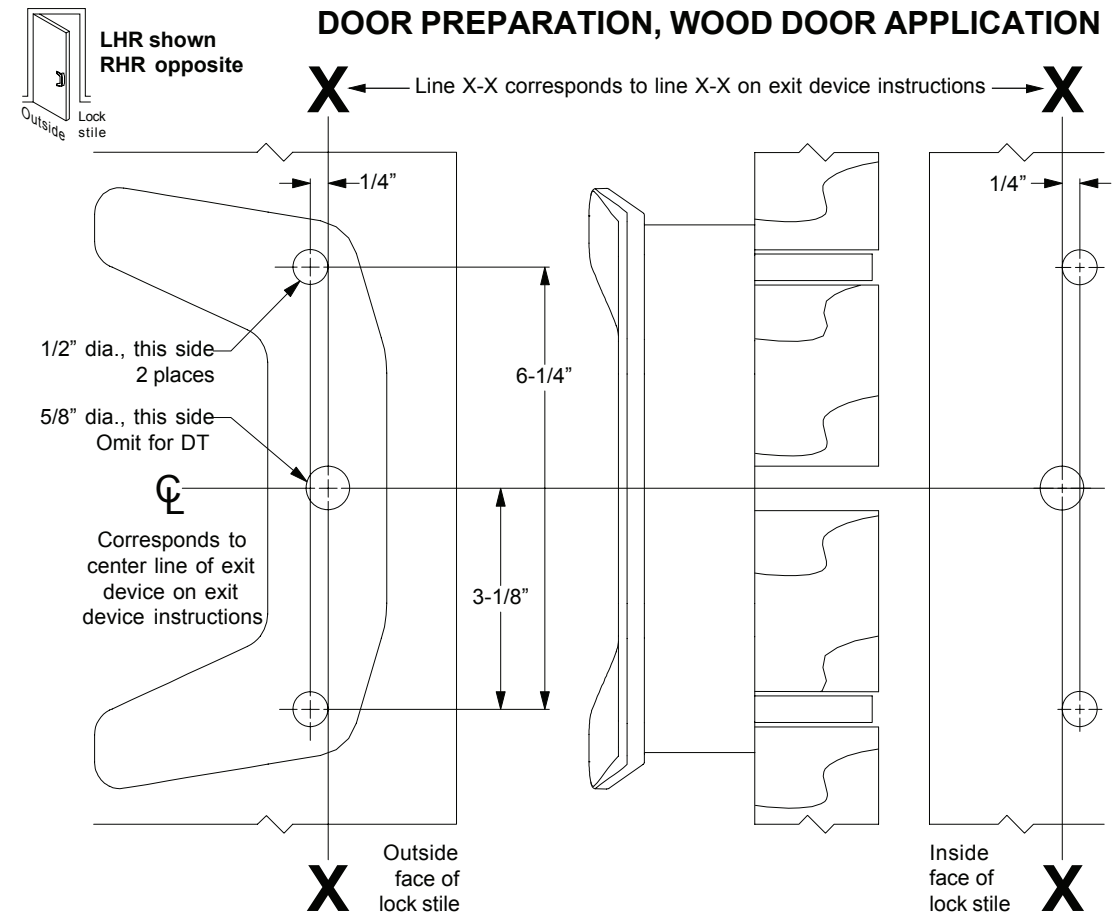
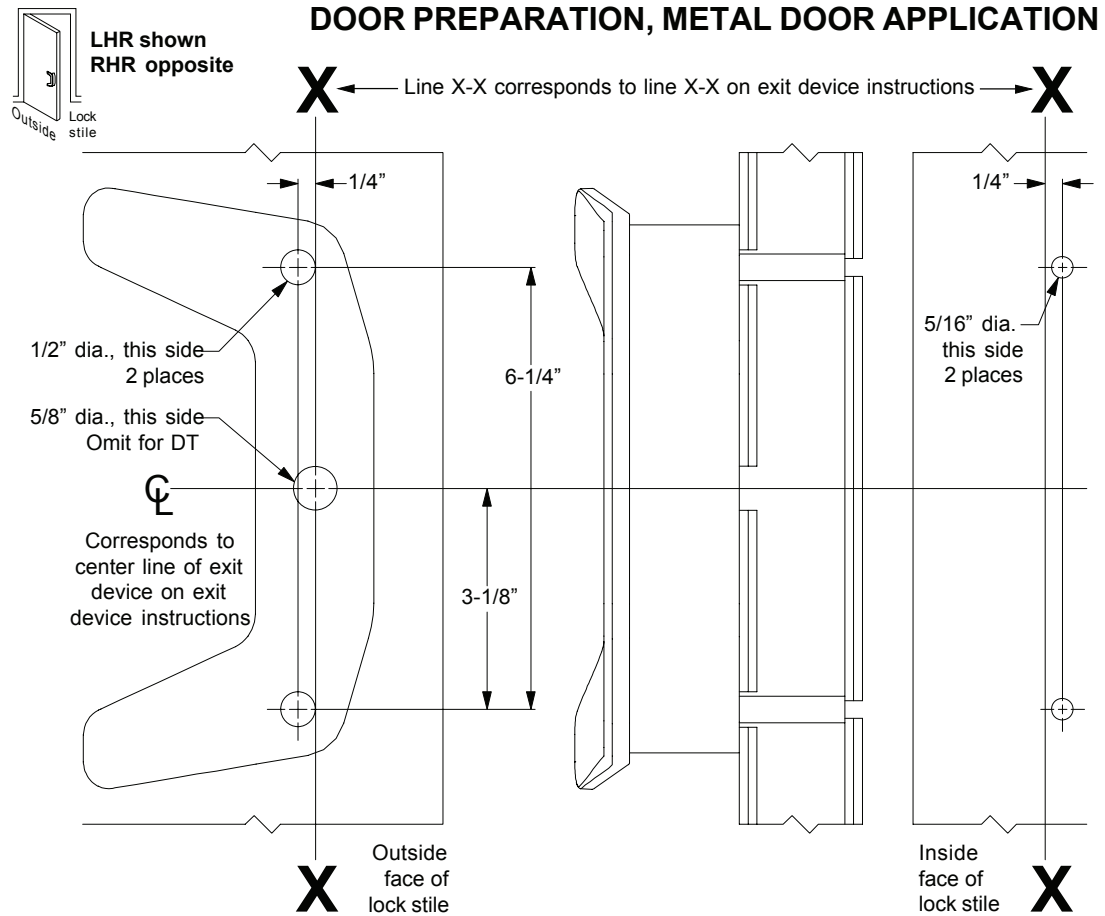
TO INSTALL CYLINDER



TO ADJUST TAILPIECE LENGTH

Cut cylinder tailpiece as shown.





Device Application Schedule		
	386N	386-DT
33A/35A Rim Device	●	●
3327A/3527A Vertical Rod Device	●	●
3347A/3547A Vertical Rod Device	●	●
3348A/3548A Vertical Rod Device	●	●
3327A-F/3527A-F Vertical Rod Device	●	
3347A-F/3547A-F Vertical Rod Device	●	
3348A-F/3548A-F Vertical Rod Device	●	

For cutouts on inside face of door, see exit device instructions.

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