



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  
QEL33/3547A/47A-F and QEL33/3548A/48-F Concealed Vertical Rod Exit Device  
HH/HW33/3547A Concealed Vertical Rod Exit Device  
HH/HW33/3547A-F Fire Concealed Vertical Rod Exit Device



### Digital instructions - please read

For the best installation experience, we now have Smartphone friendly digital interactive instructions. Just scan the QR code.



[alle.co/3347](http://alle.co/3347)

### Special tools needed:

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

### Index:

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- Optional equipment ..... 8
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- Wood door preparation .... 13-14
- Wood door templates ..... 15-16

For hurricane rated device requirements, see page 3.

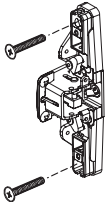
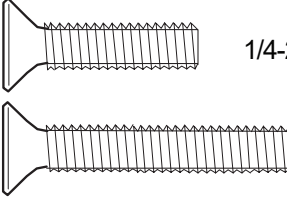
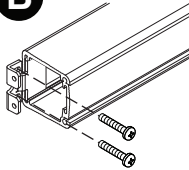
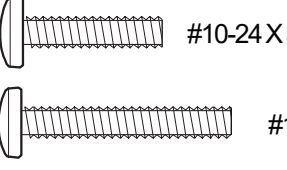
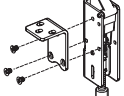
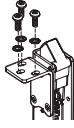
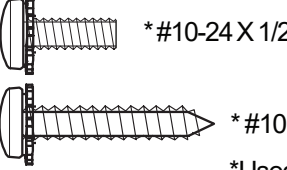
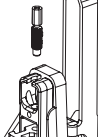
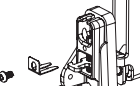
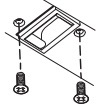
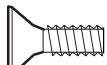
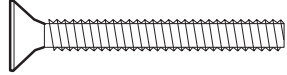
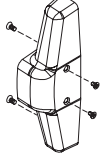


### Customer Service

1-877-671-7011 [www.allegion.com/us](http://www.allegion.com/us)

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911404-00 Rev. 08/21-h

# SCREW CHART

|                                                                                              |                                                                                     |                                       |                                             |
|----------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|---------------------------------------|---------------------------------------------|
| <b>A</b>    |    | 1/4-20 x 1"                           | Trim mount or sex bolts:<br>(1-3/4" door)   |
|                                                                                              |                                                                                     | 1/4-20 x 1-1/2"                       | (2-1/4" door)                               |
| <b>B</b>    |    | #10-24 X 3/4"                         | Surface mount or<br>Sex bolts (1-3/4" door) |
|                                                                                              |                                                                                     | #10-24 X 1-1/8"                       | Sex bolts (2-1/4" door)                     |
| <b>C</b>    |    | #10-16 X 3/8" Thread cutting          | End cap                                     |
| <b>D</b>    |    | #10-32 X 1/4"                         | Bracket to latch                            |
| <b>E</b>    |   | *#10-24 X 1/2"                        | Bracket to door                             |
|                                                                                              |                                                                                     | *#10 X 1" Wood screw                  | Bracket to door                             |
|                                                                                              |                                                                                     | *Used with external tooth lock washer |                                             |
| <b>F</b>  |  | #10-32 X 3/8" Socket head             | Rod attachment                              |
| <b>G</b>  |  | Rod adjusting screw                   | Rod length adjustment                       |
| <b>H</b>  |  | #8-32 X 5/16"                         | Retaining clip                              |
| <b>I</b>  |  | #10-24 X 1/2"                         | 338 Strike                                  |
| <b>J</b>  |  | #10-24 X 1-1/2"                       | Ratchet release                             |
| <b>K</b>  |  | #8-18 x 3/8" Thread cutting           | Center case cover                           |

## HURRICANE RATED DEVICE REQUIREMENTS

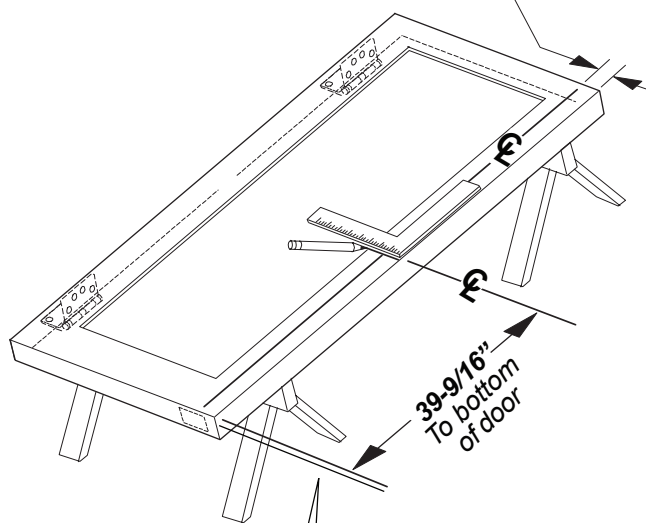
### Hurricane rated exit device requirements (when used with approved Allegion door applications)

| <b>Sexbolts</b>                                    |                        | When installing a Wind and Impact-rated hurricane device (HH), sex bolts must be used. Sex bolts are noted throughout the instructions where applicable. If through-bolting trims are used, these trims are equivalent in function and are used in place of sex bolts. |         |                             |
|----------------------------------------------------|------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|-----------------------------|
| Application                                        |                        | Single door standard strike                                                                                                                                                                                                                                            | Mullion | Double door standard strike |
| HH (Wind and Impact rated)<br>or<br>HW (Wind Only) | HH33/3547A<br>33/3547A | Top: 338<br>Bottom: 304L                                                                                                                                                                                                                                               | —       | Top: 338<br>Bottom: 304L    |
|                                                    | 33/3547A-F             | —                                                                                                                                                                                                                                                                      | —       |                             |

# 1

## Draw horizontal and vertical device center lines (C).

See "Backset information" on page 9



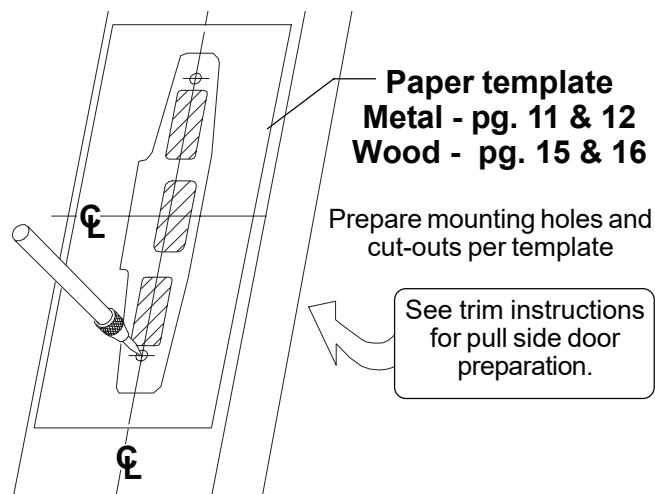
Once hung, door should have 1/4" undercut (gap) at bottom of door to finished floor

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.

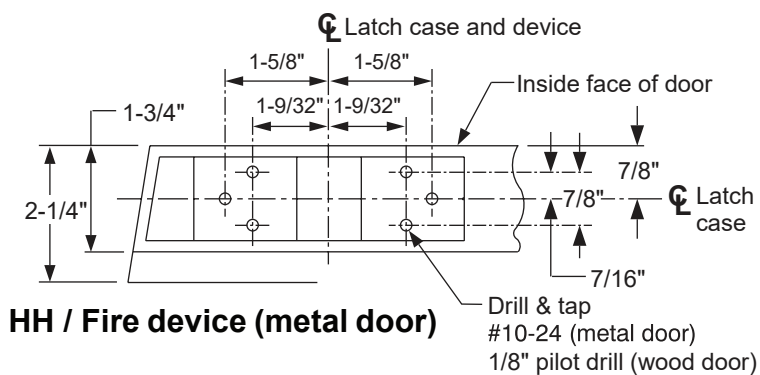


RHR shown  
(LHR opposite)

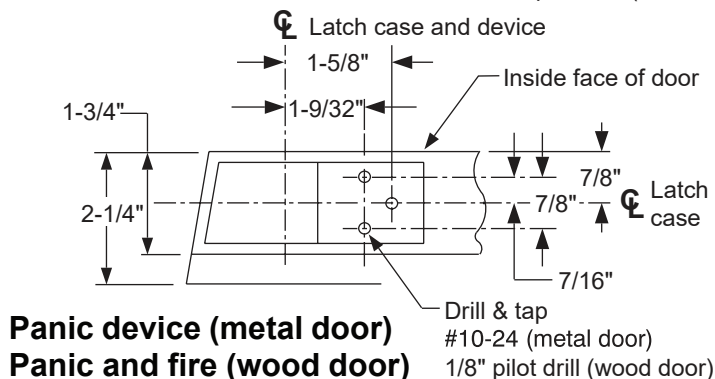
# 3

## Prepare top and bottom of door for latch mounting brackets.

**Latch cases  
(drill top and bottom of door)**



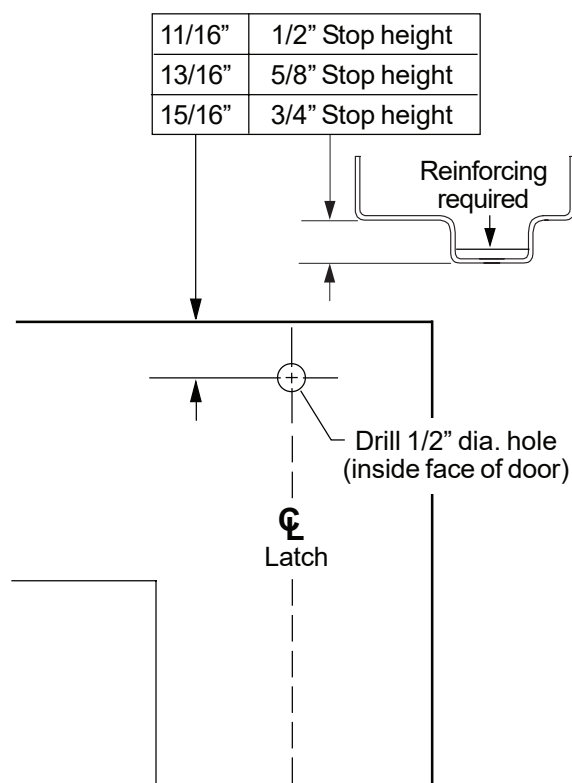
HH / Fire device (metal door)



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

# 4

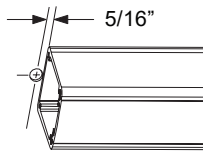
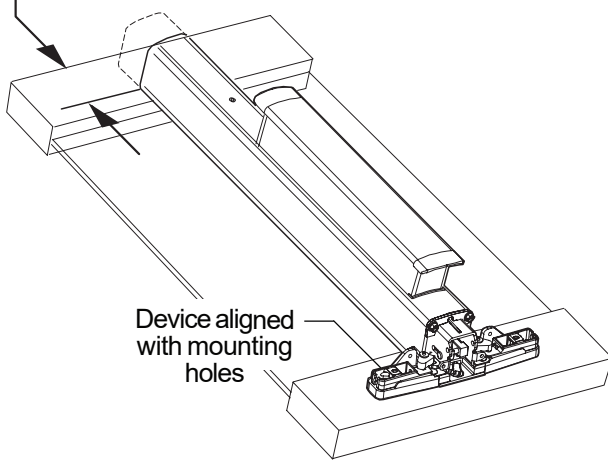
## Drill ratchet release hole in door.



# 5

## Measure to determine length to cut device.

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



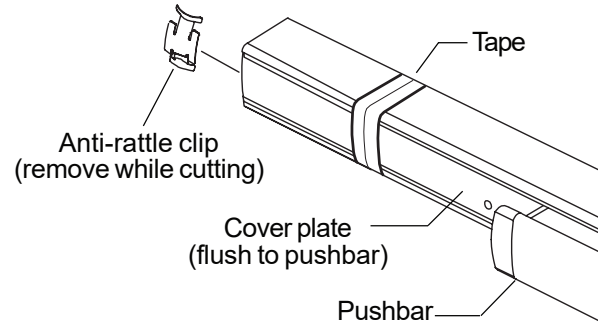
### Note

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

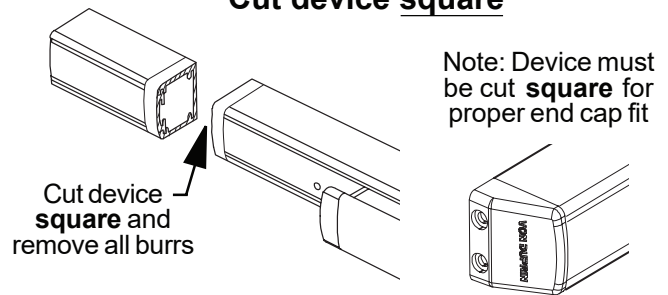
# 6

## Cut device to length.

### Prepare device for cutting



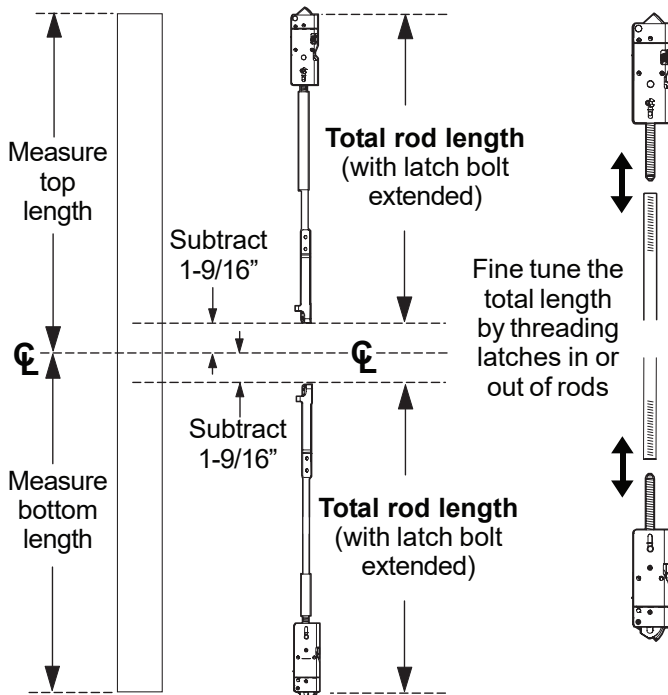
### Cut device square



# 7

## Assemble rods and latches and adjust length.

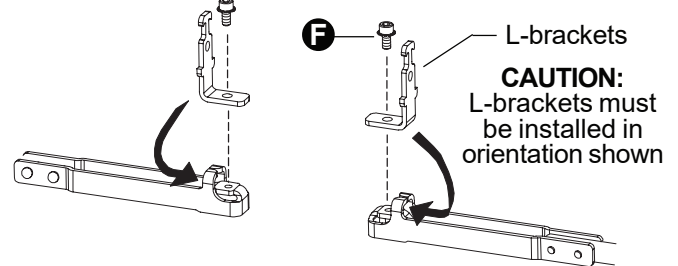
Follow white and brown instruction cards on rods to set initial rod length



# 8

## Install rods as shown.

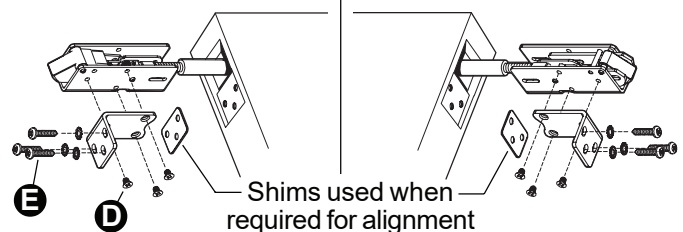
Rods are shipped with L-bracket attached. Insert rods with L-bracket pointing toward lock stile. Rotate rod until L-bracket protrudes through door cutout. If this is not possible, remove L-bracket and re-insert rod, then re-attach L-brackets.



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

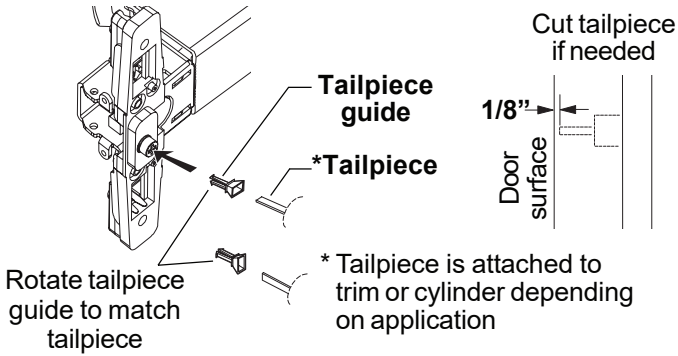
**Top latch & rod**

**Bottom latch & rod**

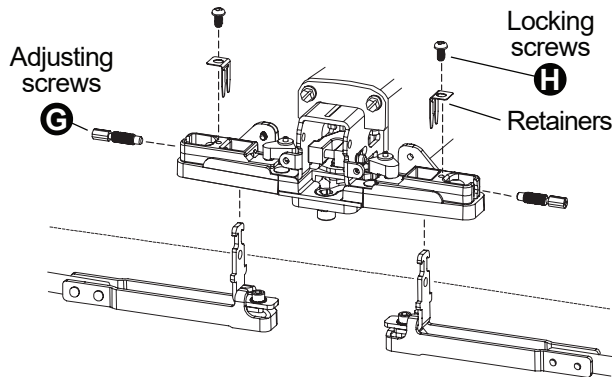


# 9

## Install tailpiece guide and attach rods to center case.

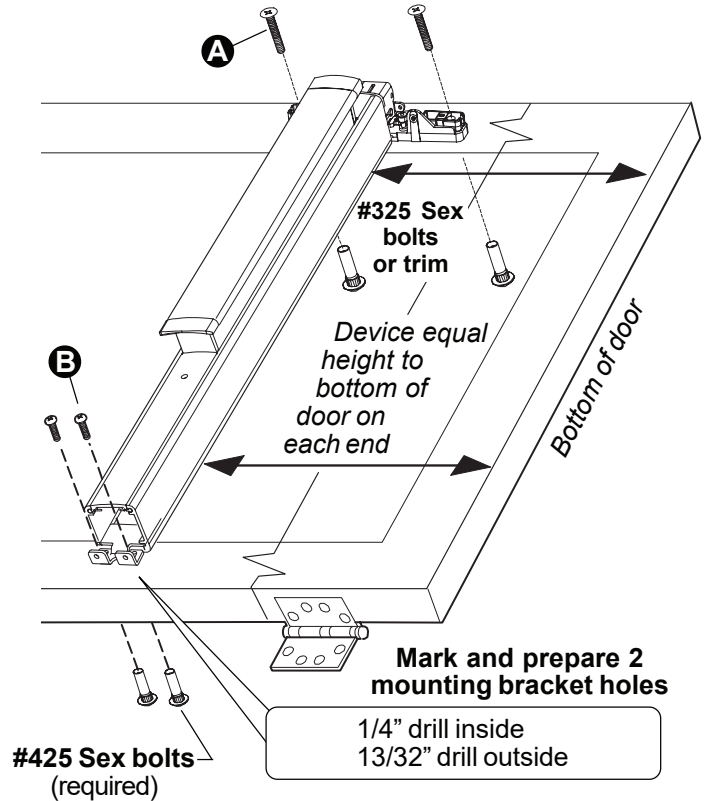


Place device over L-brackets and install adjusting screws, then install retainers and locking screws



# 10

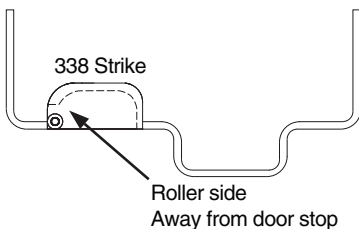
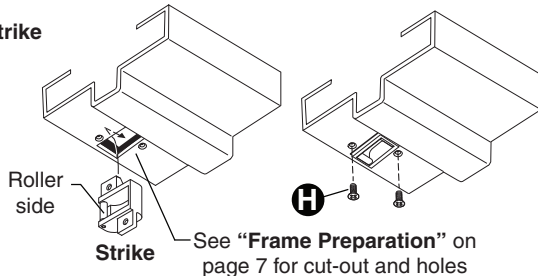
## Secure device to door and mount door to frame.



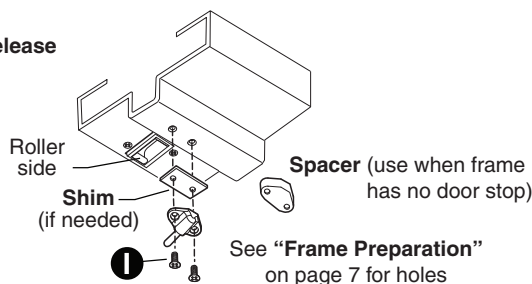
# 11

## Install top strike and ratchet release.

338 Top strike



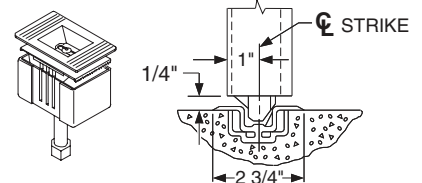
Ratchet release



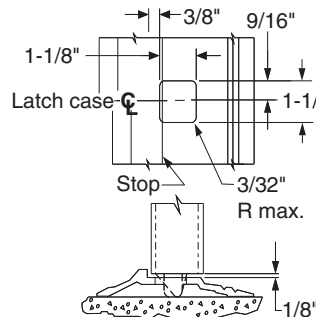
# 12

## Install bottom strike or prepare threshold.

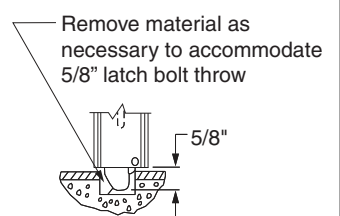
385-A bottom strike has two pieces. Grout bottom piece into floor and attach top piece to bottom with screw through slot.



Threshold application

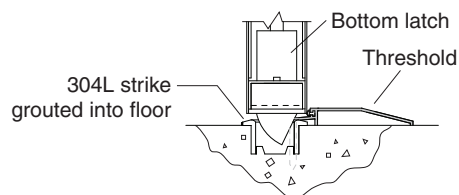


Flat threshold application



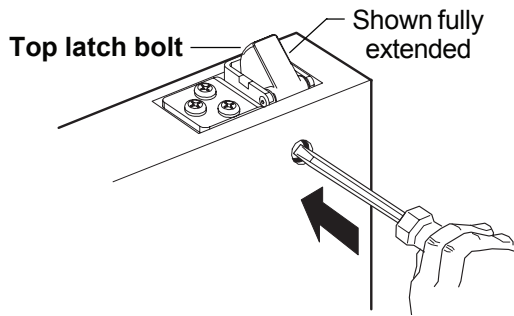
**Note:** Thresholds are not to be used with 33/3547A-F.

Hurricane applications use threshold with 304L bottom strike



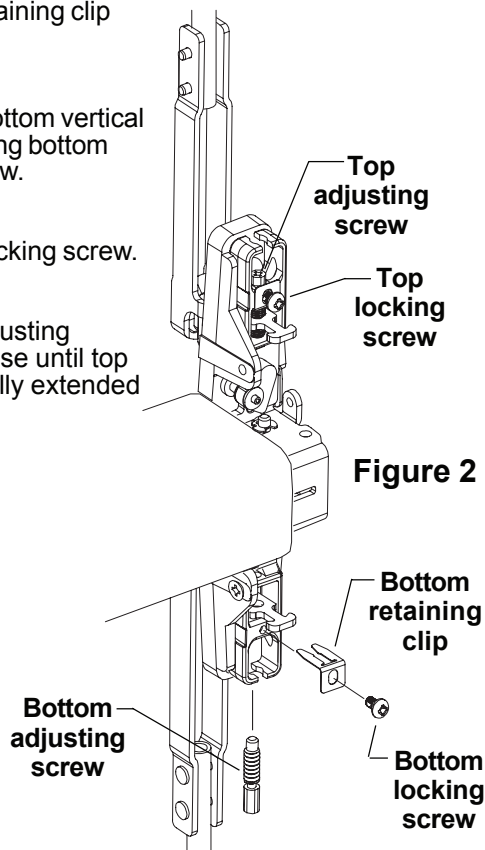
# ADJUST RODS

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



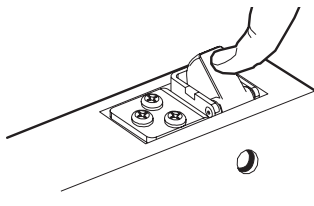
**Figure 1**

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).



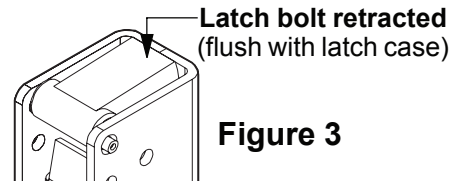
**Figure 2**

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



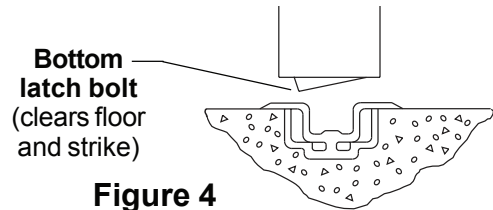
7. Turn top locking screw in against flat on adjusting screw. Do not over-tighten.

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.



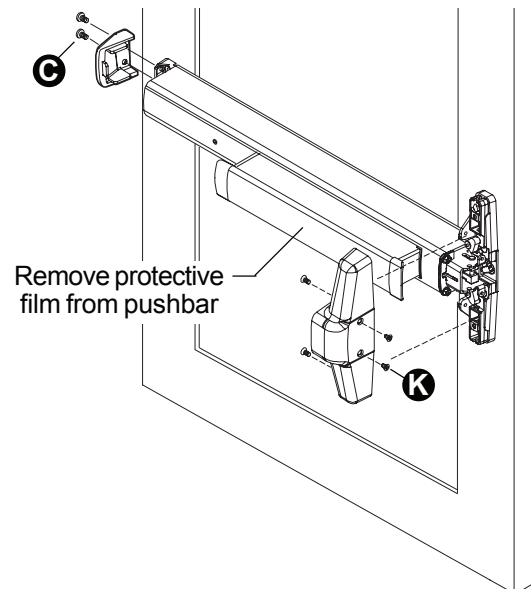
**Figure 4**

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 :

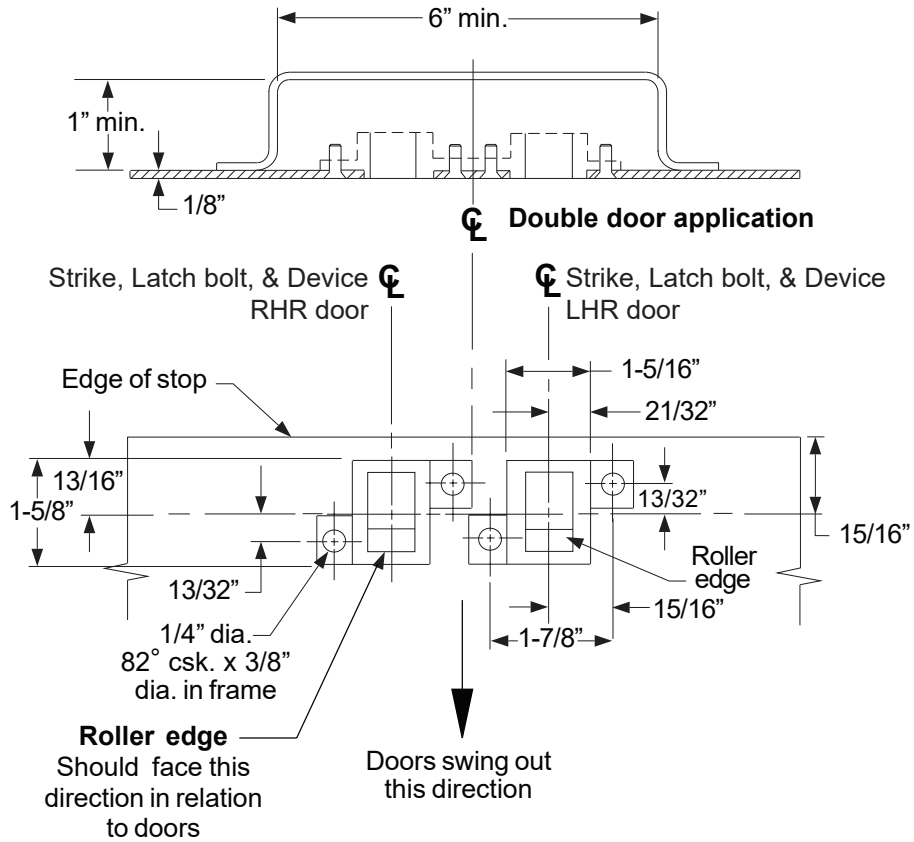
- Top latchbolt is not held retracted
- Bottom latchbolt does not clear floor and bottom strike

15. Install end cap and center case covers.

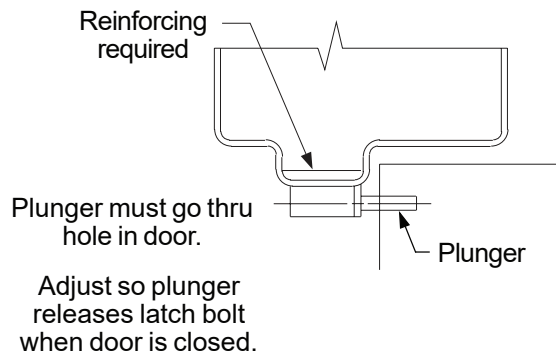
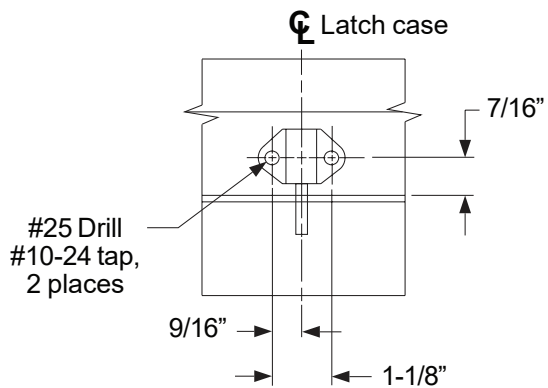


## FRAME PREPARATION

### 338 Top strike



## Ratchet release

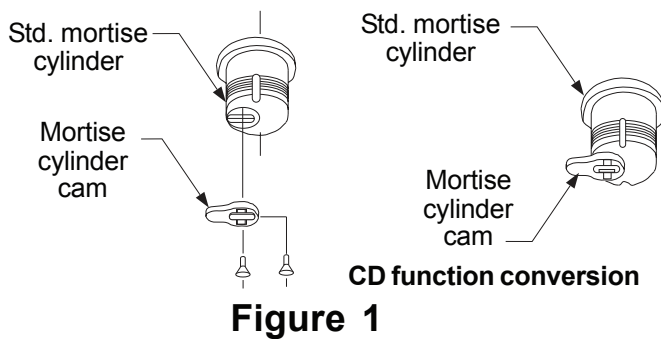




# OPTIONAL EQUIPMENT

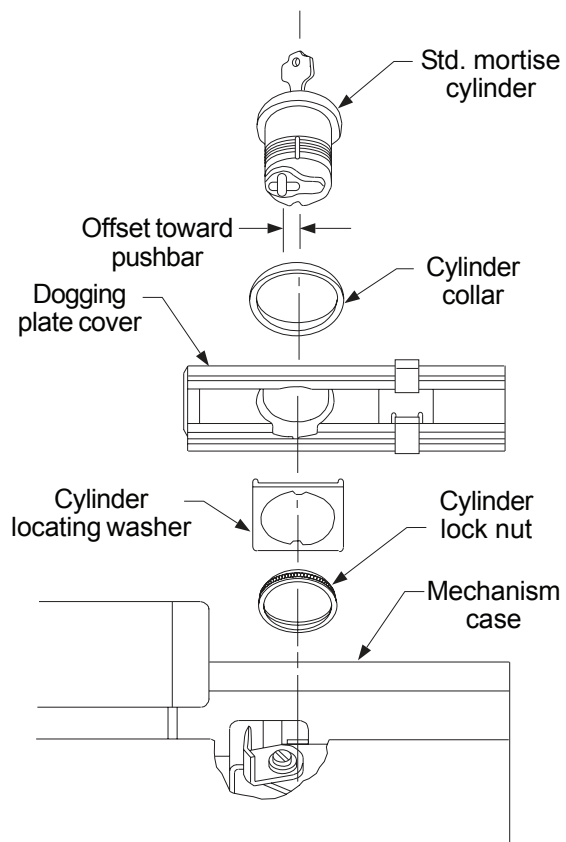
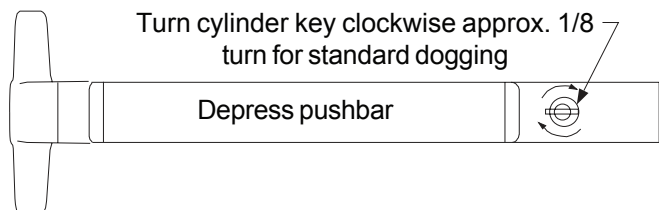
## CD (CYLINDER DOGGING)

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**

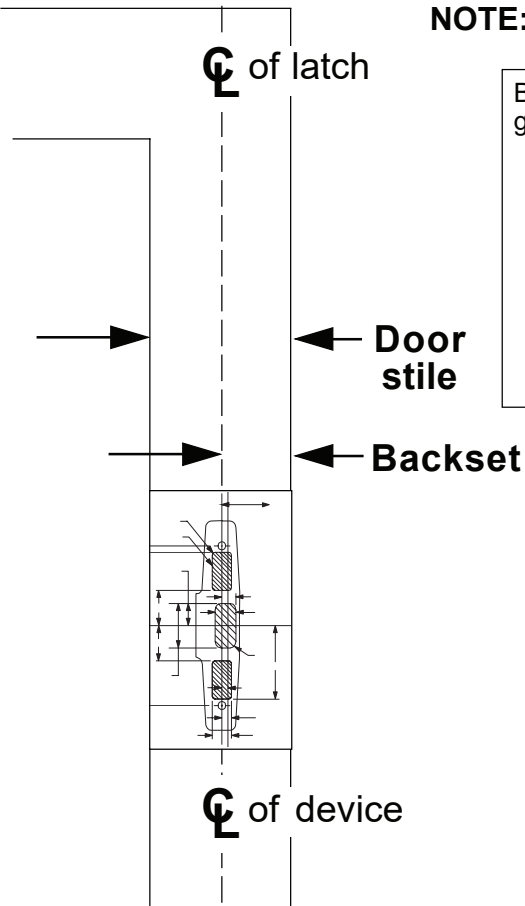
### Dogging procedure



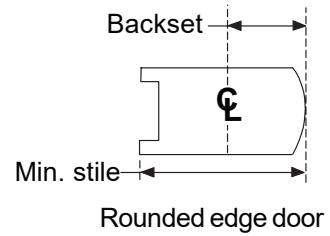
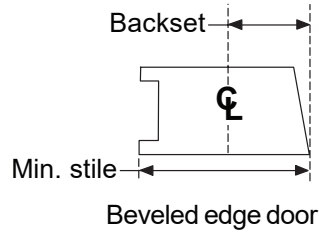
**Figure 2**

# BACKSET INFORMATION

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



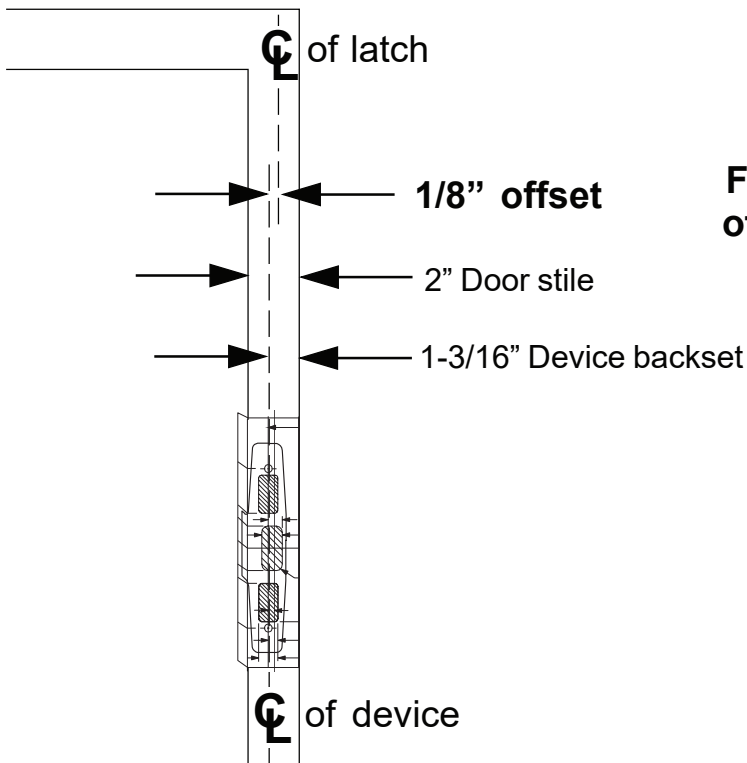
Backset is measured from outer edge of door as shown. Minimum stile is less glass stop (rectangular glass stop is recommended for stiles less than 2-1/8")



## 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     |                                  |
|           | 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     |                                  |
|           | 2-3/4"  | 3-5/8" to flush | Fire and Hurricane applications  |

## SPECIAL INSTRUCTIONS FOR 2" STILE DOORS



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

# METAL DOOR RHR

## 33/3547A Device template

X

RHR

Backset

See "Backset Information" on page 9

Device  $\phi$

Sex bolts

5/16" drill inside  
13/32" drill outside

Trim

5/16" drill inside  
1/2" drill outside

For 33/3547A-F on hollow metal doors:  
#7 drill, 1/4-20 tap if no outside trim or sex bolts are used.

HH33/3547A requires sex bolts even if no outside trim.

1/8" Radius  
Cut-outs device side only

7/8"

3-1/8"

2-7/8"

1-3/8"

19/32"

7/8"

$\phi$   
of device

1-3/8"

1/4" Radius

3-1/8"

2-7/8"

1-3/4"

1/4"

13/16"

13/32"

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

X

# LHR

## METAL DOOR LHR 33/3547A Device template

← **Backset** →

See "Backset Information"  
on page 9

⌀ of device

|                  |                                            |
|------------------|--------------------------------------------|
| <b>Sex bolts</b> | 5/16" drill inside<br>13/32" drill outside |
|------------------|--------------------------------------------|

|             |                                          |
|-------------|------------------------------------------|
| <b>Trim</b> | 5/16" drill inside<br>1/2" drill outside |
|-------------|------------------------------------------|

For 33/3547A-F on hollow metal doors:  
#7 drill, 1/4-20 tap if no outside trim or sex bolts are used.

HH33/3547A requires sex bolts even if no outside trim.

1/8" Radius

Cut-outs device side only

7/8"

2-7/8"

3-1/8"

19/32"

7/8"

⌀ of device

1-3/8"

1-3/8"

1/4" Radius

2-7/8"

1-3/4"

3-1/8"

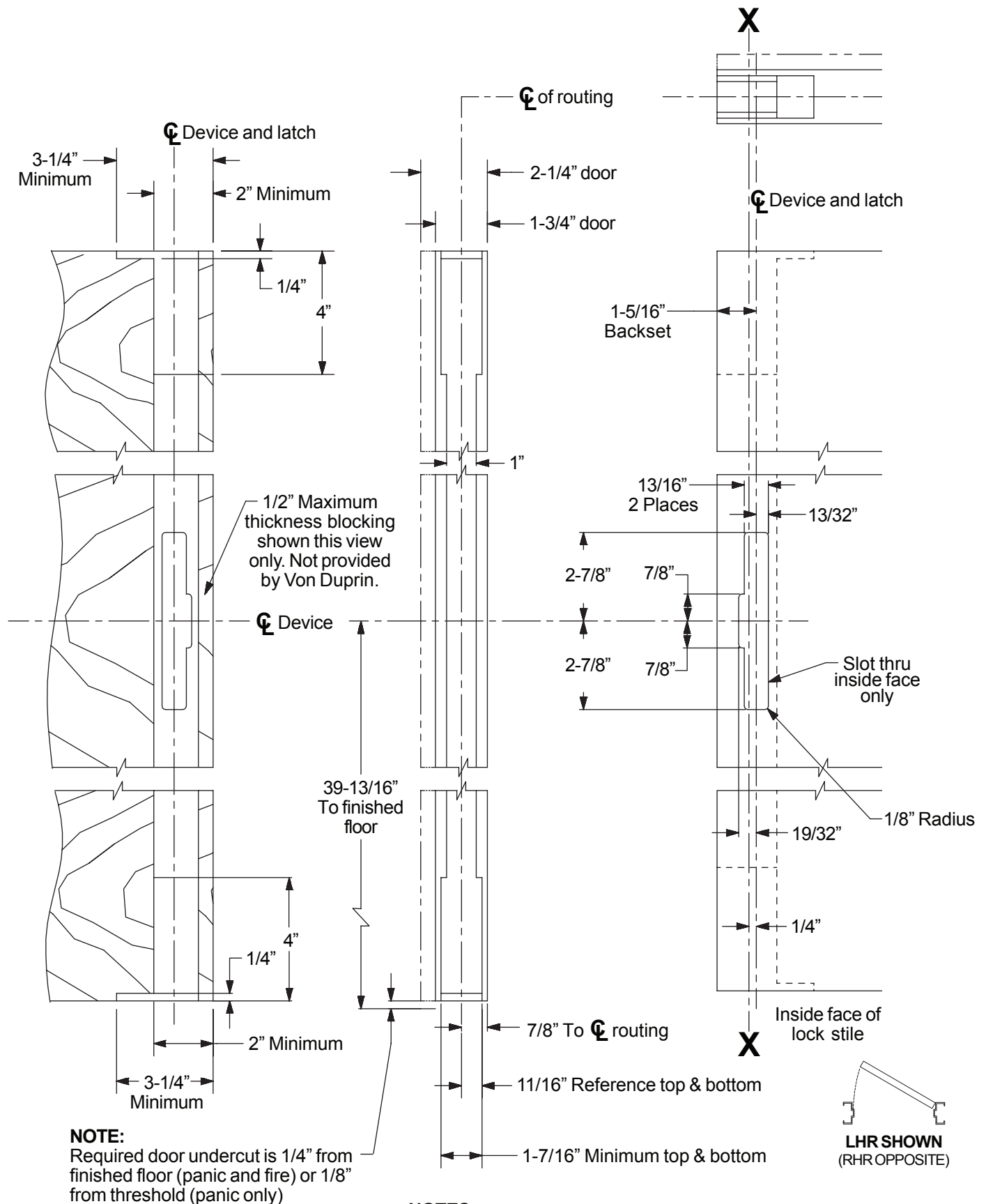
1/4"

13/32"

13/16"

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

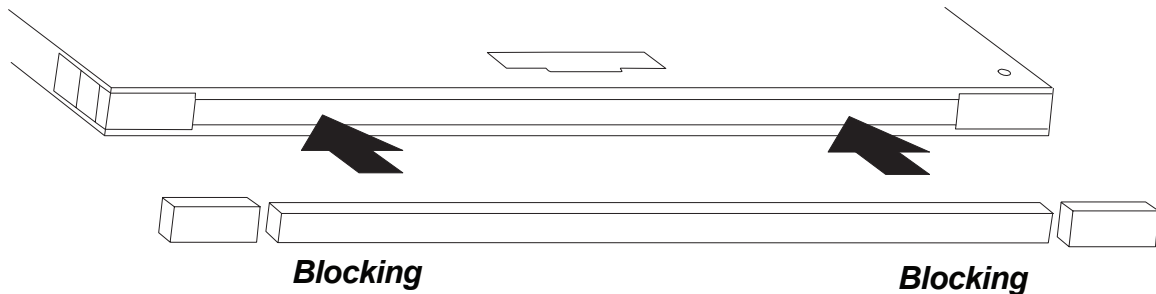
# WOOD DOOR PREPARATION - DOOR ROUTING



# WOOD DOOR PREPARATION - DOOR BLOCKING AND WRAP

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

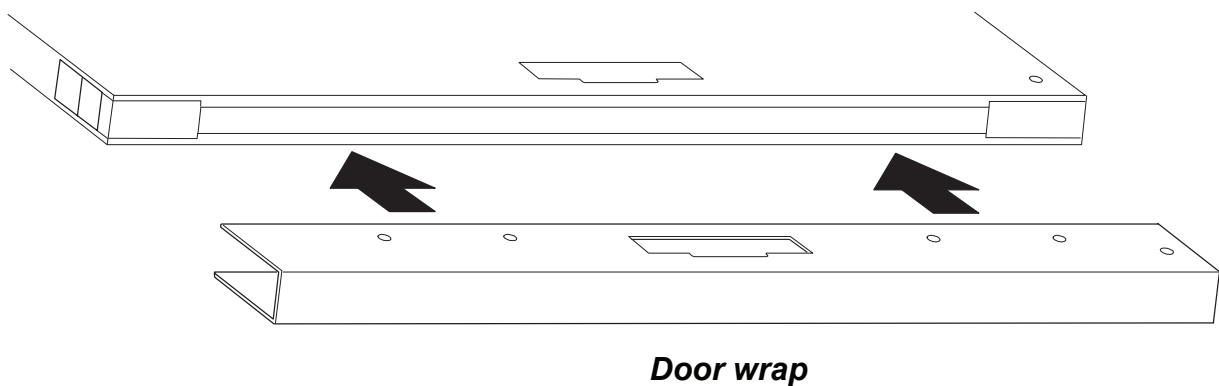
**Note:** If not using door wrap, the blocking can be installed after device is installed.



---

**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)

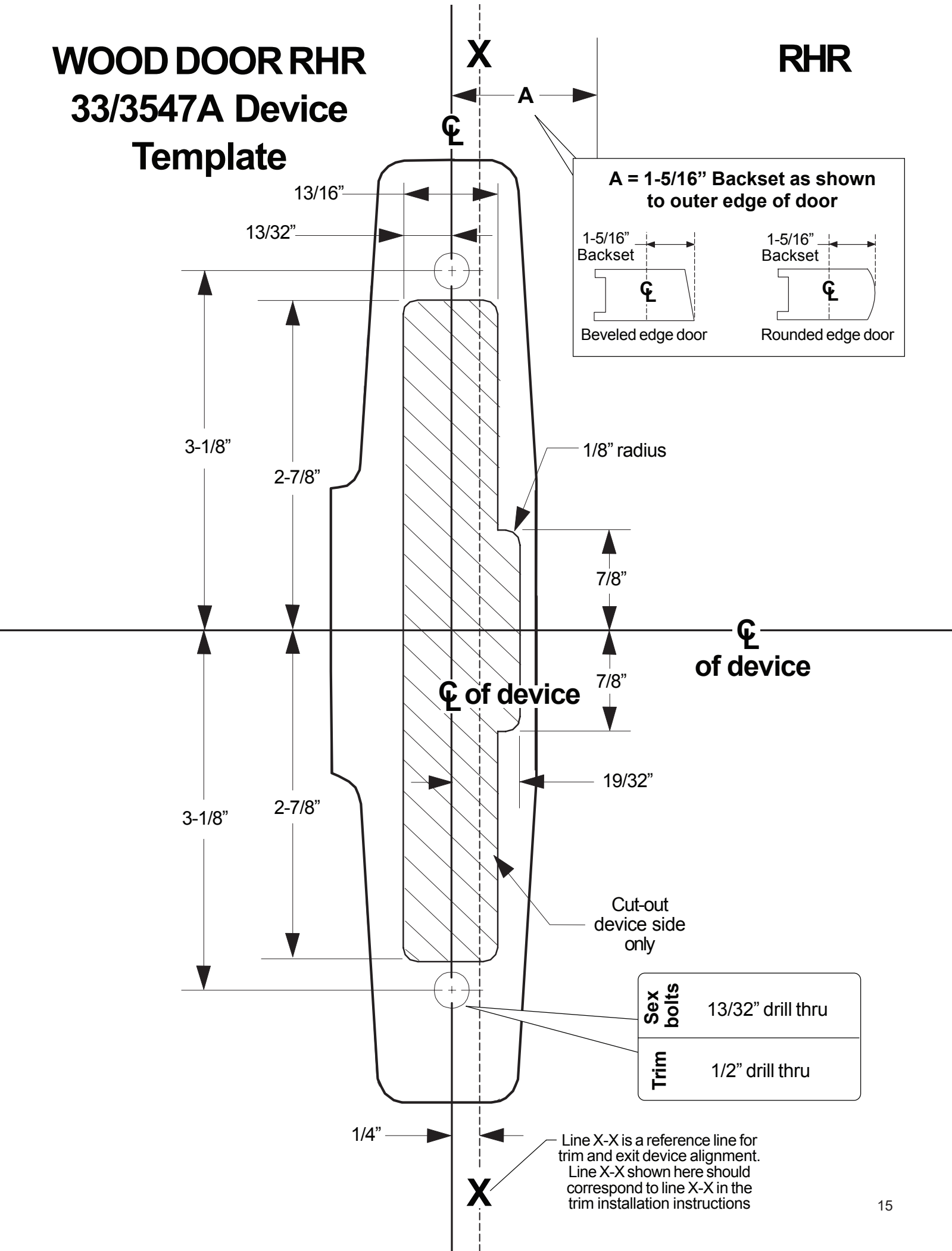


# WOOD DOOR RHR

## 33/3547A Device

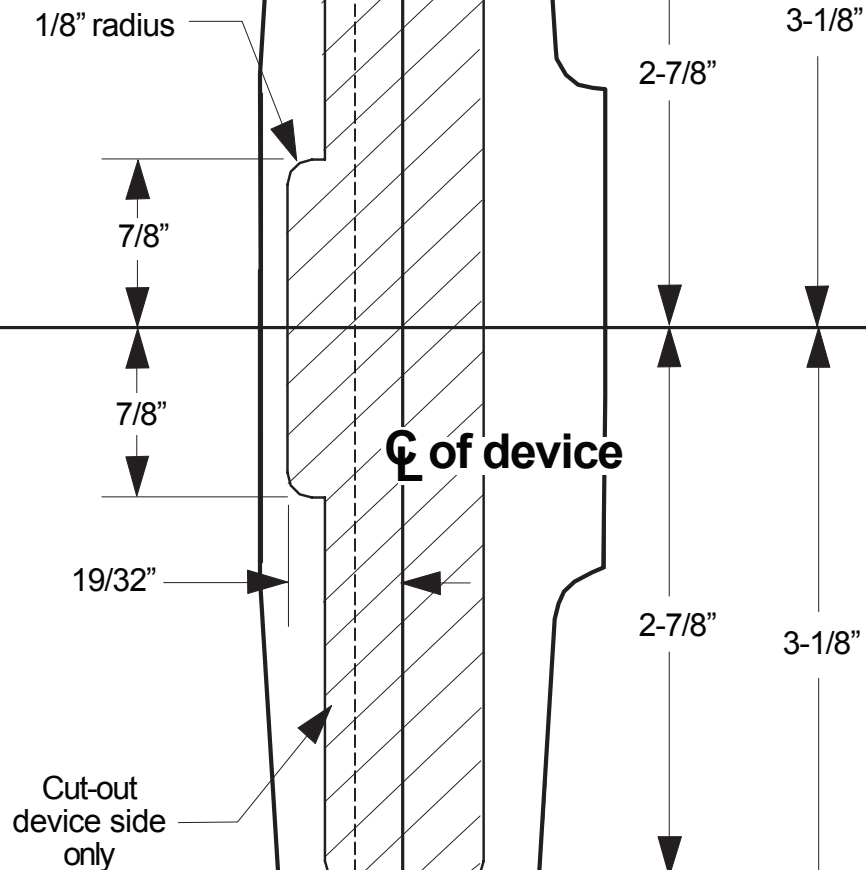
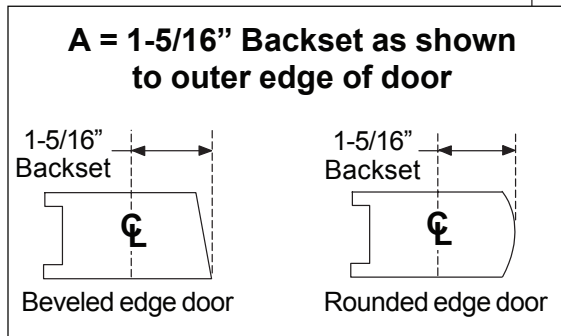
### Template

RHR



**LHR**

# WOOD DOOR LHR 33/3547A Device Template



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