



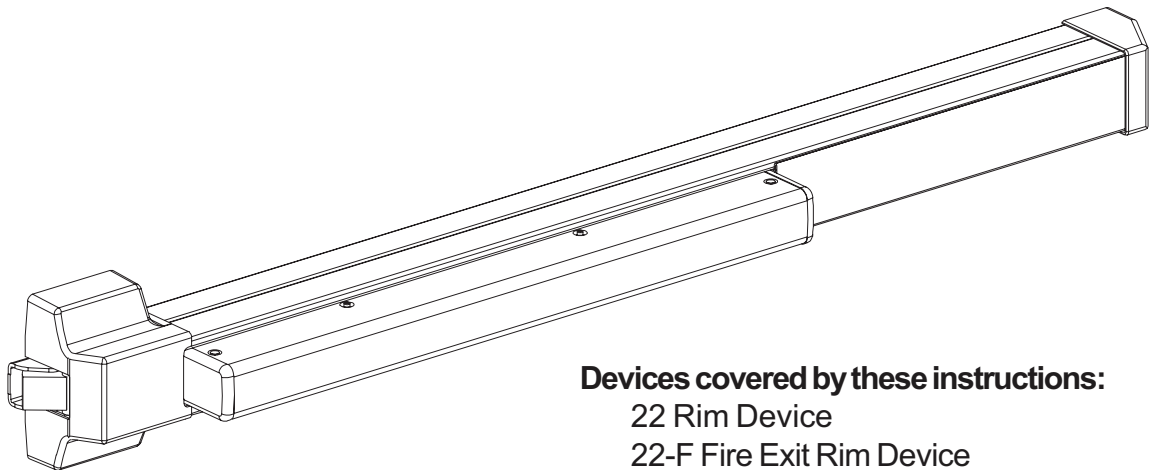
911333-00

22

VON DUPRIN®

Rim Device

Installation Instructions



Devices covered by these instructions:

22 Rim Device

22-F Fire Exit Rim Device

BEFORE STARTING INSTALLATION

1. Check hardware schedule for strikes, fasteners, and other special requirements.
2. Check carton label for trim, strikes, options, and order number.
3. Read all instructions, including instructions provided with any options used: trim, alarm kit, glass bead kit, latch guard kit, and rod guard kit.
4. Gather special tools required:
 - #10-24 tap
 - #25 drill bit
 - 1/8" dia. drill bit
 - 1/4" dia. drill bit
 - 13/32" dia. drill bit
 - Hacksaw
 - 7/8" dia. hole saw

This product is covered by the following patent numbers:

3,767,238 4,167,280 4,427,223 4,437,693 4,466,643

GENERAL INFORMATION

Review pages 2 and 3 so you can identify the hardware and understand the terminology used in the instructions.

See page 10 for the “Metric Conversion Table” if needed.

These exit devices can be installed on the door widths listed below:

Device Size	Code/Standard Requirement	Door Size
Standard 3' (32")	NFPA101	24-3/4" to 36"
Standard 4' (44")	NFPA101	30-3/4" to 48"



NOTE

Dogging panic device during high traffic periods will increase life of device. To dog, depress pushbar and turn hex key one-quarter turn clockwise.

MAINTENANCE

Von Duprin 22 exit devices are designed and built to be maintenance free; however, such factors as installation, severity of use, environmental conditions, and changes in the condition of the door opening may require that maintenance and/or device adjustment be performed. The following guidelines are recommended to the building owner to insure proper device operation:

1. Check device operation for smooth operation periodically.
2. Check strikes (keeper) and latches to insure they are secure.
3. Check latches and other moving parts for binding or sluggish operation due to dirt or chemical buildup. Clean parts with soap and water and then lubricate with graphite-based or silicone lubricants. Do not use petroleum-based lubricants.

OUTSIDE TRIM

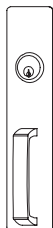
No outside trim supplied for EO (exit only) application



Escutcheon
(optional for
EO application)



DT
(pull when
dogged)



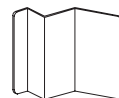
NL
(key retracts
latch bolt)



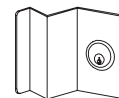
TP
(key locks
thumbpiece)



TP-BE
(thumbpiece;
unlocked)



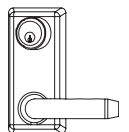
DT
(pull when
dogged)



NL
(key retracts
latch bolt)

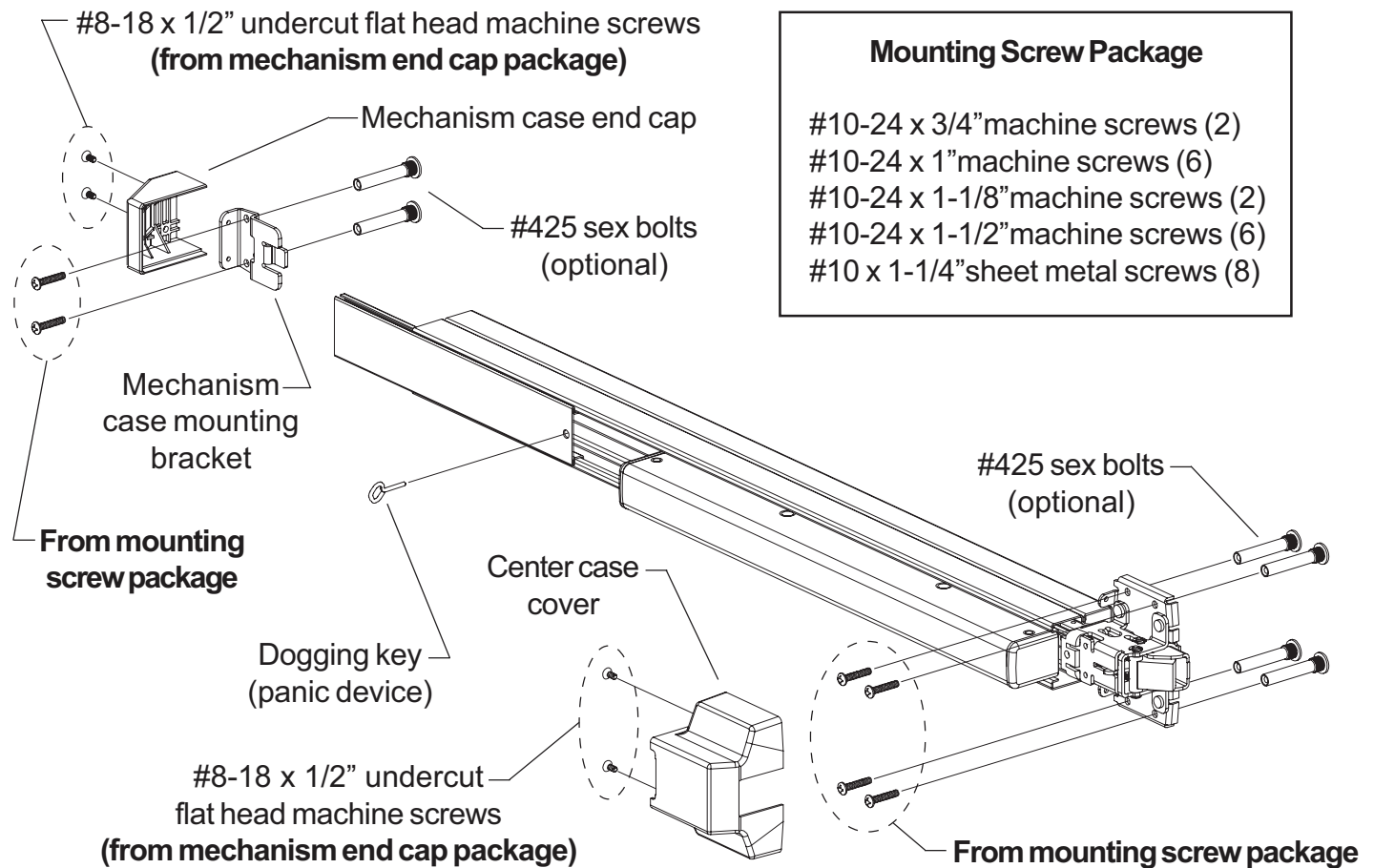


K
(key locks
knob)



L
(key locks
lever)

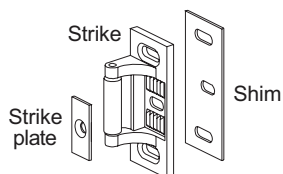
22/22-F PARTS LIST



Strike Packages

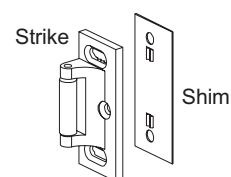
299 Strike Package (panic device)

- #10-24 x 3/4" machine screws (3)
- #10 x 1-1/2" wood screws (3)



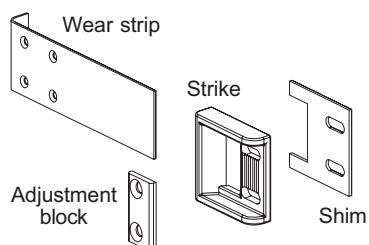
299F Strike Package (fire exit device, single door)

- #10-24 x 3/4" machine screws (3)
- #10 x 1-1/2" wood screws (3)



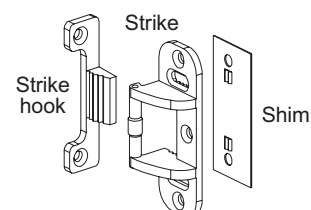
1409/1439 Strike Package (1409 shown) (panic device, aluminum frame, 1/2" blade stop)

- #10-12 x 10-24 x 1-1/4" combination screws (2)
- Flat head drive rivets (4)



499F Strike Package (fire exit device, double door)

- #10-24 x 3/4" machine screws (7)



INSTALLATION

1 For single door, prepare frame for 299, 299F, 1409/1439 strike.

1.1. Mark centerline \mathcal{C} location as shown in Figure 1-1.

1.2. **For 299 or 299F strike:** Tape strike template to frame aligned with center line \mathcal{C} as shown in Figure 1-2. Mark and prepare mounting holes per template.



NOTE

For double door, mullion is already prepared for 499F strike. Skip this step and go to Step #2.

For 1409/1439 strike: Prepare frame as shown in Figure 1-3.

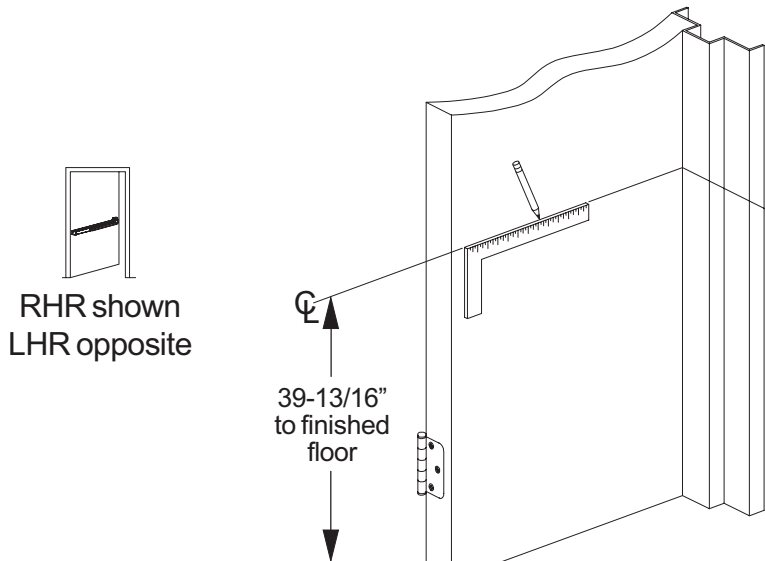


Figure 1-1

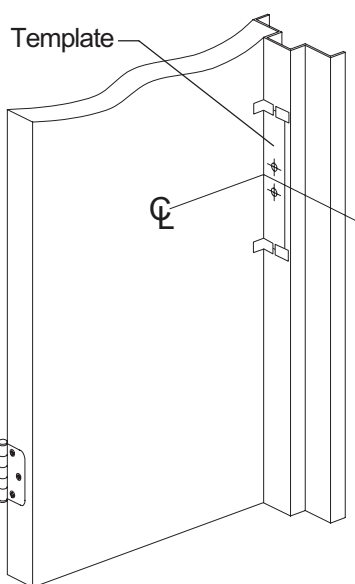


Figure 1-2. 299 or 299F Strike

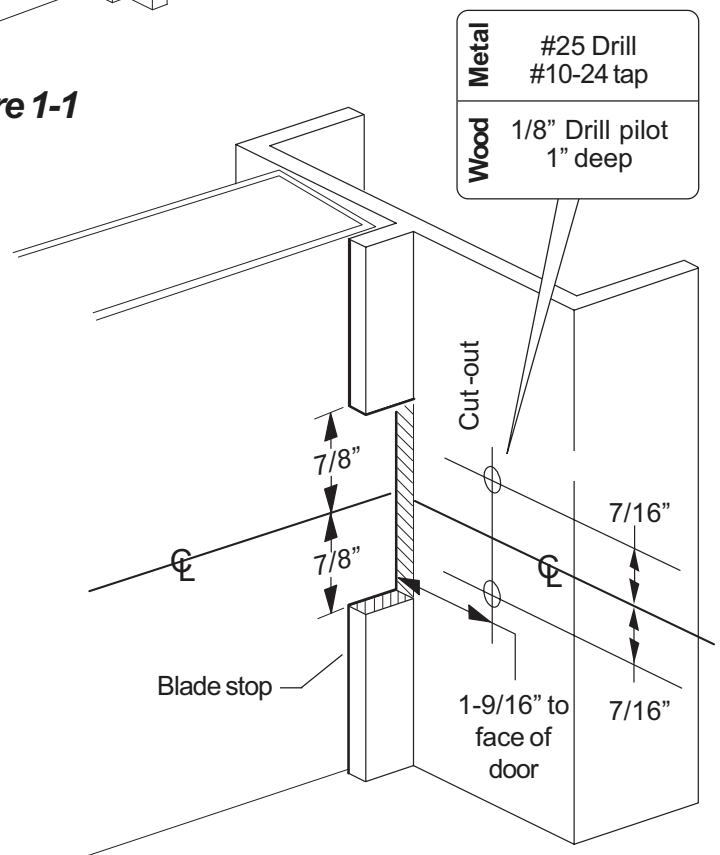
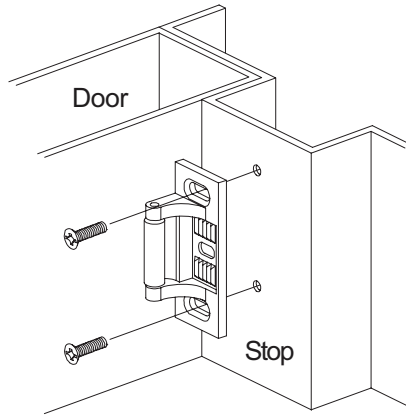


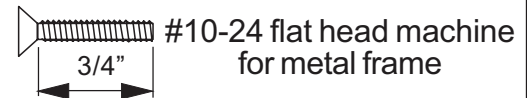
Figure 1-3. 1409/1439 Strike

2 Install strike. Use TWO SCREWS ONLY at this time.

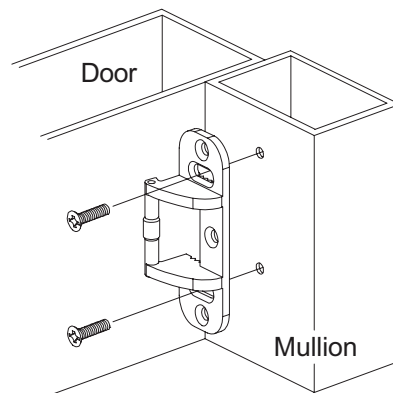
299 (shown) or 299F Strike



Use screws from 299/299F strike package

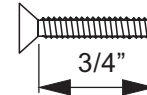


499F Strike



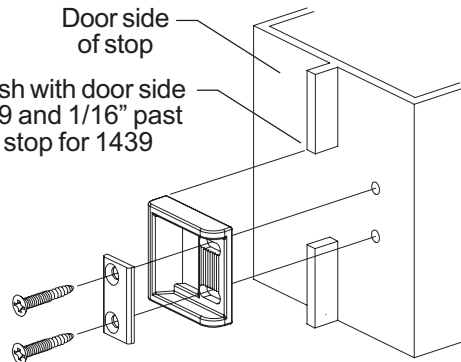
Use screws from 499F strike package

#10-24
flat head machine



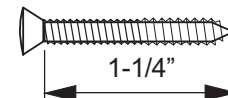
1409/1439 Strike (1409 shown)

Install strike flush with door side
of stop for 1409 and 1/16" past
door side of stop for 1439

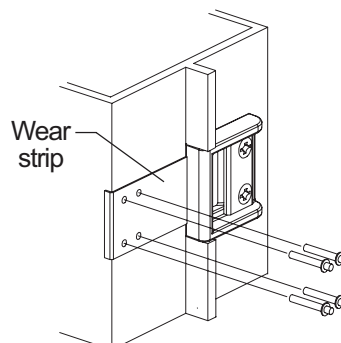


Use screws from 1409/1439 strike package

#10-12 x 10-24 oval
head combination



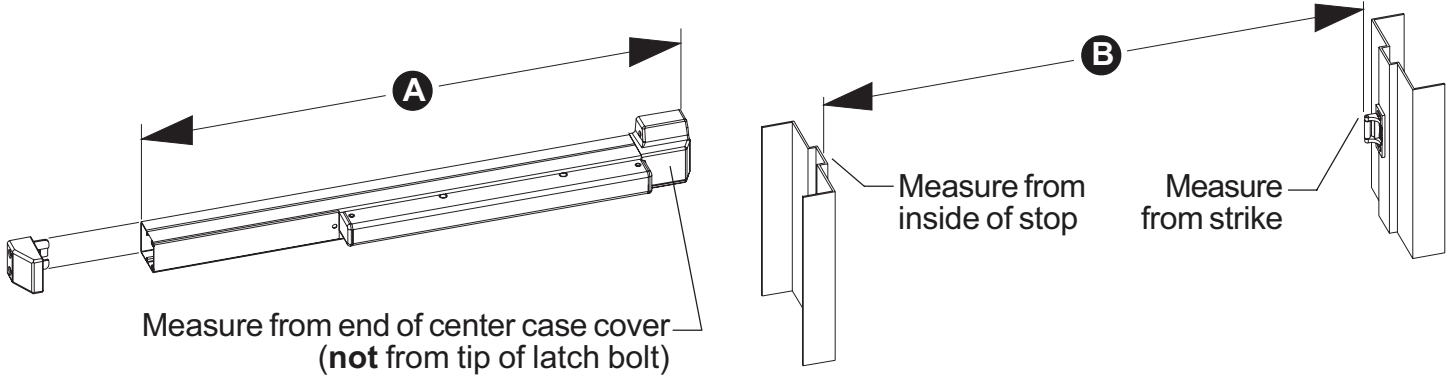
1409/1439 Wear Strip



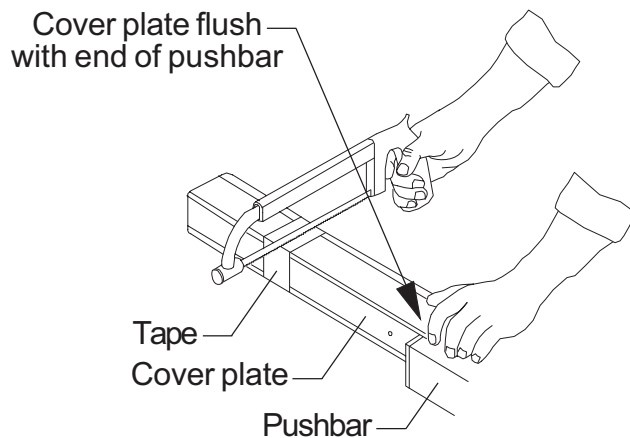
1. Center wear strip on strike as shown.
2. Mark and drill 1/8" dia. holes (4 places).
3. Install wear strip with flat head drive rivets (4 places) from 1409/1439 strike package.

3 Cut device if necessary.

3.1. Device length **A** must be at least 1-1/2" shorter than **B**.



3.2. If necessary, cut device so **A** is at least 1-1/2" shorter than **B**.



NOTE

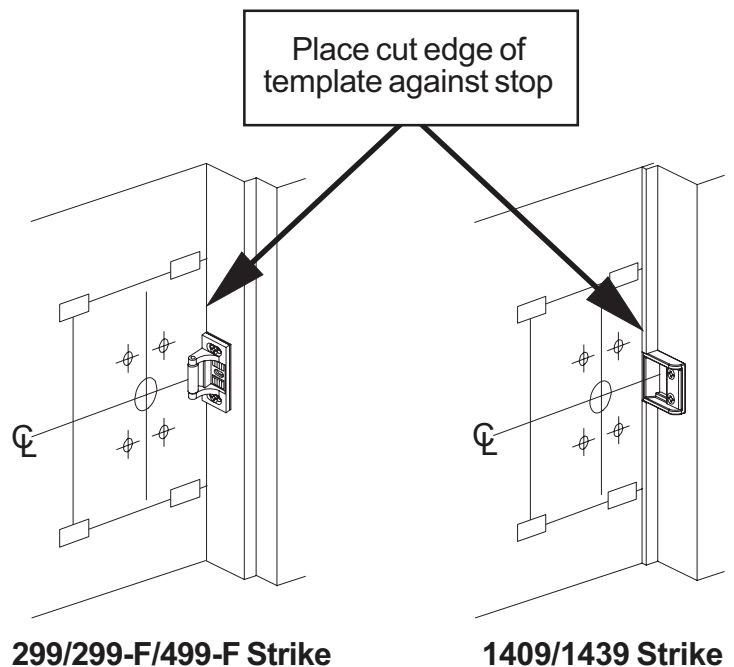
If using ALK exit alarm option, install ALK cover plate before cutting device.

4 Prepare door for device.

- 4.1. Cut center case template for 1409/1439 strike or for 299/299F/499F strike.
- 4.2. Tape center case template to inside of door aligned with center line \mathcal{C} as shown.
- 4.3. Mark and prepare holes per template.
- 4.4. Prepare door for outside trim (see trim instructions).

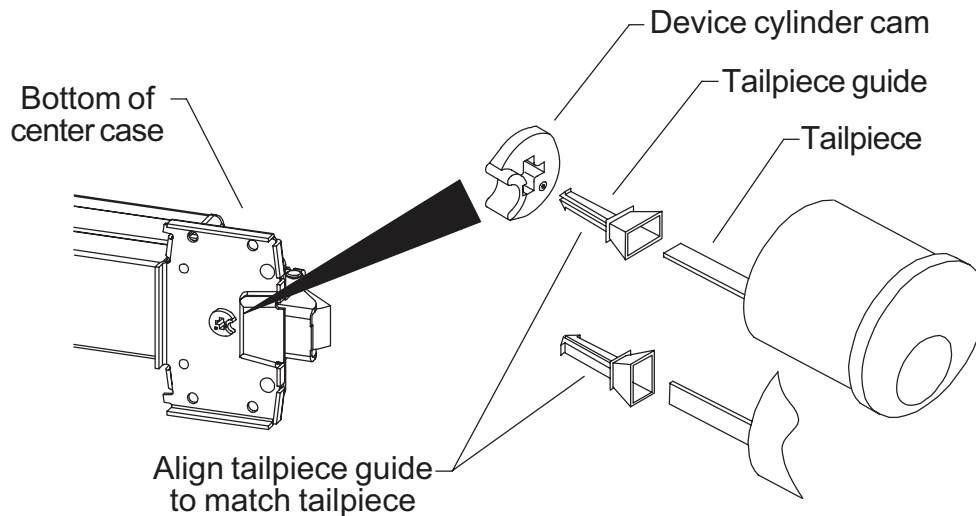


Place cut edge of template against stop

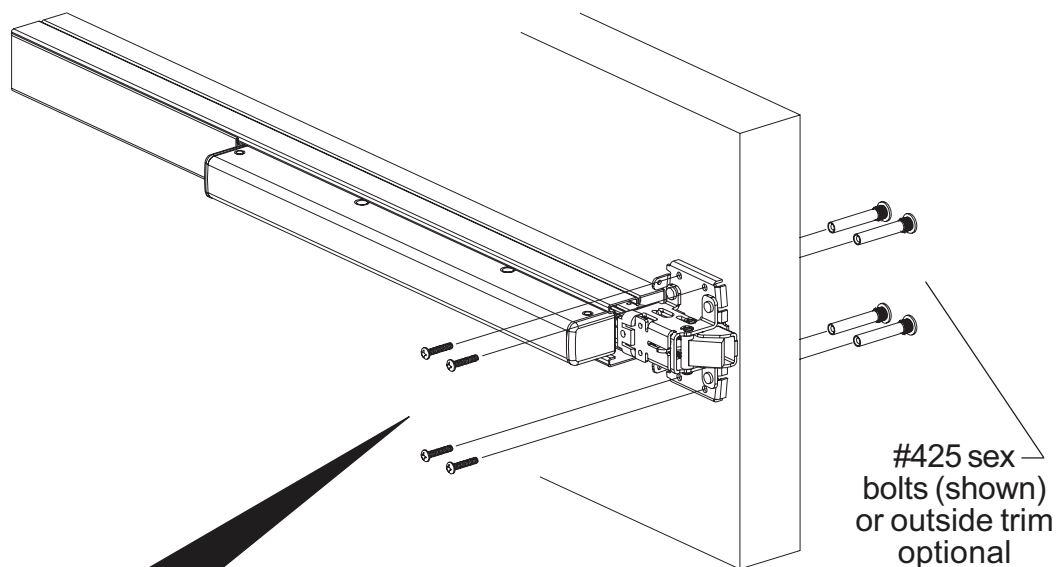


5 Install device to door at center case.

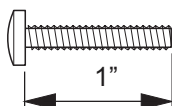
5.1. If using cylinder in trim, install tailpiece guide (packaged with trim) in device.



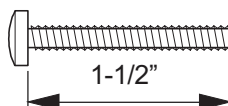
5.2. Install device to door at center case.



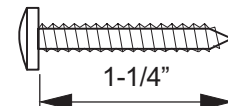
Use screws from device mounting screw package



#10-24 pan head machine
for
metal door surface mount,
sex bolts on 1-3/4" door, or
outside trim on 1-3/4" door

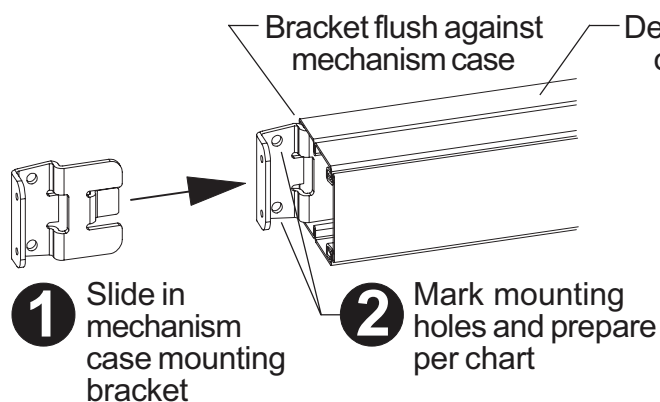


#10-24 pan head machine
for
sex bolts on 2-1/4" door or
outside trim on 2-1/4" door



#10-24 pan head sheet metal
for
wood door surface mount

6 Install mechanism case mounting bracket and mechanism case end cap.

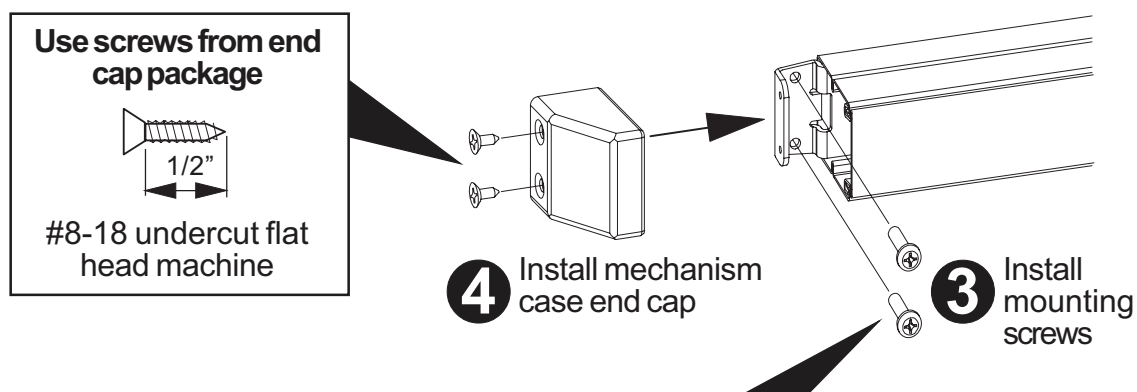


Surface Mount

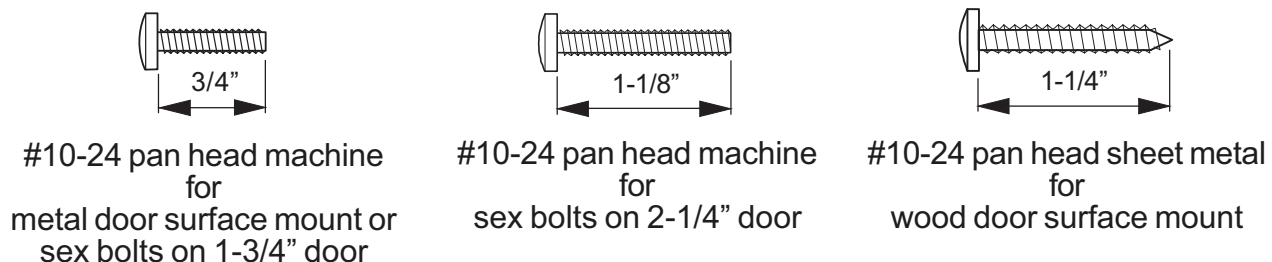
Metal Door: #25 drill and #10-24 tap inside
Wood Door: 1/8" pilot drill, 1" deep, inside

Sex Bolts

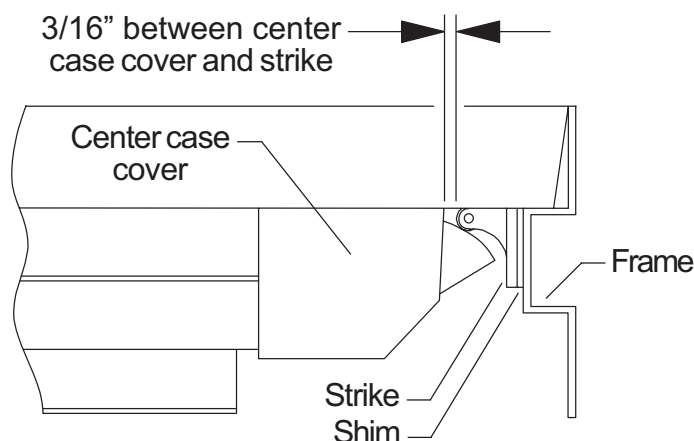
Metal Door: 1/4" drill inside, 13/32" drill outside
Wood Door: 13/32" drill thru



Use screws from device mounting screw package

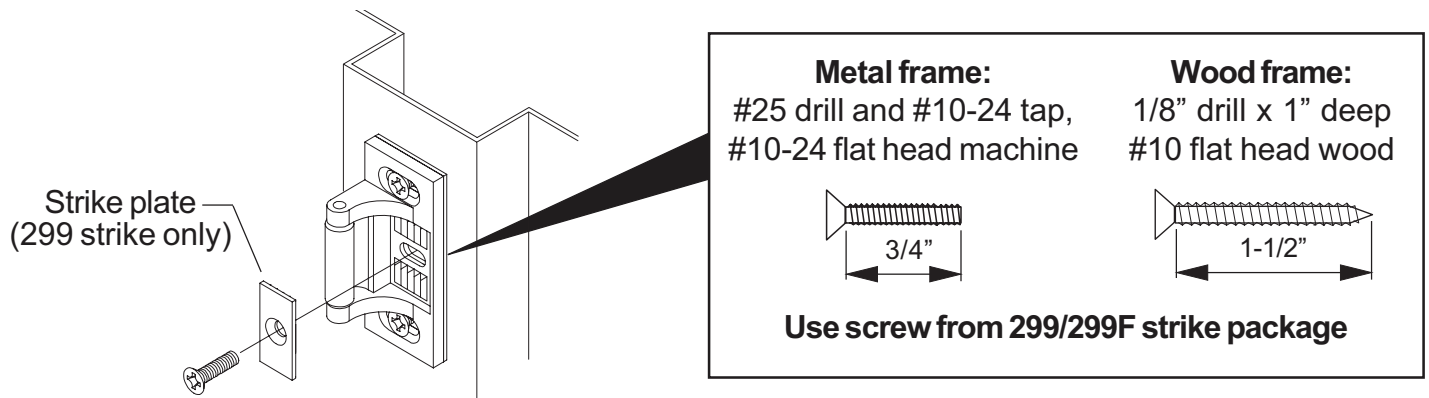


7 If necessary, add strike adjusting shim under strike for 3/16" dimension shown.

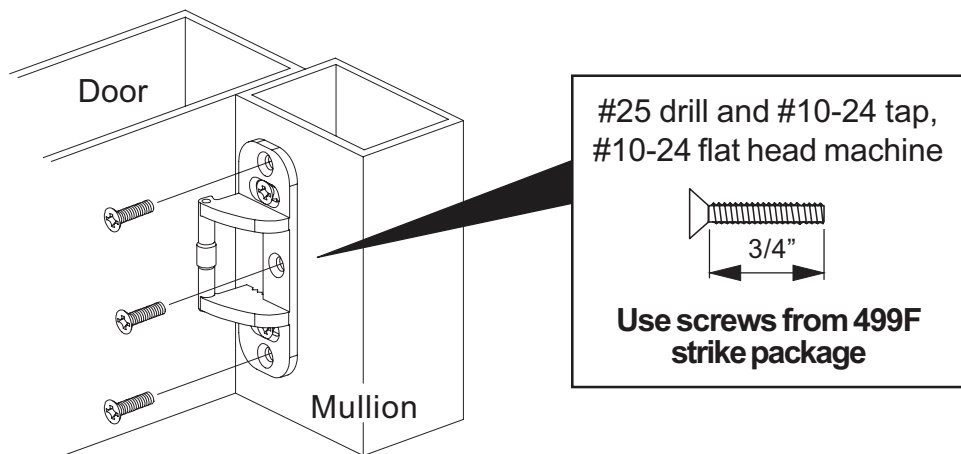


8 Prepare remaining strike mounting holes and install screws.

299 or 299F Strike

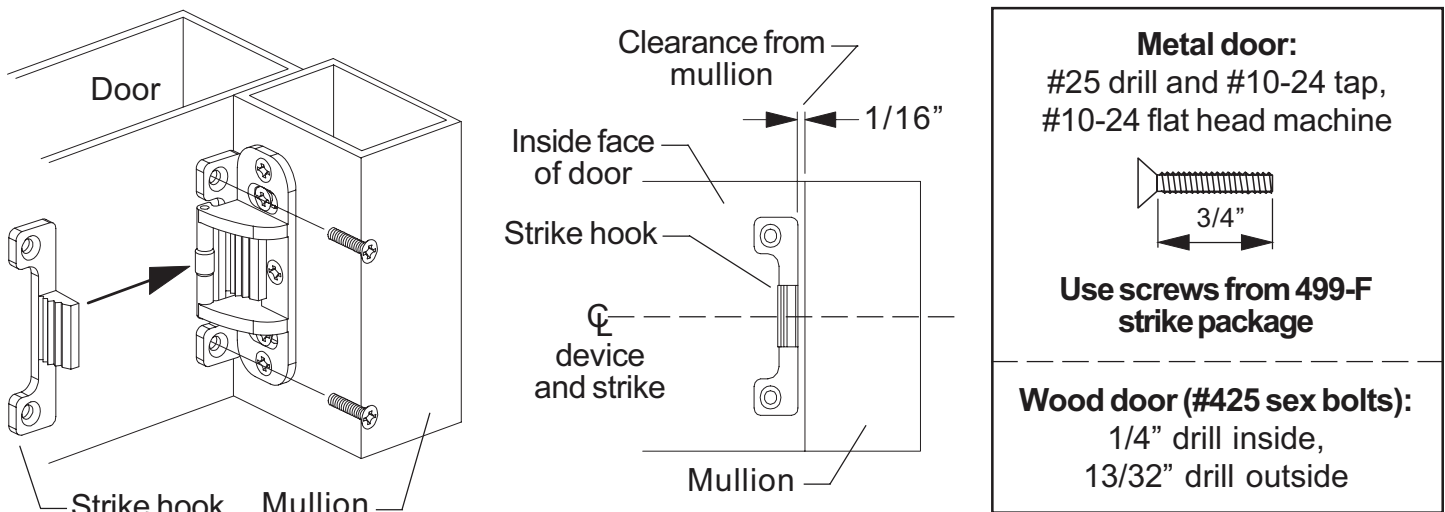


499F Strike



499F Strike Hook

Center strike hook on device 1/16" from mullion.

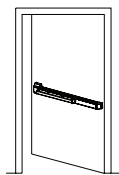


Metric Conversion Table											
inches	mm	inches	mm	inches	mm	inches	mm	inches	mm	inches	mm
1/16	2	7/16	11	1	25	1-9/16	40	30-3/4	781	44	1118
1/8	3	1/2	13	1-1/16	27	1-11/16	43	32	813	48	1219
3/16	5	5/8	16	1-1/8	29	1-3/4	45	36	914		
1/4	6	3/4	19	1-1/4	32	2-1/4	57	39-11/16	1008		
13/32	10	7/8	22	1-1/2	38	24-3/4	629	39-13/16	1011		

STRIKE TEMPLATE

Refer to Step 1 (p. 4)
when using this template

Template to scale
(dimensions in inches)



LHR

5/8"

1-1/16"

CL

1-1/16"

Prepare holes 2 places:

Metal frame:

#25 drill and #10-24 tap

Wood frame:

1/8" drill x 1" deep

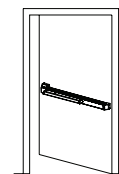
Cut strike template along
this line and place on stop
with this edge against door

CL device

CENTER CASE TEMPLATE

Refer to Step 4 (p. 6)
when using this template

Template to scale
(dimensions in inches)



LHR

5/8"

5/8"

1-11/16"

CL

1-11/16"

7/8" dia. for
NL, K, L, and
TP trim only

Cut on this line for 1409/1439 strike

Prepare holes 4 places:

Surface Application (no outside trim):

Metal door: #25 drill and #10-24 tap inside

Wood door: 1/8" drill x 1" deep pilot holes

#425 Sex Bolts or Outside Trim:

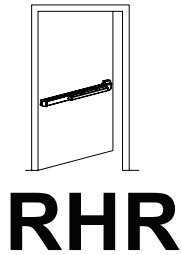
Metal door: 1/4" drill inside and 13/32" outside

Wood door: 13/32 drill thru

For 1409/1439 strike cut center case template along
this line and place on door with this edge against stop

For 299/299F/499F strike place center case
template on door with this edge against stop

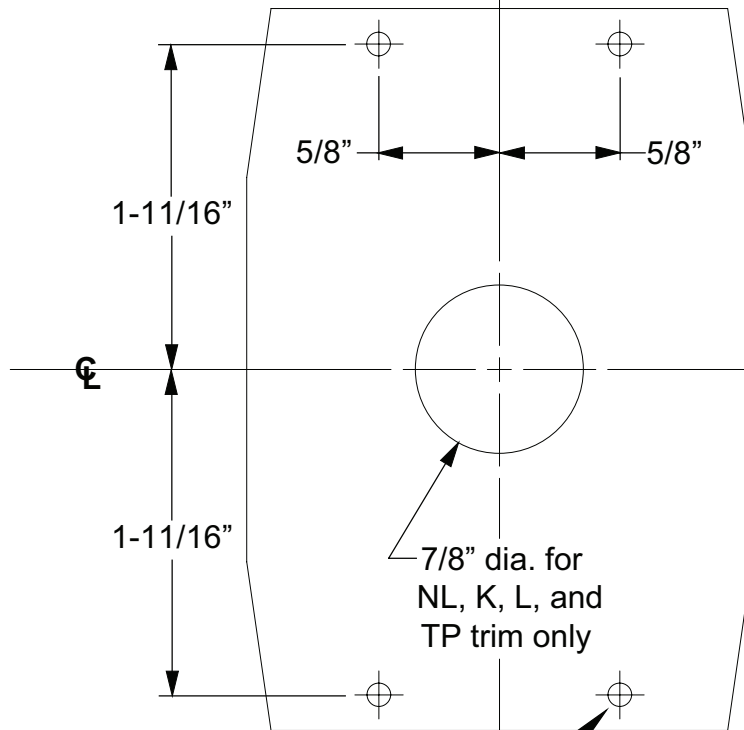
Ⓢ device



CENTER CASE TEMPLATE

Refer to Step 4 (p. 6)
when using this template

Template to scale
(dimensions in inches)



Prepare holes 4 places:

Surface Application (no outside trim):

Metal door: #25 drill and #10-24 tap inside

Wood door: 1/8" drill x 1" deep pilot holes

#425 Sex Bolts or Outside Trim:

Metal door: 1/4" drill inside and 13/32" outside

Wood door: 13/32 drill thru

For 1409/1439 strike cut center case template along
this line and place on door with this edge against stop

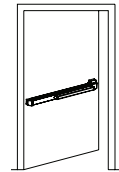
For 299/299F/499F strike place center case
template on door with this edge against stop

Cut on this line for 1409/1439 strike

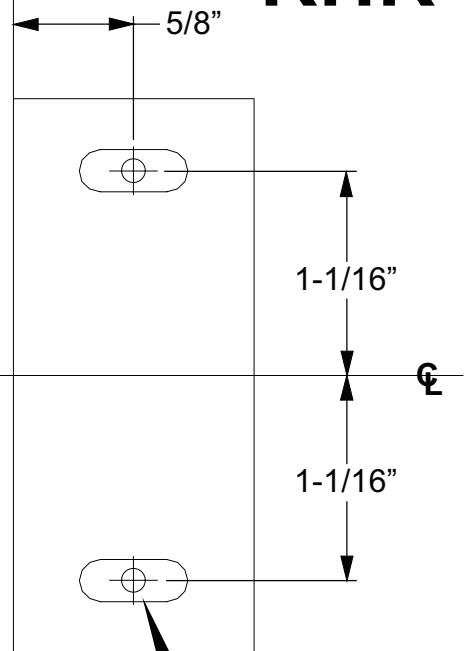
STRIKE TEMPLATE

Refer to Step 1 (p. 4)
when using this template

Template to scale
(dimensions in inches)



RHR



Prepare holes 2 places:

Metal frame:

#25 drill and #10-24 tap

Wood frame:

1/8" drill x 1" deep

Cut strike template along
this line and place on stop
with this edge against door

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230L/L-BE

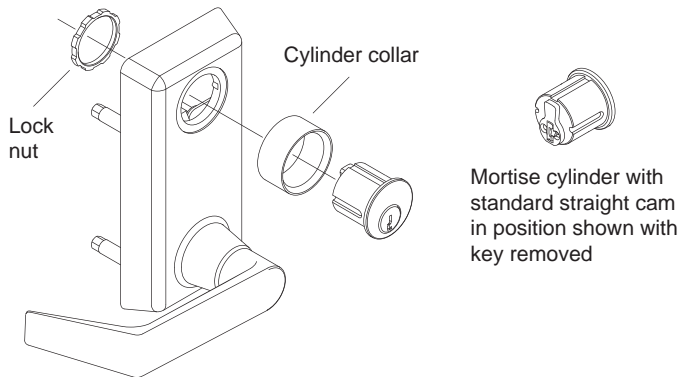
VON DUPRIN®

Lever Control

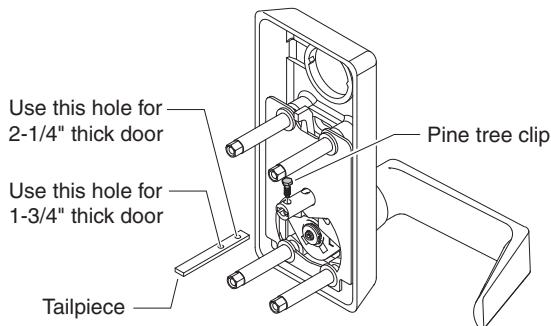
Installation Instructions

1 Change handing if required (see instructions on next page).

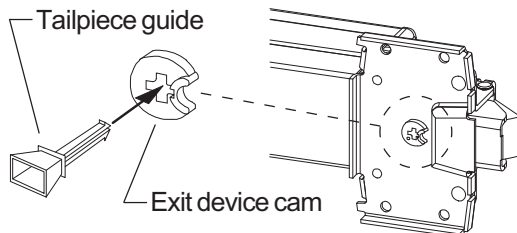
2 Install cylinder (L lever control only).



3 Install tailpiece. Consult factory for doors other than 1-3/4" or 2-1/4" thick.



4 Install tailpiece guide in exit device cam.

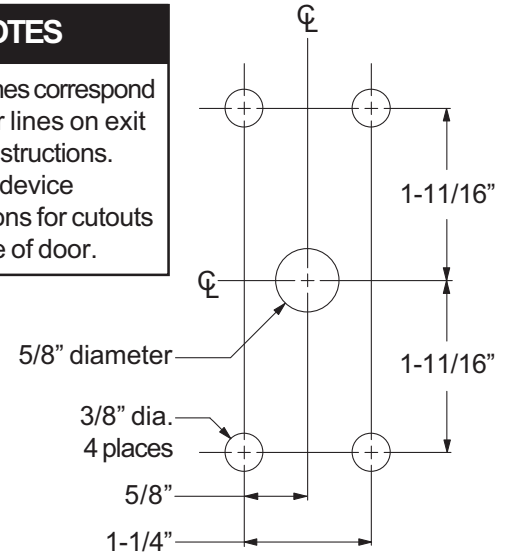


5 Prepare door for lever control installation.

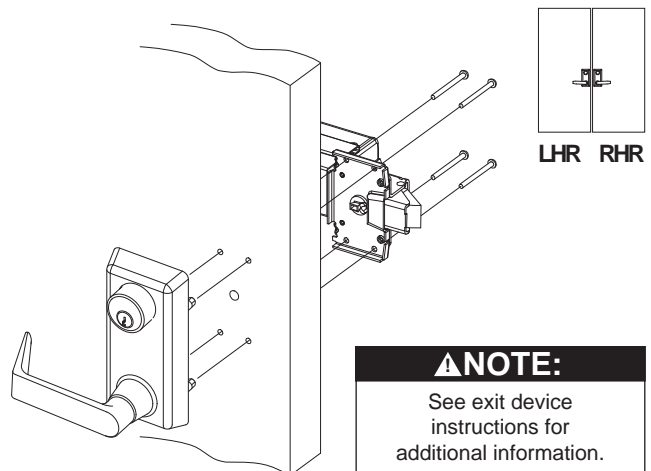


NOTES

1. Center lines correspond to center lines on exit device instructions.
2. See exit device instructions for cutouts on inside of door.



6 Install lever control.



To Change Handing or Replace Broken Shear Pin

1 Check lever position (Figure 1).

- 1a To change handing or replace broken shear pin, complete Steps 2 through 7.

NOTE:

The replaceable shear pin breaks to protect the assembly from damage when excessive torque is applied.

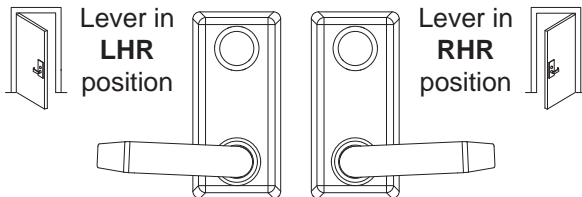


Figure 1

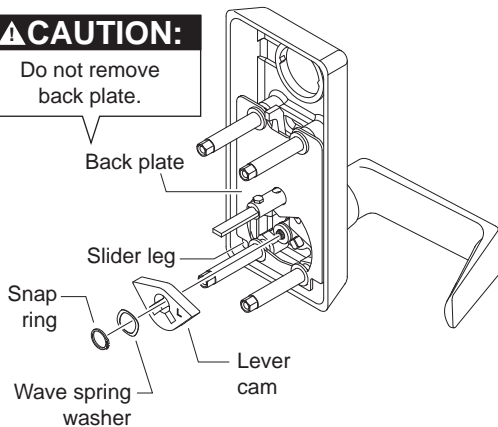
2 Remove lever cam.

- 2a Remove snap ring and wave spring washer.

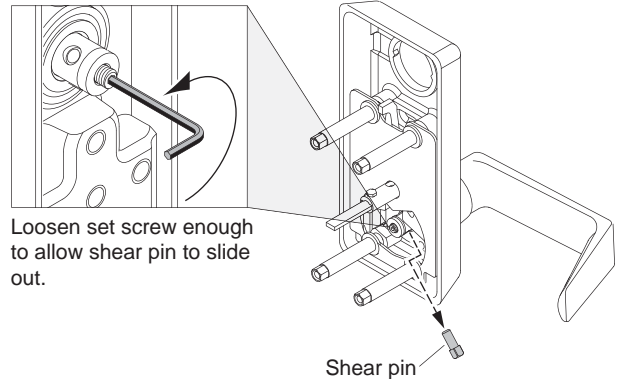
- 2b Use screwdriver to push up on slider leg to remove preload from lever cam and remove lever cam.

CAUTION:

Do not remove back plate.

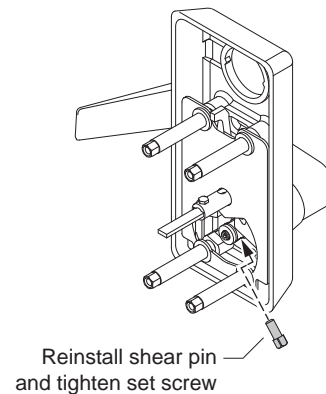


- 3 Remove shear pin. If shear pin is broken, make sure to remove all pieces of broken shear pin.

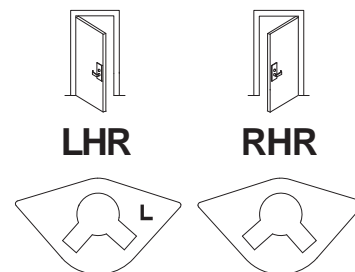


- 4 Rotate lever to LHR or RHR position (Figure 1).

- 5 Install shear pin.



- 6 Install lever cam with correct handing.



"L" is visible for LHR

- 7 Reinstall wave spring washer and snap ring.

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