

1590 Touchbar Rim Exit Device

Applies to EL and standard 1590, 1591, 1592, 1593, 1594, 1595

1 Prepare door.

NOTES

Locate hole **A** first.
Dimensions shown are for 1-3/4" doors.

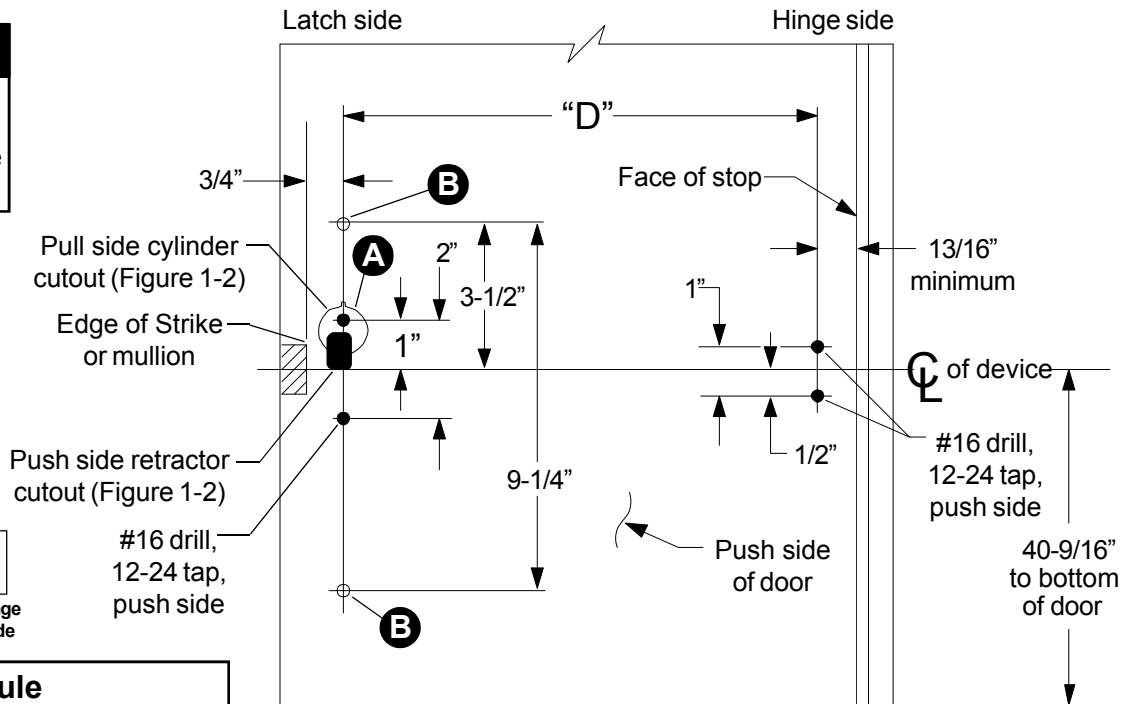
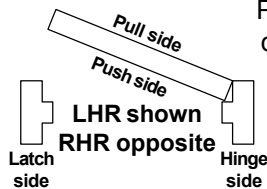


Figure 1-1

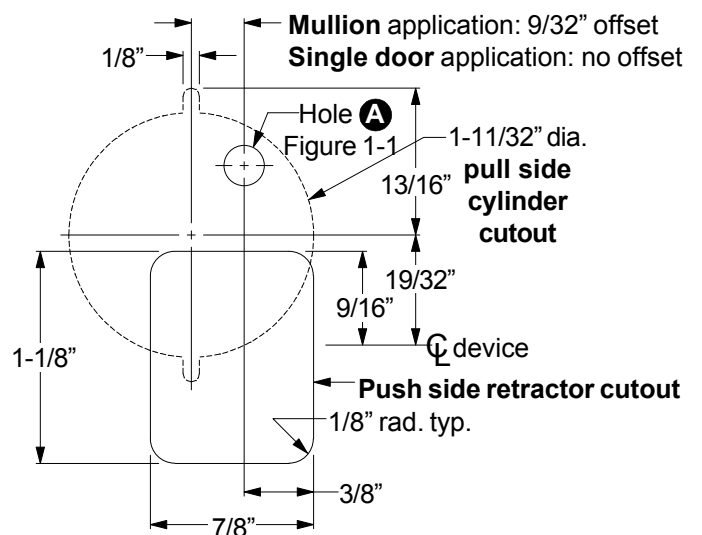


Figure 1-2

Hole Schedule

A

No cylinder ... #16 drill, 12-24 tap, push side
Cylinder 1/4" drill, push side; Figure 1-2 shows pull side and push side cylinder cutouts

B

No pull trim ... Omit
Pull trim pull side of door,
Alum. door: #9 drill, 1/4"-20 tap
Metal door: #7 drill, 1/4"-20 tap

Model	Trim Package
EL 1590	None
EL 1591	9970 Pull Trim
EL 1592	NL Cylinder
EL 1593	HB Cylinder
EL 1594	9970 Pull Trim with NL Cylinder
EL 1595	9970 Pull Trim with HB Cylinder



2 Cut pushbar to length.

- 2.1. Measure CC to CC of mounting holes (“D” dimension in Figure 1-1).
- 2.2. Subtract $2\text{-}13/16$ ” from “D” dimension to determine cut length (“B” dimension in Figure 2).
See chart below for minimum “B” dimension.

Device Length	“B” Dimension Supplied	Minimum “B” Dimension (non-EL)	Minimum “B” Dimension (EL)
36” device	$30\text{-}17/32$ ”	$19\text{-}1/2$ ”	$29\text{-}17/32$ ”
42” device	$36\text{-}17/32$ ”	$19\text{-}1/2$ ”	$29\text{-}17/32$ ”
48” device	$42\text{-}17/32$ ”	$28\text{-}1/2$ ”	$37\text{-}17/32$ ”

- 2.3. Collapse pushbar, tape down in cutoff area, and mark “B” dimension on tape (see Figure 2).
- 2.4. Keep chips out of mechanism by stuffing a rag into end of pushbar before cutting. Keep rag out of the path of the saw. Cut pushbar and channel, deburr, and clean chips from pushbar and channel.
- 2.5. Pull the two rubber bumper strips from the screw grooves, cut off 1” so the bumper strips are 1” shorter than the pushbar, and reinstall bumper strips into screw grooves.
- 2.6. Tap #8-32 x 1” deep into each screw groove in end of pushbar.

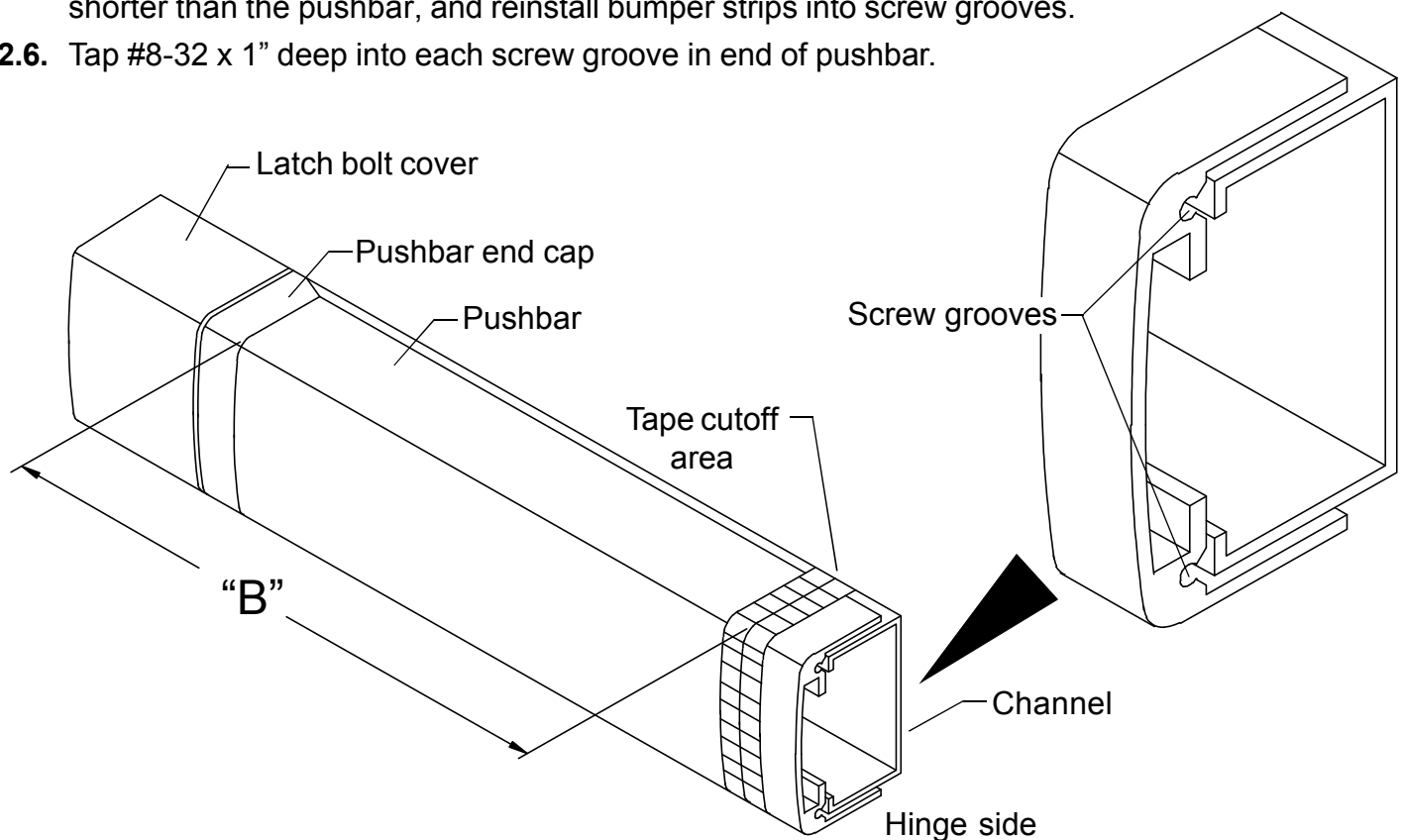


Figure 2

3 Install device.

- 3.1. If using cylinder, cut tailpiece, assemble cylinder cartridge assembly, and install in door.
- 3.2. Install mounting plate (knobs facing stile) and channel end cap with #12-24 round head screws.
- 3.3. If installing an EL device drill 1/2" diameter electrical wiring hole through 3/8" diameter hole in mounting plate and through push side of door.
- 3.4. Slide pushbar assembly into mounting plate on hinge stile.
- 3.5. Attach latch side of pushbar assembly with #12-24 flat head screws.
- 3.6. Wire device (see Step 4), then install latch bolt cover and hinge side pushbar end cap.
- 3.7. If using pull trim, install pull trim.
- 3.8. Install pushbar end caps.

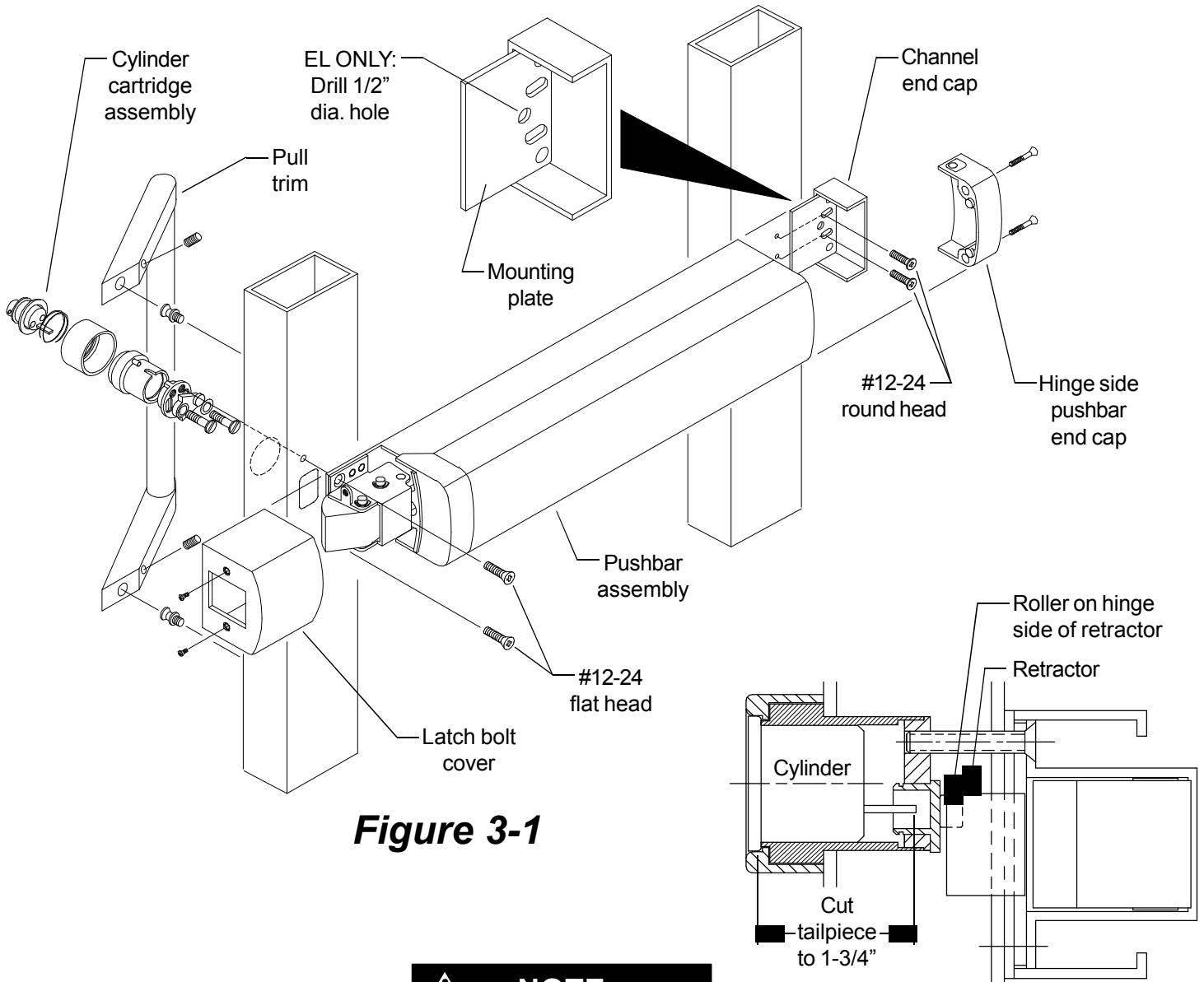


Figure 3-1

NOTE
Dimension shown is for 1-3/4" doors.

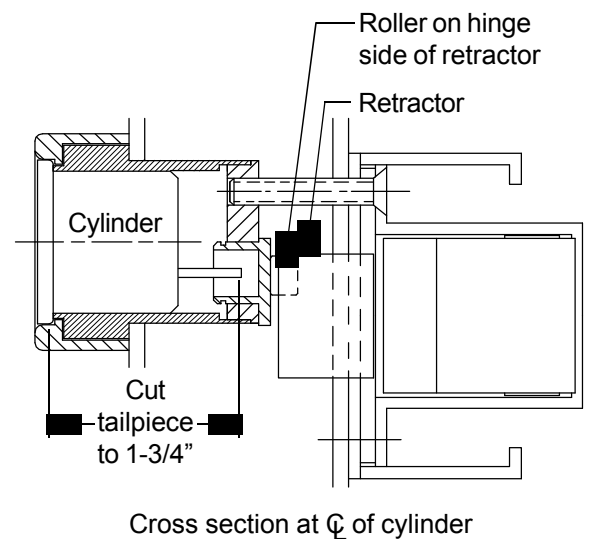
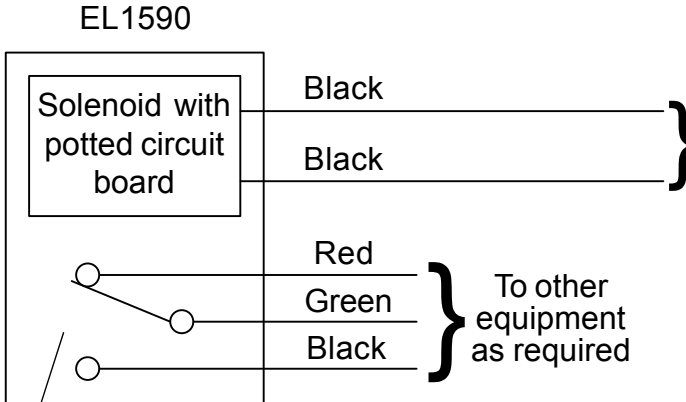


Figure 3-2

4 If installing EL device, wire device.



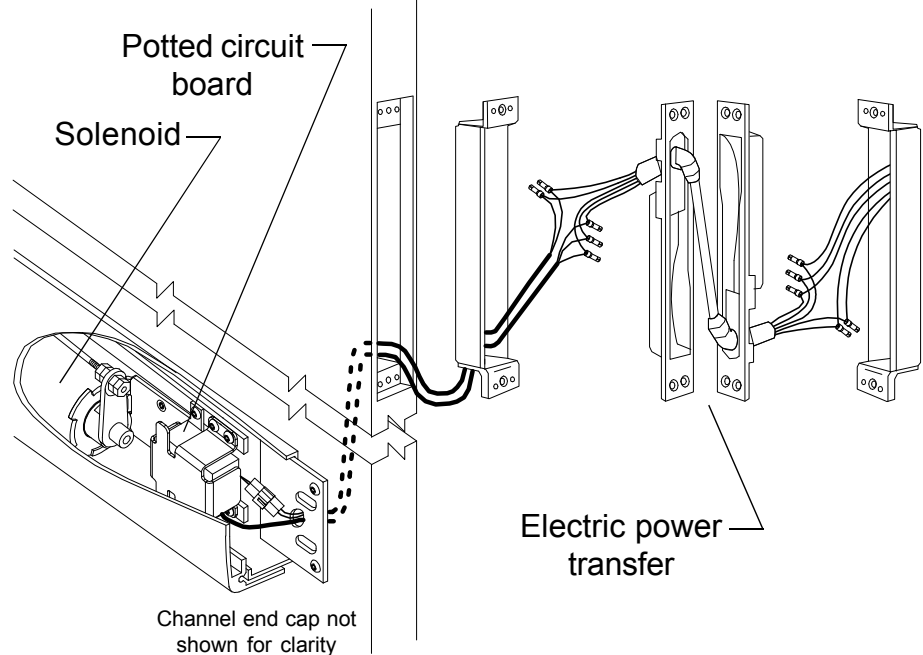
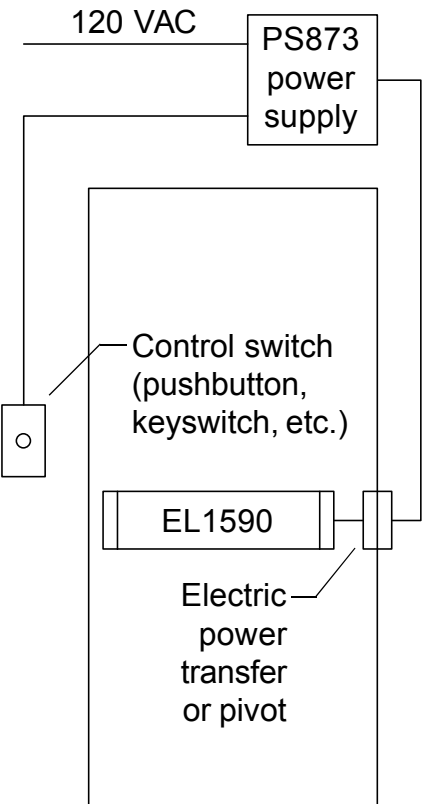
Solenoid must be wired to a PS873 logic board:

If 871-2 logic board, refer to Von Duprin instructions 941352.

If other 873 logic board, refer to Von Duprin instructions 941353.

Latch bolt monitor switch. Switch shown with latch bolt fully extended. Switch changes when latch bolt is retracted by pressing the pushbar or applying power to the solenoid.

Solenoid wiring must be 12 AWG, 200 feet maximum, between PS873 and EL1590. Any references to a Von Duprin EL device apply to EL1590 series devices. EL1590 series devices are fail secure locking devices.



Electrical Specifications

Voltage: 24 VDC
 Current: 16 A inrush (0.3 sec.)
 0.25 A holding

NOTE

The potted circuit board is a protection circuit. It disconnects power from the solenoid if the plunger does not seat within a specified time. To reset the protection circuitry, remove power from the solenoid and reapply.