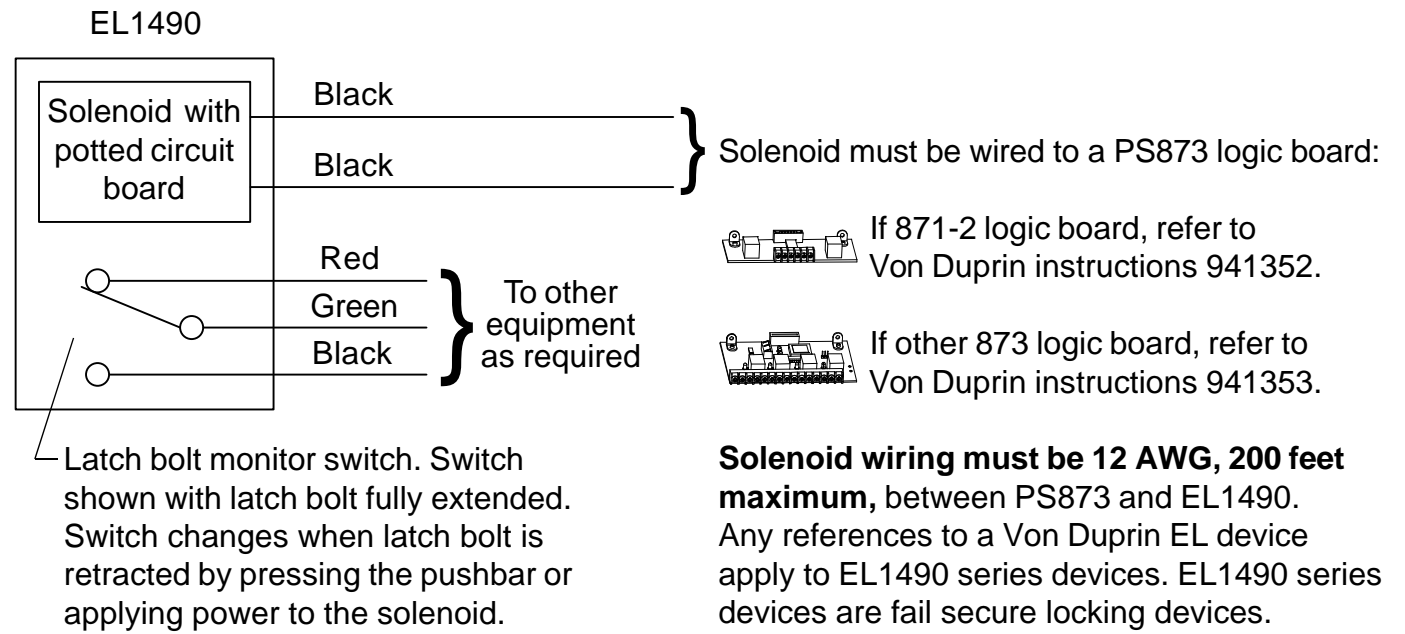
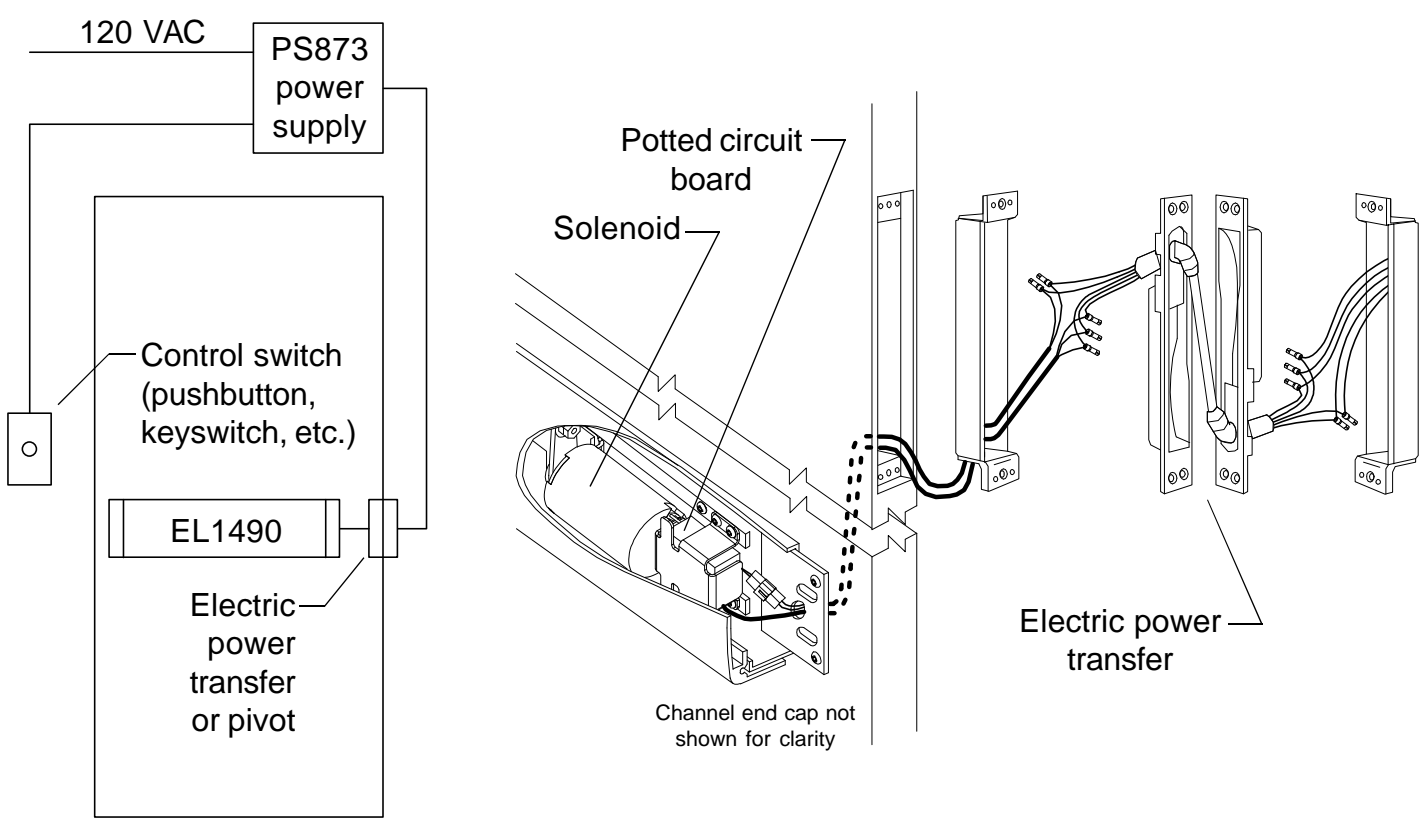


**6 If installing EL device, wire device.**



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.



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.

# DOR-O-MATIC® Installation Instructions

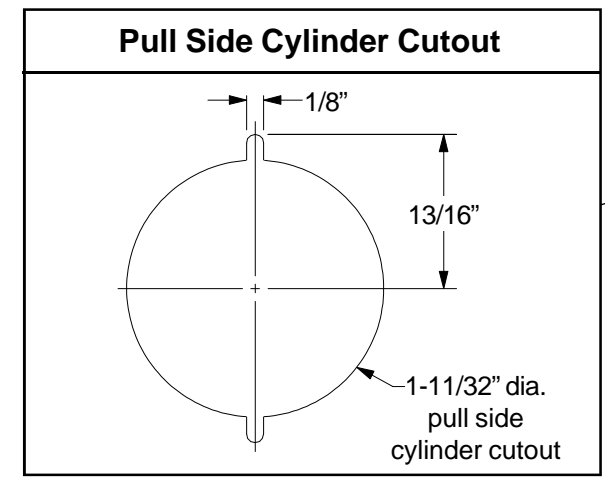
## 1490 Touchbar Concealed Vertical Rod Panic Device

Applies to EL and standard 1490, 1491, 1492, 1493, 1494, 1495

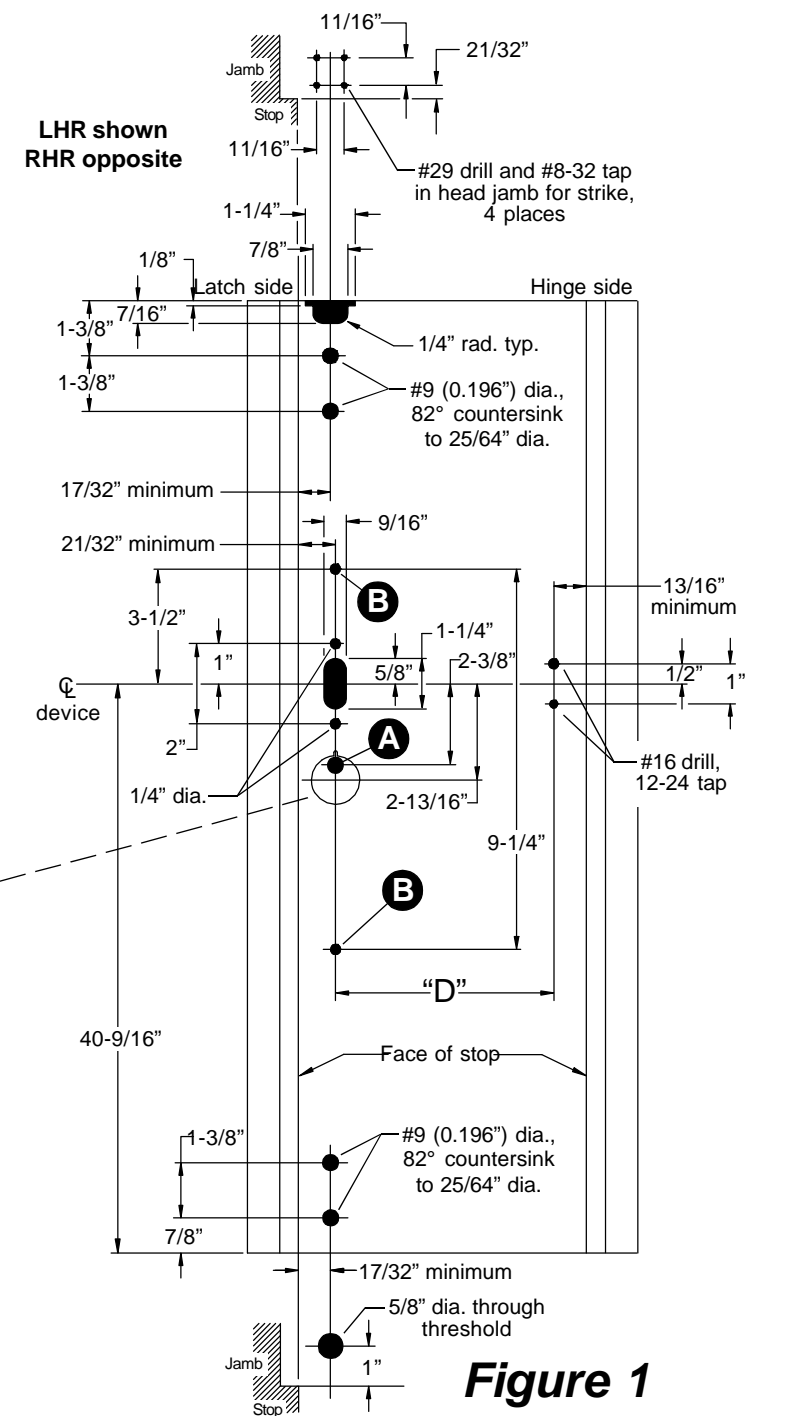
**1 Prepare door.**

Model	Trim Package
1490	None
1491	9970 Pull Trim
1492	NL Cylinder
1493	HB Cylinder
1494	9970 Pull Trim with NL Cylinder
1495	9970 Pull Trim with HB Cylinder

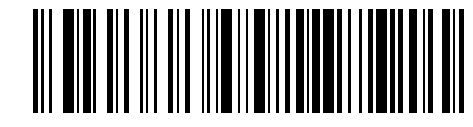
Hole Schedule	
<b>A</b>	No cylinder ... Omit Cylinder ..... 1/4" drill, 82° countersink to 25/64" dia., push side; Figure 1-2 shows pull side cylinder cutout
<b>B</b>	No pull trim ... Omit Pull trim ..... 5/16" drill, 1/4-20 tap, pull side



**NOTES**  
Dimensions shown are for 1-3/4" doors.  
All cutouts are push side unless otherwise noted.



**Figure 1**



ININST.1090 (Revision 1)  
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## 2 Cut pushbar to length.

- 2.1. Measure  $\text{C}$  to  $\text{C}$  of mounting holes ("D" dimension on page 1, Figure 1).
- 2.2. Subtract  $5/8"$  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	32-5/8"	24-5/16"	31-3/8"
42" device	38-5/8"	24-5/16"	31-3/8"
48" device	44-5/8"	33-5/16"	40-1/4"

- 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.

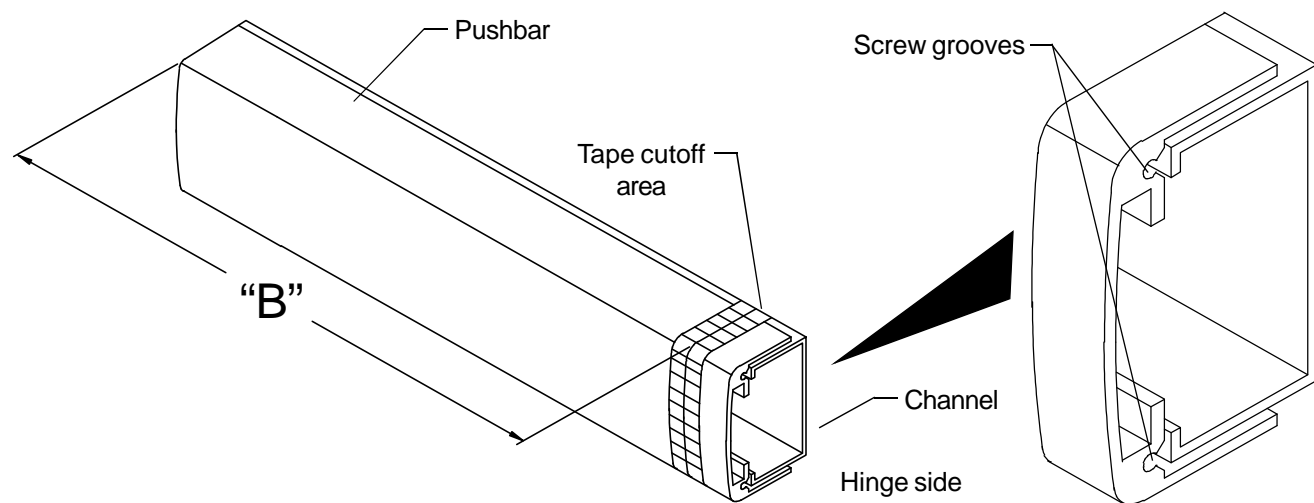


Figure 2

## 3 Change handing of device if necessary (non-EL devices only).

- 3.1. Remove pushbar and channel from activating assembly.
- 3.2. Remove washers, retaining rings, and link from activating assembly.
- 3.3. Reposition link on activating rod and lift lever to hand activating assembly as required.
- 3.4. Reinstall washers and retaining rings.
- 3.5. Reinstall pushbar and channel.

**Note:** 1490 pushbar labels (only handed part of device):  
**4270107320** Gold w/black letters RHR  
**4270107321** Black w/silver letters RHR  
**4270107322** Gold w/black letters LHR  
**4270107323** Black w/silver letters LHR

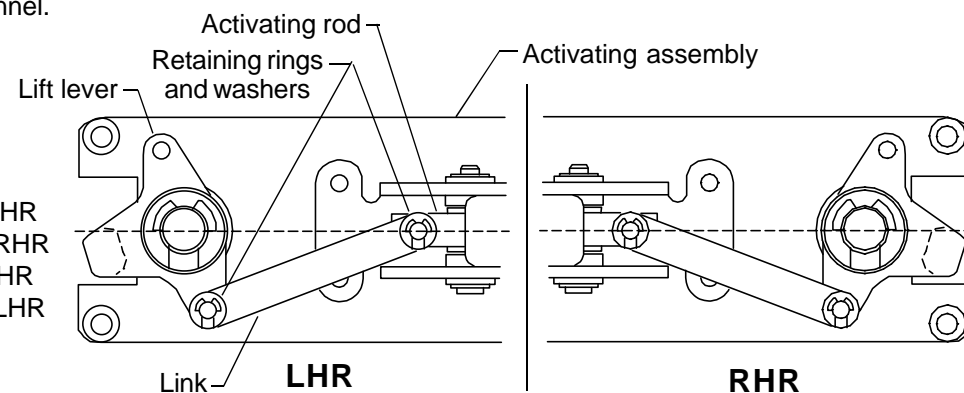


Figure 3

## 4 Install device.

- 4.1. Install strike into frame.
- 4.2. Install rod assembly into lock stile and secure top and bottom latches using #10-32 flat head screws.
- 4.3. If using cylinder, cut tailpiece, assemble cylinder cartridge assembly, and install in door.
- 4.4. Install mounting plate (knobs facing stile) and channel end cap with #12-24 round head screws.
- 4.5. 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.
- 4.6. Slide pushbar assembly into mounting plate on hinge stile.
- 4.7. Attach latch side of pushbar assembly with #12-24 flat head screws through pushbar assembly, latch side channel end cap, through the door, and tighten into the rod assembly.
- 4.8. If using pull trim, install pull trim.
- 4.9. Install pushbar end caps.

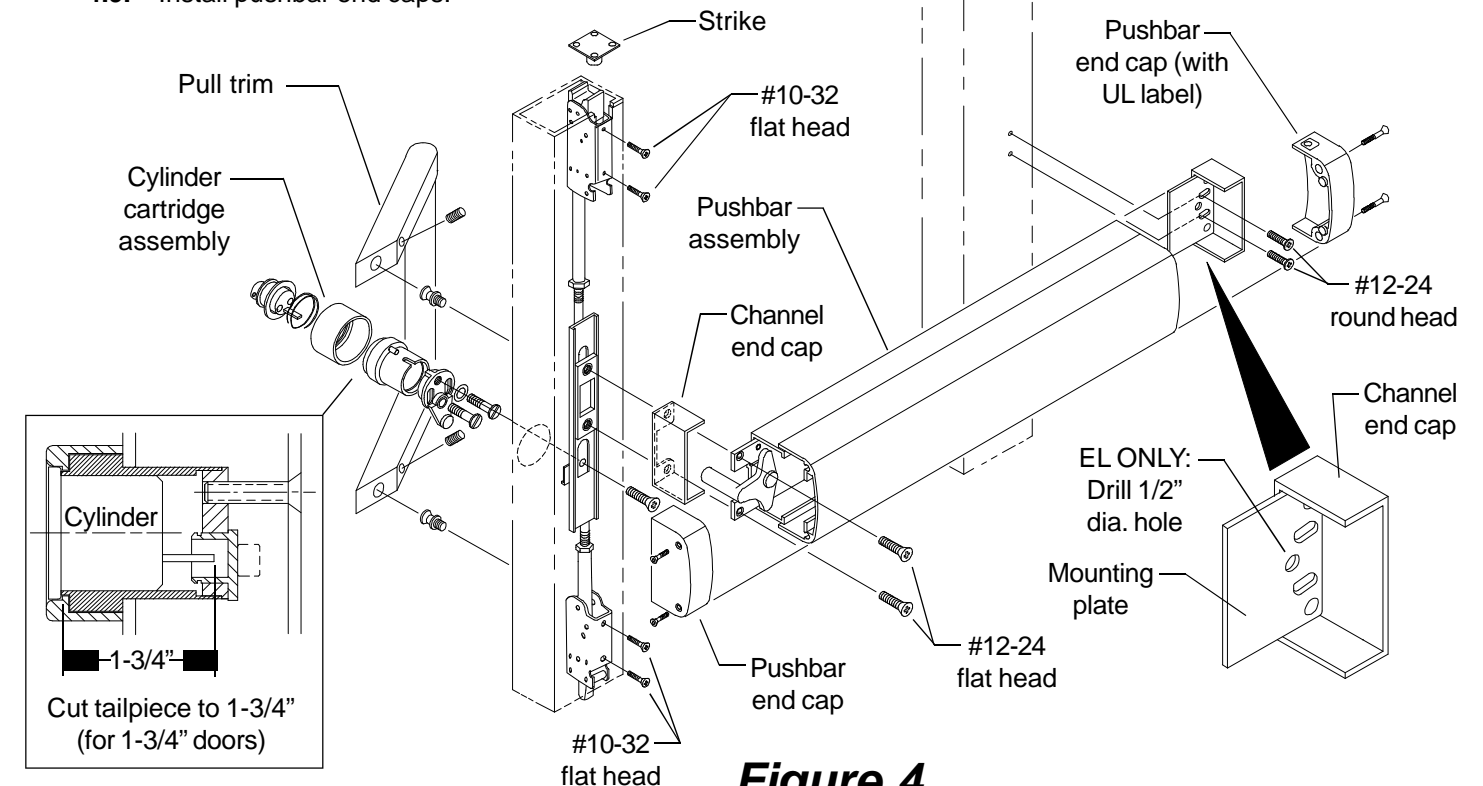


Figure 4

## 5 Adjust top rod if necessary.

**Note:** Test the door to make sure the top latch will lock when the door is closed and will open properly when the pushpad is depressed. See Figure 5-1 for correct latch bolt position with door open and closed.

If the top latch bolt will not release when the pushpad is pushed and the door will not open, the rod is adjusted too short.

If the door opens okay, but the door will not lock, the top rod is too long.

### To adjust top rod length (Figure 5-2):

- 5.1. Remove the end cap.
- 5.2. Remove the two #12-24 latch side device mounting screws.
- 5.3. Remove the two #10-32 top latch mounting screws and the two #10-32 bottom latch mounting screws.
- 5.4. Slide the rods assembly out the top of the door until the top rod lock nut is accessible. If lock nut is not accessible, remove door.
- 5.5. Loosen the top rod lock nut.
- 5.6. Lengthen or shorten rod length by threading latch up or down.
- 5.7. Adjust rod until latchbolt functions as shown in Figure 5-1.
- 5.8. Reassemble device and test for proper function.

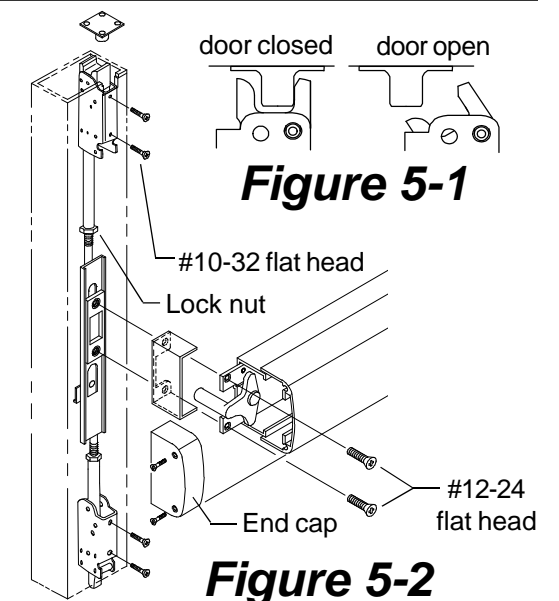


Figure 5-1

Figure 5-2