

CRL Jackson Trouble Shooting Guide

Concealed Vertical Rod Exit Devices



All The Magic Happens At The Top

1) When making adjustments to the 1085,1285 or 2086 always start with the top rod.

- With door swung to the open position, release the top bolt by depressing the trigger mechanism located on the top bolt guide.
- Note the length of extended rod. There should be no more than a $1/8$ " gap between top of door and bottom of header and the rod should extend no more than $7/16$ "- $1/2$ " out of the door.
- Adjust rod height by rotating the rod clockwise to shorten or counterclockwise to lengthen.
- Depress exit device bar and release. Top bolt should retract and remain held down, "captured" by the bolt guide in the top of the door.
- If bolt does not remain in the "captured" position, rotate the rod clockwise in half-turn increments until it does.

The Hump Back Strike is There for a Reason!

2) Make sure the Hump Back Strike is installed properly on the header. Without the Hump Back Strike, accurate adjustment is very difficult.

The top and bottom rods move in tandem. Whatever distances the top rod travels, so travels the bottom rod. If the top rod is captured, and remains captured by the top rod guide, the bottom rod will also retract and remain retracted until the top rod is released by the trigger mechanism. As the rod passes beneath the Hump Back Strike, it will be forced down an additional $3/32$ " causing the bottom rod to raise the same additional amount while passing over the threshold.

3) **Only after the top rod has been adjusted properly and the Hump Back Strike is installed** should you adjust the bottom rod.

- To adjust the bottom rod, rotate it counterclockwise to shorten the rod and clockwise to lengthen the rod. The rod is held in place by a spring loaded ball catch located inside the bottom rod guide.

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Other Items to Check

The rods will not operate properly if they are in any kind of bind.

- Ensure that the door is hanging plumb and square with the frame.
- Remove top rod guide and observe the rod movement as you operate the exit device.
- Check for protruding screws from weather-stripping, astragals, exterior trim, etc.
- Check exterior lock cylinder for binding against the exit device interior case assembly.
- Ensure that the weather-stripping on the door is not preventing the door from closing completely.

Specific Steps for Troubleshooting Electrified Devices

- 1) Verify it is a Jackson 20 series exit device
- 2) Verify it is a Jackson 2616 power supply
- 3) Verify the hump back strike is installed properly
- 4) Verify adequate power into the power supply – should be 110 VAC
- 5) Verify adequate output on terminals 5 & 6 – should be 24 VDC
- 6) Verify adequate output on terminals 11 & 12 - should be 24 VDC
- 7) Verify adequate power into panic - need 8 –10 amp inrush to activate solenoid
- 8) Verify proper wire gauge is used
 - a. 16 AWG up to 40'
 - b. 14 AWG up to 60'
 - c. 12 AWG up to 100'
- 9) Verify that there is no more than a 1/8" gap between the door and the header - shim as needed
- 10) With the door open and the panic in the "locked" position, push bolt down with your finger. If bolt will not catch in the bolt guide, turn it clockwise until it does.

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- 11)** With door open and panic in “locked” position, activate the panic electronically. If bolt does not retract at all or retracts minimally:
- a. Make sure the top bolt is centered in the header and bottom bolt is centered in the threshold and that they do not rub the sides at all, but move freely
 - b. Turn bolt clockwise one “click” and activate the panic again. Continue to do this until the bolt catches in the bolt guide
 - c. Adjust the bottom bolt so that it clears the threshold
 - d. Before closing the door make sure the electronic time delay has expired and that the rod is still captured by the top guide; otherwise it may seem the device is set correctly when it is not.
 - e. Close the door and check to make sure it’s secure. If it’s not, check for 1/8” gap and shim as needed
- 12)** Activate the panic again. If the top bolt still does not retract, check for binding
- a. Remove the exit device from the door and activate the “lift pin” with your finger
 - b. Loosen the outside cylinder if applicable
 - c. Loosen anything that could be putting pressure on the case
 - d. Verify that the lock cylinder is no more than 1” long
 - e. Lubricate the case with white lithium grease if necessary
- 13)** Activate the panic again. If the top bolt still does not retract, it is probably a spring issue and the rod and case assembly may need to be replaced