

## Installation & Troubleshooting

(for units manufactured after May 1, 2012)

### Step 1:

Connect the Bishop's Control Panel (BCP) to the green and white Phoenix relays located on the lower right hand corner of the lifting column using a 3 conductor 24 AWG cable (customer supplied) per the attached schematic.

OR, connect a spring centered rocker switch without using the green and white Phoenix relays per the attached schematic.

### Step 2:

Apply power to the sound system, which should then supply 24VDC to the BCP (see documentation provided with the sound system). Plug the CB9 into the surge cube and then plug the surge cube into an outlet (120VAC systems ONLY). Alternately plug the CB9 into a 220-240VAC outlet using the correct power cord per the country of installation.

### Step 3 (with Bishop's Control Panel):

Connect a spring BCP to the lift relays per the attached schematic.

Press the "UP" button on the BCP. The light on the Phoenix relay labeled (C UP) will light up and the lift will rise.

If the lift does not rise, it may be at the top of its stroke, Press the "DOWN" arrow on the BCP.

The light on the Phoenix relay labeled (C DWN) will light up and the lift will lower.

If the lift is not at the upper end of stroke then it may be loaded with too much weight (more than 50 lbs). Remove any weight from the top of the lift and try again. If the problem persists, the safety switch may need to be adjusted.

Press the "DOWN" arrow button on the BCP. The light on the Phoenix relay labeled (C DWN) will light up and lift will lower.

If the lift does not lower, it may be at the bottom of its stroke, Press the "UP" arrow on the BCP.

The light on the Phoenix relay labeled (C UP) will light up and the lift will rise.

If the lift is not at the lower end of stroke then an object may be blocking its travel path. Remove any object that may be between the lectern and the top of the pulpit.

If there is nothing blocking the path of the lectern, the safety switch may need to be adjusted.

### Step 3 (without Bishop's Control Panel):

Connect a spring centered rocker switch to the coil cord per the attached schematic.

Press the "UP" side on the rocker switch to complete the circuit and cause the lift to rise.

If the lift does not rise, it may be at the top of its stroke, Press the "DOWN" side of the rocker switch and the lift will lower.

If the lift is not at the upper end of stroke then it may be loaded with too much weight (more than 50 lbs). Remove any weight from the top of the lift and try again. If the problem persists, the safety switch may to be need adjusted.

Press the "DOWN" side on the rocker switch to complete the circuit and cause the lift to lower.

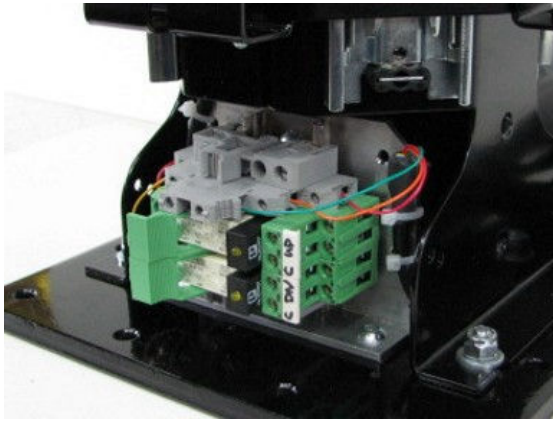
If the lift is not at the lower end of stroke then an object may be blocking its travel path. Remove any object that may be between the lectern and the top of the pulpit.

If there is nothing blocking the path of the lectern then the safety switch need to be adjusted.

## Failure Points:

There are a total of 10 possible failure points:

- 1 power source - Check the outlet in the cabinet to make sure that it is providing the proper power for you system 100VAC, 120VAC or 230VAC. If there is no power at the outlet check the building's circuit breakers, fuses, and wiring.
- 2 relays on the BCP – one “UP” and one “DOWN” (see BCP/Sound System documentation)  
To bypass the BCP disconnect it from the Phoenix relays on the lift. To activate the Phoenix relays, use a battery to apply 24VDC 3A across the A1 and A2 contacts of the same relay.
- 2 Phoenix relays on the lifting column – one “UP” and one “DWN”  
To bypass the Phoenix relays touch a test lead or scrap of wire from contact 21 to contact 24 on the same relay.  
**CAUTION:** This will activate the lift column if the CB9 has power.
- 2 safety relays (DB2) inside the lifting column – one “UP” (green and red wires) and one “DOWN” (yellow and black wires)  
To bypass these relays, remove the lectern from the lifting column and connect a test lead or scrap of wire from the “C” contact to the “NO” contact on the same relay.  
**CAUTION:** This can activate the lift if the CB9 has power and either the BCP is activated, or the Phoenix relays are bypassed as in the steps above.
- 1 safety switch assembly -  
To bypass the safety switch assembly without removing the neck and lectern touch a test lead or a scrap of wire to short across two screw terminals on the 3-level terminal block (gray). Shorting the Red wire (X on the attached schematic) to the Green wire (Z) will cause the lift to rise. Shorting the Red wire (X) to the Orange wire (Y) will cause the lift to lower.  
**CAUTION:** This can activate the lift if the CB9 has power.
- 1 LA31 actuator - This is the black actuator in the center of the lifting column; replace if defective. This is not a user serviceable part.
- 1 CB9 control box – This is the black box hanging in the upper right corner of the pulpit cabinet; replace if defective. This is not a user serviceable part. Insure that the power, lift motor, and safety switch cables are plugged into the CB9 completely. This is a common installation problem. The cords must be plugged in 100% to make contact.

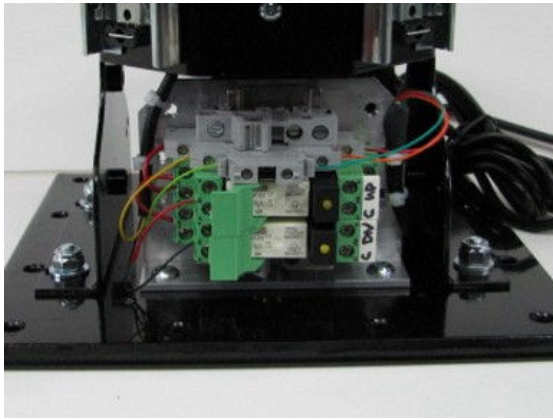


Right view of the control relay stack.

Short the Red wire to the Green wire shown here to run the lift up. This will bypass the safety switch and control relays.

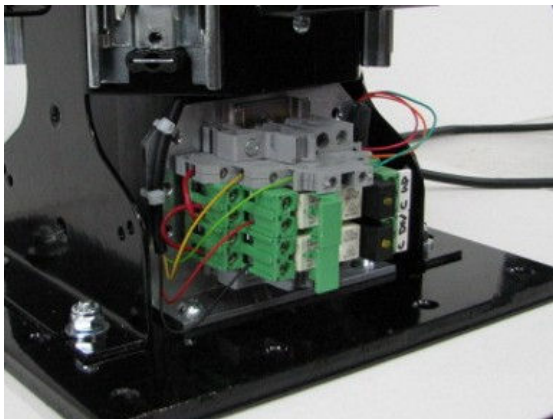
Short the Red wire to the Orange wire shown here to run the lift down. This will bypass the safety switch and control relays.

Connect a 24VDC battery to screw terminals A1 and A2 on either relay to bypass the BCP.



Center view of the control relay stack.

Connect the Bishop's Control Panel (BCP) to the relay stack on right side per the schematic attached to the CB9.



Left view of the control relay stack.

Use a jumper to short screw terminal 24 to 21 on the "UP" relay to by pass this relay.

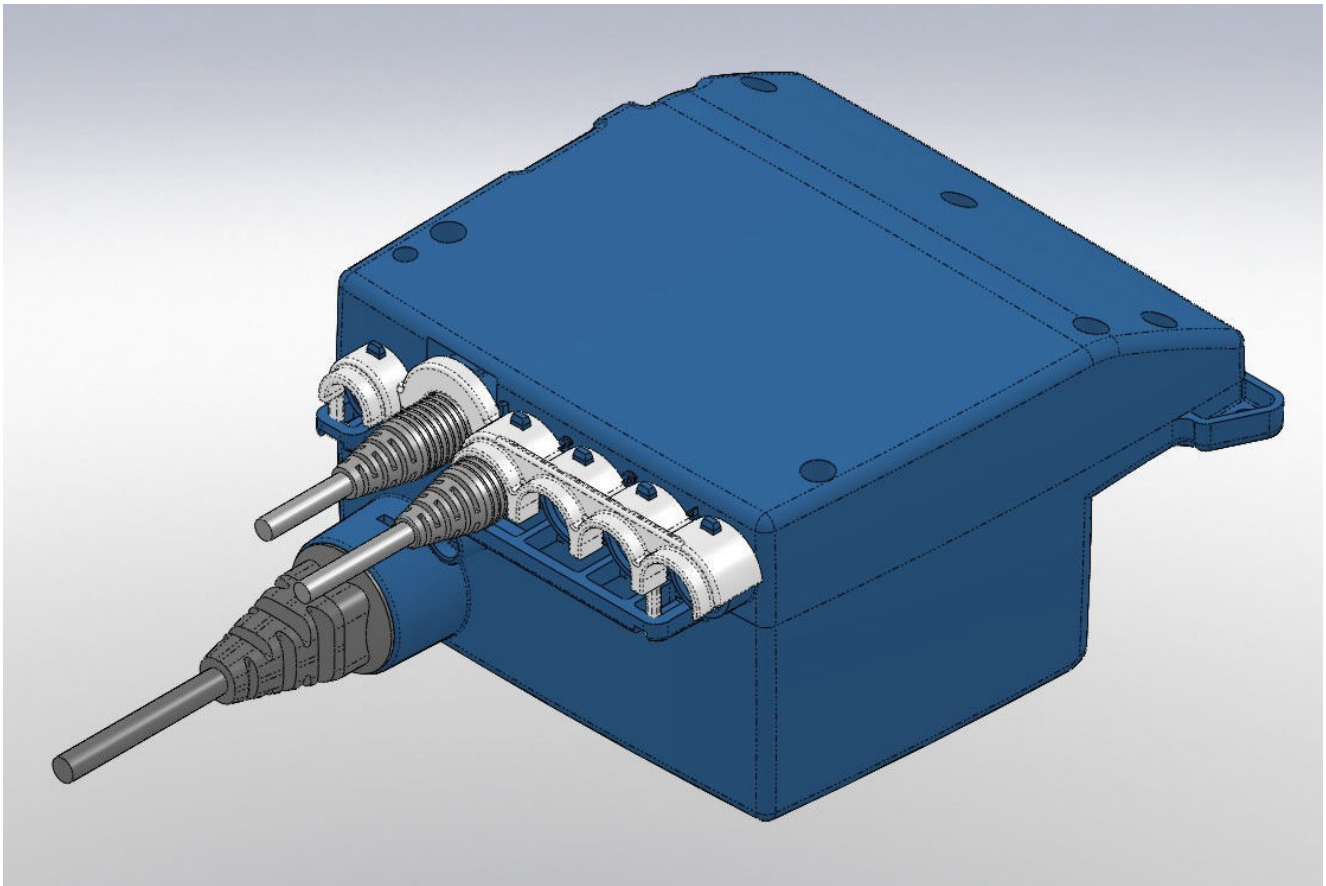
Use a jumper to short screw terminal 24 to 21 on the "DOWN" relay to by pass this relay.



View of the DB2 switches mounted on to the blue switch ring. The four conductors of the coil cord are attached to the DB2 switches.

The Yellow & Black wires are attached to the "down" switch. Short these two wire to bypass this switch.

The Red & Green wires are attached to the "up" switch. Short these two wire to bypass this switch.

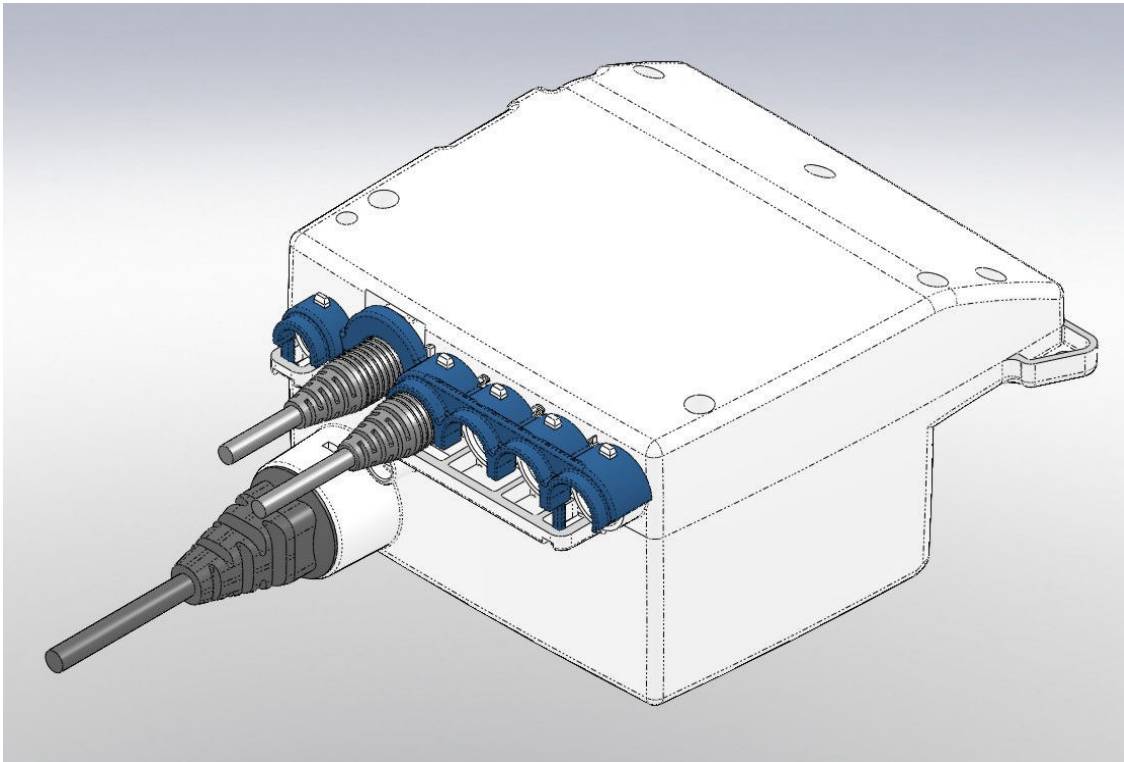


The part shown in blue is the CB9 control box.

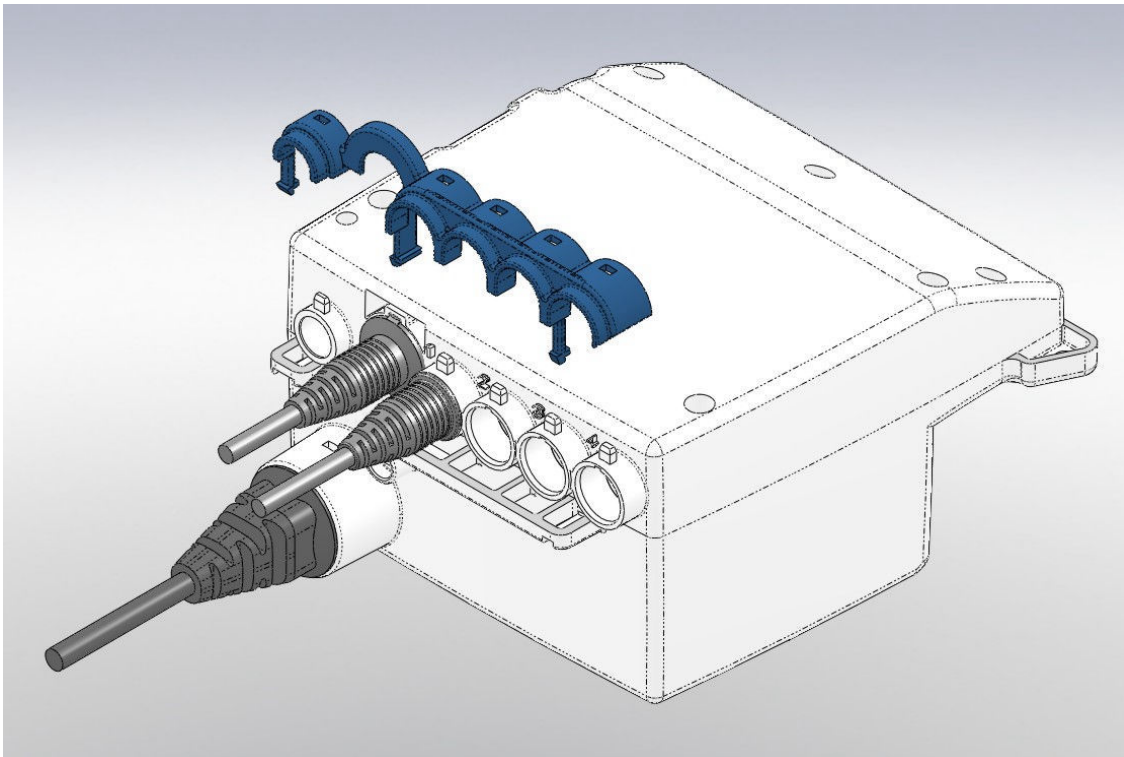
The part shown in white is the cable restraint. It locks to the CB9 in three locations. This part must be installed to prevent the cords from being pulled out of the CB9 accidentally.

The three parts shown in gray are the power cord (large), safety switch cable (medium), and motor cable (small).

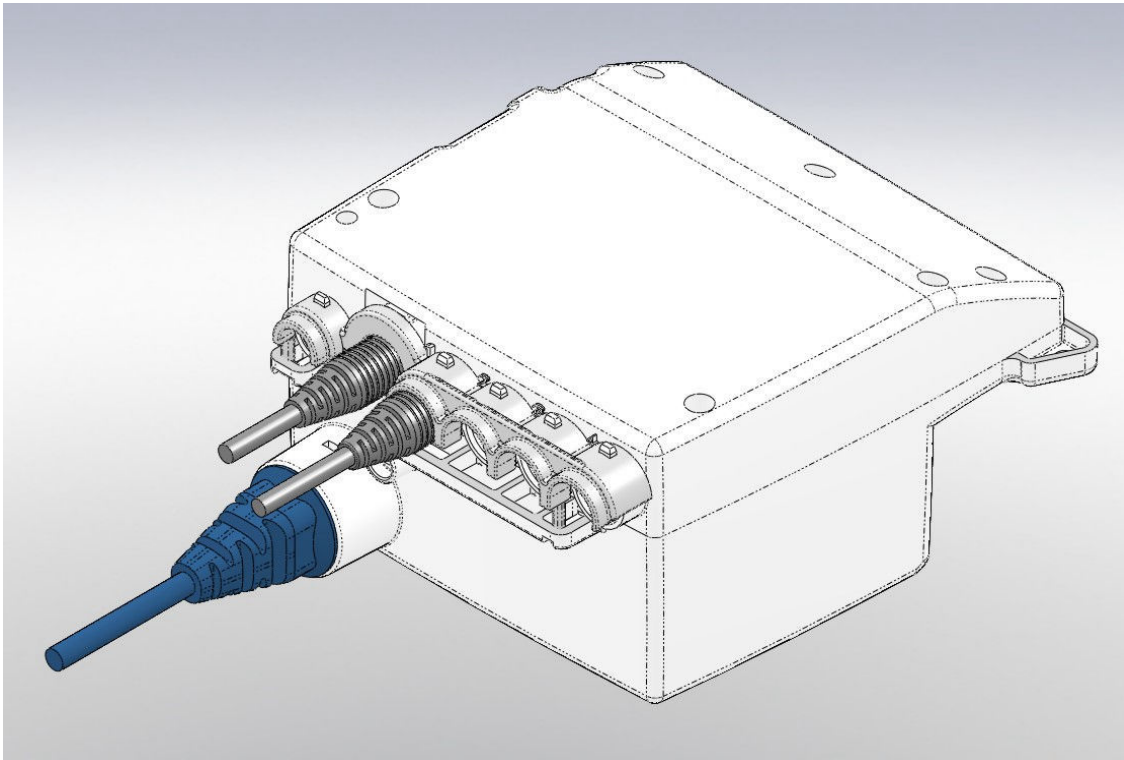
The CB9 is NOT user serviceable. The factory must perform all repairs.



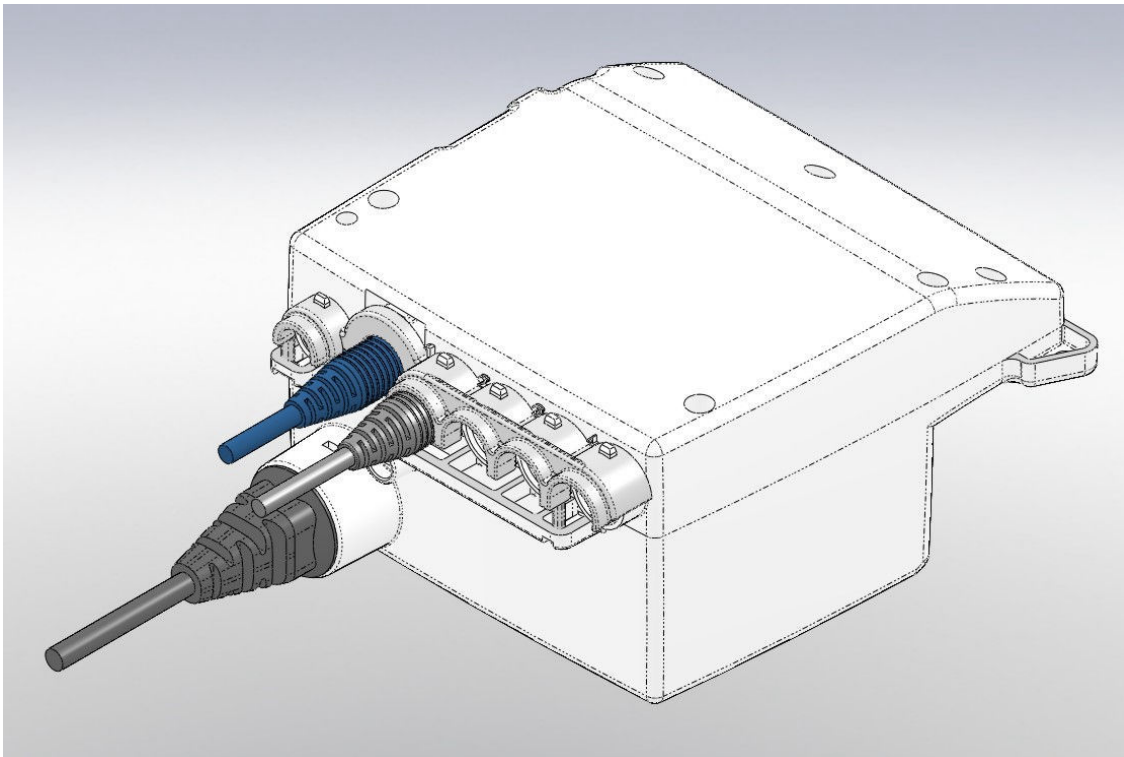
Cord restraint (shown in blue) installed.



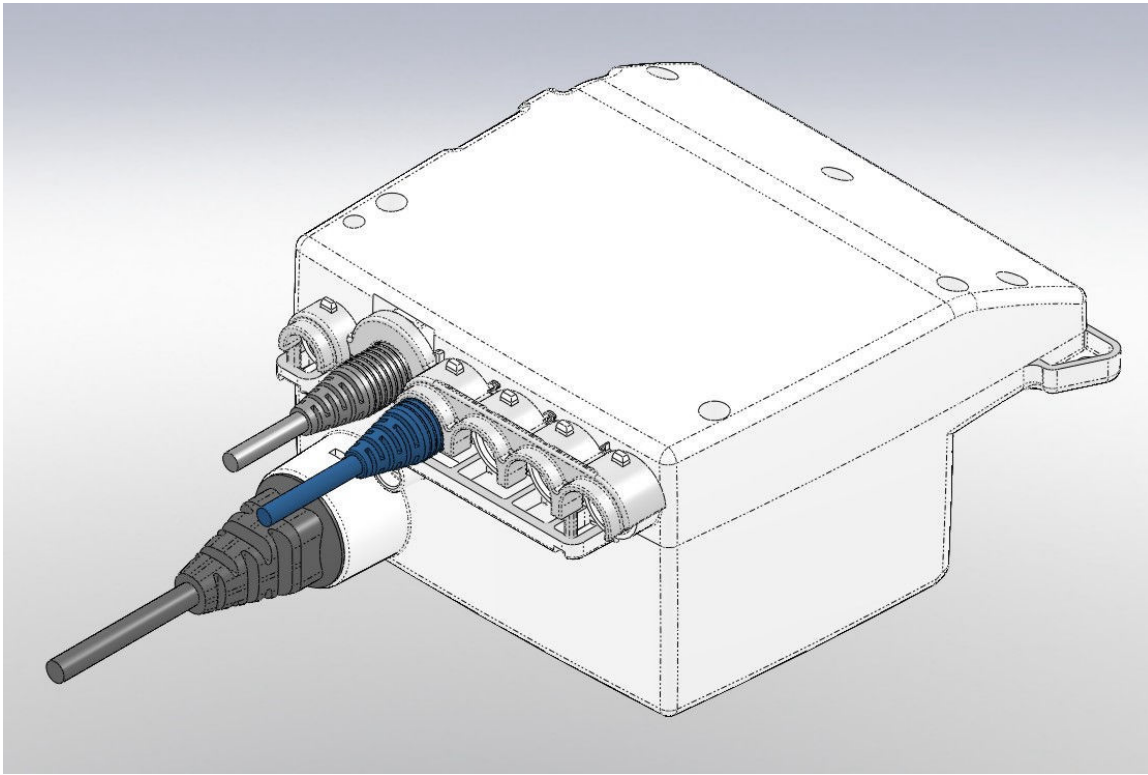
Cord restraint (shown in blue) removed. Note the three locking tabs.  
Common Problem: Service Tech cannot figure out how to remove this part and cables are damaged during a repair.



Power cord (shown in blue) installed.

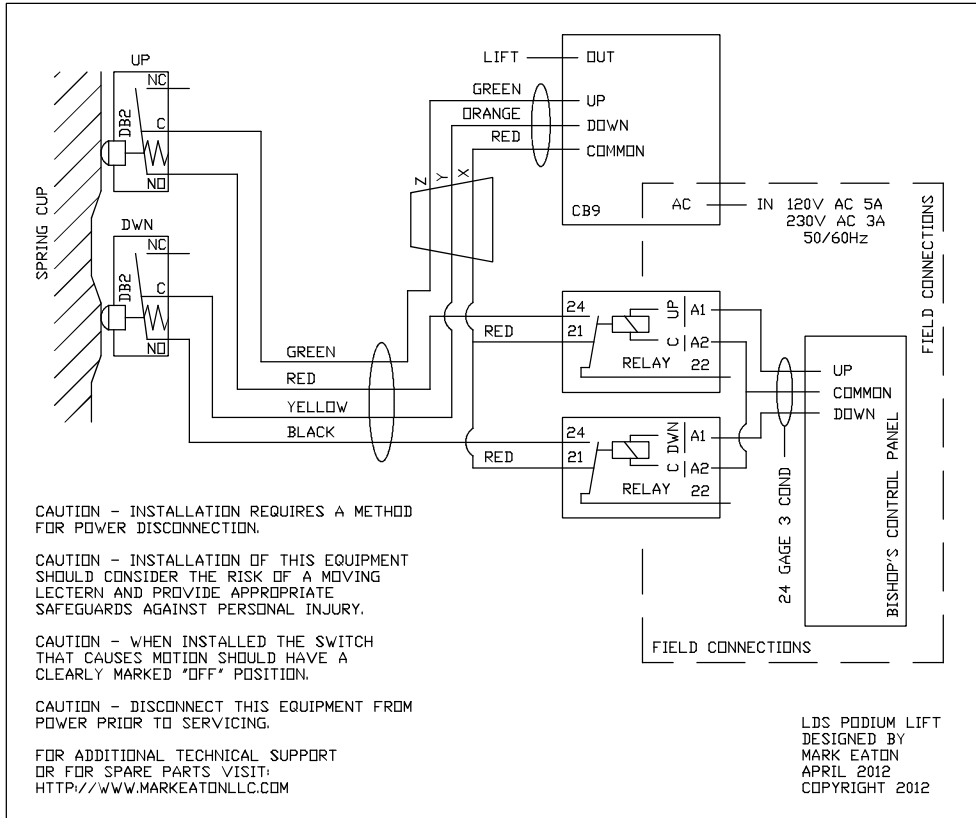


Safety Switch Cable (shown in blue) installed.  
Common installation problem: Not plugged in completely.

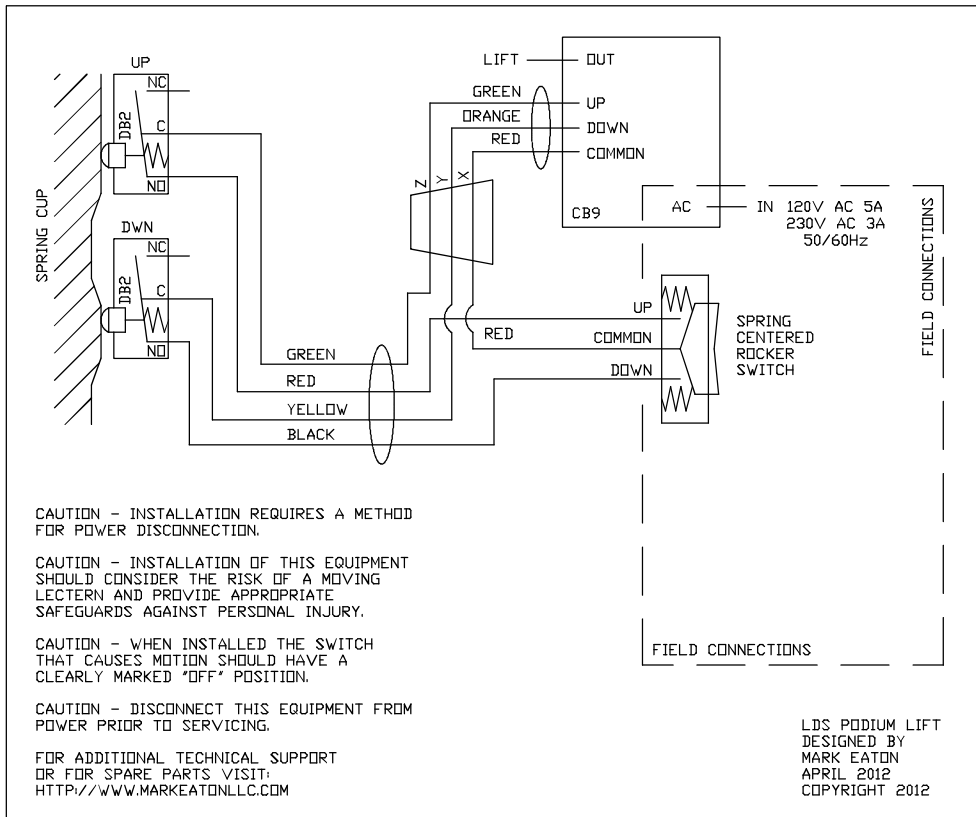


Motor cable (shown in blue) installed.  
Common installation problem: Not plugged in completely.

Visit the web site at <http://www.markeatonllc.com> for pictures and additional trouble shooting information, or call 801-756-5639 for telephone tech support.



STANDARD CONNECTION WITH A SOUND SYSTEM



ALTERNATE CONNECTION WITH ROCKER SWITCH