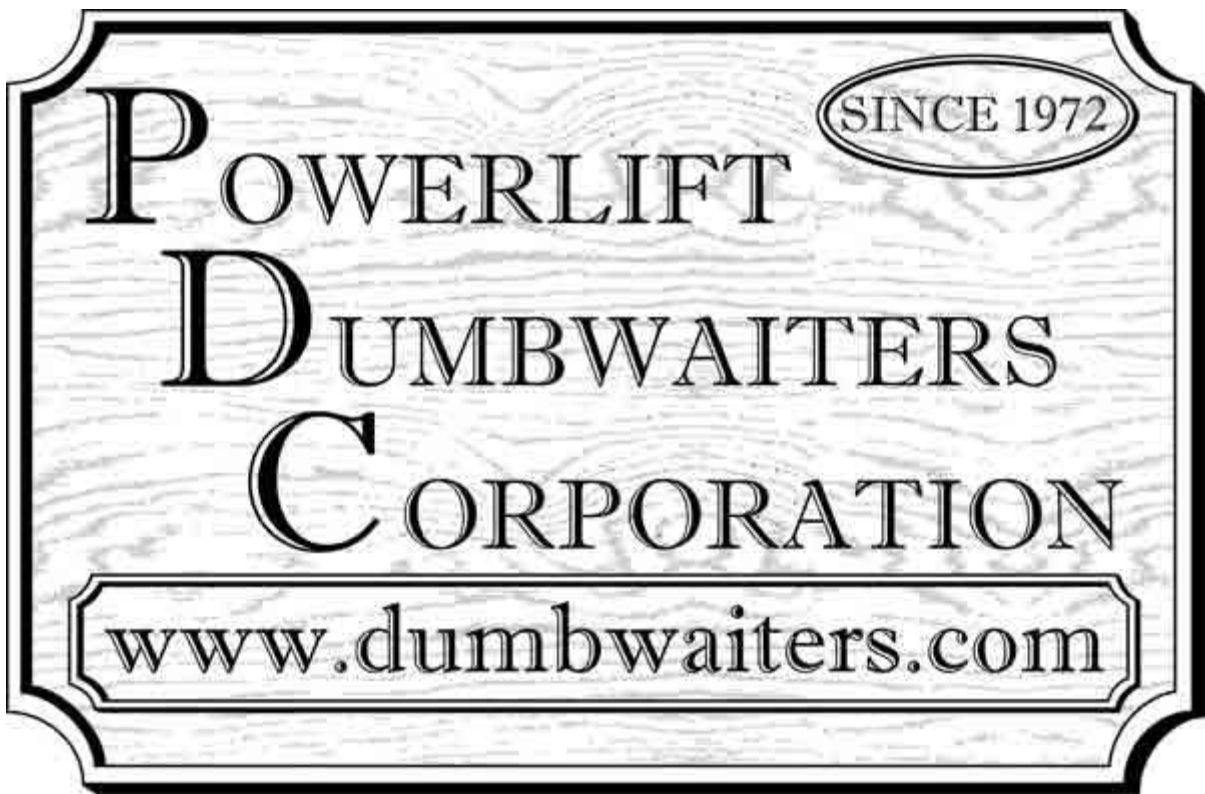


# **Installation Manual**

## **MEZZANINE LIFT**

**(Vertical Reciprocating Conveyor or V.R.C.)**



**2444 Georgia Slide Road, Georgetown, CA 95634**

**800-409-5438 • 530-333-1953**

**Fax: 530-333-1055**







Congratulations and thank you for purchasing a Powerlift Mezzanine Lift! We are a family owned company, in business for over 40 years, with a commitment to excellence and our customers. Should you have questions or concerns, please do not hesitate to contact us on our toll-free number. We offer free technical support through all phases of your lift installation and our staff will be happy to help you.

This installation manual includes information for installing most configurations of our **MEZZANINE LIFTS (Vertical Reciprocating Conveyor or V.R.C.)** and therefore not all information included will apply to your installation. If you are uncertain which configuration you are installing or have any questions, please call us.

Serial # \_\_\_\_\_

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## **Important Information You Should Know**

### **Please Read**

1. Anyone planning to use this lift should read the Owner's Manual prior to operating. If you do not have an Owner's Manual, please visit our website to download a copy or call us to have one sent to you.
2. **NEVER OPERATE LIFT if door interlocks or motor access safety switch are not working properly.** Every lift includes door interlocks and a motor access safety switch, which prevent the lift from operating if any door is not properly closed. The motor access safety switch will also stop the lift if the motor access panel/door is opened while the lift is in operation. If your door interlocks or motor access safety switch are not working properly, immediately turn off power to the lift and call Powerlift Dumbwaiters, Inc. to request replacement door interlocks or safety switches.
3. **NEVER USE THE LIFT if it is not operating properly.** Call your service technician, installation contractor, or Powerlift Dumbwaiters, Inc.
4. **NEVER USE THE LIFT when smoke and/or fire is present.**
5. **DO NOT REMOVE, BYPASS, OR ALTER any switches, controls, and/or restraining devices.** These are mandated by national and local codes and safety regulations. Any tampering will void your warranty and could result in serious injury and/or death!
6. **NEVER EXTEND YOUR HANDS, ARMS, LEGS, FEET, HEAD, OR BODY INTO OPEN HOISTWAY!** Doing so could cause serious injury and/or death! Never extend foreign objects of any kind into open hoistway. Doing so can cause damage to your lift and/or serious injury to you!
7. **NO RIDING IN LIFT CARRIER!** Your lift carrier is not intended to transport people and/or animals. Doing so could cause serious injury and/or death!
8. **NEVER OVERLOAD YOUR LIFT CARRIER!** Your lift is rated for a certain capacity. Please see data plate in carrier.
9. Your lift is not designed for continuous operation. Too many "starts" and "stops" could overheat the motor and trip the breaker.
10. The Mezz-100 & Mezz-200 lifts are designed to operate properly with 20 amps. Use 12 Ga wire for distances up to 25 feet and 10 Ga wire for distances up to 50 feet. Distances in excess of 50 feet or too many devices operating from the same power source reduces the available amperage and may cause the lift to malfunction. If your lift does not seem to be operating at its optimum, stop using it until a proper power source can be used.
11. The Mezz-300 & Mezz-500 single phase motor is designed to operate properly on a dedicated 230 volt circuit with a 20 amp breaker using 12 Ga wire for distances up to 50 feet and 10 Ga wire for distances up to 100 feet. The 208/230 volt 3 phase motor is designed to operate properly on a dedicated 10 amp breaker using 12 Ga wire for distances up to 150 feet. The 460 volt 3 phase motor is designed to operate properly on a dedicated 6 amp breaker using 12 Ga wire for distances up to 150 feet. In general distances in excess of 50 feet or too many devices operating from the same power source reduces the available amperage and may cause the lift to malfunction unless a larger gauge wire is used. If your lift does not seem to be operating at its optimum, stop using it until it can be inspected by a qualified technician.
12. To prevent unauthorized use, a keyed on/off switch can be obtained from Powerlift Dumbwaiters, Inc.
13. Observe, read, and obey the warning labels, tags, and symbols, as they are provided by the manufacturer for your safety and protection.
14. **DO NOT ATTEMPT TO REPAIR the lift yourself.** Immediately stop use, disconnect power supply and call Powerlift Dumbwaiters, Inc. to determine whether you need to contact your service technician or installation contractor.

# **Before You Begin Installation**

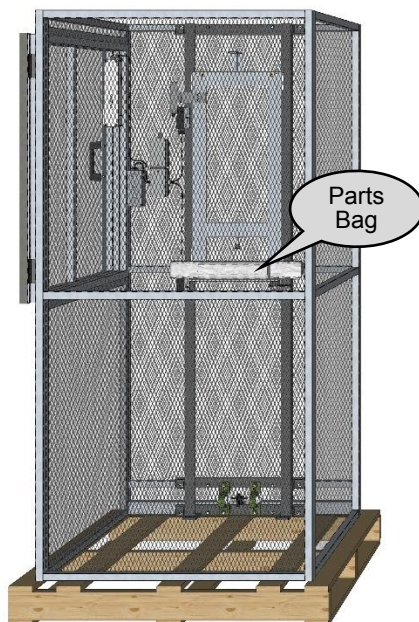
**Proper installation is the responsibility of the installer.** A qualified technician should install this lift. Make sure you have everything necessary for correct installation. It is the installer's responsibility to ensure the installation complies with the local codes and safety regulations.

**This lift must be secured in place.** Please see **Pages 8 & 9** for proper ways to secure the lift to the existing structure. Two (2)  $\frac{1}{2}$ " x  $5\frac{1}{2}$ " wedge anchors are provided for securing the shaft to a concrete floor.

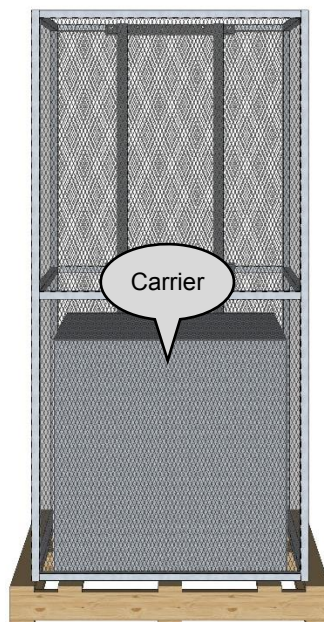
**Check the lift for damage.** Remove all packaging materials and verify that nothing is damaged and that everything is included using the following checklist. The number of shaft sections varies based on the overall height of the lift. **See Page 20 for opening hoistway doors without power connected.**

## **I. In Parts Bag – attached to trolley**

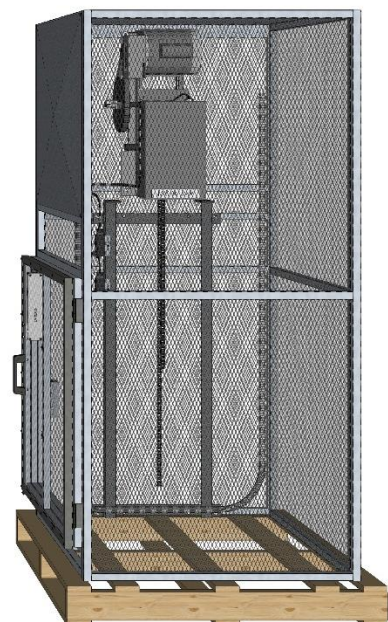
- ☐ Installation Manual
- ☐ Owner's Manual
- ☐ Shaft Section Straps – ( 2 straps for each shaft section, less the top shaft section )
- ☐ #8- $\frac{1}{2}$ " Black Self Drilling Washer Head Screws – ( approx. 8 screws per shaft section strap )
- ☐ Two (2) Shaft to Floor Anchor Brackets
- ☐ Two (2) Shaft to Mezzanine Anchor Brackets
- ☐ Six (6)  $\frac{1}{4}$ " x 1" Self Drilling Hex Head Screws – ( 2 screws per floor anchor bracket & 1 per mez. anchor bracket )
- ☐ Two (2) #12 x 3" Lag Screws – ( 1 lag per mezzanine anchor bracket )
- ☐ Two (2)  $\frac{1}{2}$ " x  $5\frac{1}{2}$ " Wedge Anchors – ( 1 wedge anchor per floor bracket )
- ☐ Stacking Pins – ( 4 stacking pins per shaft section, less the top section )
- ☐ Two (2)  $\frac{1}{4}$ "-20 x  $1\frac{3}{4}$ " Bolts & Washers for Mounting Carrier **OR**  
Two (2)  $\frac{3}{8}$ "-16 x 2" Bolts & Washers for Mounting 500lb. Carrier
- ☐ One (1) Chain Master Link



**Bottom Section**  
(Motor Top)



**Middle Section**



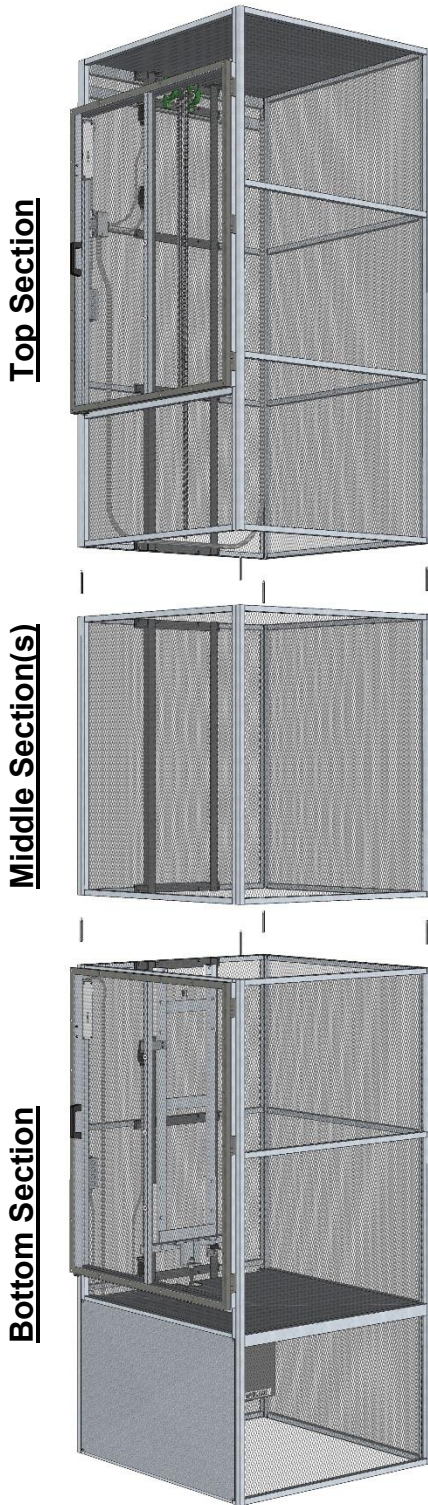
**Top Section**  
(Motor Top)

**[www.dumbwaiters.com](http://www.dumbwaiters.com)**

**1-800-409-5438**

# PART 1

## Stacking Lift into Place

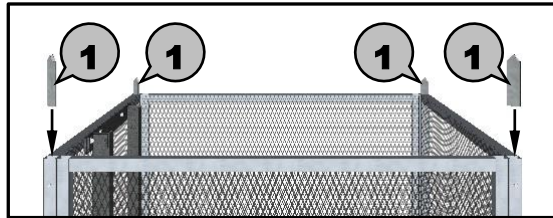


**Figure 2**  
Motor Bottom

**⚠ WARNING ⚠**

DO NOT INSTALL LIFT CARRIER UNTIL PUSH BUTTONS AND DOOR SAFETY SWITCHES ARE WORKING PROPERLY, ALL ADJUSTMENTS ARE COMPLETE, AND SHAFT IS PROPERLY SECURED IN PLACE!!  
FAILURE TO DO SO COULD DAMAGE THE LIFT AND/OR CAUSE SERIOUS BODILY INJURY, LOSS OF LIMB, OR DEATH!

- 1** Drop one steel stacking pin into the four outside corner tubes of bottom and middle sections. (see Figures 1, 2, & 3)



**Figure 1**

- 2** Move bottom section close to its final position.

**⚠ WARNING ⚠**

SHAFT SECTIONS ARE HEAVY AND AWKWARD! USE EXTREME CAUTION WHILE HANDLING, LIFTING, AND STACKING SECTIONS!!  
FAILURE TO DO SO COULD DAMAGE THE LIFT AND/OR CAUSE SERIOUS BODILY INJURY, LOSS OF LIMB, OR DEATH!

- 3** Stack each section in order, as labeled on track side, on top of the previous section. **Make sure the track is lined up and the stacking pins are going into the outside corner tubes.** (see Figures 2 & 3)

**⚠ IMPORTANT ⚠**

BE SURE TO VERIFY THAT THE TRACKS ARE CORRECTLY ALIGNED BEFORE SECURING SHAFT SECTIONS TOGETHER!!  
FAILURE TO DO SO COULD DAMAGE THE LIFT!



**Figure 3**  
Motor Top

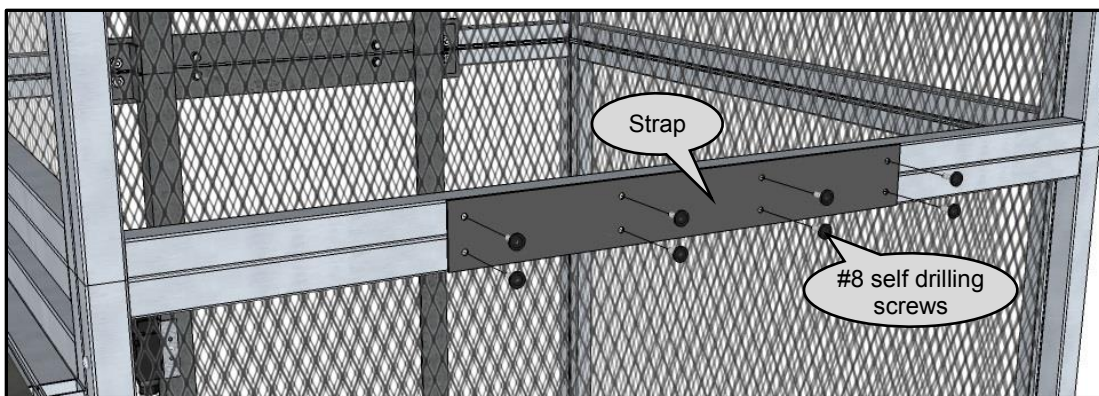
## **PART 2a**

### **Securing Lift into Place**

#### **⚠ WARNING ⚠**

DO NOT ATTEMPT TO MOVE THE STACKED SHAFT TO ITS FINAL LOCATION UNTIL ALL SECTIONS ARE PROPERLY SECURED TOGETHER. FAILURE TO DO SO COULD DAMAGE THE LIFT AND/OR CAUSE SERIOUS BODILY INJURY, LOSS OF LIMB, OR DEATH!

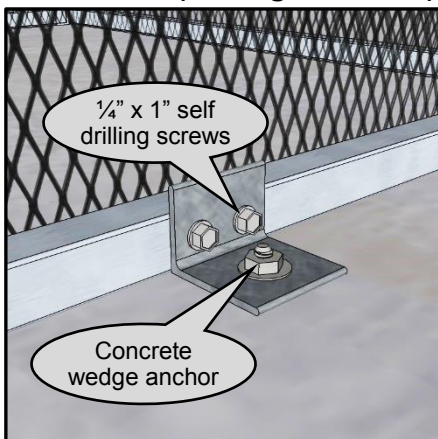
- 1 Once all the sections are stacked up, **make sure that the track is aligned at each seam creating a smooth transition**, then use the provided straps and #8 self drilling washer head screws to secure sections together. Two straps are provided to secure two sections together. Straps should be installed on opposite sides where possible. (see Figure 4)
- 2 With all sections securely fastened together you may at this time reposition the shaft, if needed.



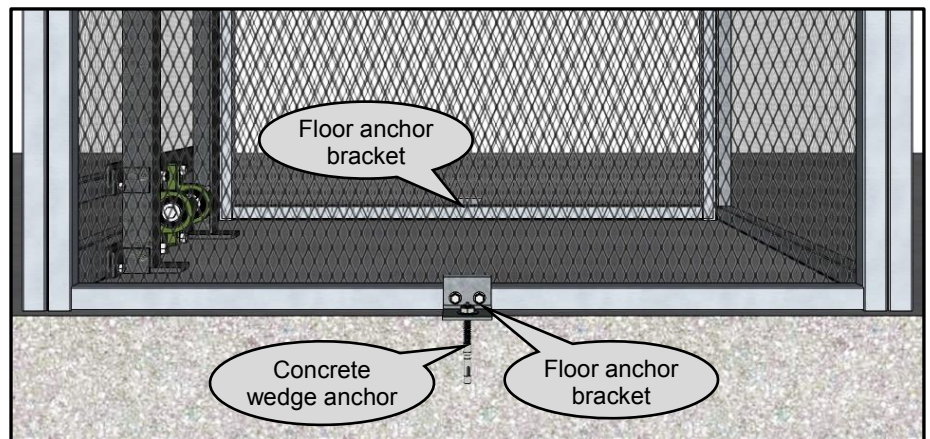
**Figure 4**

**Note:** With shaft in its final location, verify the shaft is plumb, shim the corners if necessary.

- 3 Use provided  $\frac{1}{4}$ " x 1" self drilling screws to secure floor anchor brackets to bottom tube of shaft. Brackets should be installed on opposite sides where possible. (see Figures 5 & 6)
- 4 Use provided  $\frac{1}{2}$ " x  $5\frac{1}{2}$ " wedge anchors to secure the shaft to the floor. Use one wedge anchor per bracket. (see Figures 5 & 6)



**Figure 5**



**Figure 6**

## **PART 2b**

### **Securing Lift into Place**

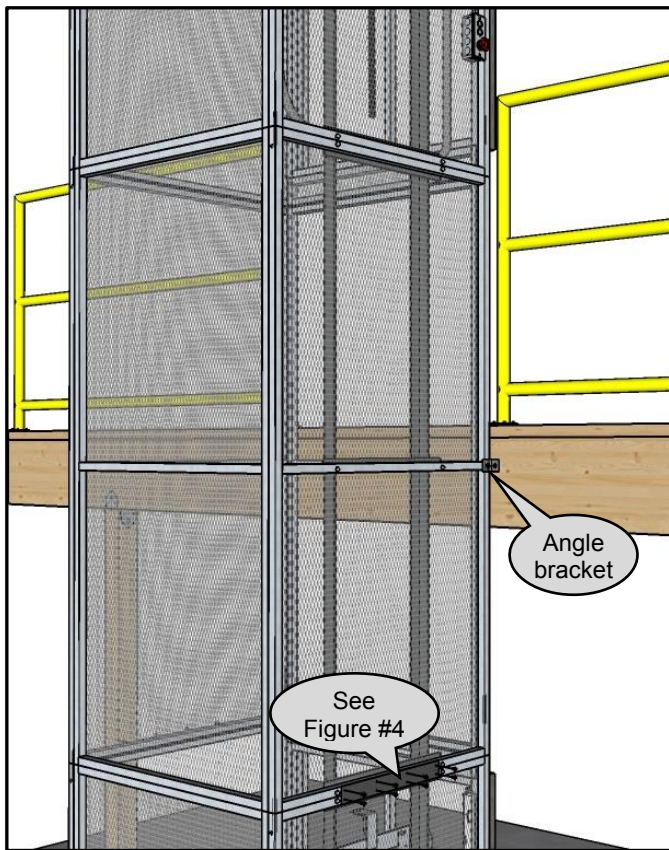
#### **⚠ WARNING ⚠**

THE SHAFT MUST BE STRAPPED, BOLTED, OR SECURED TO THE MEZZANINE.  
FAILURE TO PROPERLY SECURE THE SHAFT IN PLACE COULD DAMAGE THE LIFT, VOID THE WARRANTY, AND/OR CAUSE SERIOUS BODILY INJURY, LOSS OF LIMB, OR DEATH!

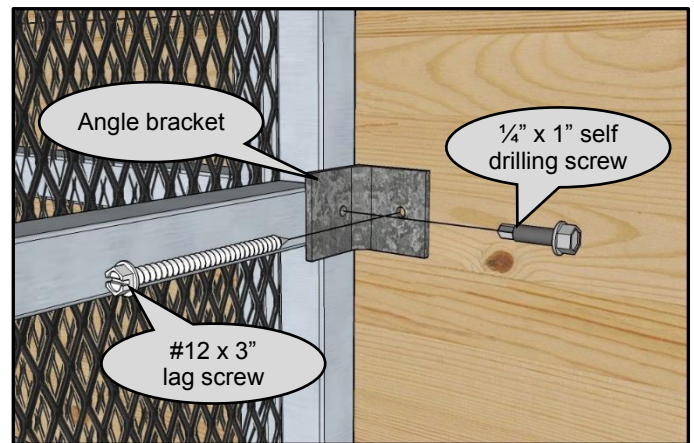
There are far too many different mezzanine styles, built with varying materials, to provide brackets for all possible installations; Therefore, Powerlift provides two brackets to attach the shaft to most wood framed mezzanines as shown below. If the provided brackets will not work for your installation, you will need to have mounting brackets fabricated locally or have your installation contractor determine the best way to secure the shaft to the mezzanine.

The shaft must be strapped, bolted, or otherwise secured to the mezzanine for safety.

- 5** With the shaft now bolted to the floor, use the provided angle brackets and  $\frac{1}{4}$ " x 1" self drilling screws to secure the brackets to the shaft and the #12 x 3" lag screws to secure the bracket to the mezzanine. **Make sure the shaft is not pulled out of plumb by overtightening the lag screws.** Two angle brackets are provided to secure the shaft to the mezzanine. Angle brackets should be installed on opposite sides where possible. (see Figures 7, 8, & 9)



**Figure 7**



**Figure 8**



**Figure 9**

# **PART 3a**

## **Mezz 100 & 200 Lifts Only**

### **Chain Installation - Motor on Bottom Configuration**

#### **⚠ WARNING ⚠**

**NEVER INSTALL CHAIN UNLESS A.C. POWER IS DISCONNECTED FROM LIFT! FAILURE TO DO SO COULD DAMAGE THE LIFT AND/OR CAUSE SERIOUS BODILY INJURY, LOSS OF LIMB, OR DEATH!**

- 1** The chain is bundled and tied to the top track & rail section. Only cut the **white** plastic ties holding the chain to the track.
  - 2** Cut the **white** plastic ties holding the chain to the pillow block shaft, one at a time, in the order they are labeled and carefully lower the chain to prevent tangling.
- NOTE:** Do not cut the black plastic tie! (see Figure 10)
- 3** Cut any remaining **white** plastic ties.
  - 4** Use provided master link, attached near the top of the trolley with a plastic tie, to connect chain to top end of trolley. (see Figure 11)

#### **⚠ WARNING ⚠**

**MAKE SURE THAT THE MASTER LINK IS FASTENED SECURELY! FAILURE TO DO SO COULD DAMAGE THE LIFT AND/OR CAUSE SERIOUS BODILY INJURY, LOSS OF LIMB, OR DEATH!**

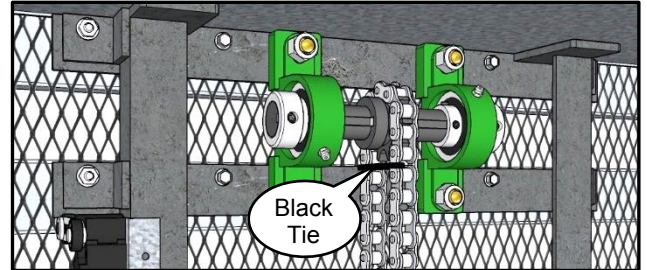
- 5** The other end of the chain should hang down behind the trolley and be placed around the drive sprocket of the motor. Then insert the threaded adjusting bolt, on the end of the chain, into the hole on the bottom of the trolley, where the adjusting nut is tied on, and use the adjusting nut to secure the adjusting bolt to the trolley. Use a blade screwdriver or needle nose pliers to hold chain from twisting and tighten adjusting nut until Nyloc nut is tightly seated against trolley. **Do not adjust Nyloc!** (see Figure 12)

**NOTE:** If the adjusting bolt won't reach, turn large pulley (see Figure 12) to take up any slack in the chain.

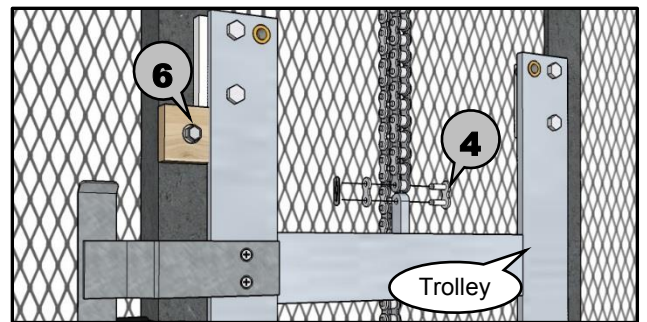
#### **⚠ WARNING ⚠**

**MAKE SURE THAT THE CHAIN IS COMPLETELY SEATED ON THE DRIVE SPROCKET! FAILURE TO DO SO COULD DAMAGE THE LIFT AND/OR CAUSE SERIOUS BODILY INJURY, LOSS OF LIMB, OR DEATH!**

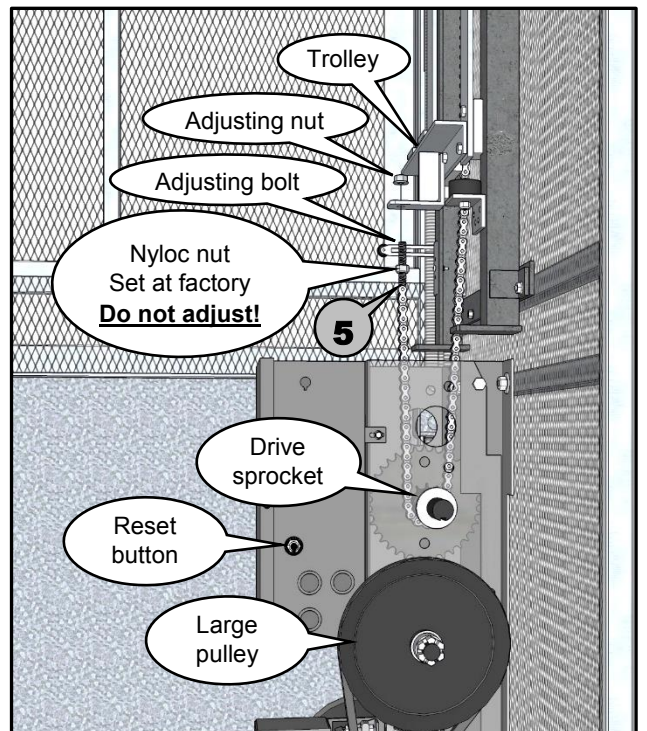
- 6** Some machines may have a trolley stop screwed to the track for shipping purposes, and it should be removed at this time. (see Figure 11)
- 7** Cut black plastic tie off. (see Figure 10)



**Figure 10**



**Figure 11**

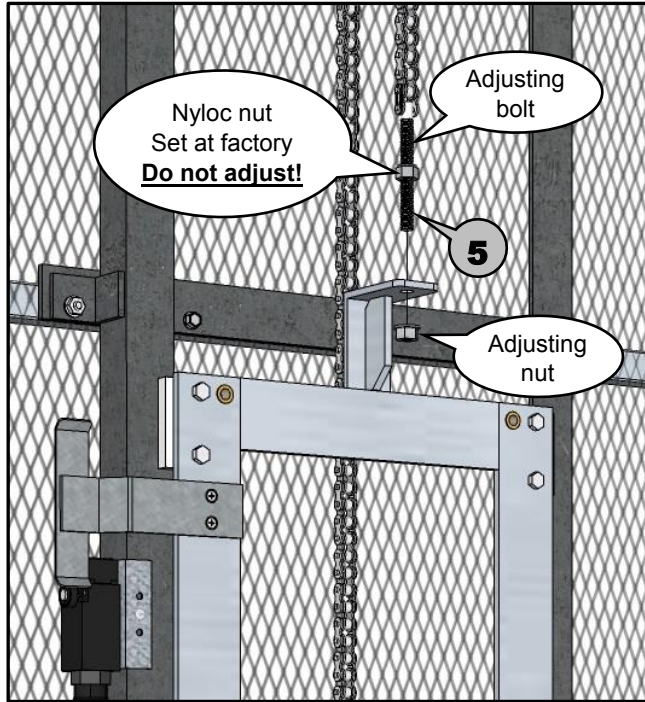


**Figure 12**

## **PART 3b**

### **Mezz 100 & 200 Lifts Only**

### **Chain Installation - Motor on Top Configuration**



**Figure 13**

### **⚠ WARNING ⚠**

**NEVER INSTALL CHAIN UNLESS A.C. POWER IS DISCONNECTED FROM LIFT! FAILURE TO DO SO COULD DAMAGE THE LIFT AND/OR CAUSE SERIOUS BODILY INJURY, LOSS OF LIMB, OR DEATH!**

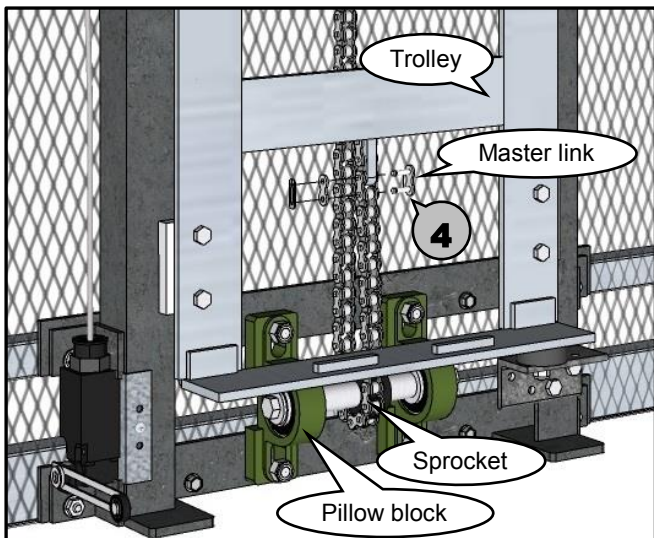
- 1** The chain is bundled and tied to the motor. Only cut the **white** plastic ties holding the chain bundle to the motor.
- 2** Cut the **white** plastic ties holding the chain to the motor shaft, one at a time, in the order they are labeled and carefully lower the chain to prevent tangling.

**NOTE: Do not cut the black plastic tie!**

- 3** Cut any remaining **white** plastic ties.
- 4** One end of the chain should hang down behind the trolley and be placed around sprocket on the pillow block assembly. Then use provided master link, attached near the bottom of the trolley with a plastic tie, to connect chain to bottom end of trolley. (see Figure 14)

### **⚠ WARNING ⚠**

**MAKE SURE THAT THE MASTER LINK IS FASTENED SECURELY! FAILURE TO DO SO COULD DAMAGE THE LIFT AND/OR CAUSE SERIOUS BODILY INJURY, LOSS OF LIMB, OR DEATH!**



**Figure 14**

- 5** The other end of the chain with the adjusting bolt should hang down near the top of the trolley. Insert the threaded adjusting bolt, on the end of the chain, into the hole on the top of the trolley where the adjusting nut is tied on, and use the adjusting nut to secure the adjusting bolt to the trolley. Use a blade screwdriver or needle nose pliers to hold chain from twisting and tighten adjusting nut until Nyloc nut is tightly seated against trolley. **Do not adjust Nyloc!** (see Figure 13)
- 6** Some machines may have a trolley stop screwed to the track for shipping purposes, and it should be removed at this time. (see Figure 11)
- 7** Cut black plastic tie, next to the drive sprocket, off. (see Figure 12, for sprocket location)

## **PART 4a**

### **Mezz 300 & 500 Lifts Only**

## **Gearbox Breather Installation - Motor on Bottom**

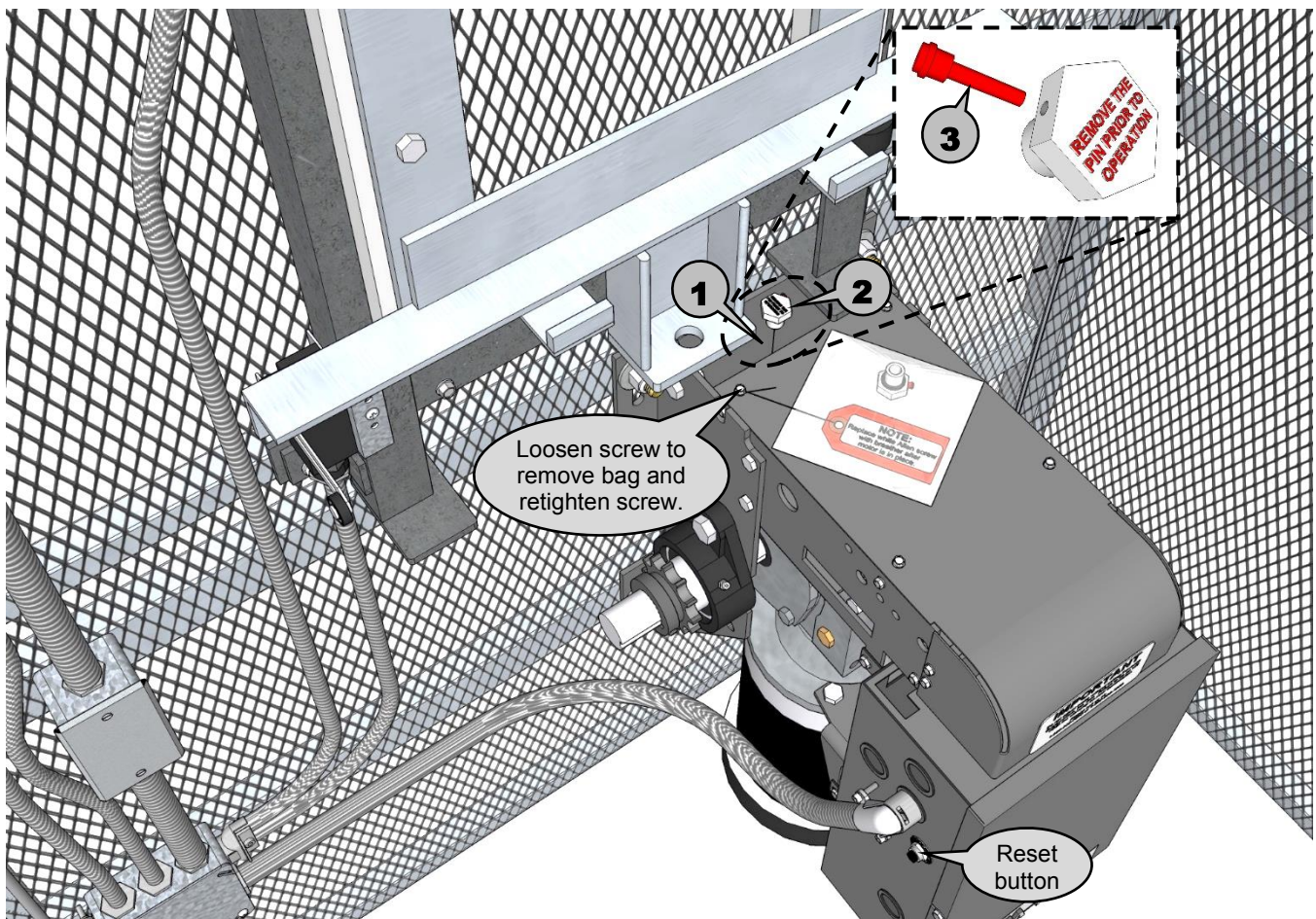
### **⚠ WARNING ⚠**

THE GEARBOX BREATHER PLUG MUST BE PROPERLY INSTALLED!!  
FAILURE TO DO SO COULD DAMAGE THE MOTOR AND VOID THE WARRANTY.

Once the lift sections are secured together and securely fastened to the floor and mezzanine structure or wall, install the gearbox breather plug if not already installed from the factory.

**Note:** If the breather plug is not installed it is shipped in a bag attached to a screw on the brake cover. (see Figure 15)

- 1 Remove the factory installed plug using either a 6mm Allen wrench or a 9/16" (14mm) socket. (see Figure 15)
- 2 Install breather plug hand tight or until the rubber "O" ring is seated snugly against the gear box. **Do not overtighten!** (see Figure 15)
- 3 Remove and discard red pin from breather plug.



**Figure 15**

### 3 Phase Motor Rotation - Motor on Bottom

**THE ROTATION OF THE MOTOR MUST BE CHECKED BEFORE INSTALLING THE CHAIN!!  
FAILURE TO DO SO COULD DAMAGE THE LIFT AND VOID THE WARRANTY.**

- 
- Diagram illustrating the connection between the power supply and the contactor terminals. The contactor has three main terminals labeled L1, L2, and L3. The power supply wires are connected to these terminals: L1 is connected to the black wire, L2 is connected to the red wire, and L3 is connected to the yellow wire. The diagram shows the internal wiring and the connection points for the power supply and the contactor.

Diagram of the front panel of the 68000 microprocessor. It features two buttons labeled 'Up' and 'Down'. A speech bubble points to the 'Up' button with the text 'Press here'. The panel is populated with various pins, including 54, 62, 72, 84, 88, 92, 96, 100, 104, 108, 112, 116, 120, 124, 128, 132, 136, 140, 144, 148, 152, 156, 160, 164, 168, 172, 176, 180, 184, 188, 192, 196, 200, 204, 208, 212, 216, 220, 224, 228, 232, 236, 240, 244, 248, 252, 256, 260, 264, 268, 272, 276, 280, 284, 288, 292, 296, 300, 304, 308, 312, 316, 320, 324, 328, 332, 336, 340, 344, 348, 352, 356, 360, 364, 368, 372, 376, 380, 384, 388, 392, 396, 400, 404, 408, 412, 416, 420, 424, 428, 432, 436, 440, 444, 448, 452, 456, 460, 464, 468, 472, 476, 480, 484, 488, 492, 496, 500, 504, 508, 512, 516, 520, 524, 528, 532, 536, 540, 544, 548, 552, 556, 560, 564, 568, 572, 576, 580, 584, 588, 592, 596, 600, 604, 608, 612, 616, 620, 624, 628, 632, 636, 640, 644, 648, 652, 656, 660, 664, 668, 672, 676, 680, 684, 688, 692, 696, 700, 704, 708, 712, 716, 720, 724, 728, 732, 736, 740, 744, 748, 752, 756, 760, 764, 768, 772, 776, 780, 784, 788, 792, 796, 800, 804, 808, 812, 816, 820, 824, 828, 832, 836, 840, 844, 848, 852, 856, 860, 864, 868, 872, 876, 880, 884, 888, 892, 896, 900, 904, 908, 912, 916, 920, 924, 928, 932, 936, 940, 944, 948, 952, 956, 960, 964, 968, 972, 976, 980, 984, 988, 992, 996, 1000.

A detailed diagram of a robotic cell. A yellow U-shaped arrow indicates the cable path from the robot's base, through the side of the cell, and up to the top. A callout bubble points to a control box on the right side of the cell, labeled "Controller".

**1-800-409-5438**

## **PART 4c**

### **Mezz 300 & 500 Lifts Only**

## **Chain Installation - Motor on Bottom Configuration**

### **⚠ WARNING ⚠**

NEVER INSTALL CHAIN UNLESS A.C. POWER IS DISCONNECTED FROM LIFT! FAILURE TO DO SO COULD DAMAGE THE LIFT AND/OR CAUSE SERIOUS BODILY INJURY, LOSS OF LIMB, OR DEATH!

- 1** The chain is bundled and tied to the top track & rail section. Only cut the **white** plastic ties holding the chain to the track.
- 2** Cut the **white** plastic ties holding chain to the pillow block shaft, one at a time, in the order they are labeled and carefully lower the chain to prevent tangling.  
**NOTE:** Do not cut the black plastic tie! (see Figure 19)
- 3** Cut any remaining **white** plastic ties.
- 4** Use provided master link, attached near the top of the trolley with a plastic tie, to connect chain to top end of trolley. (see Figure 20)

### **⚠ WARNING ⚠**

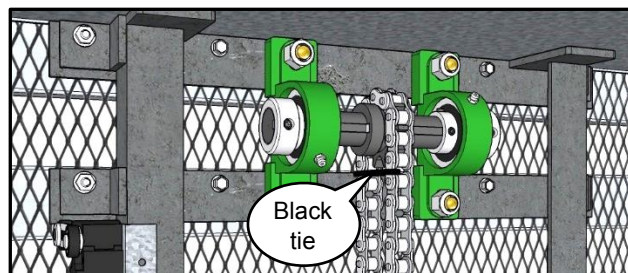
MAKE SURE THAT THE MASTER LINK IS FASTENED SECURELY! FAILURE TO DO SO COULD DAMAGE THE LIFT AND/OR CAUSE SERIOUS BODILY INJURY, LOSS OF LIMB, OR DEATH!

- 5** Some machines may have a trolley stop screwed to the track for shipping and installation. Support the trolley to remove stop and carefully lower the trolley down the track and discard stop. (see Figure 20)
- 6** The other end of the chain should hang down behind the trolley and be placed around the drive sprocket of the motor. Then insert the threaded adjusting bolt on the end of the chain into the hole on the bottom of the trolley where the adjusting nut is tied on. Use the adjusting nut to secure the adjusting bolt to the trolley. Use a blade screwdriver or needle nose pliers to hold chain from twisting and tighten adjusting nut until Nyloc nut is tightly seated against trolley. **Do not adjust Nyloc!** (see Figure 21)

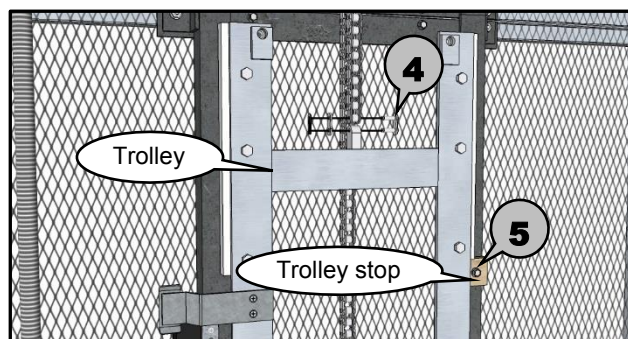
### **⚠ WARNING ⚠**

MAKE SURE THAT THE CHAIN IS COMPLETELY SEATED ON THE DRIVE SPROCKET! FAILURE TO DO SO COULD DAMAGE THE LIFT AND/OR CAUSE SERIOUS BODILY INJURY, LOSS OF LIMB, OR DEATH!

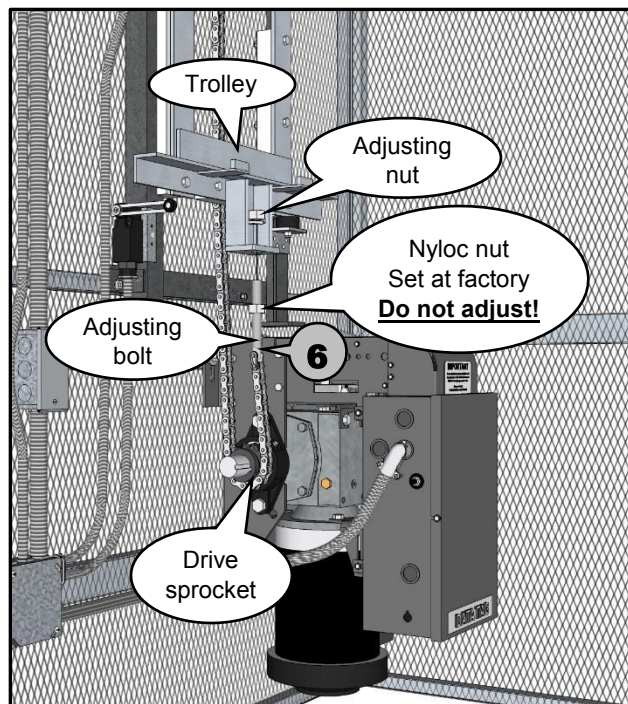
- 7** Cut black plastic tie off. (see Figure 19)



**Figure 19**



**Figure 20**



**Figure 21**

## **PART 4d**

### **Mezz 300 & 500 Lifts Only**

## **Gearbox Breather Installation - Motor on Top**

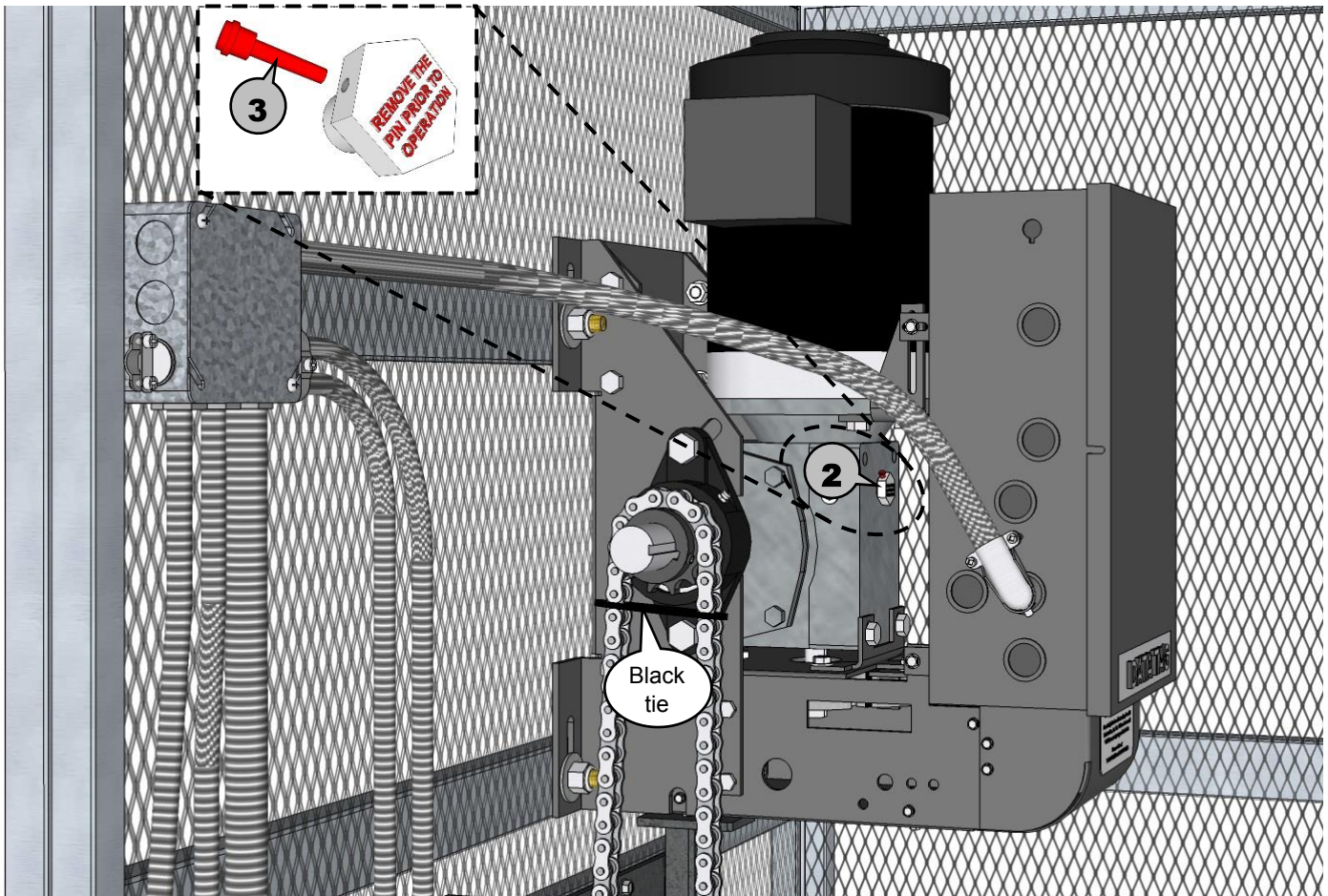
### **⚠ WARNING ⚠**

THE GEARBOX BREATHER PLUG MUST BE PROPERLY INSTALLED!!  
FAILURE TO DO SO COULD DAMAGE THE MOTOR AND VOID THE WARRANTY.

Once the lift sections are secured together and securely fastened to the floor and mezzanine structure or wall, install the gearbox breather plug if not already installed from the factory.

**Note:** If the breather plug is not installed it is shipped in a bag attached to a screw on the brake cover. (see Figure 15)

- 1** Remove the factory installed plug using either a 6mm Allen wrench or a 9/16" (14mm) socket.
- 2** Install breather plug hand tight or until the rubber "O" ring is seated snugly against the gear box.  
**Do not overtighten! (see Figure 22)**
- 3** Remove and discard red pin from breather plug.



**Figure 22**

## **PART 4e**

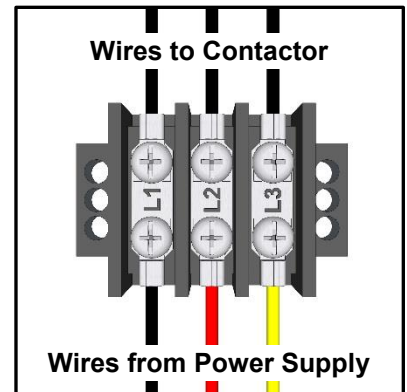
### **Mezz 300 & 500 Lifts Only**

### **3 Phase Motor Rotation - Motor on Top**

#### **⚠ WARNING ⚠**

THE ROTATION OF THE MOTOR MUST BE CHECKED BEFORE INSTALLING THE CHAIN!!  
FAILURE TO DO SO COULD DAMAGE THE LIFT AND VOID THE WARRANTY.

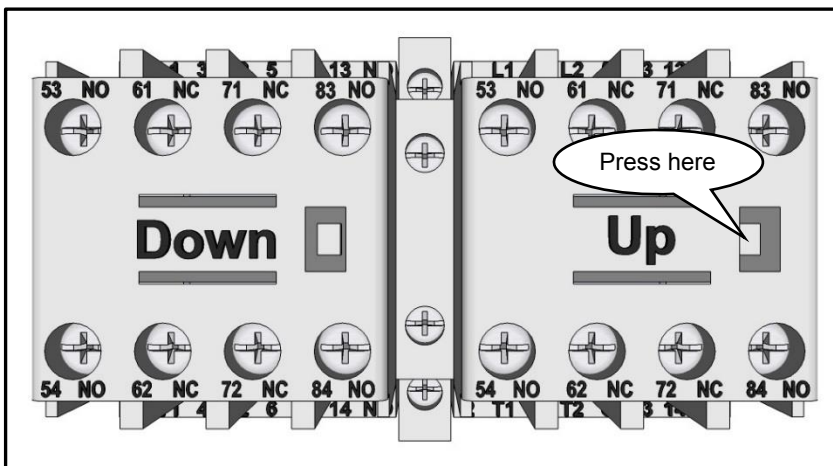
- 1 Have your certified electrician connect power to the 3 terminal T-bar and ground wire to grounding block. (see Figure 23)
- 2 To check the motor rotation, open the control box and locate the Down “D” and Up “U” contactor. (see Figure 24)
- 3 Watch the rotation of the sprocket when the up contactor is pressed. If the direction of rotation is not the same direction as shown in Figure 25, go on to Step 4. If the direction of rotation is the same as shown in Figure 25, go on to Step 5.
- 4 Swap 2 of the 3 incoming power supply wires and go back to Step 2. (For example move the wire from L3 to L2 and the wire from L2 to L3.)
- 5 Turn power supply off at breaker or label each power supply wire so that they may be disconnected from the T-bar and reconnected later to the correct terminal, then disconnect the three power supply wires from the T-bar.



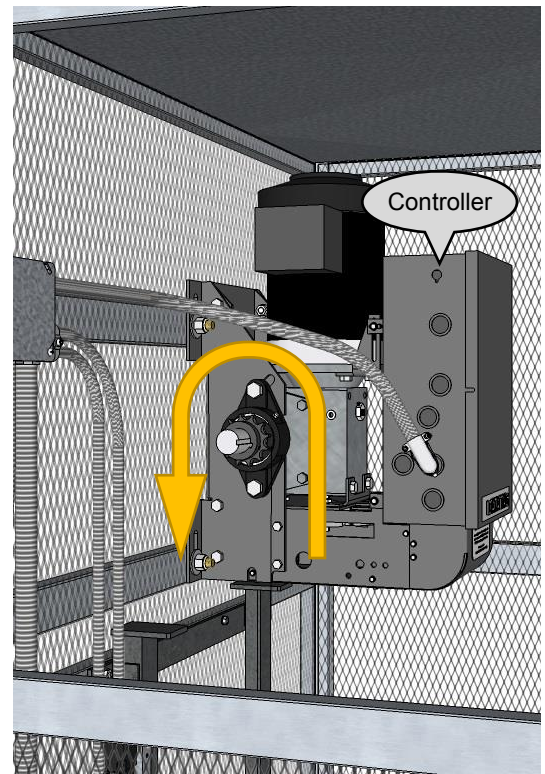
**Figure 23**

#### **⚠ WARNING ⚠**

A.C. POWER MUST BE TURNED OFF OR DISCONNECTED BEFORE CHAIN  
INSTALLATION! FAILURE TO DO SO COULD DAMAGE THE LIFT AND/OR  
CAUSE SERIOUS BODILY INJURY, LOSS OF LIMB, OR DEATH!



**Figure 24**

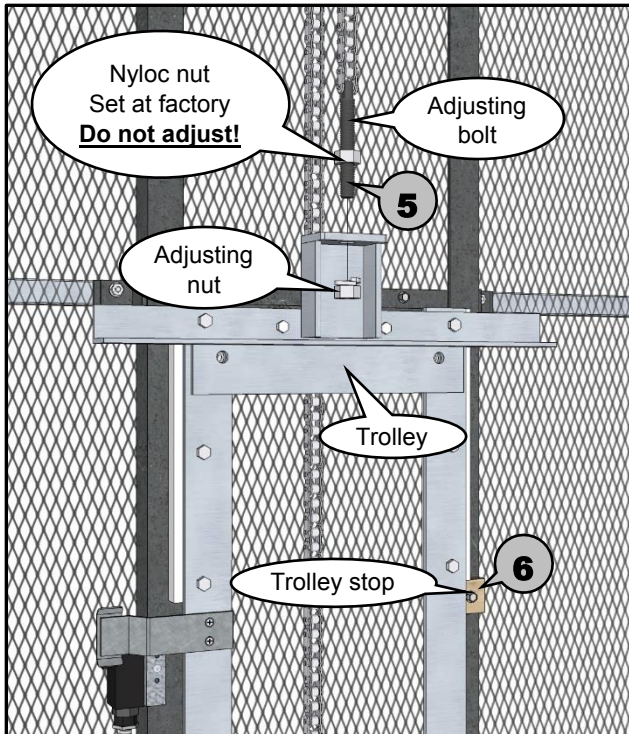


**Figure 25**

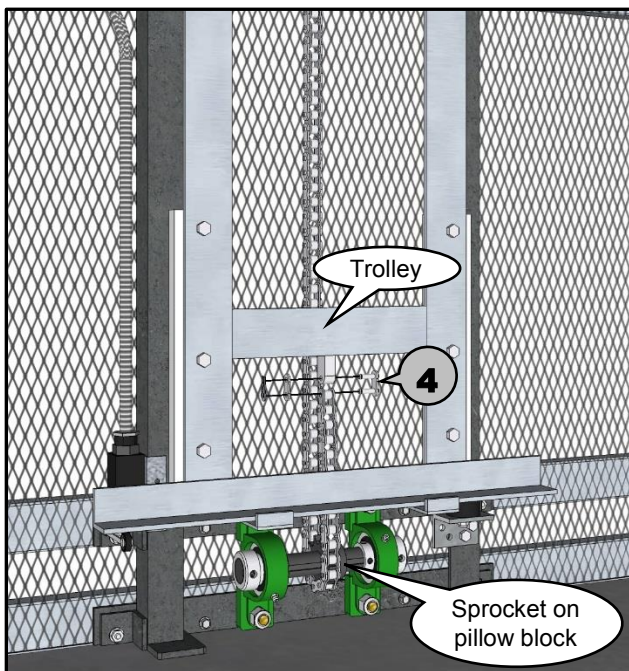
## **PART 4f**

### **Mezz 300 & 500 Lifts Only**

### **Chain Installation - Motor on Top Configuration**



**Figure 26**



**Figure 27**

### **⚠ WARNING ⚠**

**NEVER INSTALL CHAIN UNLESS A.C. POWER IS DISCONNECTED FROM LIFT! FAILURE TO DO SO COULD DAMAGE THE LIFT AND/OR CAUSE SERIOUS BODILY INJURY, LOSS OF LIMB, OR DEATH!**

- 1** If the chain is bundled and tied to the motor. Only cut the **white** plastic ties holding the chain bundle to the motor.
- 2** Cut the **white** plastic ties holding the chain to the motor shaft, one at a time, in the order they are labeled and carefully lower the chain to prevent tangling.  
**NOTE:** Do not cut the **black** plastic tie!  
(see Page 15, Figure 22)
- 3** Cut any remaining **white** plastic ties.
- 4** One end of the chain should hang down behind the trolley and be placed around sprocket on the pillow block. Then use provided master link, attached near the bottom of the trolley with a plastic tie, to connect chain to bottom end of trolley. (see Figure 27)

### **⚠ WARNING ⚠**

**MAKE SURE THAT THE MASTER LINK IS FASTENED SECURELY! FAILURE TO DO SO COULD DAMAGE THE LIFT AND/OR CAUSE SERIOUS BODILY INJURY, LOSS OF LIMB, OR DEATH!**

- 5** The other end of the chain with the adjusting bolt should hang down near the top of the trolley. Insert the threaded adjusting bolt, on the end of the chain, into the hole on the top of the trolley where the adjusting nut is tied on. Use the adjusting nut to secure the adjusting bolt to the trolley. Use a blade screwdriver or needle nose pliers to hold chain from twisting and tighten adjusting nut until Nyloc nut is tightly seated against trolley. **Do not adjust taped nut!** (see Figure 26)
- 6** Some machines may have a trolley stop screwed to the track for shipping purposes, and it should be removed at this time. (see Figure 26)
- 7** Cut black plastic tie off. (see Page 15, Figure 22)

# **PART 5**

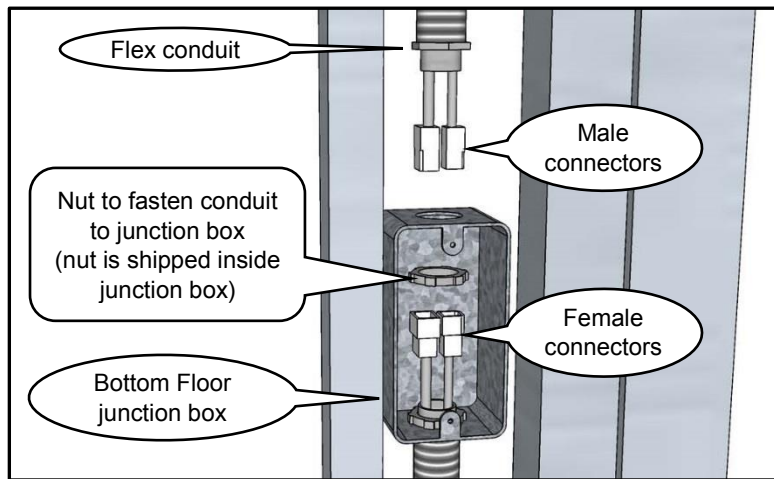
## **Wiring Track & Rail Assembly**

### **⚠ WARNING ⚠**

MAKE SURE A.C. POWER IS DISCONNECTED FROM LIFT!!  
FAILURE TO DO SO COULD DAMAGE THE LIFT AND/OR CAUSE SERIOUS  
BODILY INJURY, LOSS OF LIMB, OR DEATH!

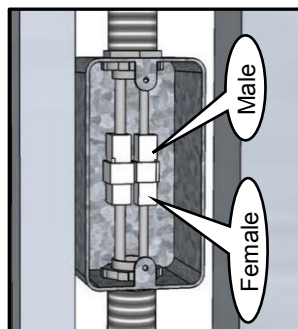
- 1** Lower flex conduit from top floor and connect to junction box at bottom floor. (see Figures 28 & 29)

**NOTE:** Check female connectors for metal shavings and clean them out if necessary.

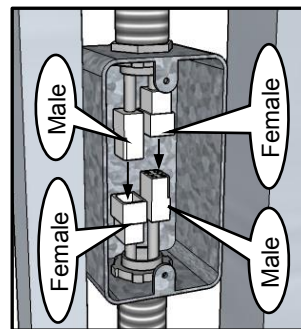


**Figure 29**

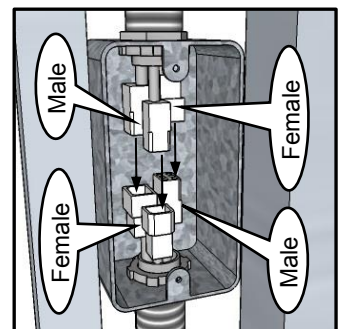
- 2** On 2-stop lifts, one set of wires has female connectors and the other set has male connectors. Match up each male and female connector and seat them firmly together. (see Figure 30)



**Figure 30**

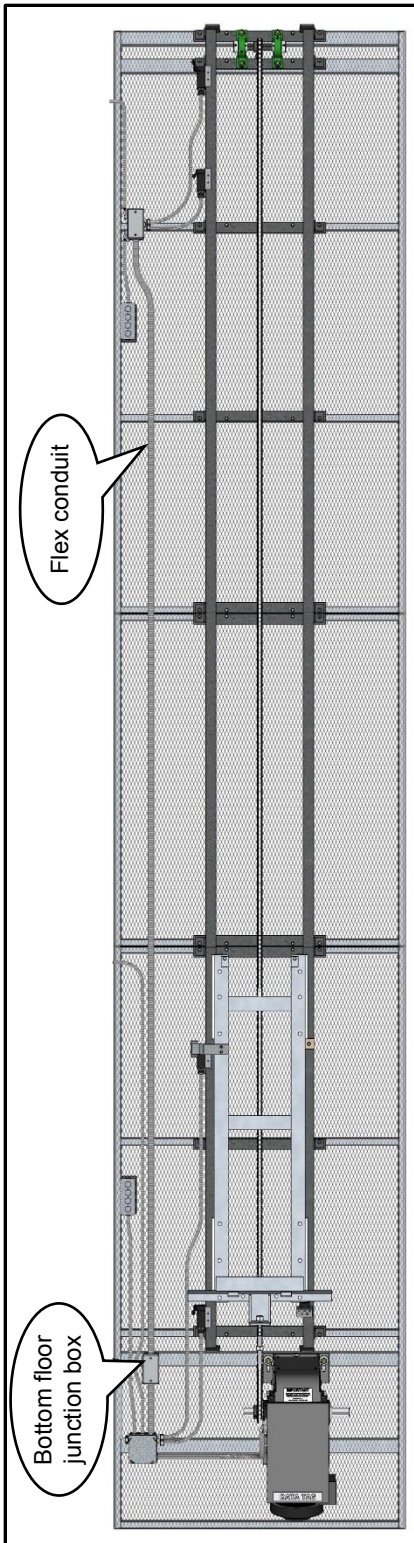


**Figure 31**



**Figure 32**

- 3** On 3-stop & 4-stop lifts, the wires dropping down will have male and female connectors as will the junction box. Make sure the male and female from above plug into the male and female from below. (for 3-stops see Figure 31) (for 4-stops see Figure 32)



**Figure 28**

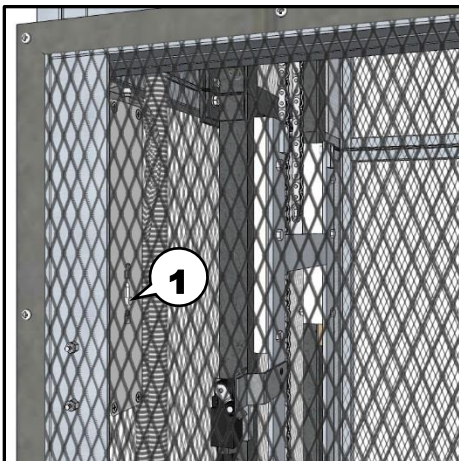
## **PART 6**

### **Installing the Mezzanine Lift Carrier**

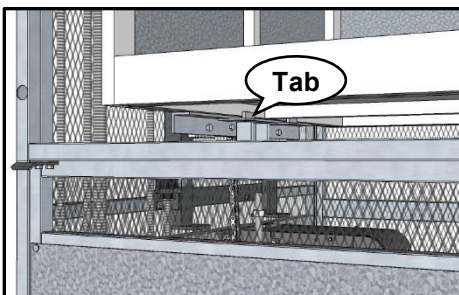
#### **⚠ WARNING ⚠**

**MAKE SURE A.C. POWER IS DISCONNECTED FROM LIFT!! FAILURE TO DO SO COULD DAMAGE THE LIFT AND/OR CAUSE SERIOUS BODILY INJURY, LOSS OF LIMB, OR DEATH!**

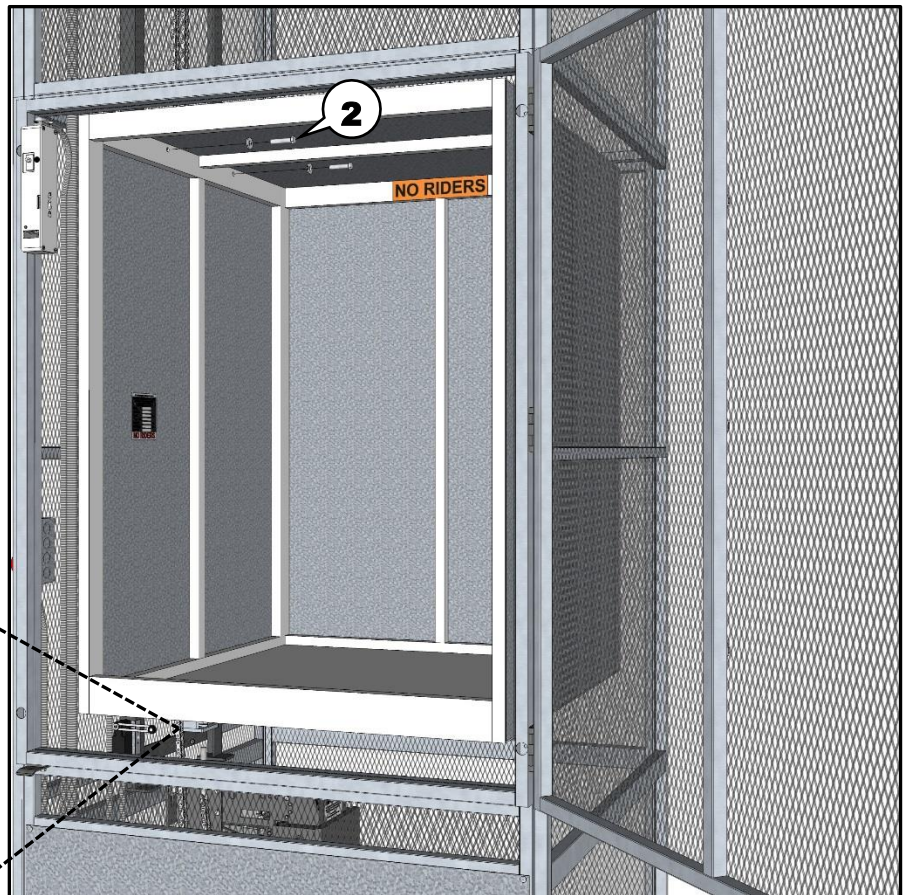
- 1** Open bottom floor door using a screw driver to manually release RDI door interlock as described on page 20. (see **Figures 33 & 36**)
- 2** Use provided bolts & washers (  $\frac{1}{4}$ "-20 x  $1\frac{3}{4}$ " for the 100, 200 & 300 ) (  $\frac{3}{8}$ "-16 x  $1\frac{3}{4}$ " for the 500 ) to secure the lift carrier to the trolley. (see **Figure 34**)
- 3** When positioning carrier on trolley, make sure the tabs are hooked under carrier as shown in **Figure 35**.
- 4** Turn on or reconnect the power. For 110V motors, use provided 3' (1.0 m) power cord to plug lift in to a dedicated 20A circuit. For 220V motors, have a certified electrician connect the controller power bus to your dedicated 20A circuit.



**Figure 33**



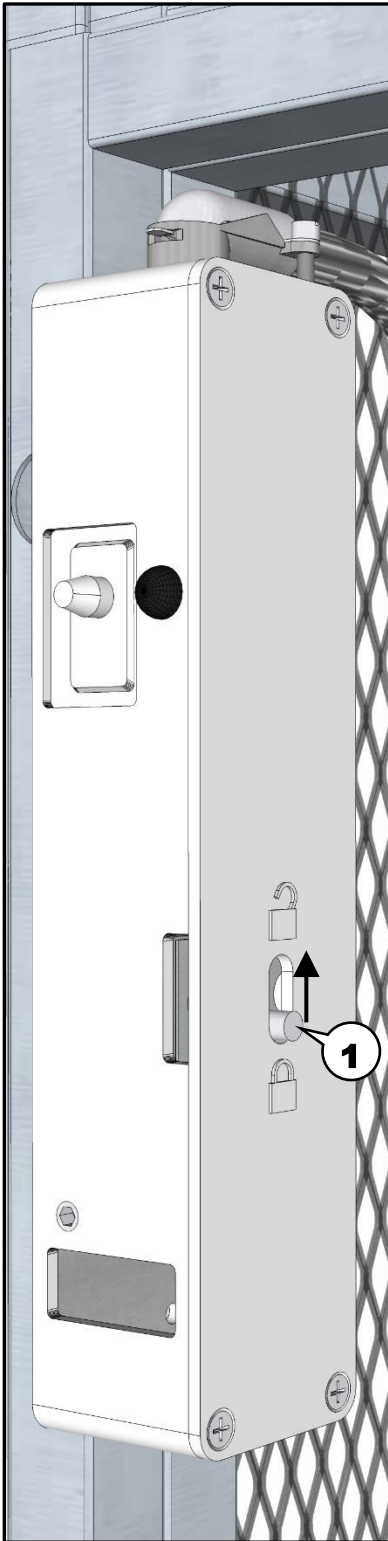
**Figure 35**



**Figure 34**

## **PART 7**

### **Lift Operation**



**Figure 36**

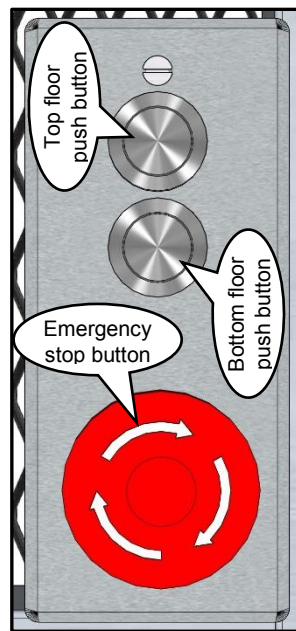
- 1** To manually release the Honeywell RDI door interlock use a screw driver or other long slender object to push the manual release up and open the door. (see Figures 33 & 36)

**NOTE:** The power does not need to be connected to manually release the door interlock.

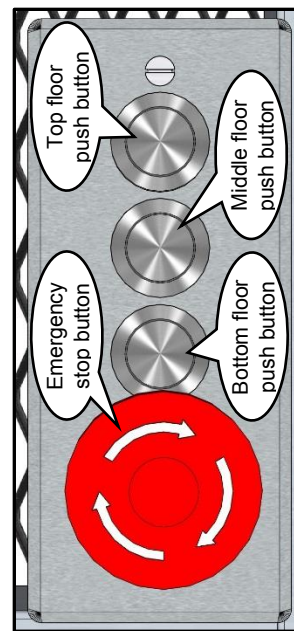
The lift will not operate with the door open.

#### **Lift Operation - ( Figures 36, 37, & 38 )**

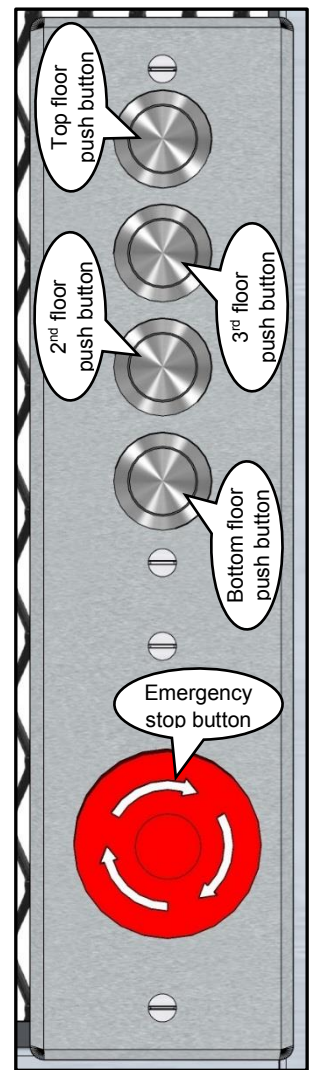
- To send the lift carrier to the top floor push in and release the top floor push button.
- To send the lift carrier to the bottom floor push in and release the bottom floor push button.
- To send the lift carrier to the middle floor, 2<sup>nd</sup> floor or 3<sup>rd</sup> floor, push in and release the appropriate push button.
- To stop the lift in an emergency push in the emergency stop button.
- To release the emergency stop button rotate the red button clockwise a quarter turn (90°), or until red button pops out.



**Figure 37**



**Figure 38**



**Figure 39**

**Blank Page for Your Notes**

This image shows a full page of white paper with horizontal grey ruling lines. The lines are evenly spaced and run across the width of the page, providing a template for handwriting practice or general writing. There are no margins, text, or other markings on the page.

# **Troubleshooting**

**The following instructions refer to the wiring diagrams on:**

Page 23 -- for 2-stop single phase machines  
Page 24 -- for 2-stop three phase machines  
Page 27 -- for 3-stop single phase machines

Page 28 -- for 3-stop three phase machines  
Page 29 -- for 4-stop single phase machines  
Page 30 -- for 4-stop three phase machines

**1 Verify that the dumbwaiter has a.c. power.**

- A. Check the circuit breaker to see if it has been tripped and reset breaker.
- B. Check the overload "Reset" button, on the side of the controller box, to see if it has popped out and reset it, if necessary, by pushing it back in.  
(for "Reset" location on Mezz-100 & 200 see Page 10, Figure 12)  
(for "Reset" location on single phase Mezz-300 & 500 see Page 12, Figure 14)  
(the "Reset" on three phase Mezz-300 & 500 is inside the controller)

**2 Check for 24 volts a.c. in control box.**

- A. Use a volt meter to test the low voltage side of the transformer. Connecting volt meter leads to the brown and yellow wires should show at least 24V a.c.
- B. Check lighted relays 1 & 2 to see if both relays are lit.
  - I. If relay 2 is lit and relay 1 is not, go on to step 3.
  - II. If both are out, check the 2 amp fuse mounted inside the control box on the side. It is best to remove the fuse and check for burn marks. Replace if blown.

**3 Test the safety circuit.**

- A. On terminal bar, for 2 stop machines, short out terminals 6 and 7. For 3 and 4 stop machines, short out terminals 1 and 2.
  - I. If relay 1 clicks, the safety circuit is not complete, go on to step 4.
  - II. If relay 1 is lit and does not click, check the connections to the push buttons.

**4 Manually moving lift carrier.**

- A. Verify all doors are closed and the lift carrier is not lower than the bottom floor opening or higher than the top floor opening.
  - I. If the lift carrier is not vertically out of alignment and still does not function, please call Powerlift Dumbwaiters, Inc.
  - II. If the lift carrier is vertically out of alignment, use the "UP" contactor to adjust the carrier up or use the "DOWN" contactor to adjust the carrier down.

## **⚠ WARNING ⚠**

**USING THE CONTACTORS TO MOVE THE LIFT CARRIER BYPASSES THE ENTIRE SAFETY CIRCUIT. HOLDING THE CONTACTOR IN COULD DAMAGE THE LIFT AND/OR CAUSE SERIOUS BODILY INJURY, LOSS OF LIMB, OR DEATH!**

**Contactor operation**

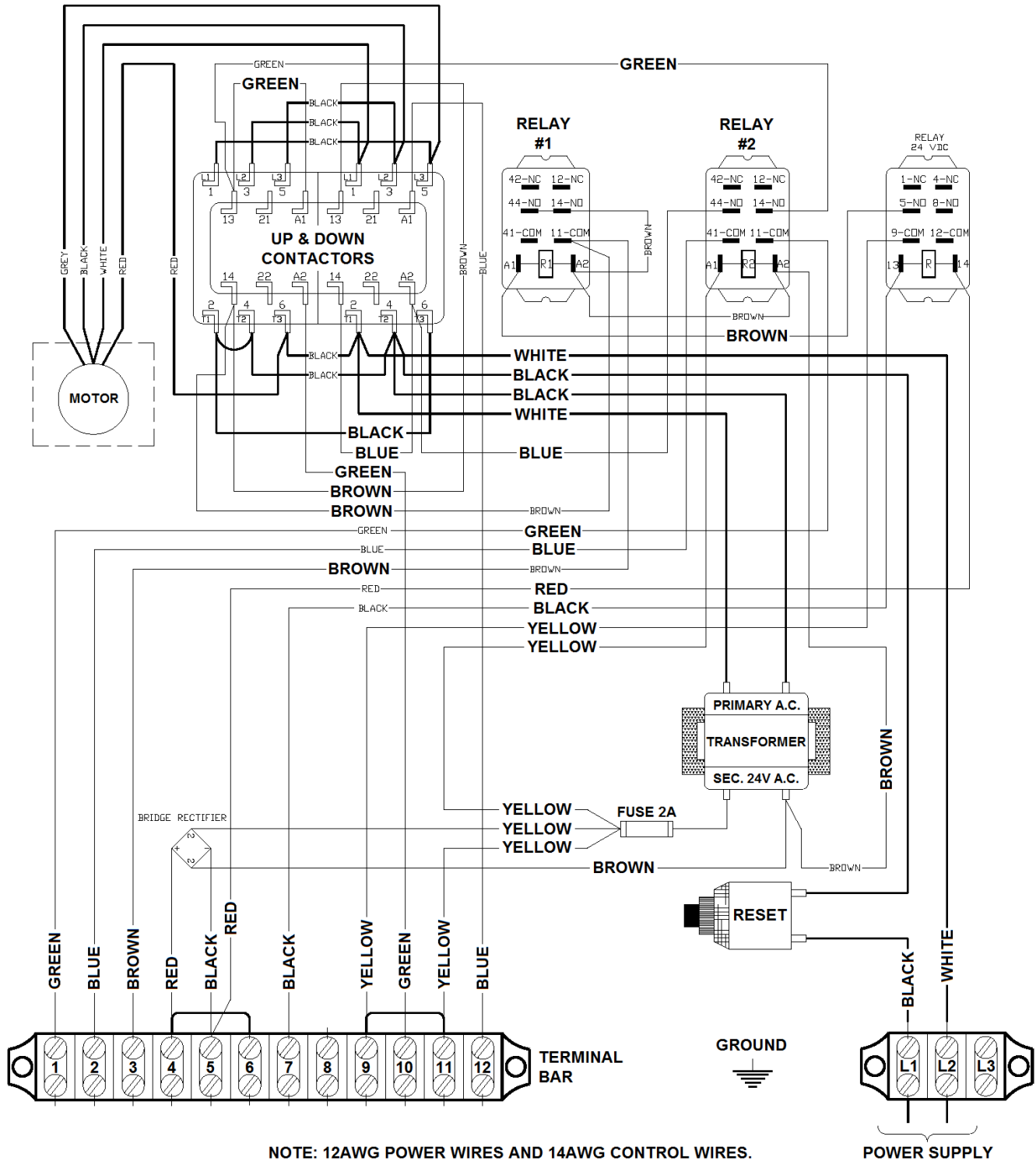
- With 2 stop machines, the contactor will stay in when pressed and the lift carrier will automatically go to the nearest floor when working properly. If the contactor does not stay in, there is a low voltage problem. Please call Powerlift Dumbwaiters, Inc.
- With 3 & 4 stop machines, the contactor will never stay in. If power is lost while the lift carrier is between stops, the contactors will work like a momentary contact switch, and may be used to bump the carrier up or down to the nearest floor. Once the carrier is aligned with an opening, the pc board will be reset and the lift should function properly.

**[www.dumbwaiters.com](http://www.dumbwaiters.com)**

**1-800-409-5438**

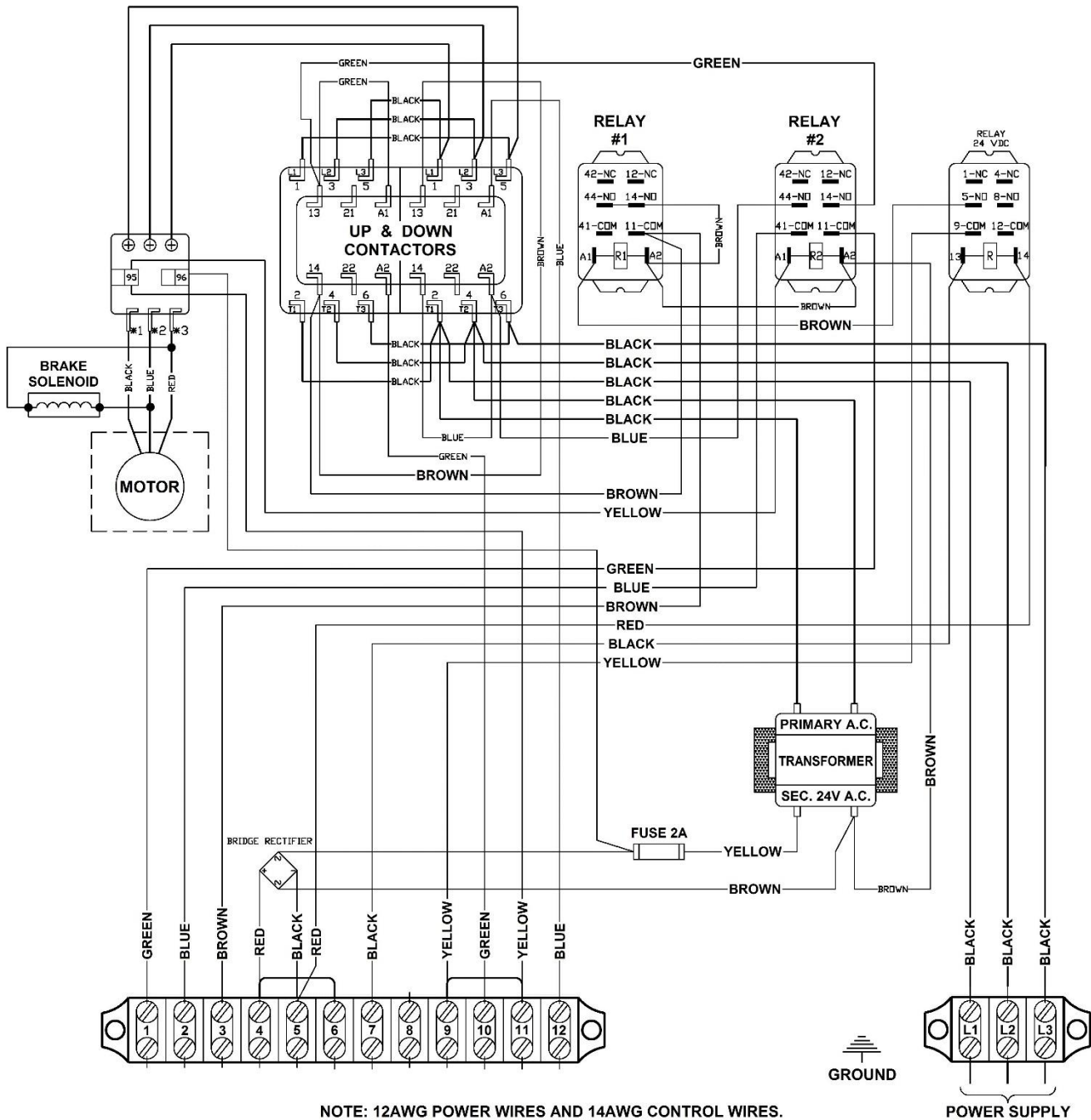
# Troubleshooting

## 2-Stop / Single Phase Controller Wiring Diagram



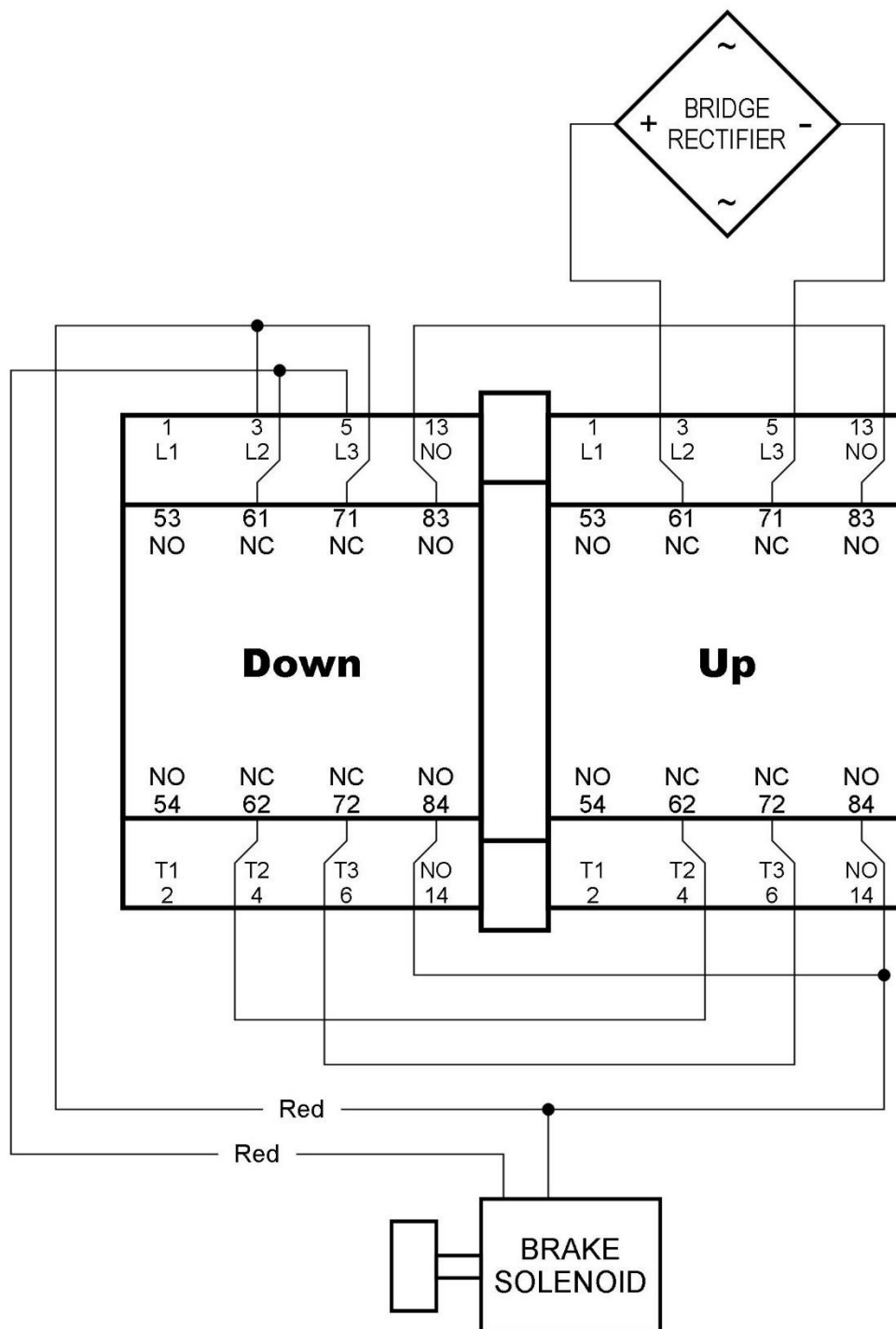
# Troubleshooting

## 2-Stop / Three Phase Controller Wiring Diagram



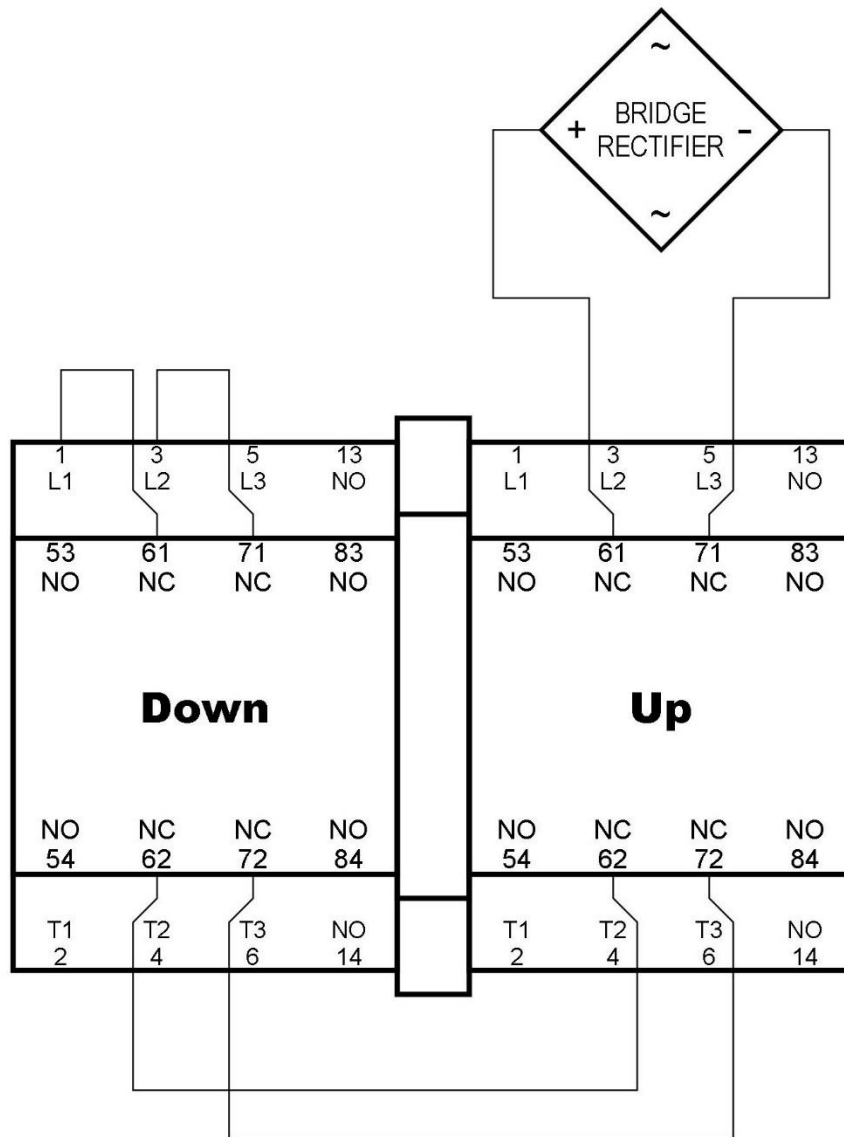
# Troubleshooting

## Single Phase Dynamic Brake Wiring Diagram

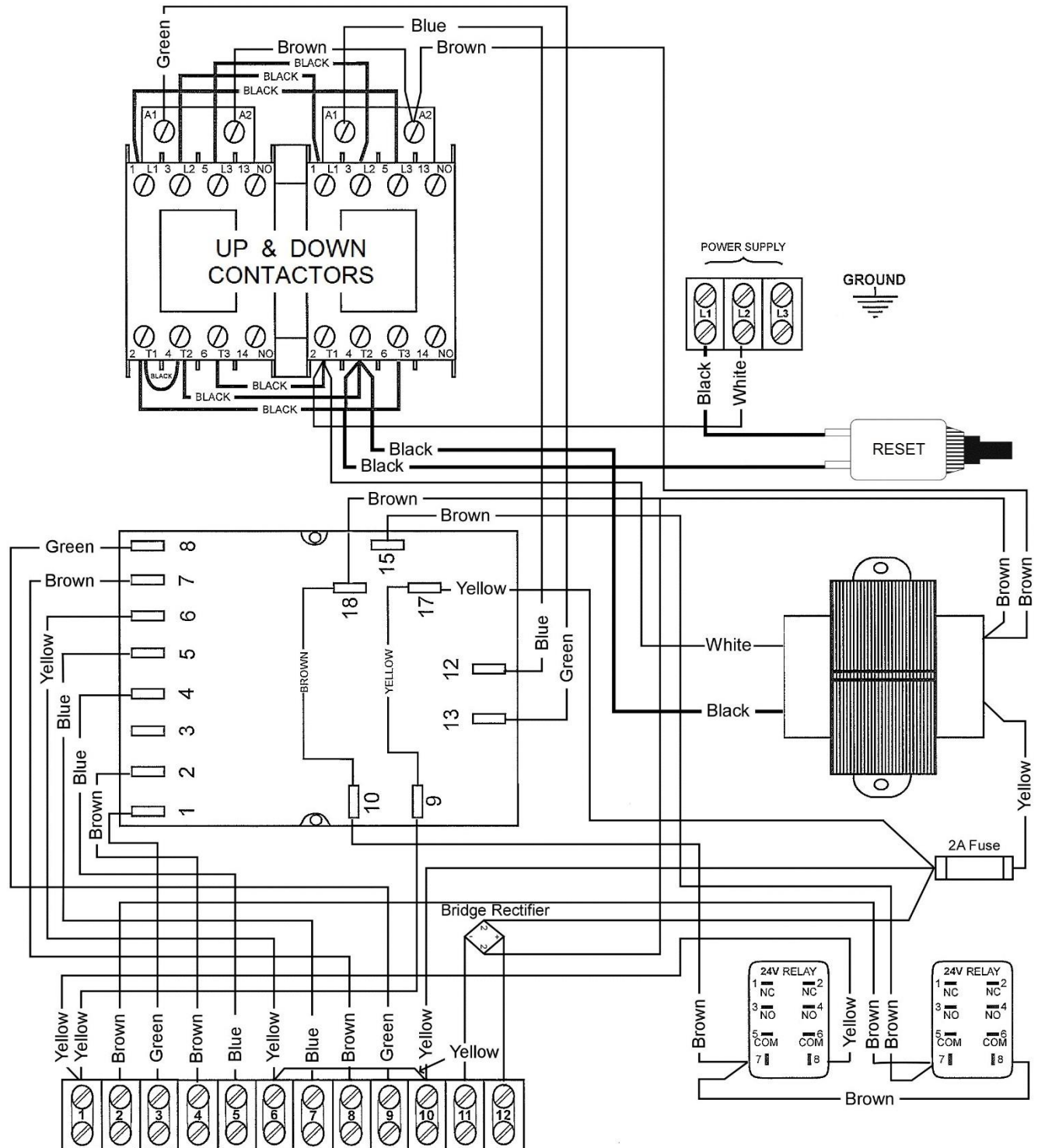


## Troubleshooting

### Three Phase Dynamic Brake Wiring Diagram

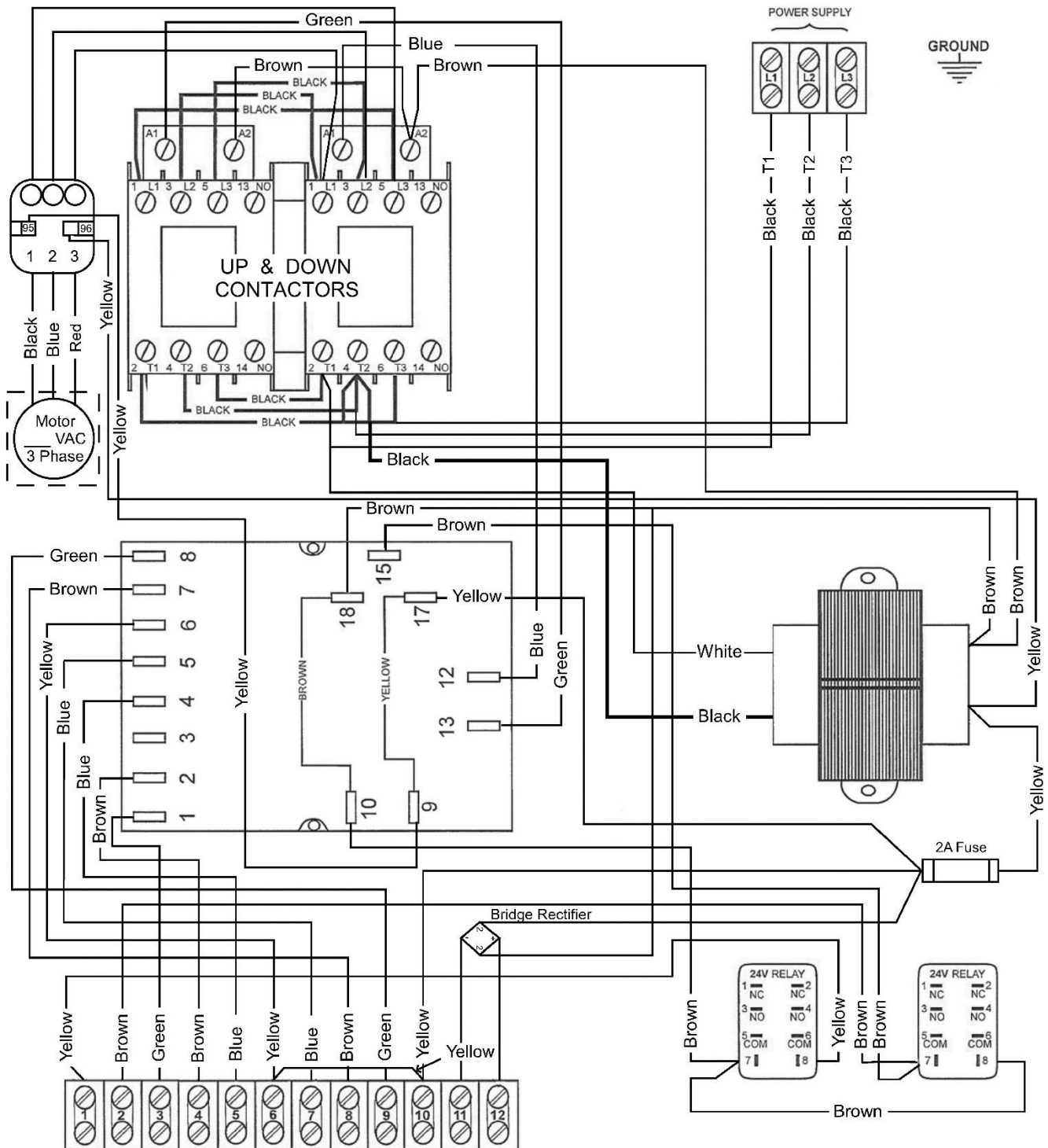


### **3-Stop / Single Phase Controller Wiring Diagram**



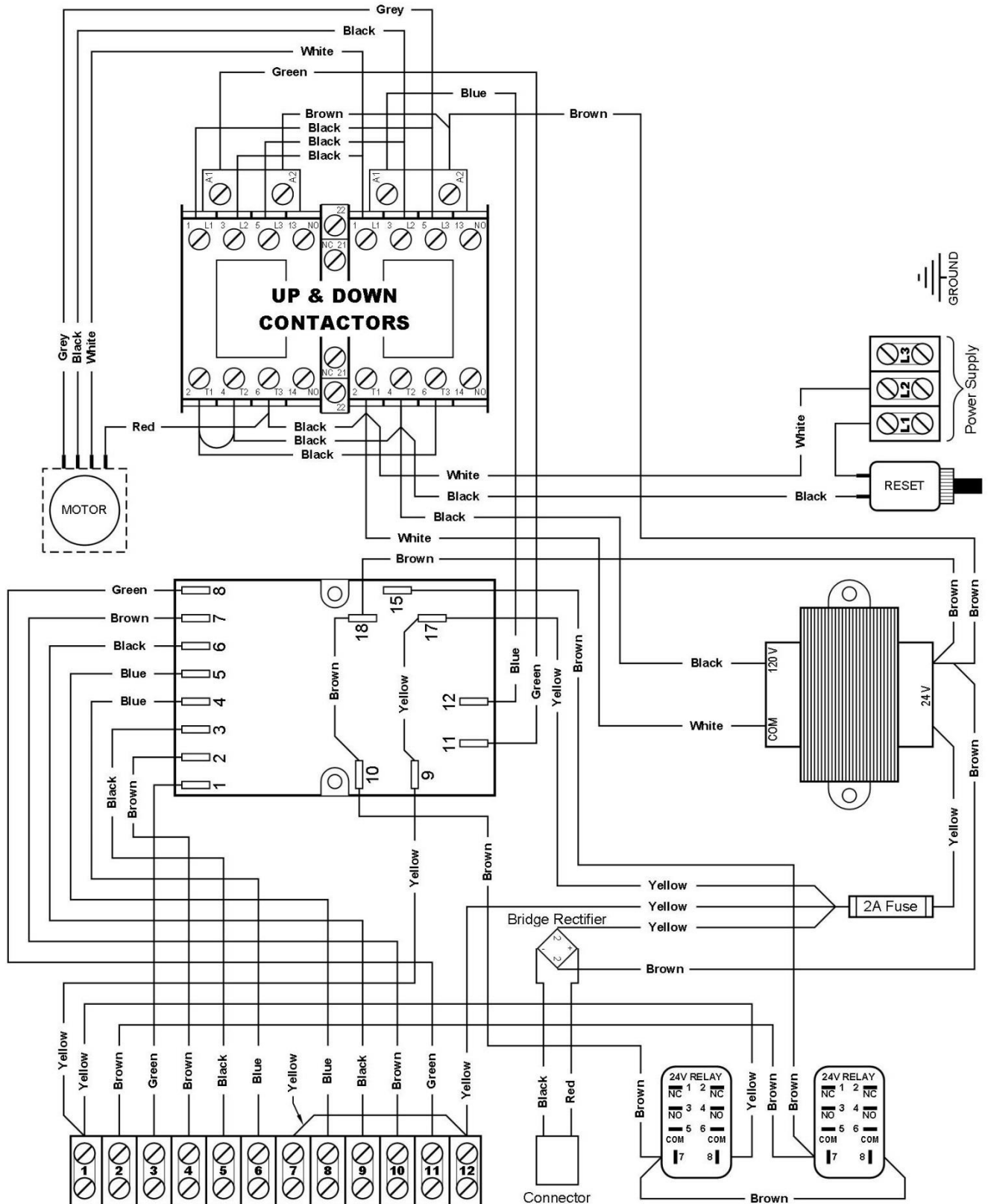
# Troubleshooting

## 3-Stop / Three Phase Controller Wiring Diagram



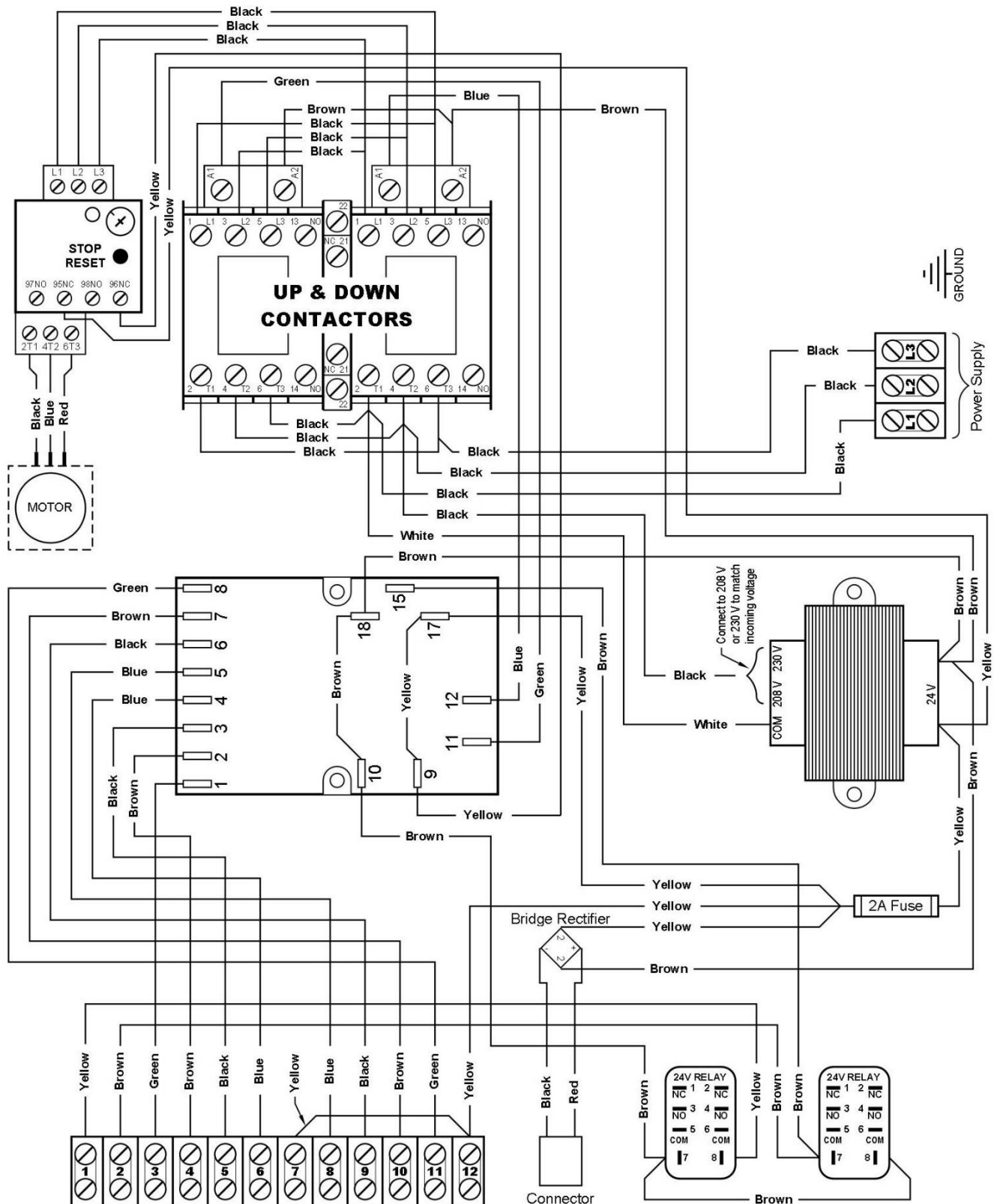
# Troubleshooting

## 4-Stop / Single Phase Controller Wiring Diagram



# Troubleshooting

## 4-Stop / Three Phase Controller Wiring Diagram



From all of us at  
Powerlift Dumbwaiters, Inc.  
Thank you for your business.  
May God bless you and your business.

**[www.dumbwaiters.com](http://www.dumbwaiters.com)**

**1-800-409-5438**