



by JH INDUSTRIES, INC.

SEL EOD Hydraulic Power Pack

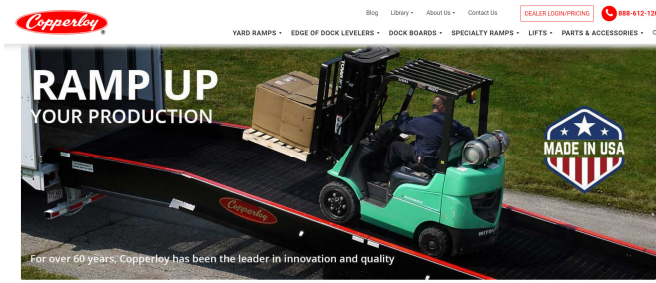


by JH INDUSTRIES, INC.
1981 E. AURORA RD.
TWINSBURG, OHIO 44087
PHONE: 1-800-321-4968

Check the following



- Replace breather cap with plug
- Check hydraulic oil level
- Hydraulic units are specific to voltage, make sure ordered voltage is the same as building voltage
- Hydraulic units only work with Copperloy model EOD's verify EOD is a Copperloy EOD
- Follow owner's manual before referring to this packet, visit www.copperloy.com for latest manuals and information
- EOD springs are to remain on unit, DO NOT REMOVE



Yard Ramps & Loading Dock Solutions

Made in the USA for 60 Years

Make quick work of loading and unloading with Copperloy yard ramps, edge of dock levelers and dock lifts. You'll find certified new and used dock equipment, as well as cost-effective rentals for short-term projects—all made in the USA at Copperloy's manufacturing facility in Twinsburg, Ohio.

Our mobile yard ramps create a loading and unloading area when dock space is at a premium. Dock lifts and lift tables also allow for loading operations where space is limited. Additionally, our edge of dock leveler offers an economical solution for loading and unloading trucks.

Choose a category below to find more about our loading dock solutions.





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SEL EOD Hydraulic Electrical Box

- Electrical boxes are specific to voltage and phase, (115VAC & 230VAC Single Phase, 208VAC, 230VAC & 460VAC 3-Phase)
- Installed correctly boxes are Nema 4x, 12 & 13 approved for wash down applications
- All electrical work must be done by a qualified technician and must meet all applicable codes
- This manual is only to be used as an aid in installation of the Copperloy SEL Model Edge of Dock



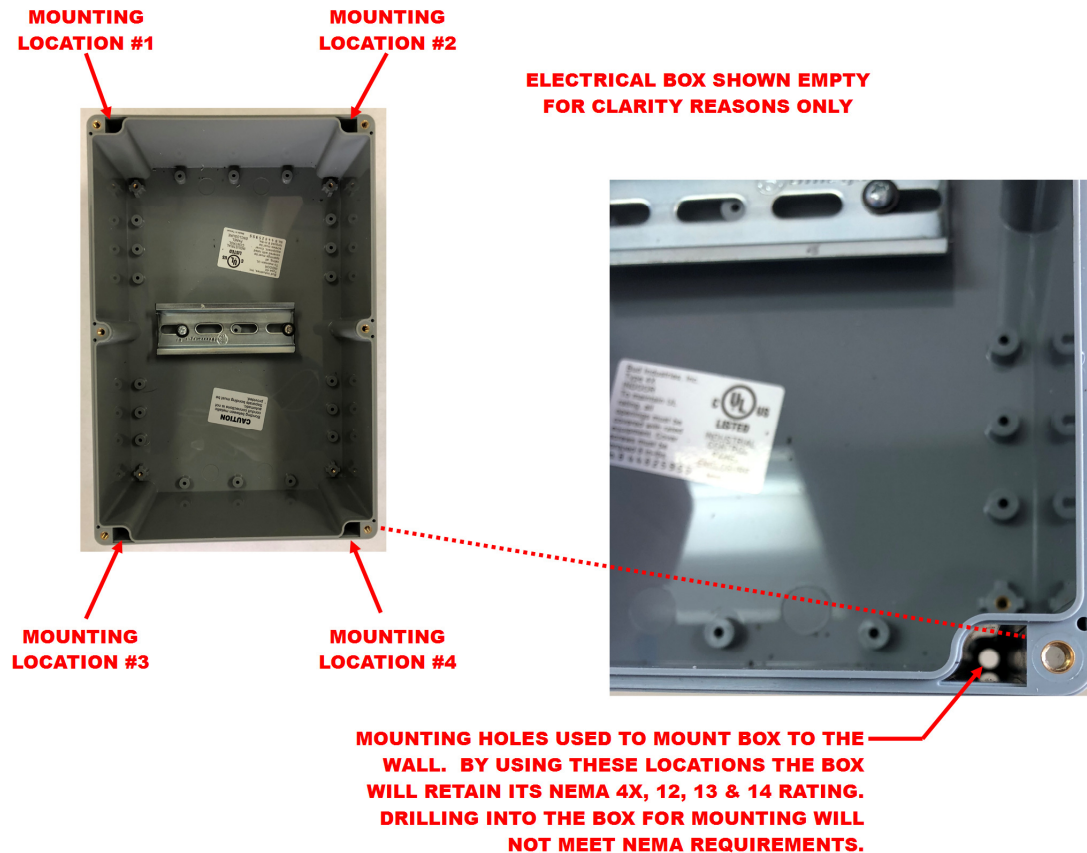


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Mounting Electrical Box to Wall

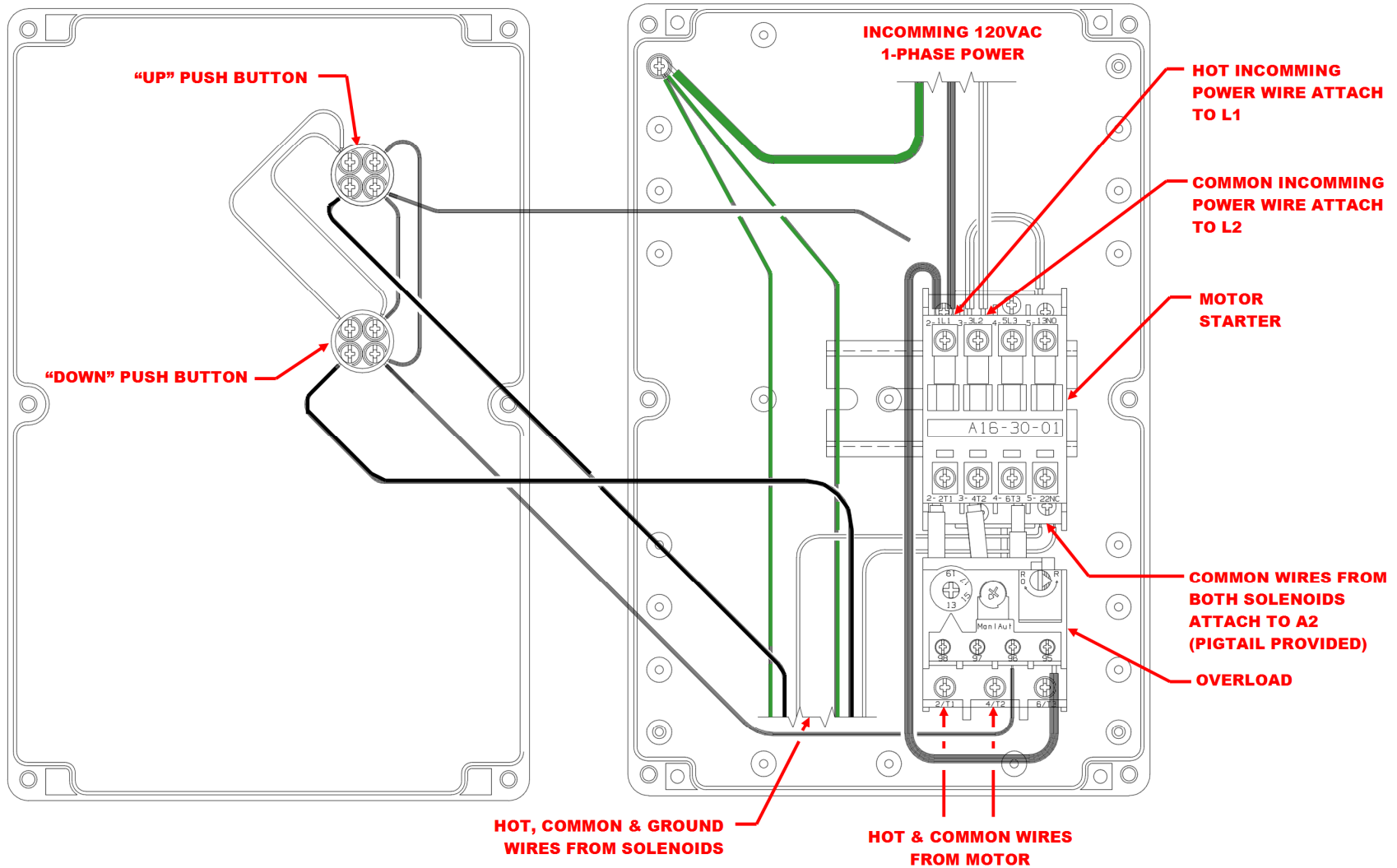
- Box designed to be mounted vertically with labels in correct orientation.
- Four #6-32 pan head screws or similar required to mount (Supplied by others)





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1-Phase Electrical Box





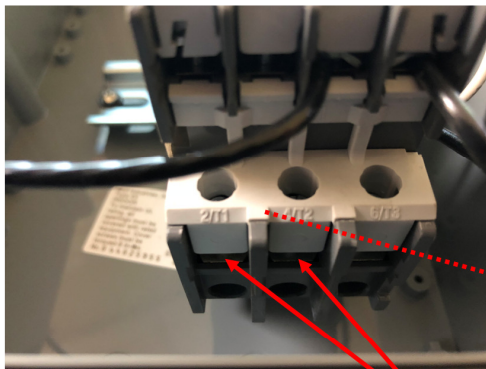
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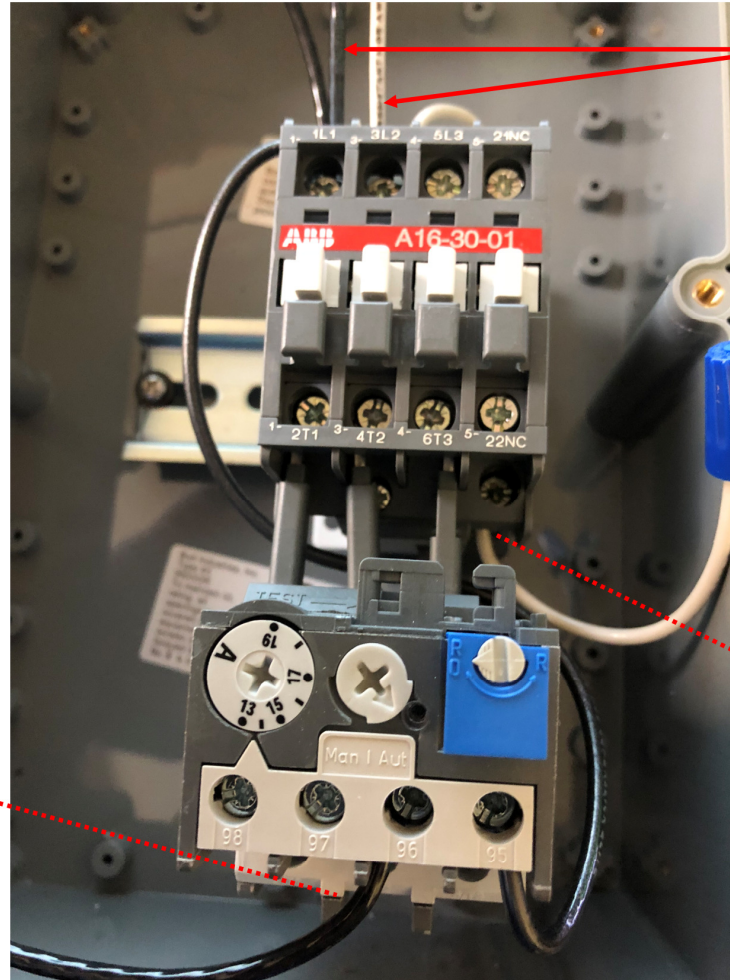
1-Phase Electrical Box as shipped



CONNECT HOT WIRE FROM EACH SOLENOID TO LOCATION 21 ON THE PUSH BUTTON. EACH SOLENOID WILL BE CONNECTED TO ONE PUSH BUTTON.

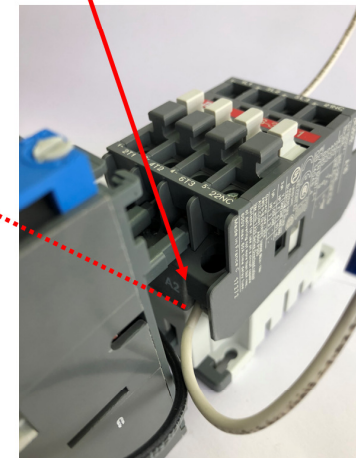


HOT & COMMON CONNECTION TO MOTOR. CONNECT LEADS TO T1 & T2 ON THE OVERLOAD AND CONNECT TO POWERPACK MOTOR.



FACTORY PROVIDED PIGTAILS FOR HOT & COMMON CONNECTIONS TO INCOMING POWER. REMOVE PROVIDED WIRES AND CONNECT INCOMING POWER TO L1 AND L2 ON CONTACTOR.

FACTORY PROVIDED PIGTAIL FOR COMMON WIRE CONNECTION FROM SOLENOIDS. CONNECTED TO A2 ON THE CONTACTOR AS SHOWN.

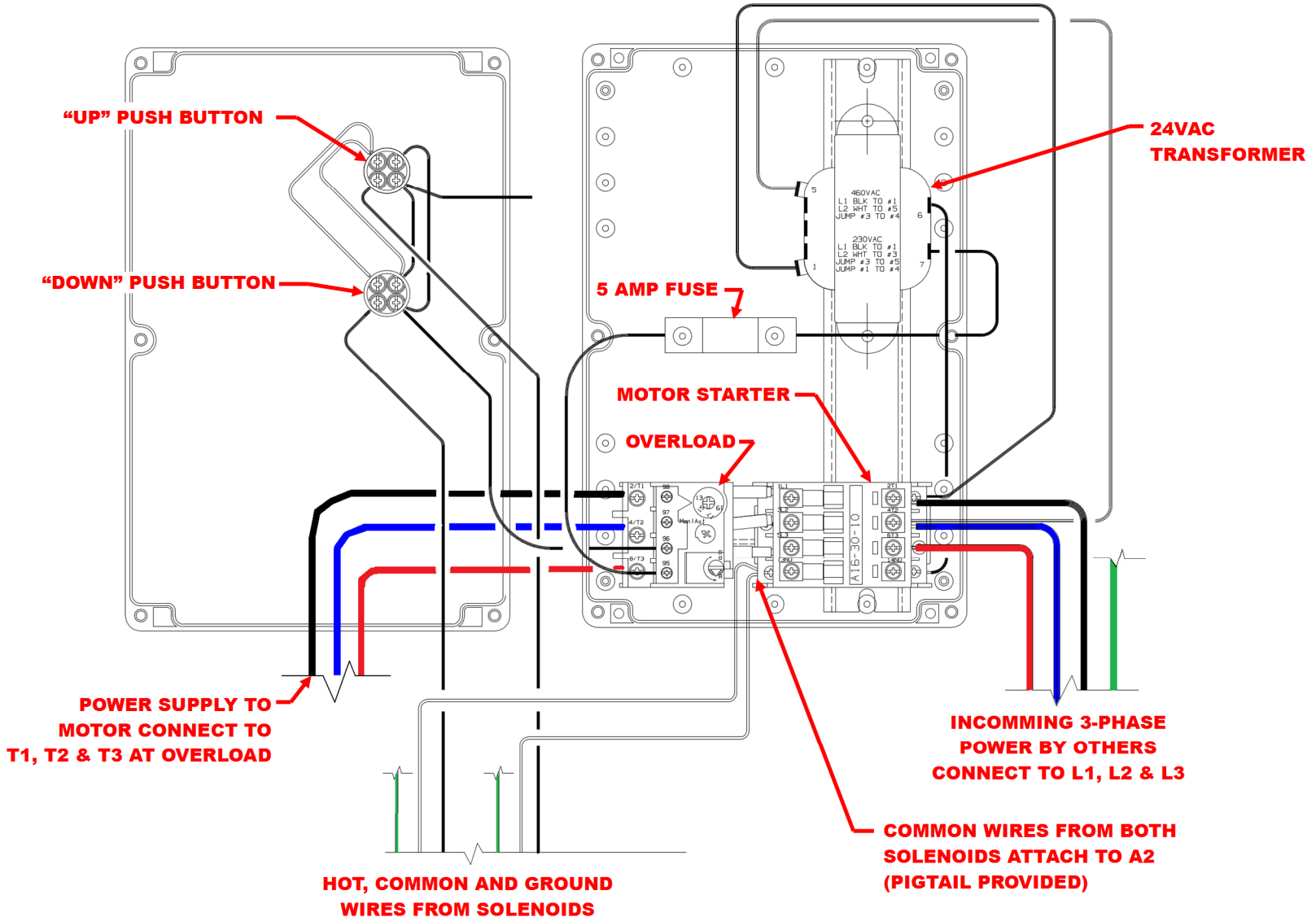




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3-Phase Electrical Box

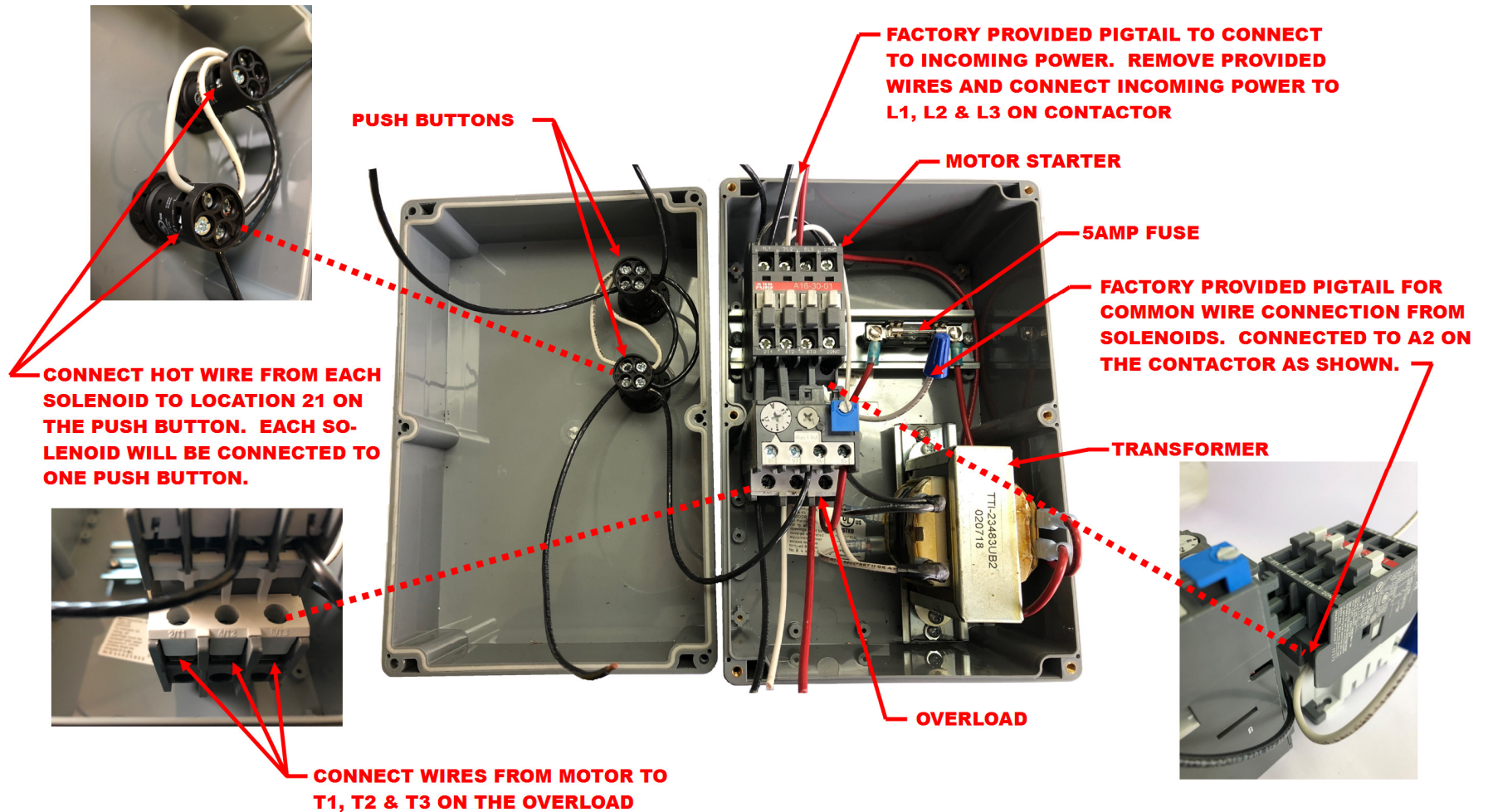




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3-Phase Electrical Box as shipped





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Possible Installation Issues

Before calling factory please review the following slides

- Motor does not turn (*Slides 9-20*)
- EOD does not raise or lower (*Slides 21-25*)
- Linkage does not engage (*Slides 26-27*)
- “UP” Button and “DOWN” Button are switched (*Slide 28*)



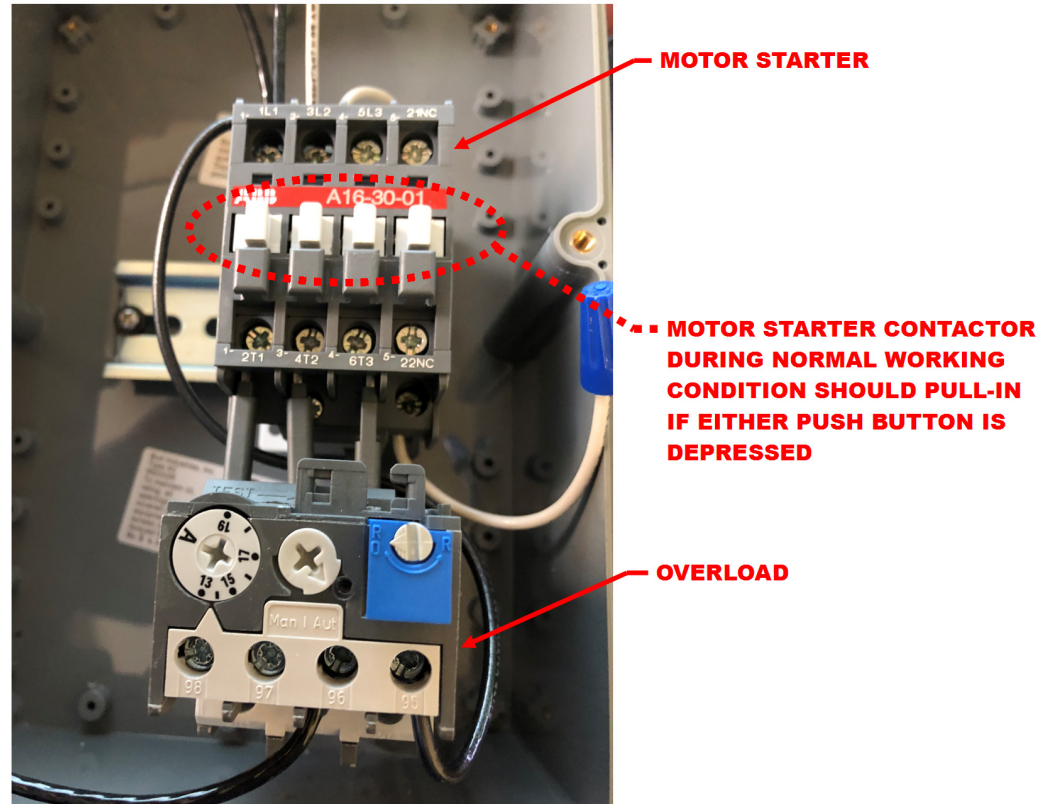
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Motor does not turn

Does Motor Starter
Contactor pull-in when
either push button is
depressed?

If **YES**: Continue to next
slide

If **NO**: See slides 16-20



Contactors Pulls-in

See following slides if motor does not turn and contactor is pulling in when either push button is depressed



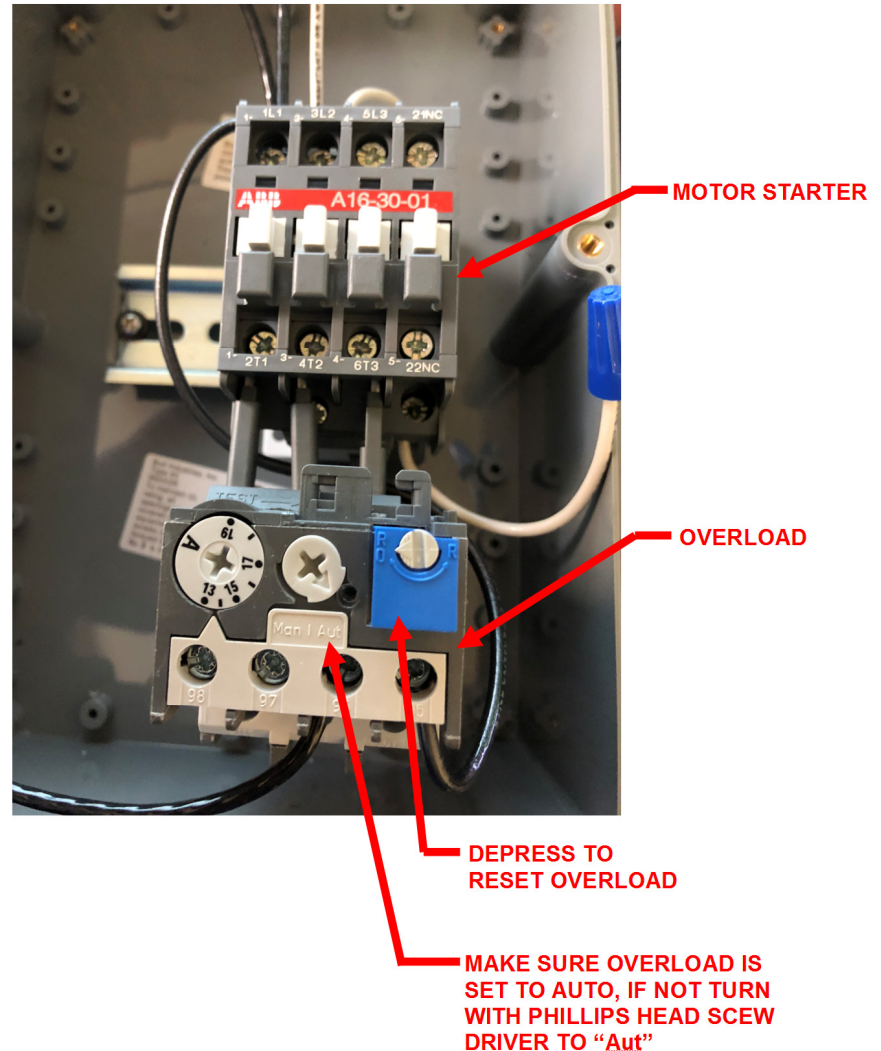
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Motor does not turn (Motor starter contactor pulls-in)

- Check overload and make sure it is not “tripped” Make sure overload is set to “Aut” automatic reset. Depress blue button on right side of overload

If Motor does not turn:
Continue to next slide

If Motor Turns: Continue installation





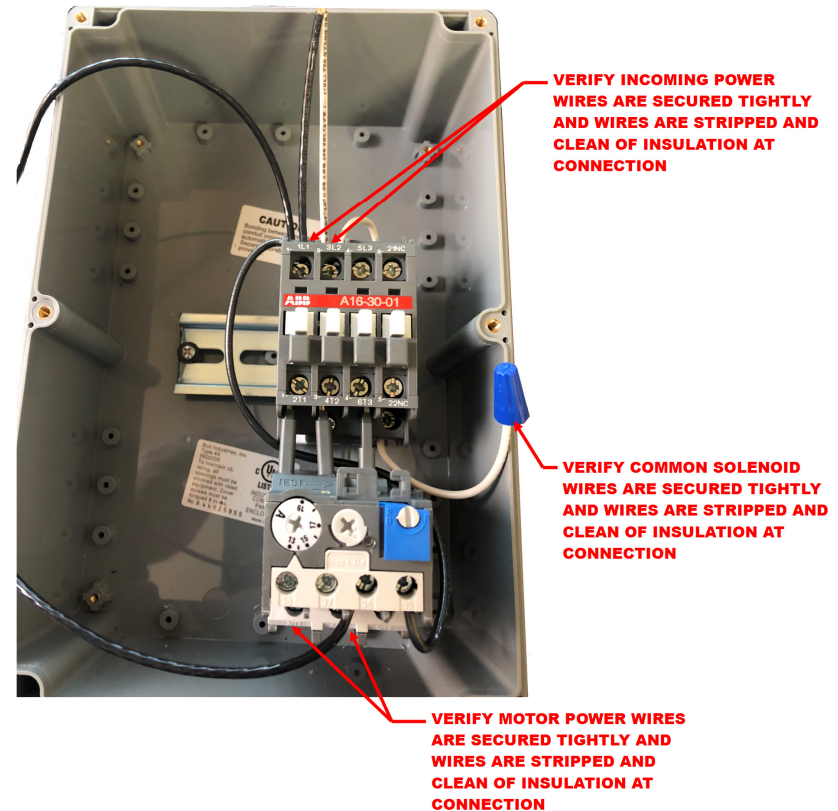
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Motor does not turn (Motor starter contactor pulls-in)

- Make sure all wire connections are secured tightly and no insulation interferes with the connection

If Motor does not turn:
Continue to next slide

If Motor Turns: Continue installation





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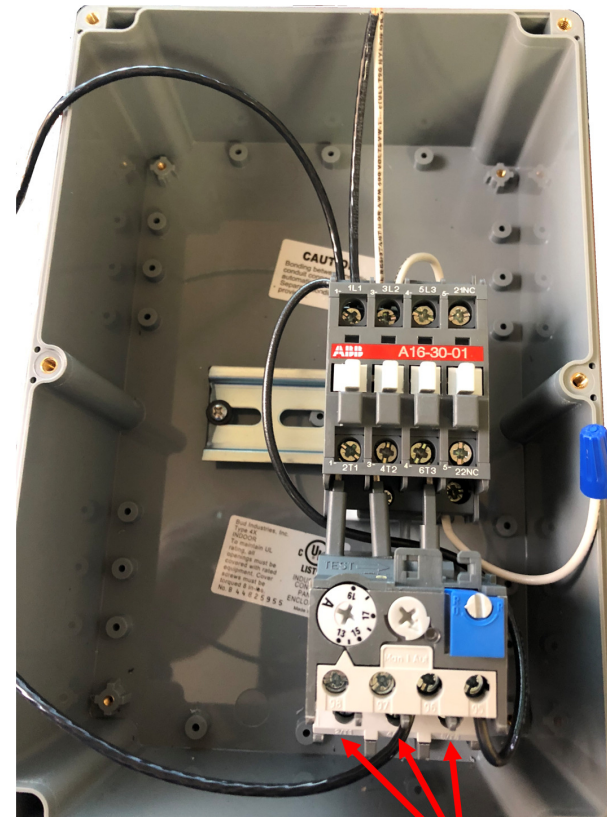
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Motor does not turn (Motor Starter contactor pulls-in)

- Verify the voltage at terminals T1, T2 and T3 (3-Phase). Check voltage with a meter

If No Voltage: Contact factory

If Correct Voltage: Continue to next slide



WITH A METER CHECK VOLTAGE AT T1, T2 & T3 (3-PHASE) ON OVERLOAD. MAKE SURE VOLTAGE IS GOING THROUGH MOTOR STARTER & OVERLOAD



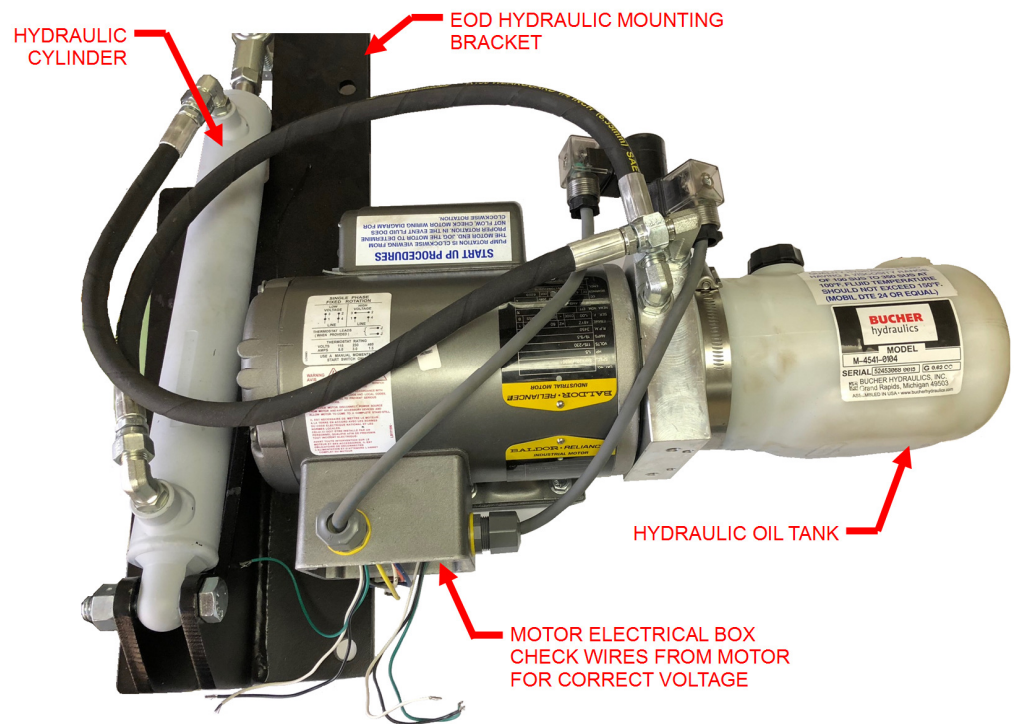
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Motor does not turn (Motor Starter contactor pulls-in)

- Check voltage with meter at motor. Verify the correct incoming voltage at the motor.

If No Voltage: Check wiring & connections at motor or overload. Verify continuity in wires between overload and motor and repair as needed.

If Correct Voltage: Continue to next slide





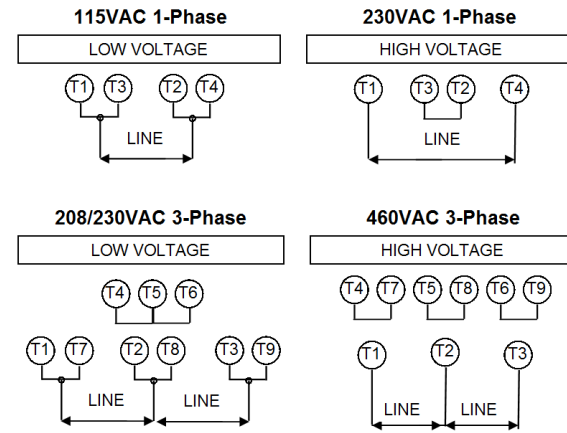
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Motor does not turn (Motor Starter contactor pulls-in)

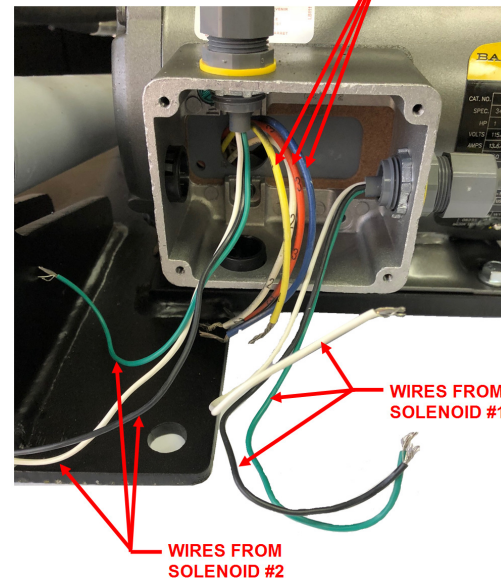
- Verify motor is wired for correct voltage. Make sure all wire connections are secured tightly and no insulation interferes with the connection.

If Motor Turns: Continue installation

If Motor does not turn: Contact Factory



WIRES FROM MOTOR (1-PHASE SHOWN) MAKE SURE MOTOR IS WIRED FOR CORRECT VOLTAGE



Contactors does not pull-in

See following slides if motor does not turn and contactor is not pulling in when either push button is depressed



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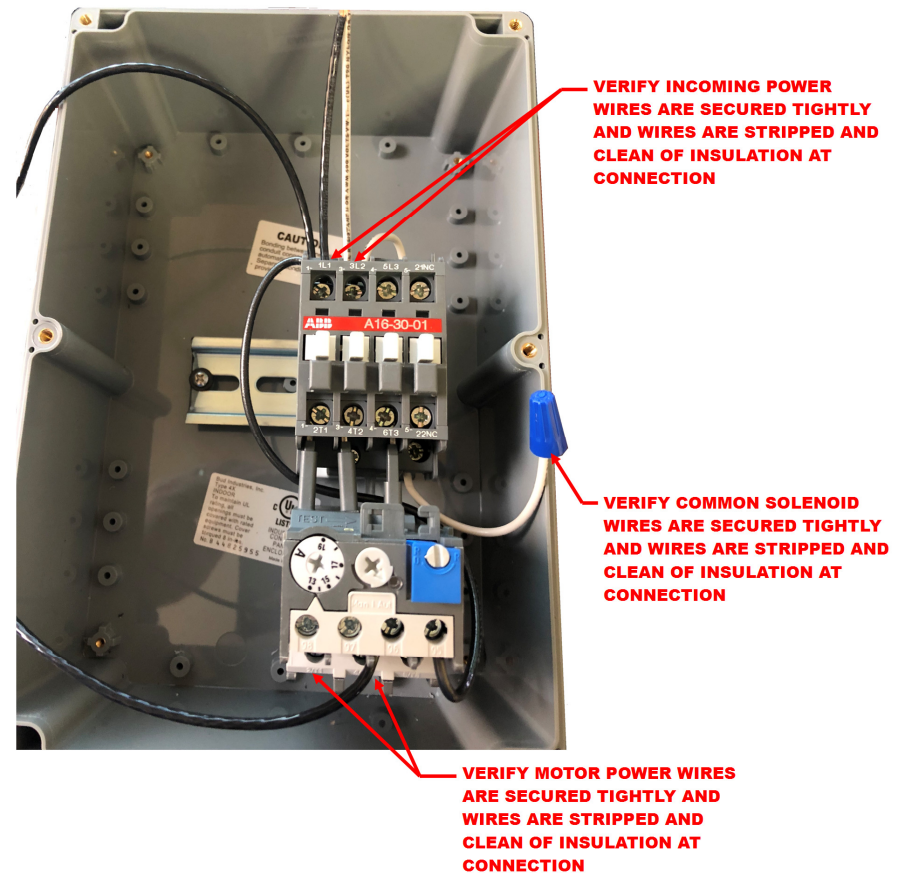
Motor does not turn

(Motor starter contactor does not pull-in)

- Verify incoming power voltage matches the voltage of the EOD power unit and verify voltage with a meter
- Make sure common solenoid wires are secured tightly and connected to "A2" on the motor starter

If Voltage is incorrect:
Correct voltage

If Voltage is correct:
Continue to next slide



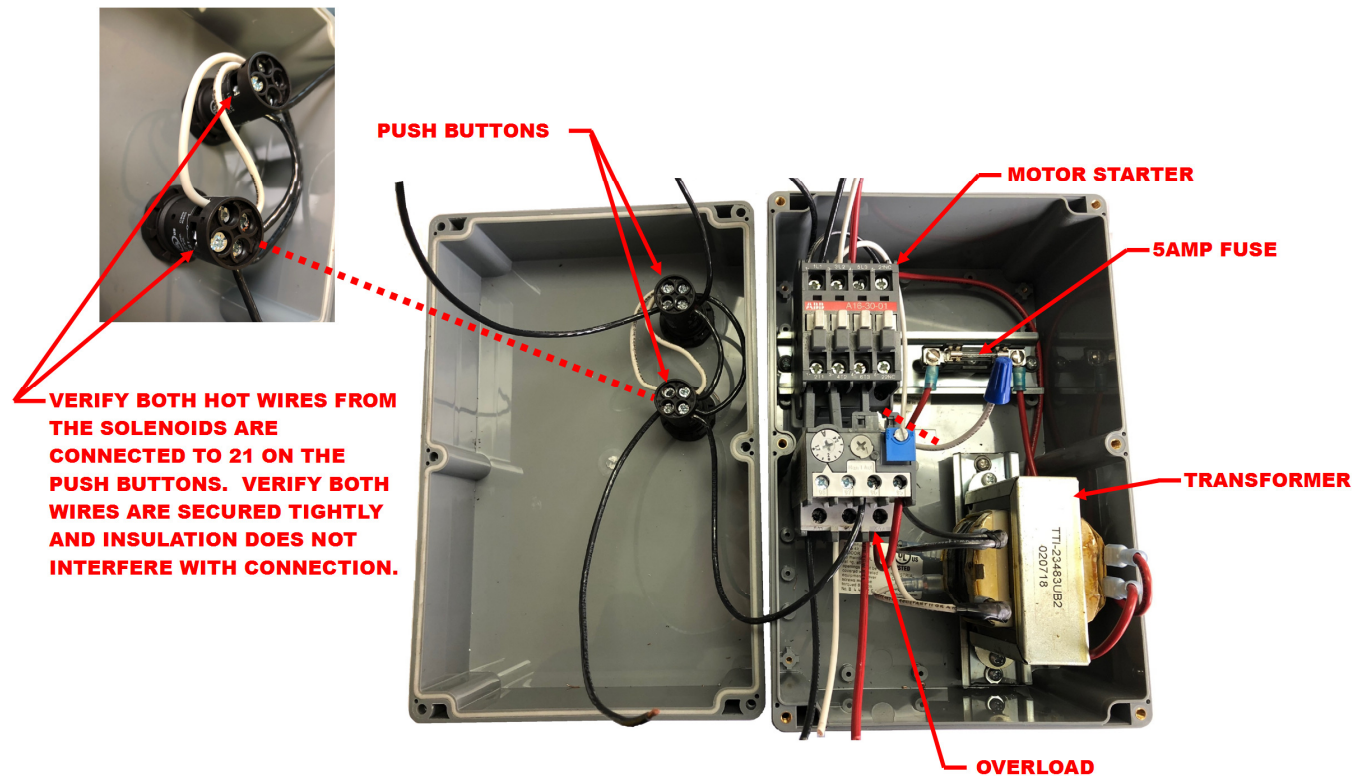


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Motor does not turn

(Motor starter contactor does not pull-in)

- Make sure both hot solenoid wires are secured tightly and connected to “21” on the push buttons. One solenoid connected to only one push button.





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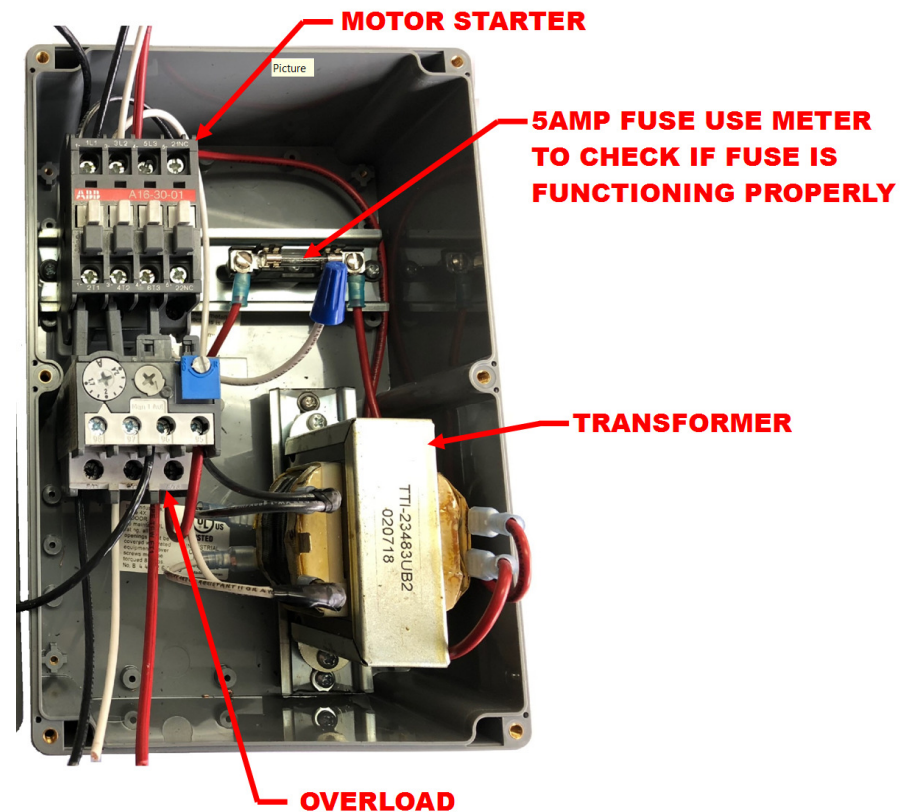
Motor does not turn (3-Phase only)

(Motor starter contactor does not pull-in)

- For 3-phase models only, check the 5amp fuse. Use a meter to make sure the fuse has continuity through and is not broke.

If Fuse is bad: Replace

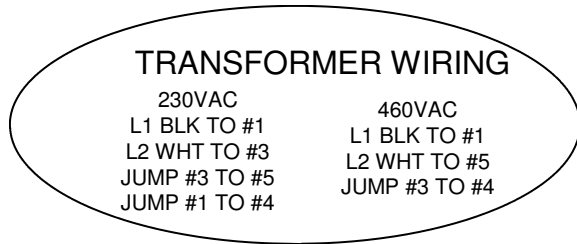
If Fuse is ok: Continue to next slide



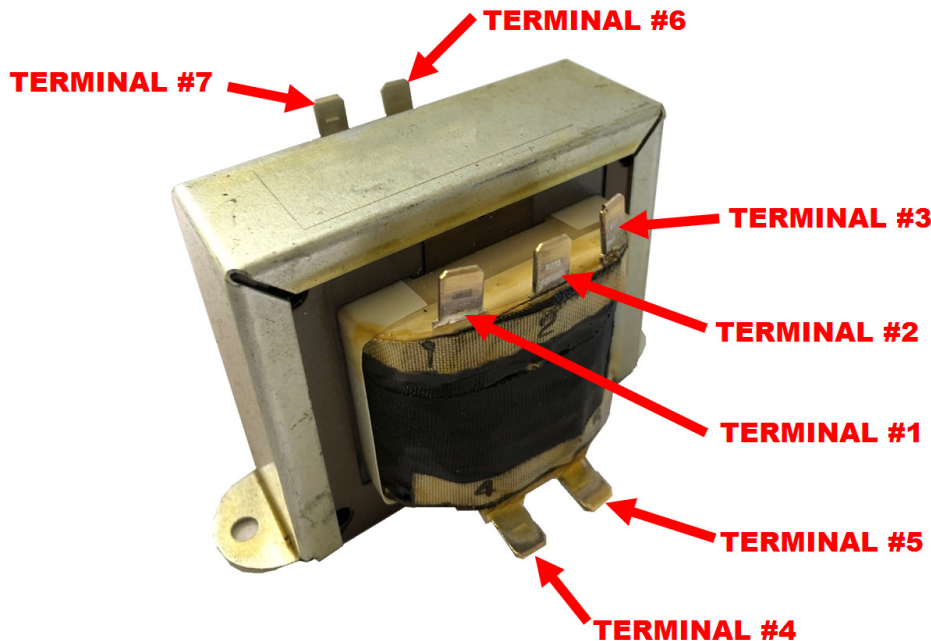


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Motor does not turn (3-Phase only) (Motor starter contactor does not pull-in)



- Verify transformer is outputting correct voltage. All standard transformers output 24VAC. For 230VAC supply voltage check terminals #1 and #3. For 460VAC supply voltage check terminals #1 & #5.



*If Voltage is incorrect:
Correct voltage*

*If Voltage is correct:
Contact Factory*



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EOD does not raise or lower

- Verify adequate amount of hydraulic oil, fill if required



If *EOD* operates properly: Continue installation

If EOD does not raise or lower: Continue to next slide



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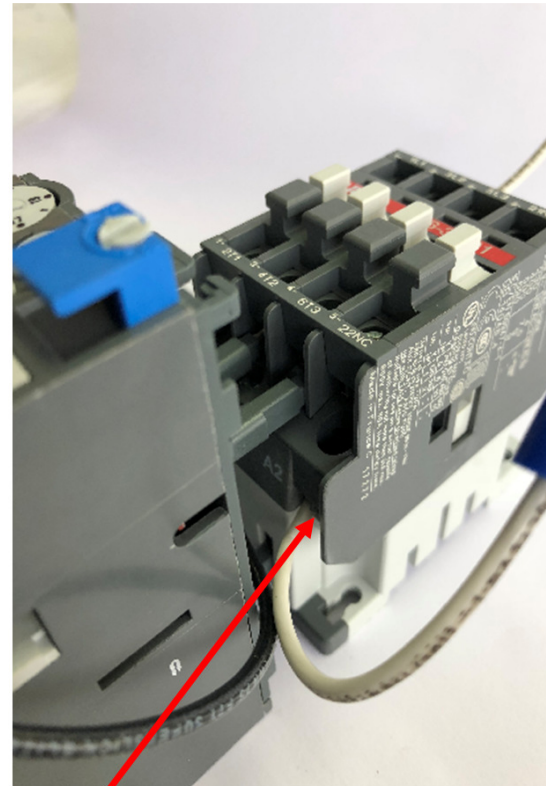
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EOD does not raise or lower

- Verify both common (white wires) from the solenoids are connected to A2 on the motor starter
- Make sure the wires are secured tightly and no insulation interferes with the connections

If EOD functions properly: Continue installation

If EOD does not raise or lower: Continue to next slide



CONNECT COMMON (WHITE WIRES) FROM BOTH SOLENOIDS TO A2 ON MOTOR STARTER



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EOD does not raise or lower

- Verify both hot (black wires) from the solenoids are connected to 21 on each of the push buttons
- Make sure the wires are secured tightly and no insulation interferes with the connections

If *EOD functions properly*: Continue installation

If EOD does not raise or lower: Continue to next slide

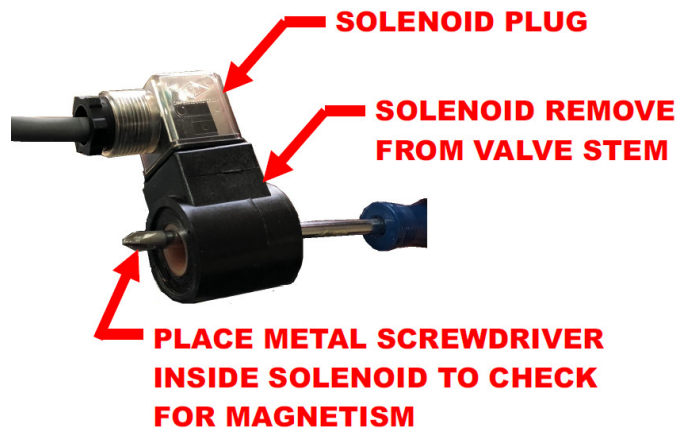
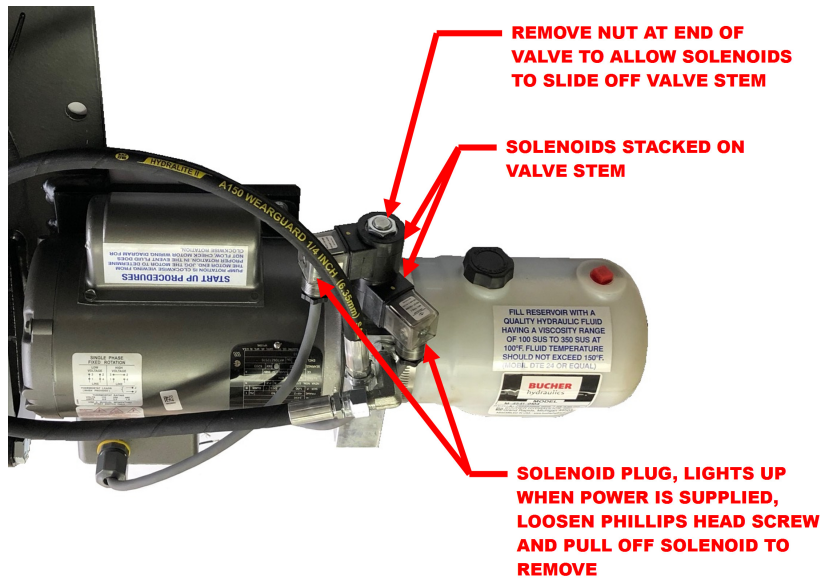


CONNECT HOT WIRE FROM EACH SOLENOID TO LOCATION 21 ON THE PUSH BUTTON. EACH SOLENOID WILL BE CONNECTED TO ONE PUSH BUTTON.



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EOD does not raise or lower



- Verify solenoid plugs light up, check with a meter that plugs are getting correct voltage
- Check if solenoids are functioning, remove solenoids and using something steel place inside round opening of solenoid. Depress the push buttons and check solenoid for magnetism.

*If Solenoids do not function properly:
Contact Factory*

If Solenoids function properly: Contact Factory



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Linkage does not engage

**CHECK ALL WELDS AND MAKE SURE
THEY DO NOT INTERFERE WITH EOD
GOING TO FULL BACK POSITION**



- When the EOD is in the back position, verify that the welds at the tubes and the welds to weld the mounting plate to the dock do not interfere

If welds interfere with EOD movement: Grind as needed until linkage engages

If welds do not interfere: Continue to next slide



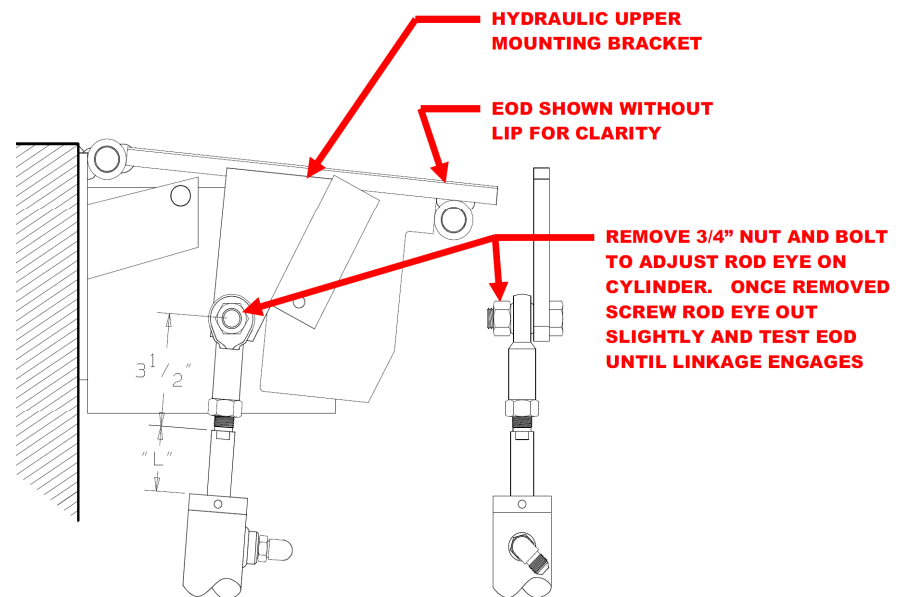
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Linkage does not engage

- Adjust Rod Eye on cylinder until linkage engages. Screwing the rod eye out making the 3-1/2" dimension larger will push the EOD back further helping to engage the linkage.

If EOD functions properly: Continue installation

If EOD does not raise or lower: Contact Factory

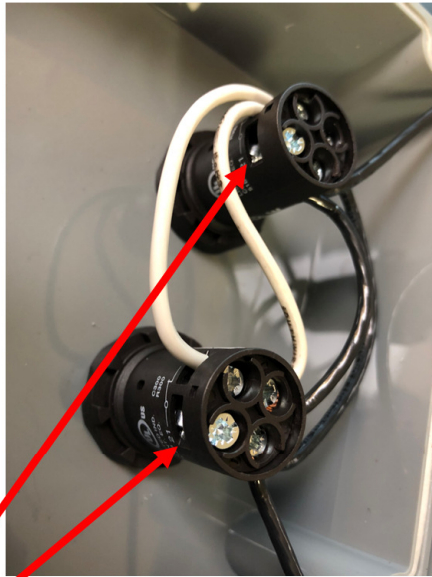




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“UP” and “Down” Push button are switched



**IF PUSH BUTTONS ARE SWITCH
FLIP WIRES FROM SOLENOIDS
AT LOCATION 21 ON EACH
SWITCH WITH ONE ANOTHER**

- If “UP” push button makes the EOD go down and the “Down” push button actuates the EOD up, flip the two hot leads from the solenoids at the push buttons