PREMIER STAINLESS SYSTEMS

# Kegwasher Troubleshooting Guide - Interactive Edition

**Premier Stainless Systems, LLC**

**510 Corporate Drive, Suite A**

**Escondido, CA 92029**

**Tel: (760) 796- 7999**

**www.premierstainless.com**

**Version 3 Revised 10-2018**

# Table of Contents

Common Problems and Questions.....3

Peristaltic Sanitizer Pump Troubleshooting.....4

Sensor Fault.....8

Water Line Fault.....14

Caustic Line Fault.....18

Acid Line Fault.....18

Kegwasher Pump Troubleshooting.....19

- 2 Station Pump is not turning on.....19
- 3 Station Pump is not turning on.....21
- Pump is leaking.....22
- Pump is not priming.....22

Valve Troubleshooting.....27

Sankey Coupler troubleshooting.....31

Immersion Heater Troubleshooting.....33

Temperature Controller Troubleshooting.....36

Air/ Co2 Manifold Troubleshooting.....37

No Power to Machine.....39

No Power to Touchscreen.....39

Keg pressure.....41

- Kegs over-pressurizing.....41
- Kegs under-pressurizing.....41
- Kegs never pressurizing.....41

Contact Us.....43

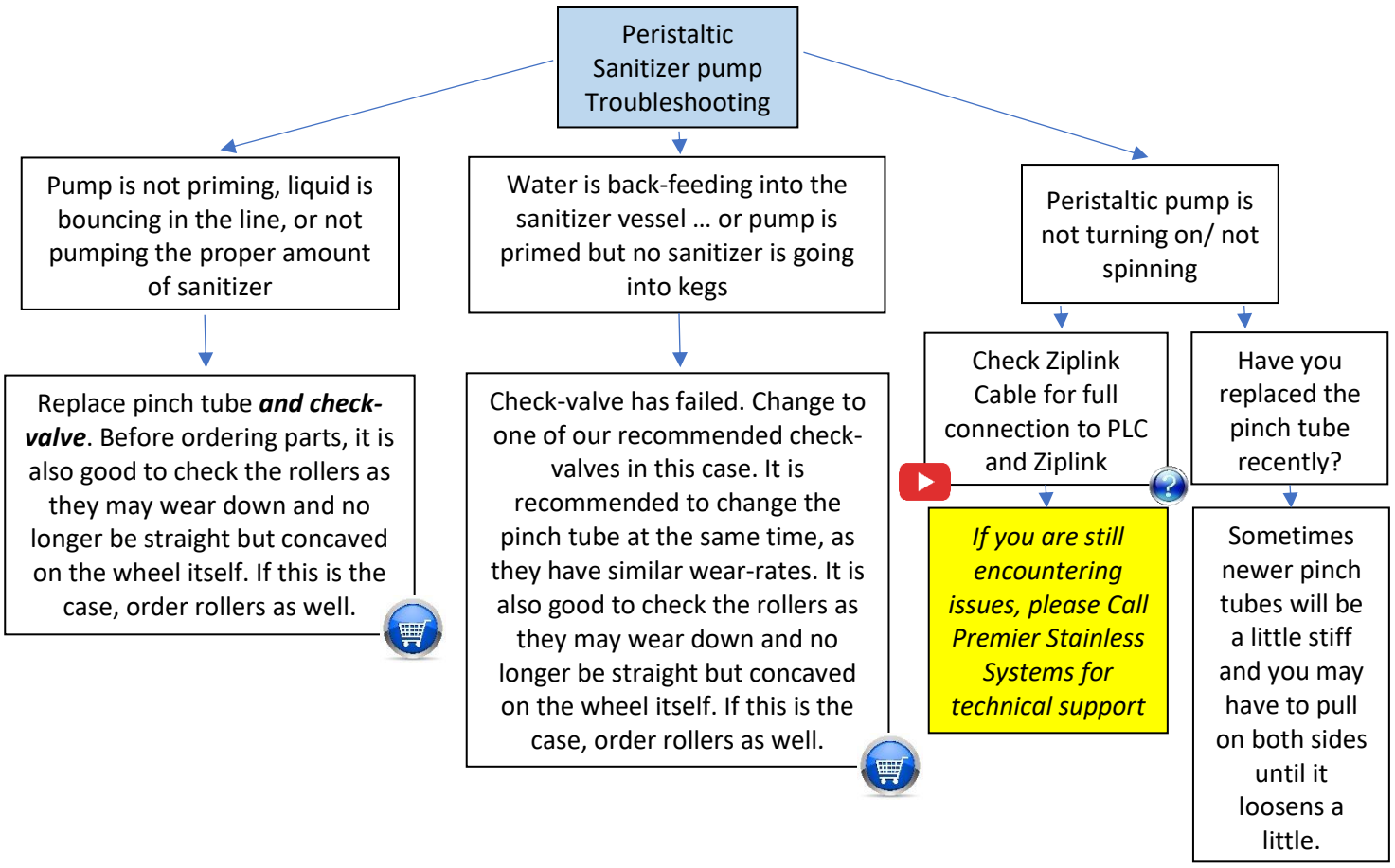
PREMIER STAINLESS SYSTEMS
Meeting the Needs of Brewers Worldwide

**Made for and distributed by Premier Stainless Systems, LLC. Do not copy or distribute without expressed, written permission.**

# Common Problems and Questions

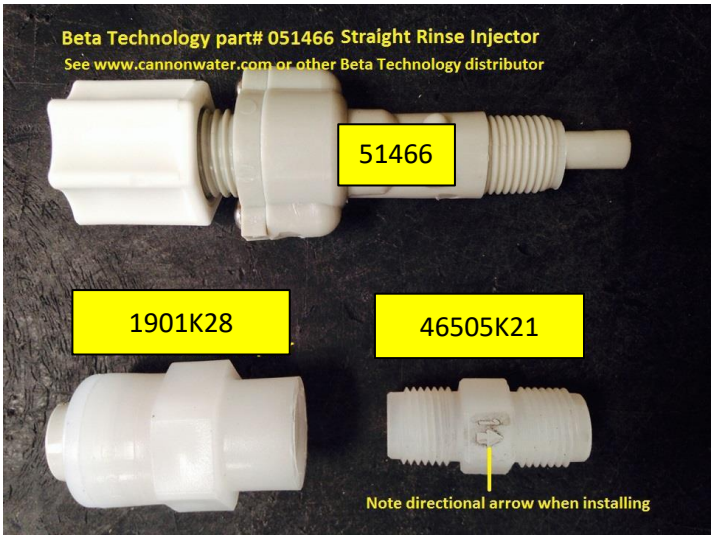
- My peristaltic sanitizer pump won't prime.
- The peristaltic sanitizer pump won't push liquid into the lines.
- Water is back-feeding into my sanitizer reservoir.
- Sensor Fault is popping up every time I press start.
- Sensor Fault keeps popping up throughout the cycle/ on the same step every time.
- What causes a Sensor Fault?
- What causes a Water Line fault?
- What causes a Caustic Line Fault?
- What causes an Acid Line Fault?
- One of my valves isn't opening.
- None of my valves are opening.
- All of my kegs keep filling up with liquid.
- One keg keeps having liquid stuck in it.
- My kegs aren't evacuating all the way.
- What are my Factory settings?
- My pump is suddenly making odd noises.
- One of the pumps won't keep it's prime.
- My heater isn't working.
- My touch screen is black and showing an Error: "PLC Time out"
- My touch screen is black and showing an Error: "No program found, use Recovery mode."

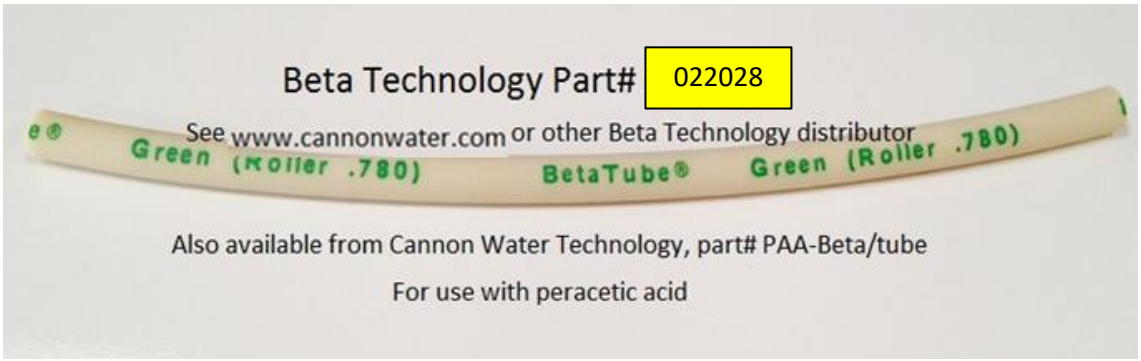
PREMIER STAINLESS SYSTEMS Meeting the Needs of Brewers Worldwide
Made for and distributed by Premier Stainless Systems, LLC. Do not copy or distribute without expressed, written permission.

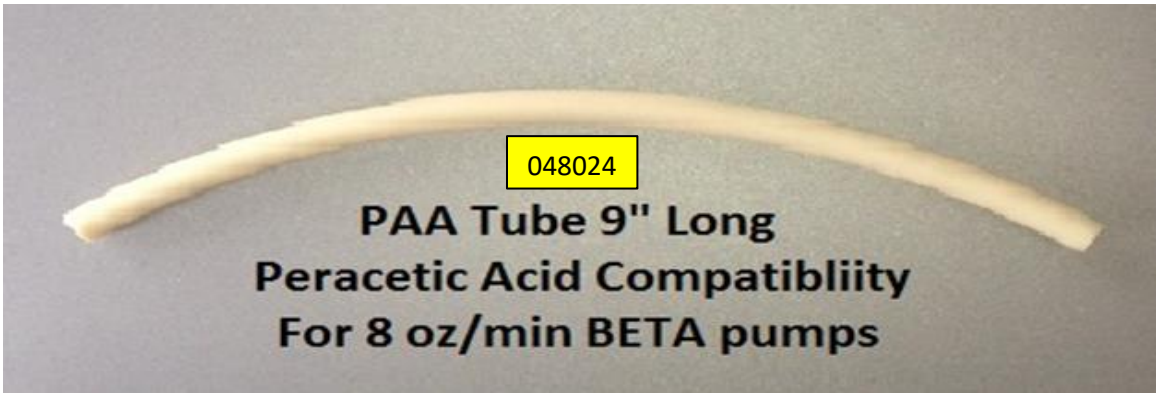



PREMIER STAINLESS SYSTEMS Meeting the Needs of Brewers Worldwide

**Made for and distributed by Premier Stainless Systems, LLC. Do not copy or distribute without expressed, written permission.**

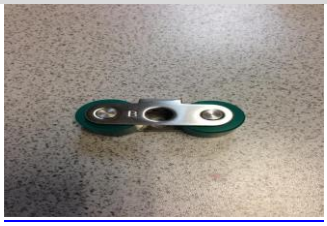




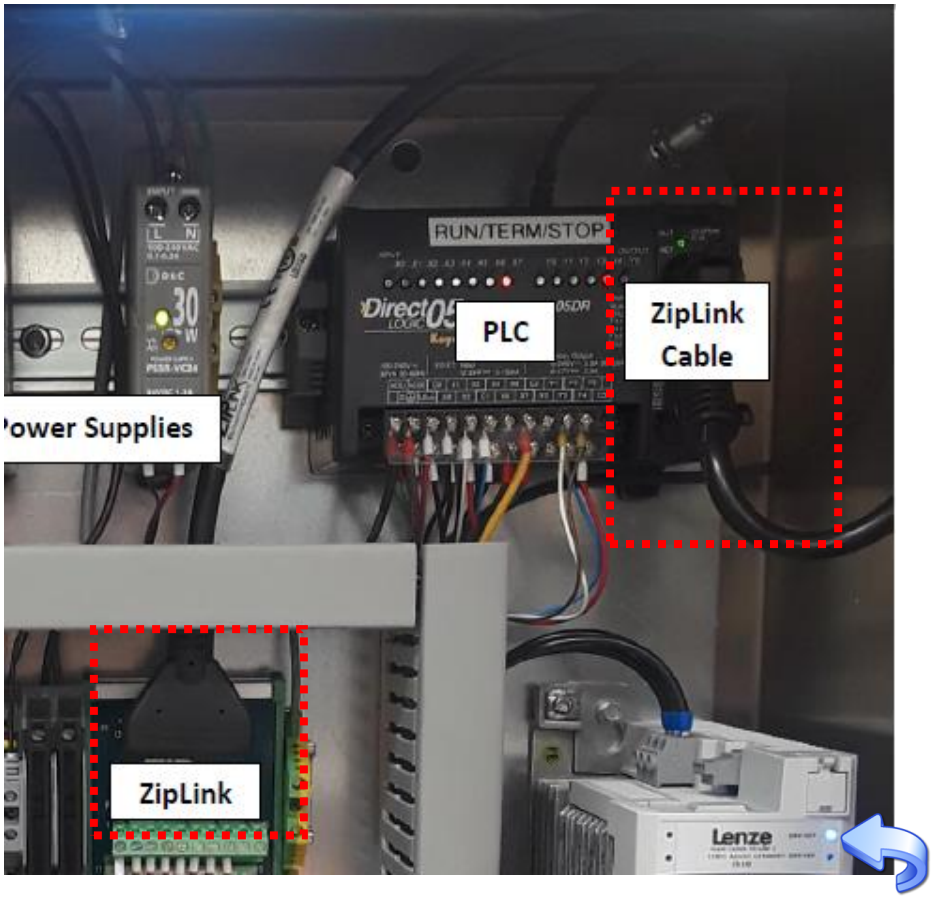



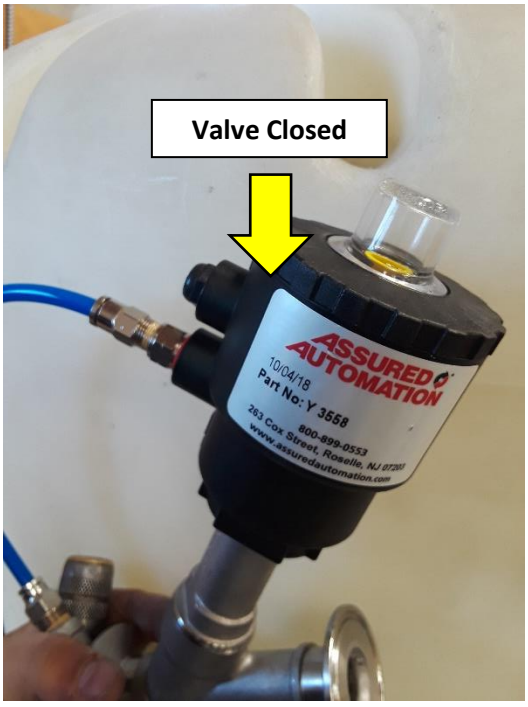

**More Sanitizer Pump Parts…**

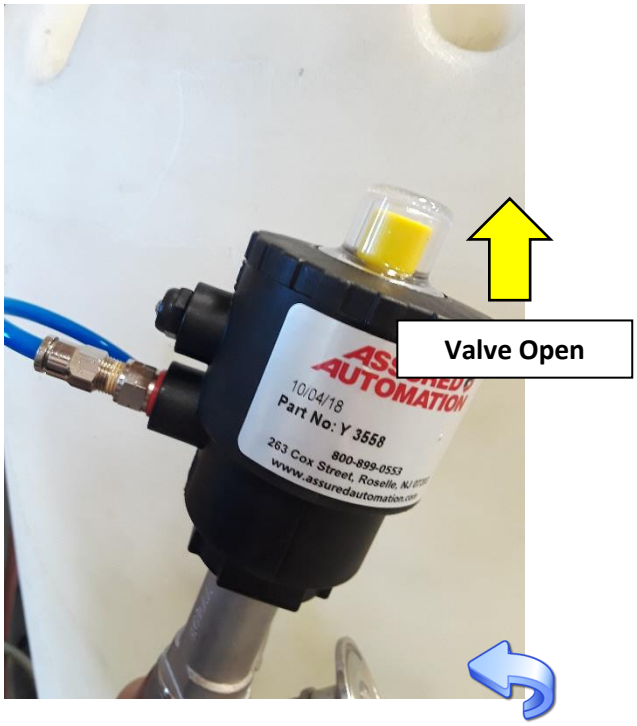

Made for and distributed by Premier Stainless Systems, LLC. Do not copy or distribute without expressed, written permission.

| | | |
|---|---|---|
| | **Beta Pump Replacement** | 35723 |
|  | **Beta Roller Assembly** | 051189 |
| | **Knight Roller Assembly** | 763330 |
| **Figure 1** | **Straight Rinse Injector (check valve) --At Least 1 Spare Recommended** | 051466 |
| | **Knight Duckbill Check Valve – NOT recommended for PAA** | 790350 |
| | **Knight Check Valve Replacement "duckbill" – NOT recommended for PAA** | 0300437 |

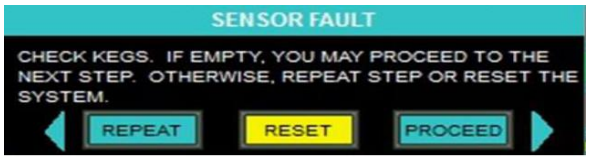

Made for and distributed by Premier Stainless Systems, LLC. Do not copy or distribute without expressed, written permission.




PREMIER STAINLESS SYSTEMS
Meeting the Needs of Brewers Worldwide
Made for and distributed by Premier Stainless Systems, LLC. Do not copy or distribute without expressed, written permission.




Sensor Fault

Immediately Faults

On the touchscreen, go to "settings", then "factory settings", press 1516 and enter, then press "standard parameters" and set the "watchdog timer" to 45, then press "home".

Liquid is coming out of the drain, return valves

Check your X3 light on PLC/ Front of panel during a cycle

X3 Light is always lit

Optical Sensor

Clean sensor with mild acid solution

Still Faulting

Capacitive Sensor

Replace Sensor

X3 light stays lit even while keg is completely empty

Is your air pressure dropping drastically during evacuations?

Are you running longer wash settings on Wash 1 or 2? Try running "Factory" wash setting.

X3 light staying on during step 1.1, debris from keg sticking on sensor, press "Sensor Override" button for a few seconds, or "Proceed", to advance KW.

Liquid is NOT coming out of the drain, return valves

Are Valves opening? "pop-it" indicators on top of valve

Yes

No

**See Valve troubleshooting**

**See Sankey coupler troubleshooting**

Still Faulting

Problem fixed

*Call Premier Stainless for Continued Support*

Most likely Wash1/ Wash2 steps are too long

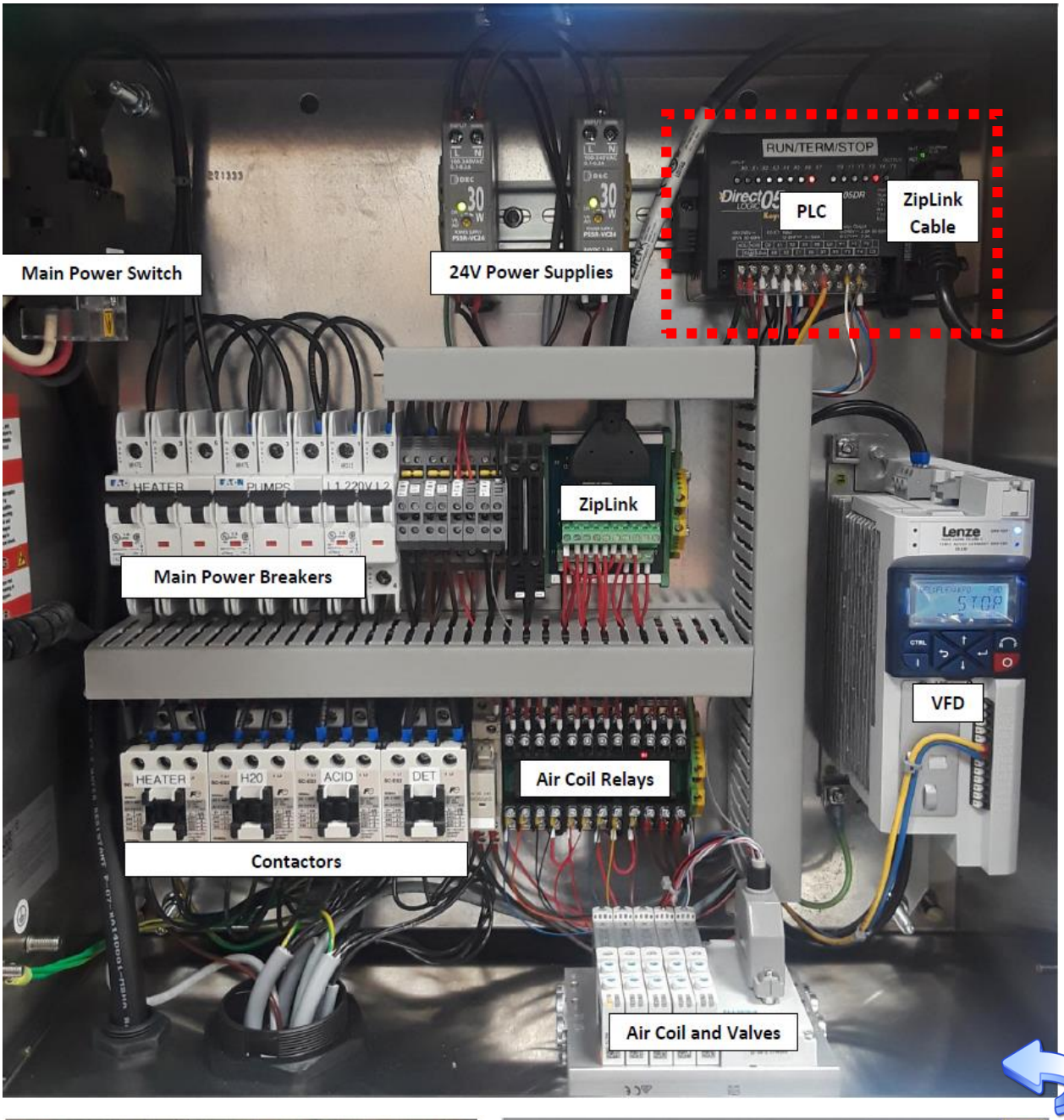
Ensure your air manifold filter/ regulator is set to 80-100 PSI and your air regulator is between 30-40 PSI

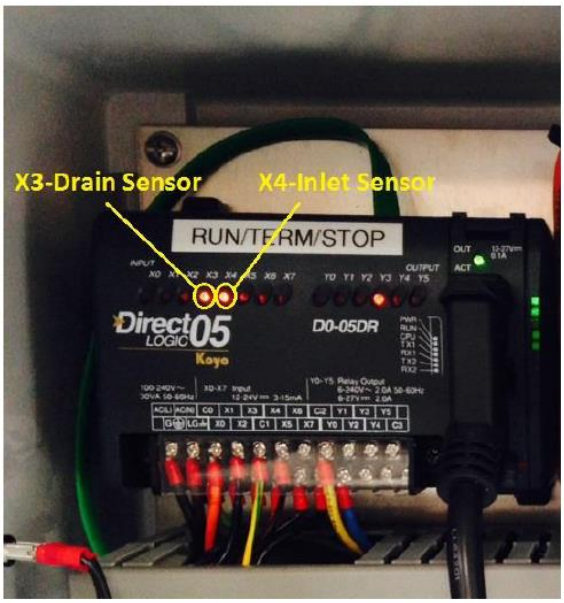
If pressure is continuing to drop during evacuations check your air hose for restrictions. We recommend having a ½" ID air hose supplying the kegwasher with no constrictions such as smaller ID quick disconnects as this may cause a variety of problems. It is also good to check your compressor for wear and tear.

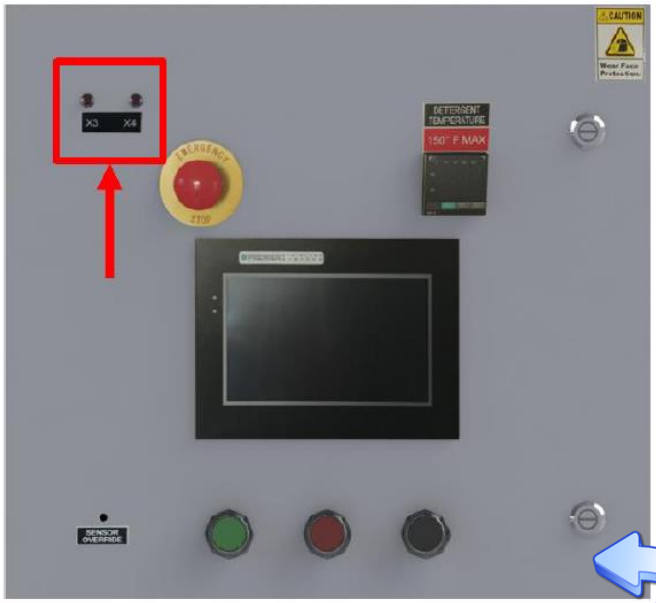
Still having issues?

PREMIER STAINLESS SYSTEMS Meeting the Needs of Brewers Worldwide

**Made for and distributed by Premier Stainless Systems, LLC. Do not copy or distribute without expressed, written permission.**




STAINLESS SYSTEMS
Meeting the Needs of Brewers Worldwide
distribute without expressed, written permission.

PREMIER STAINLESS SYSTEMS
Meeting the Needs of Brewers Worldwide
Made for and distributed by Premier Stainless Systems, LLC. Do not copy or distribute without expressed, written permission.

# Factory Settings

**Step 1: Water Rinse**

| | |
|---|---|
| Shell: | 16 Seconds |
| Spear: | 8 Seconds |

**Step 2: Caustic Wash**

| | |
|---|---|
| Shell: | 25 Seconds |
| Spear: | 8 Seconds |

**Step 3: Water Rinse 2**

| | |
|---|---|
| Shell: | 20 Seconds |
| Spear: | 8 Seconds |

**Step 4: Acid Wash**

| | |
|---|---|
| Shell: | 25 Seconds |
| Spear: | 8 Seconds |

**Step 5: Water Rinse 3**

| | |
|---|---|
| Shell: | 20 Seconds |
| Spear: | 8 Seconds |

**Step 6: Sanitizer Wash**

| | |
|---|---|
| Shell: | 15 Seconds |
| Spear: | 5 Seconds |
| Hold: | 45 Seconds |

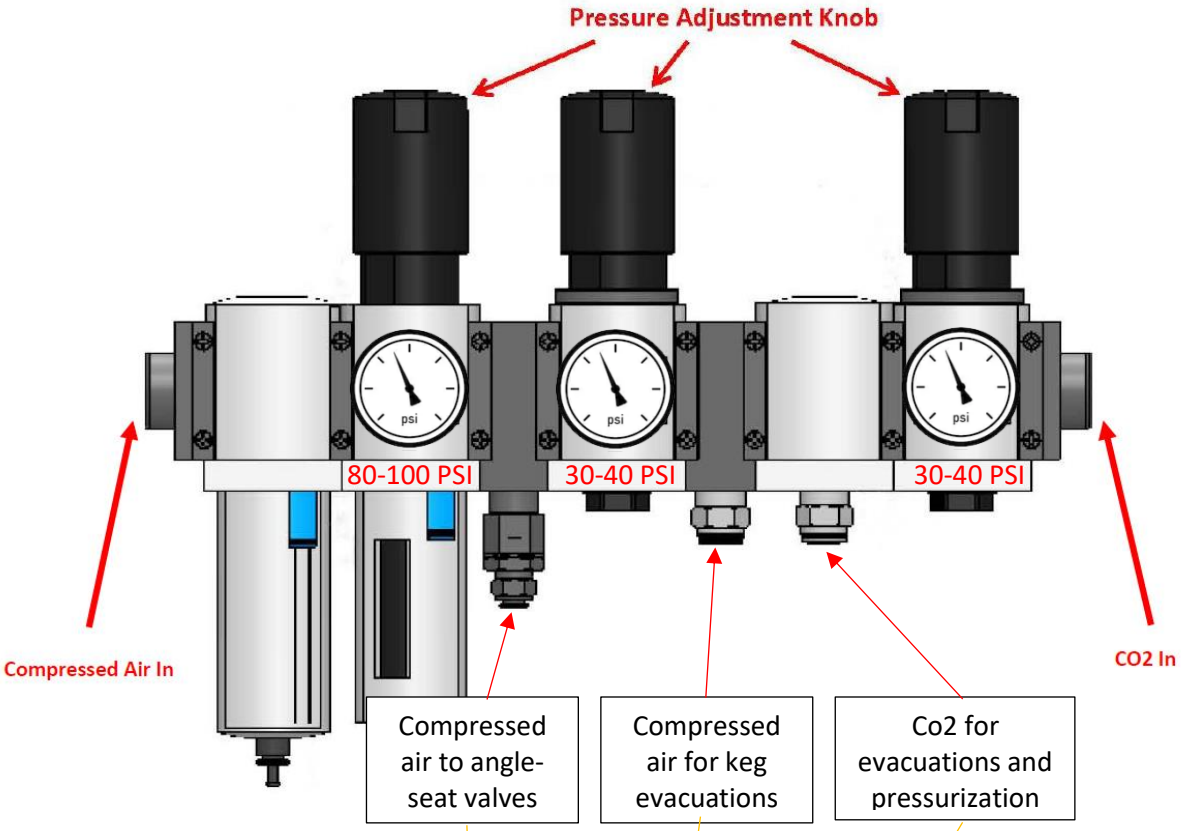
**Step 7: CO2 Pressurize**

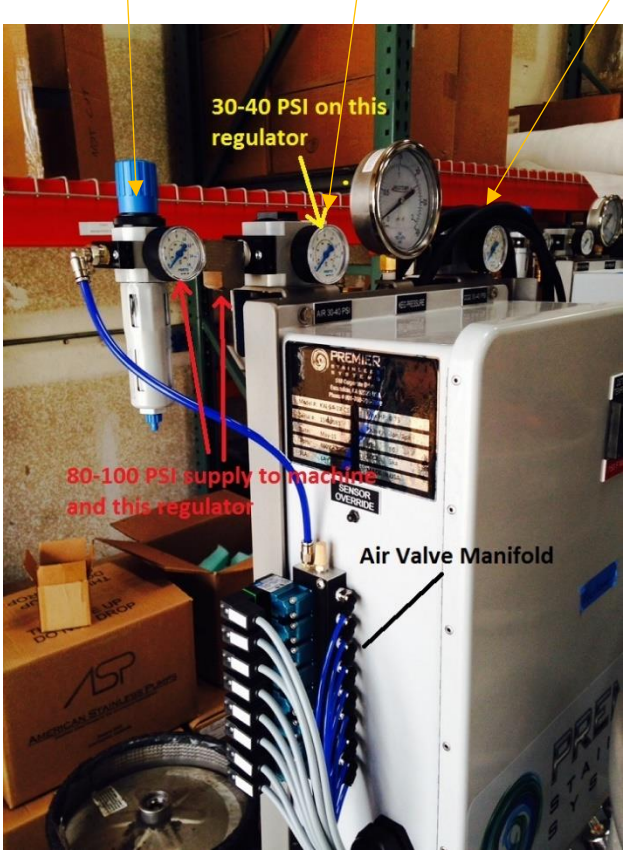
2 Cycles

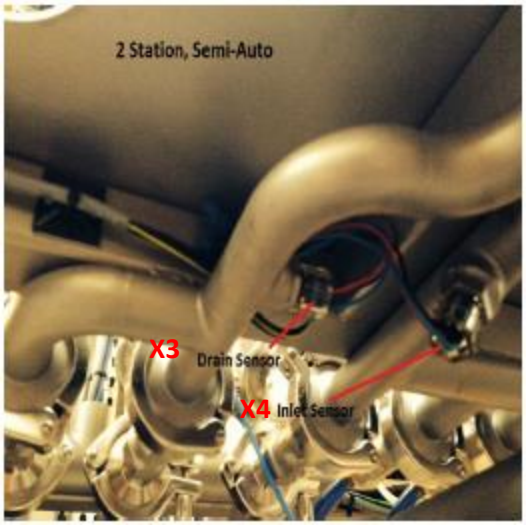
**Cycles until Chemical Change warning screen appears:**

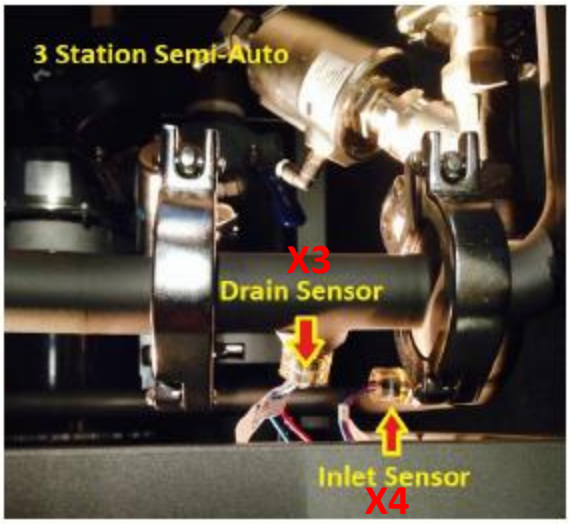
15 Cycles

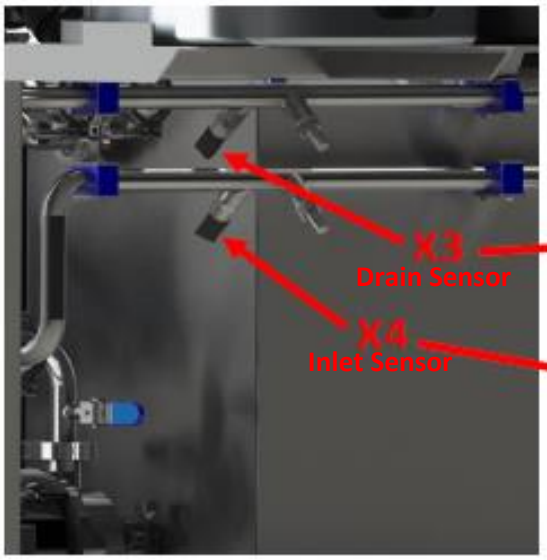

Made for and distributed by Premier Stainless Systems, LLC. Do not copy or distribute without expressed, written permission.


Pressure Adjustment Knob
80-100 PSI
30-40 PSI
30-40 PSI
Compressed Air In
CO2 In
Compressed air to angle-seat valves
Compressed air for keg evacuations
Co2 for evacuations and pressurization

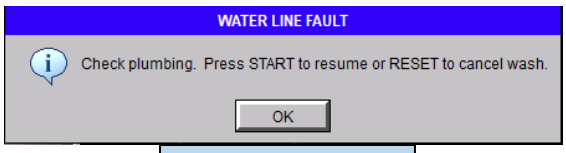

30-40 PSI on this regulator
80-100 PSI supply to machine and this regulator
Air Valve Manifold



Made for and distributed by Premier Stainless Systems, LLC. Do not copy or distribute without expressed, written permission.




Water Line Fault

There is liquid going into the kegs

There is NOT liquid going into the kegs

Check your X4 light on PLC/ Front of panel during cycle

X4 never lights up

Is power supply on?

Yes

Check wiring at X4 terminal on PLC

Check sensor wires at wire nuts or junction box

Still having issues?

*Call Premier Stainless for Continued Support*

No

Check wiring at power supply

Still having issues?

*Call Premier Stainless for Continued Support*

2 station KW

Are Water valves opening

Yes

Is water turned on?

Yes, but still faulting

*Call Premier Stainless for Continued Support*

No

**See Valve troubleshooting**

3 station Kegwashers

Pump is turning on

Valves are opening

Pump is primed and staying primed

Yes

Is the water on?

Still having issues?

*Call Premier Stainless for Continued Support*

No

**See Pump Troubleshooting: Pump losing Prime**

Valves are NOT opening

**See Valve Troubleshooting**

Pump is NOT turning on

**See Pump Troubleshooting: Pump is not turning on**

**2 station**

**3 station**

PREMIER STAINLESS SYSTEMS Meeting the Needs of Brewers Worldwide

Made for and distributed by Premier Stainless Systems, LLC. Do not copy or distribute without expressed, written permission.

## Water Line Fault

A Water Line Fault is caused by the inlet sensor not receiving liquid. This issue is usually caused by either your water valve/ stem valve failing to open or your water pump failing to send liquid into the keg.

Your inlet sensor is shown by your X4 light on your PLC and as well as your panel for newer models of Kegwashers. When X4 is lit, your sensor is detecting liquid.

## Caustic Line Fault

A Caustic Line Fault is caused by the inlet sensor not receiving liquid. This issue is usually caused by either your Caustic valve failing to open or your caustic pump failing to send liquid into the keg.

Your inlet sensor is shown by your X4 light on your PLC and as well as your panel for newer models of Kegwashers. When X4 is lit, your sensor is detecting liquid.

## Acid Line Fault

An Acid Line Fault is caused by the inlet sensor (X4) not receiving liquid. This issue is usually caused by either your Acid valve failing to open or your acid pump failing to send liquid into the keg.

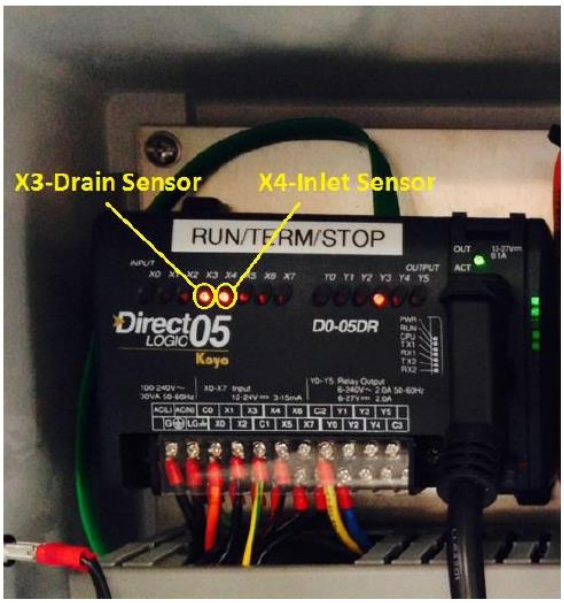
Your inlet sensor is shown by your X4 light on your PLC and as well as your panel for newer models of Kegwashers. When X4 is lit, your sensor is detecting liquid.

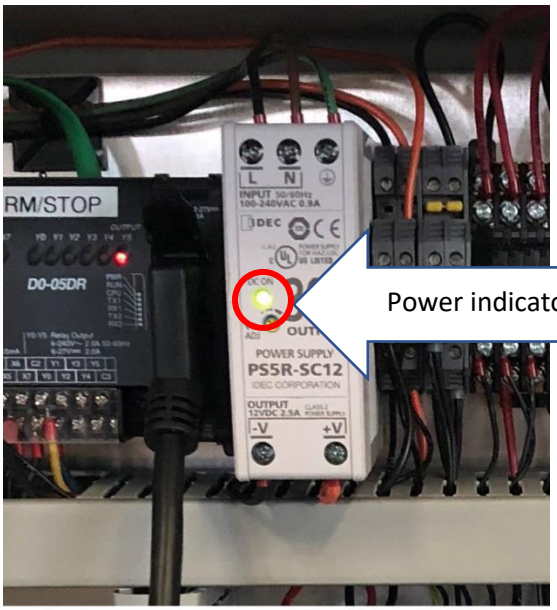
## Sensor Fault

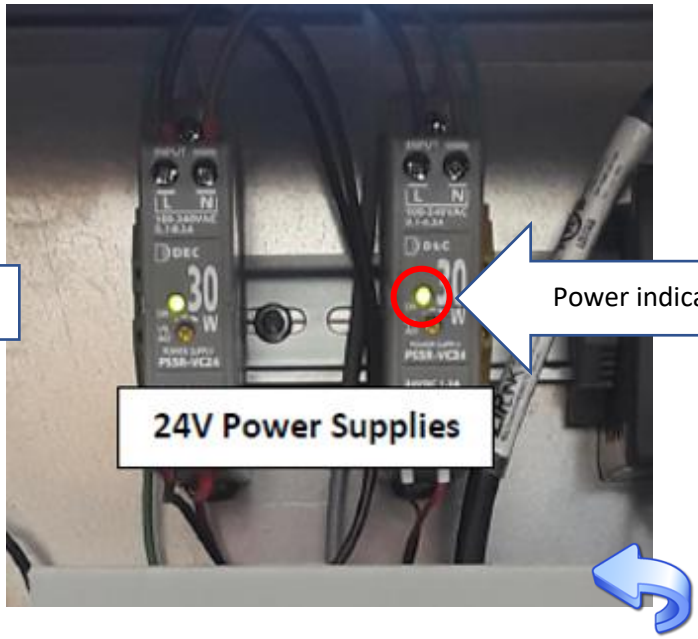
A Sensor Fault is caused by the drain (X3) sensor sensing liquid for an extended amount of time. This is to inform the user that either the set times are outside of a normal amount of time for operation or that evacuations are taking too long.

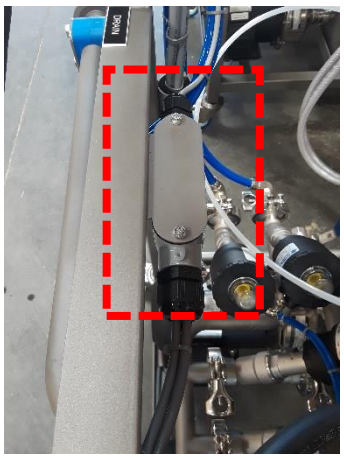
PREMIER STAINLESS SYSTEMS
Meeting the Needs of Brewers Worldwide

Made for and distributed by Premier Stainless Systems, LLC. Do not copy or distribute without expressed, written permission.





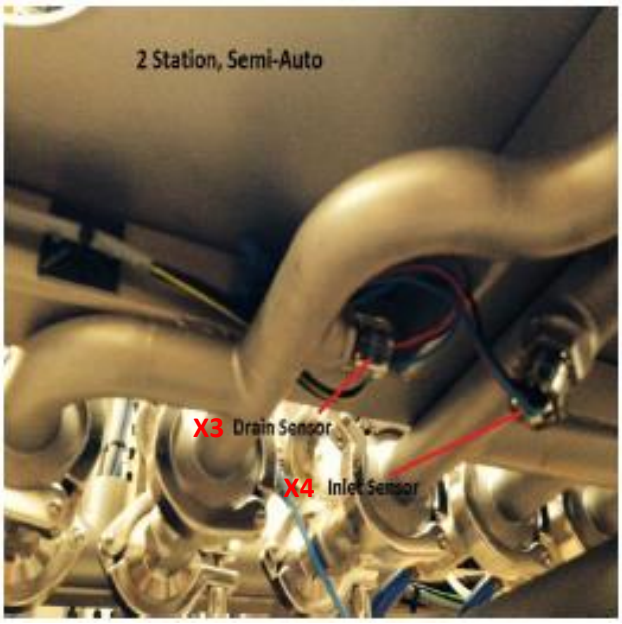



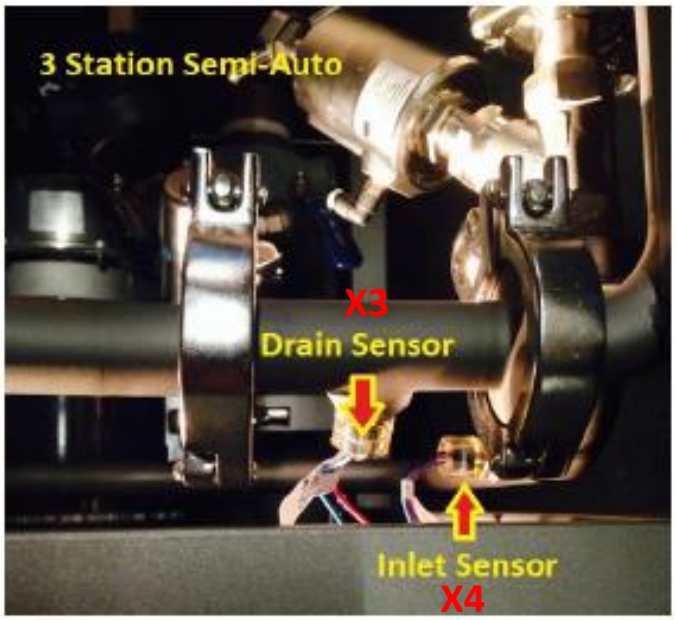



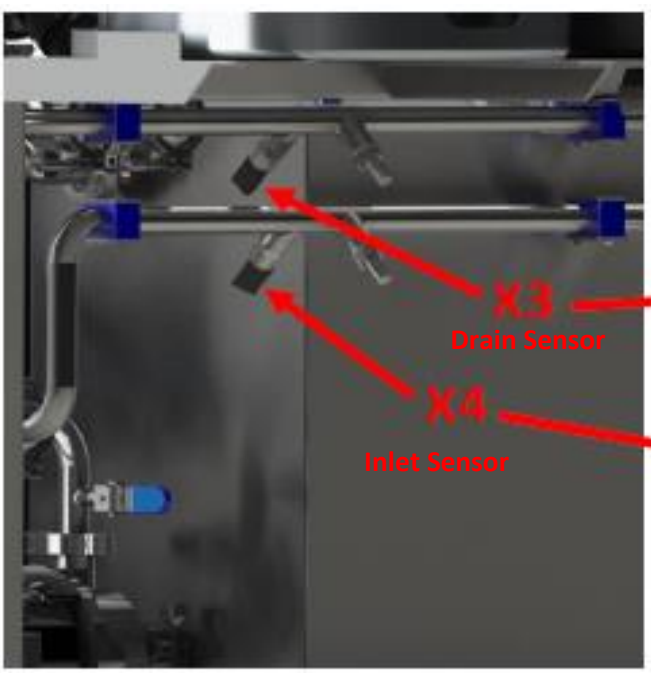
3 station

2 station

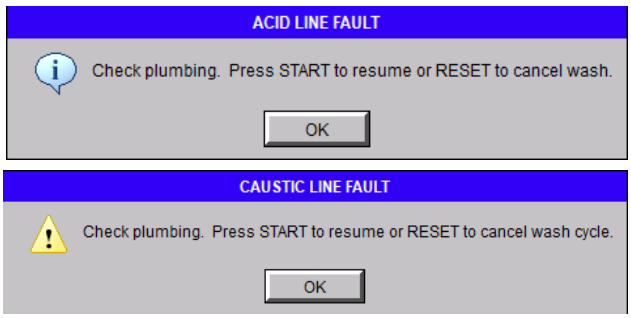
PREMIER STAINLESS SYSTEMS
Meeting the Needs of Brewers Worldwide
Made for and distributed by Premier Stainless Systems, LLC. Do not copy or distribute without expressed, written permission.

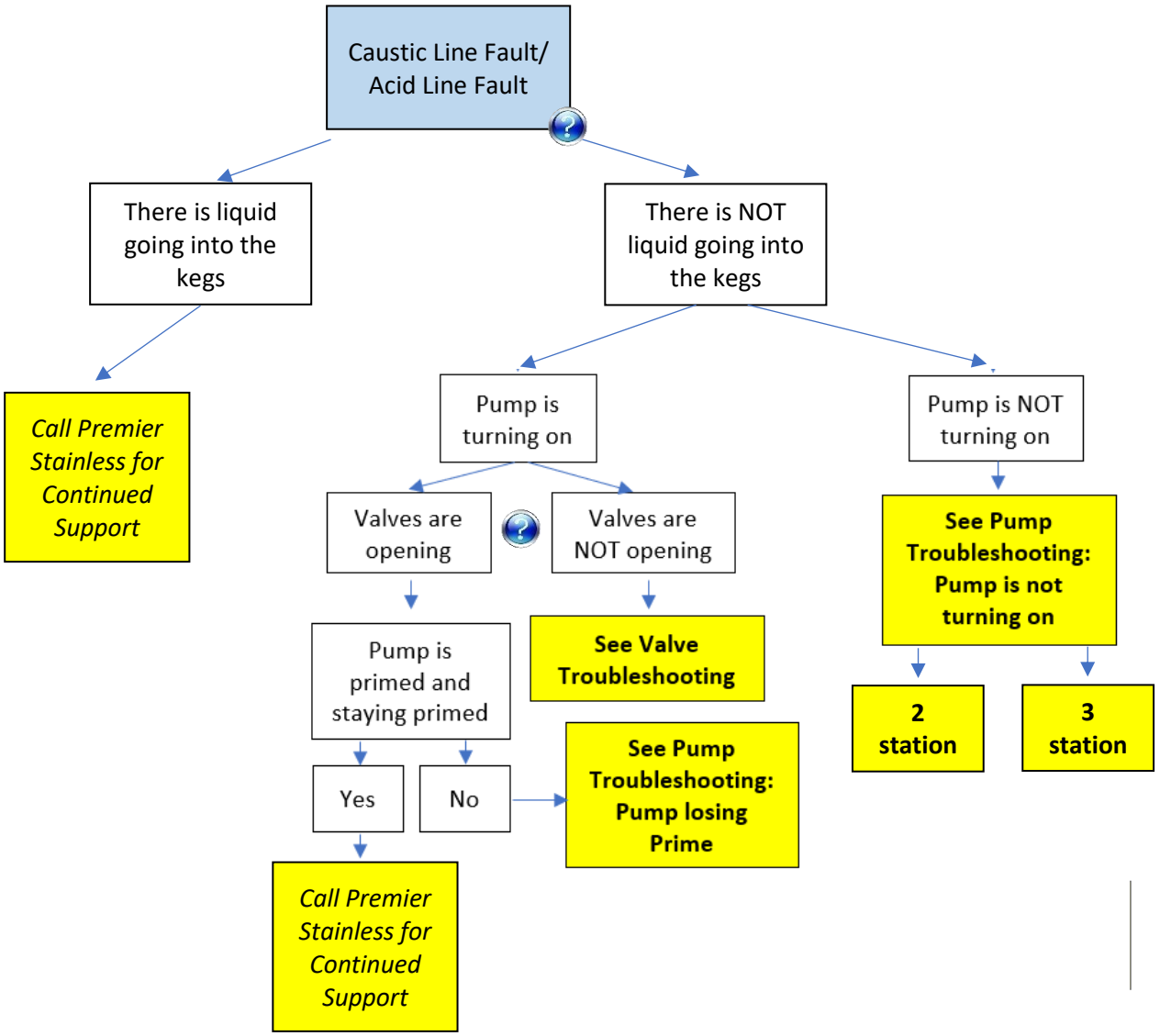


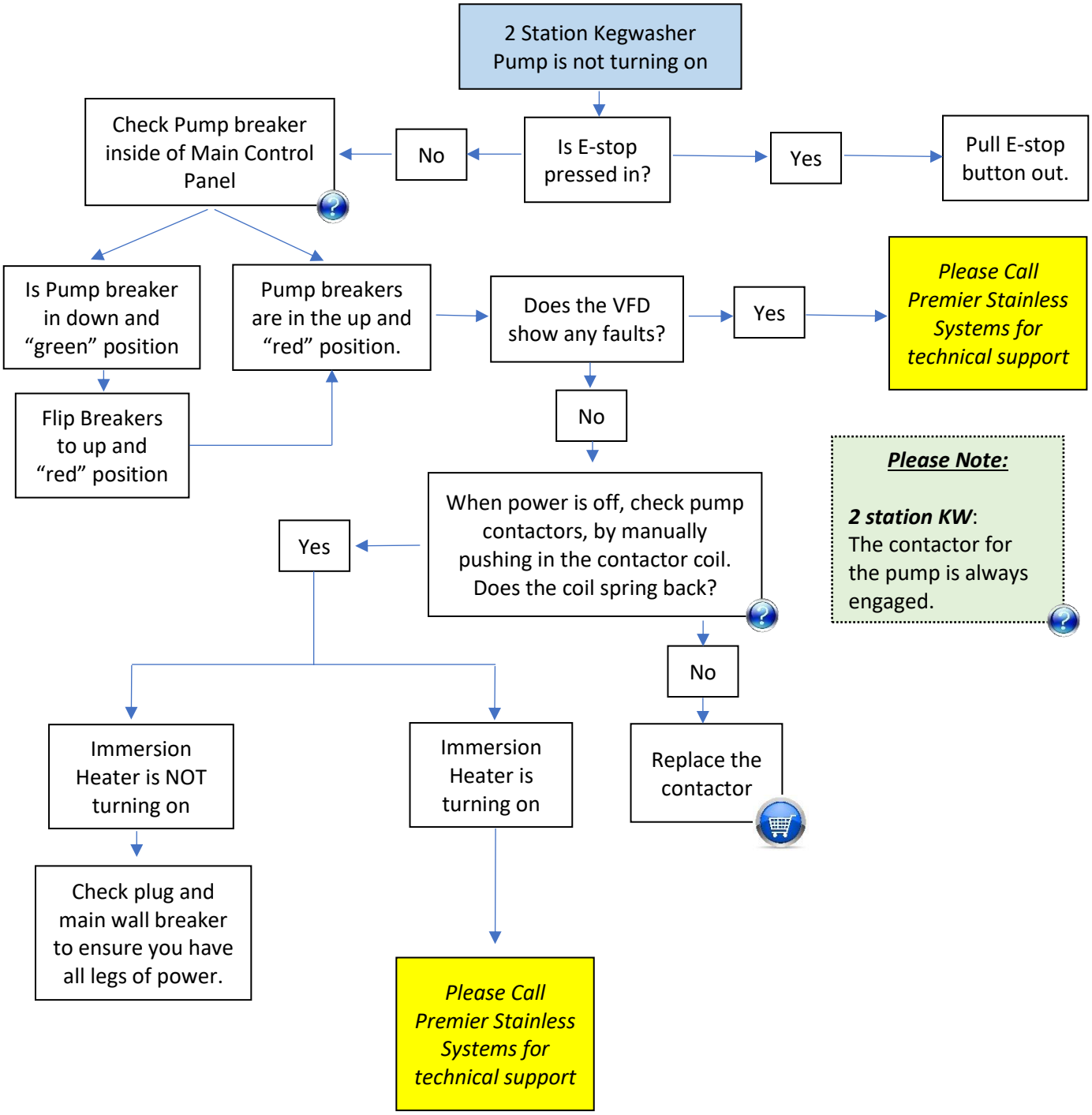
Made for and distributed by Premier Stainless Systems, LLC. Do not copy or distribute without expressed, written permission.



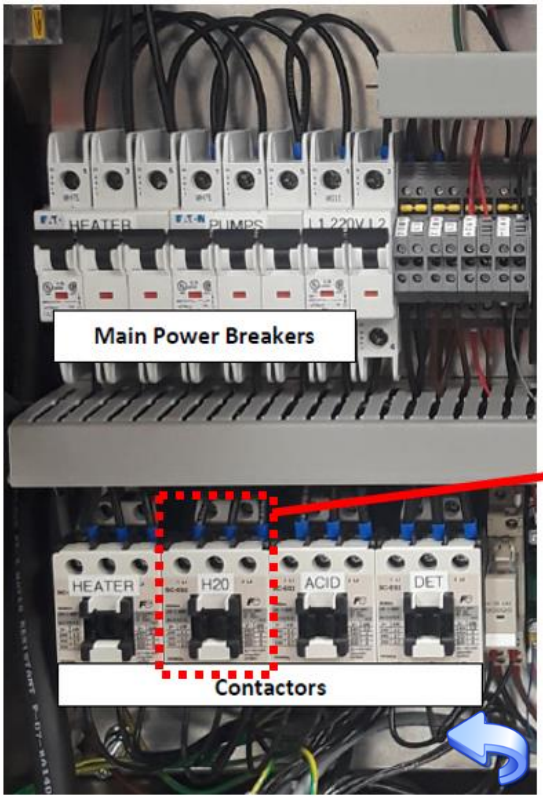




Made for and distributed by Premier Stainless Systems, LLC. Do not copy or distribute without expressed, written permission.

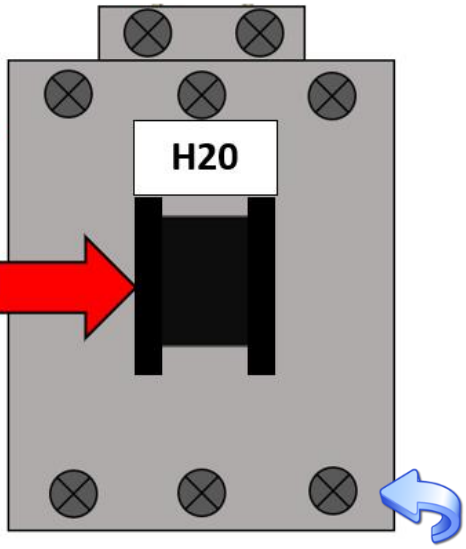
# Kegwasher Pump Troubleshooting

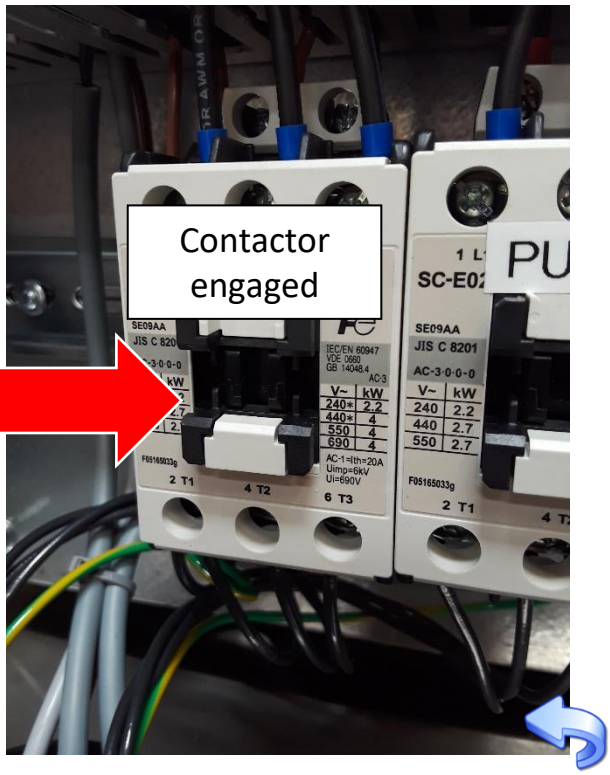



Made for and distributed by Premier Stainless Systems, LLC. Do not copy or distribute without expressed, written permission.



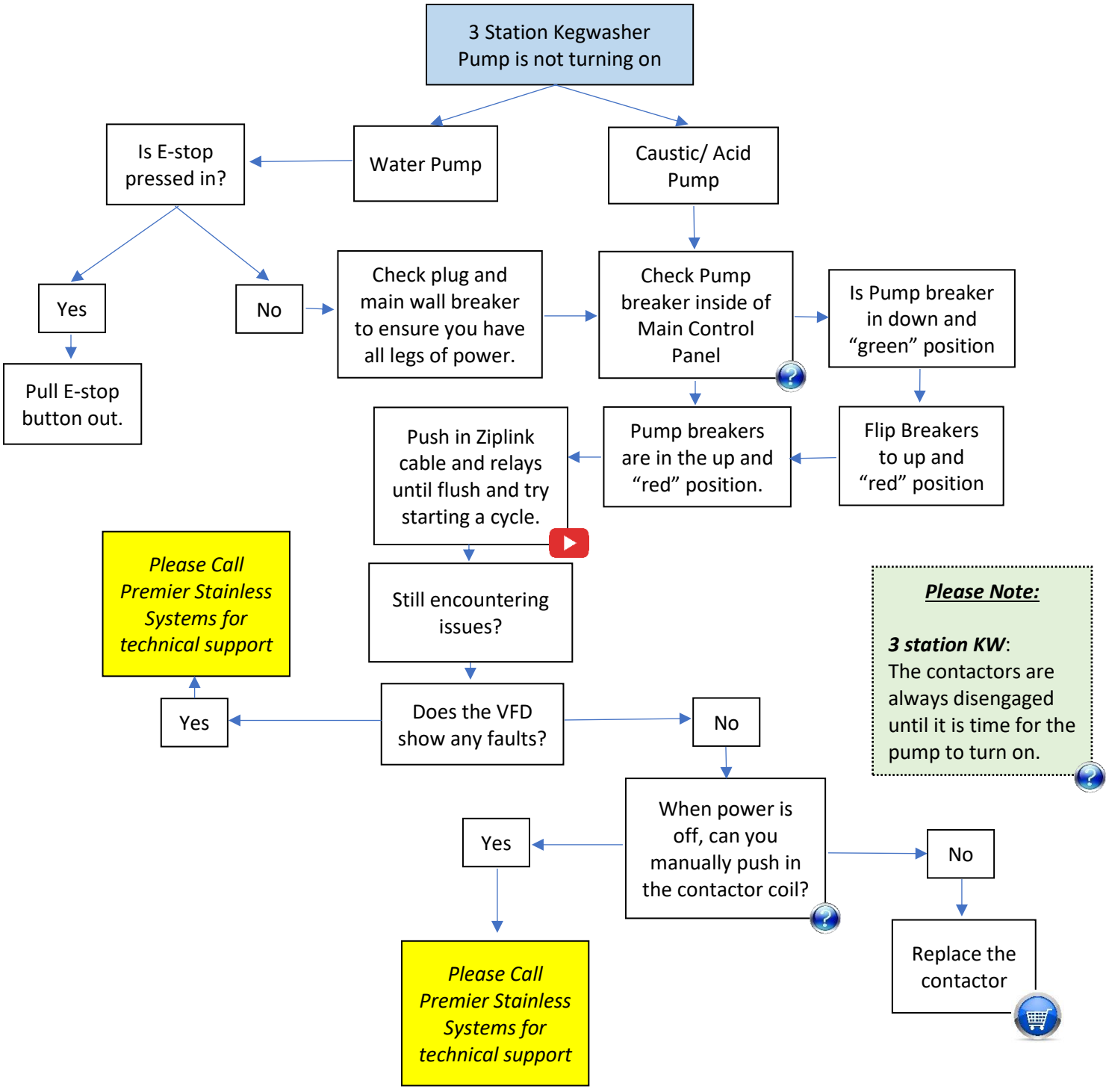

Button in the middle should move in and out freely when power is not on.






PREMIER STAINLESS SYSTEMS
Meeting the Needs of Brewers Worldwide
Made for and distributed by Premier Stainless Systems, LLC. Do not copy or distribute without expressed, written permission.

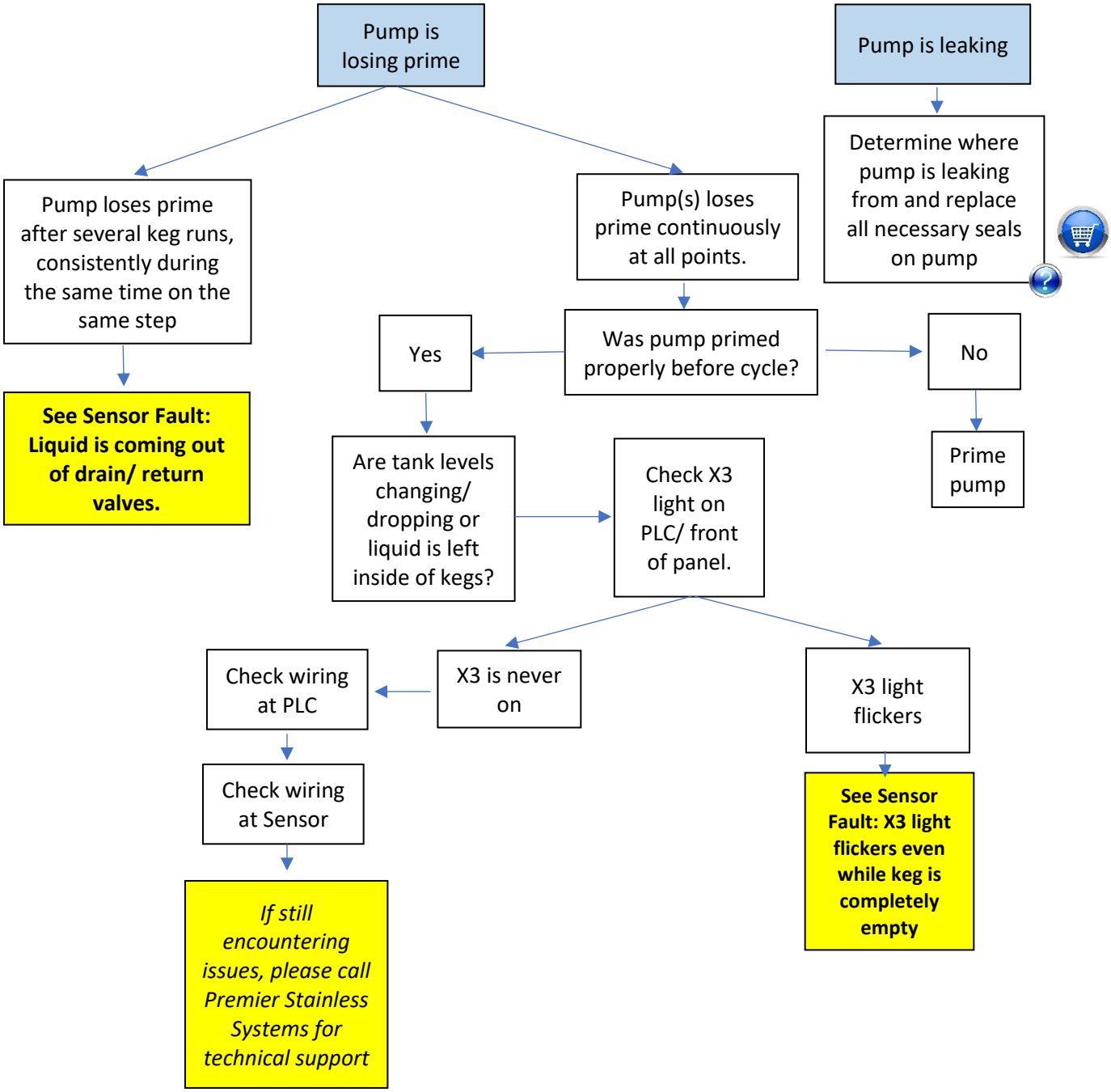
# ***Kegwasher Pump Troubleshooting continued…***



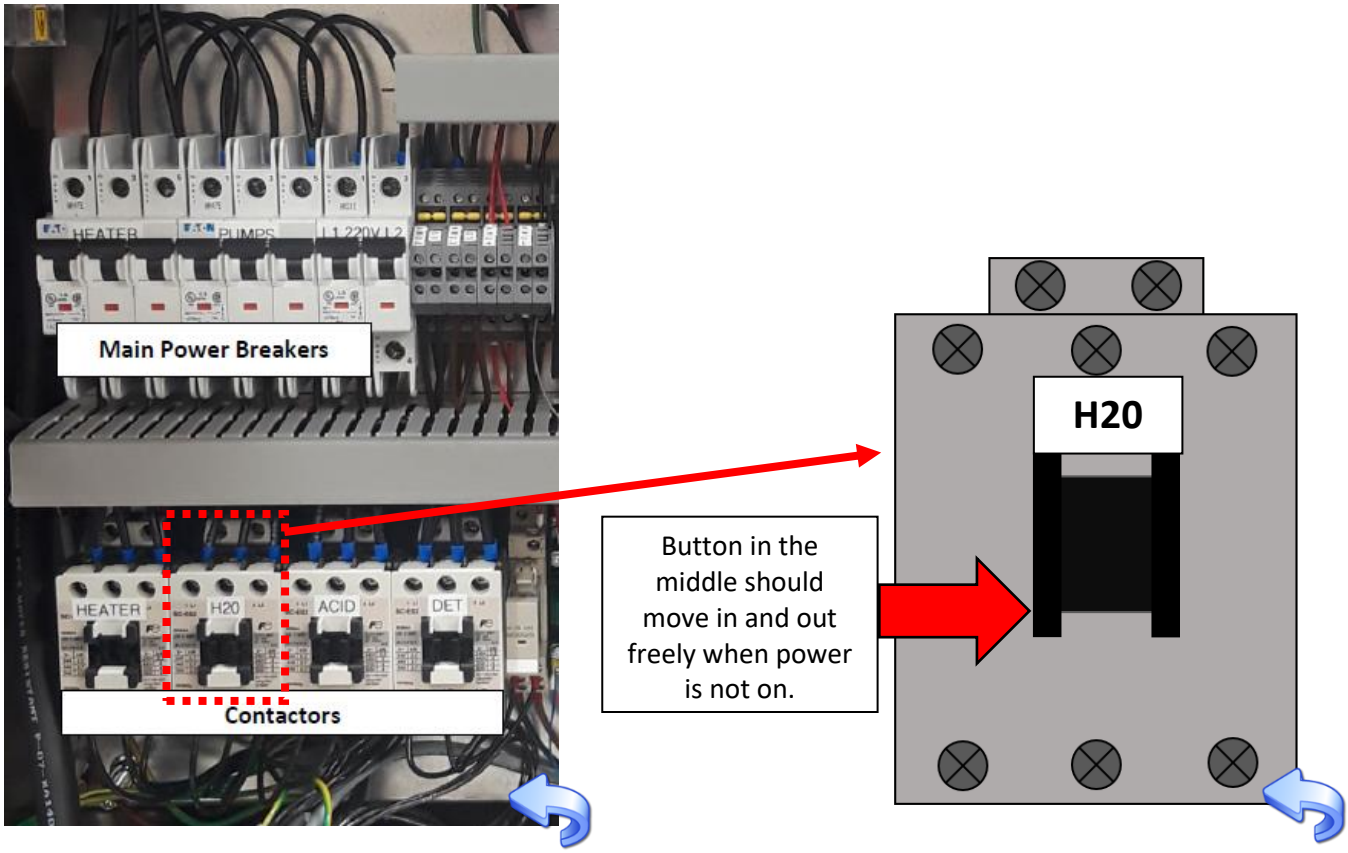

PREMIER STAINLESS SYSTEMS Meeting the Needs of Brewers Worldwide

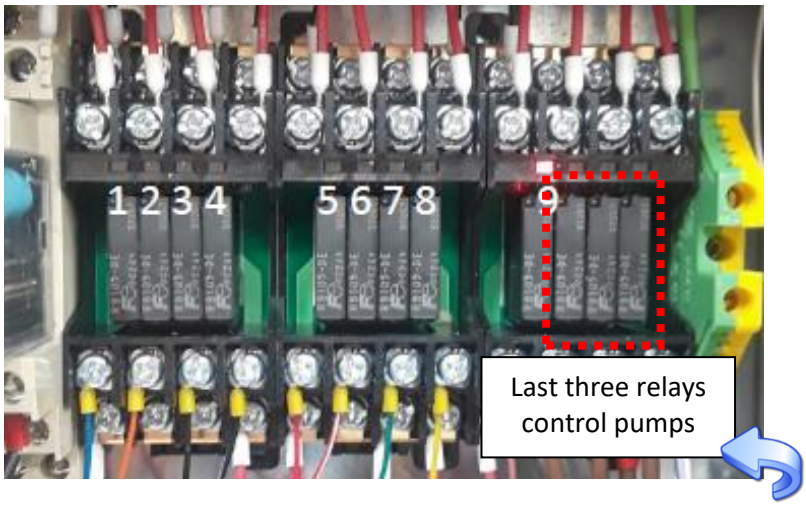
Made for and distributed by Premier Stainless Systems, LLC. Do not copy or distribute without expressed, written permission.

# ***Kegwasher Pump Troubleshooting continued…***




Made for and distributed by Premier Stainless Systems, LLC. Do not copy or distribute without expressed, written permission.

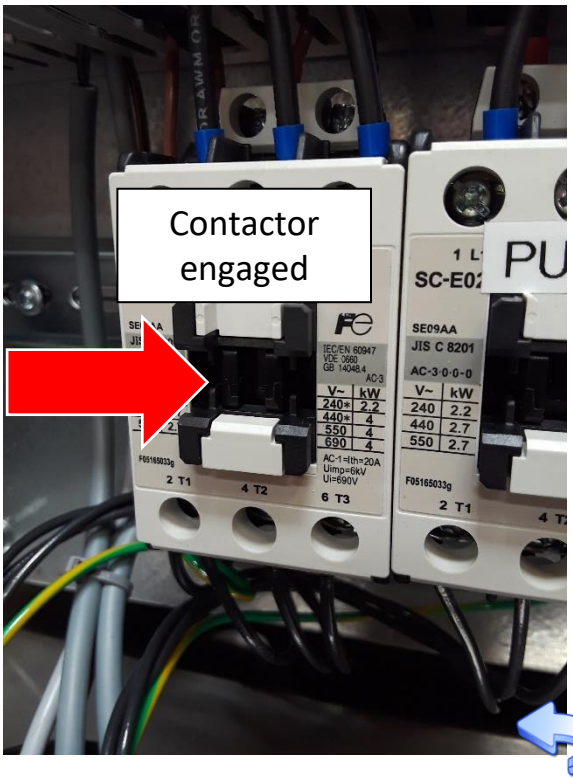


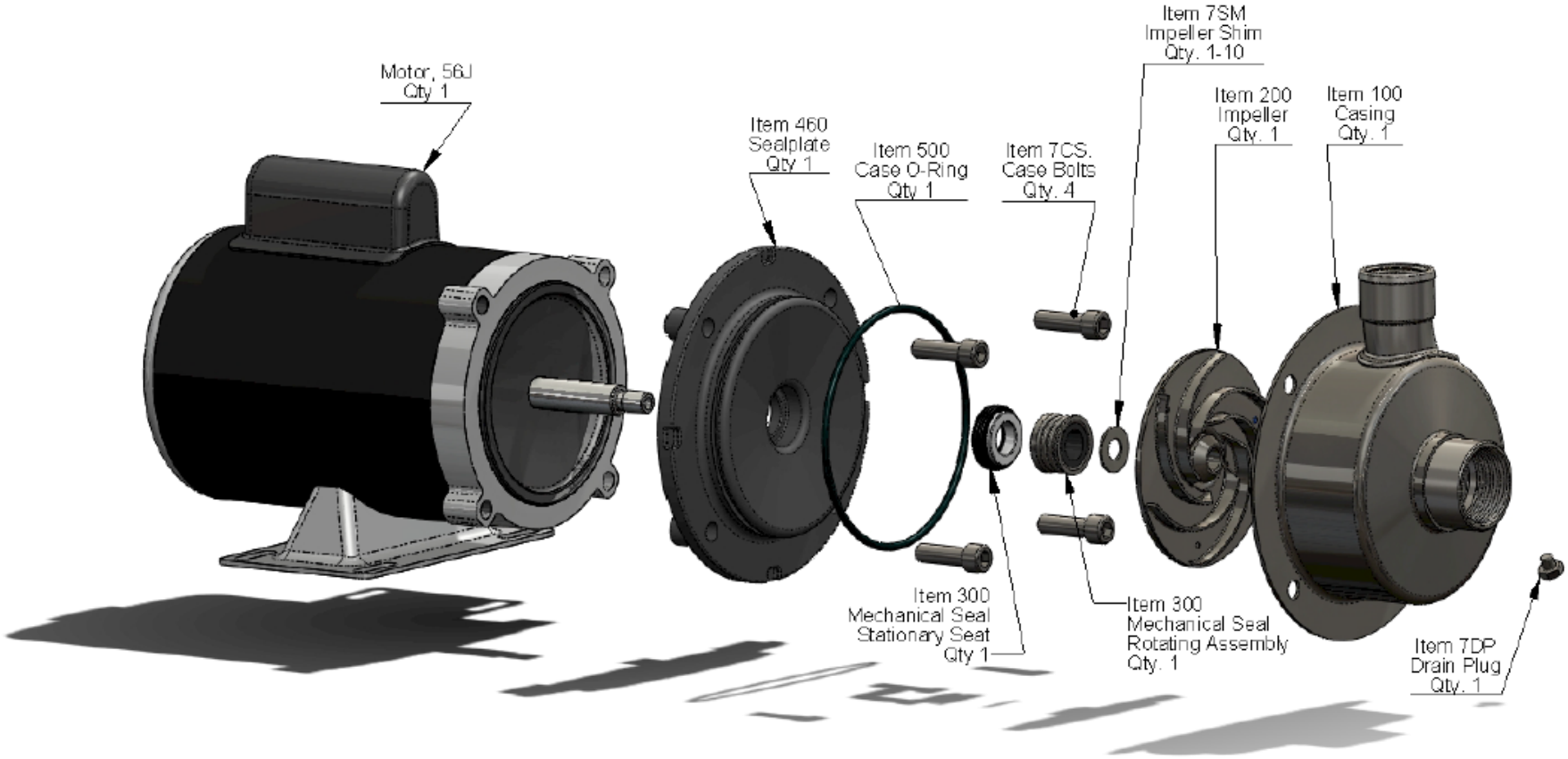


Made for and distributed by Premier Stainless Systems, LLC. Do not copy or distribute without expressed, written permission.

Contactor
disengaged
5 L3
IEC/EN 60947
VDE 0660
GB 14048.4
AC-3
V~ kW
240* 2.2
440* 4
550 4
690 4
AC-1 =Ith=20A
Uimp=6kV
Ui=690V
2 T1
4 T2
6 T3


Contactor
engaged
SE09AA
JIS C 8201
AC-3·0·0-0
V~ kW
240 2.2
440 2.7
550 2.7
2 T1
4 T2
6 T3

# Model FSP Exploded View



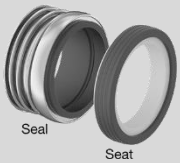

PREMIER STAINLESS SYSTEMS
Meeting the Needs of Brewers Worldwide
Made for and distributed by Premier Stainless Systems, LLC. Do not copy or distribute without expressed, written permission.

***American Stainless Pumps (ASP) Links for Seal Kit Replacement***

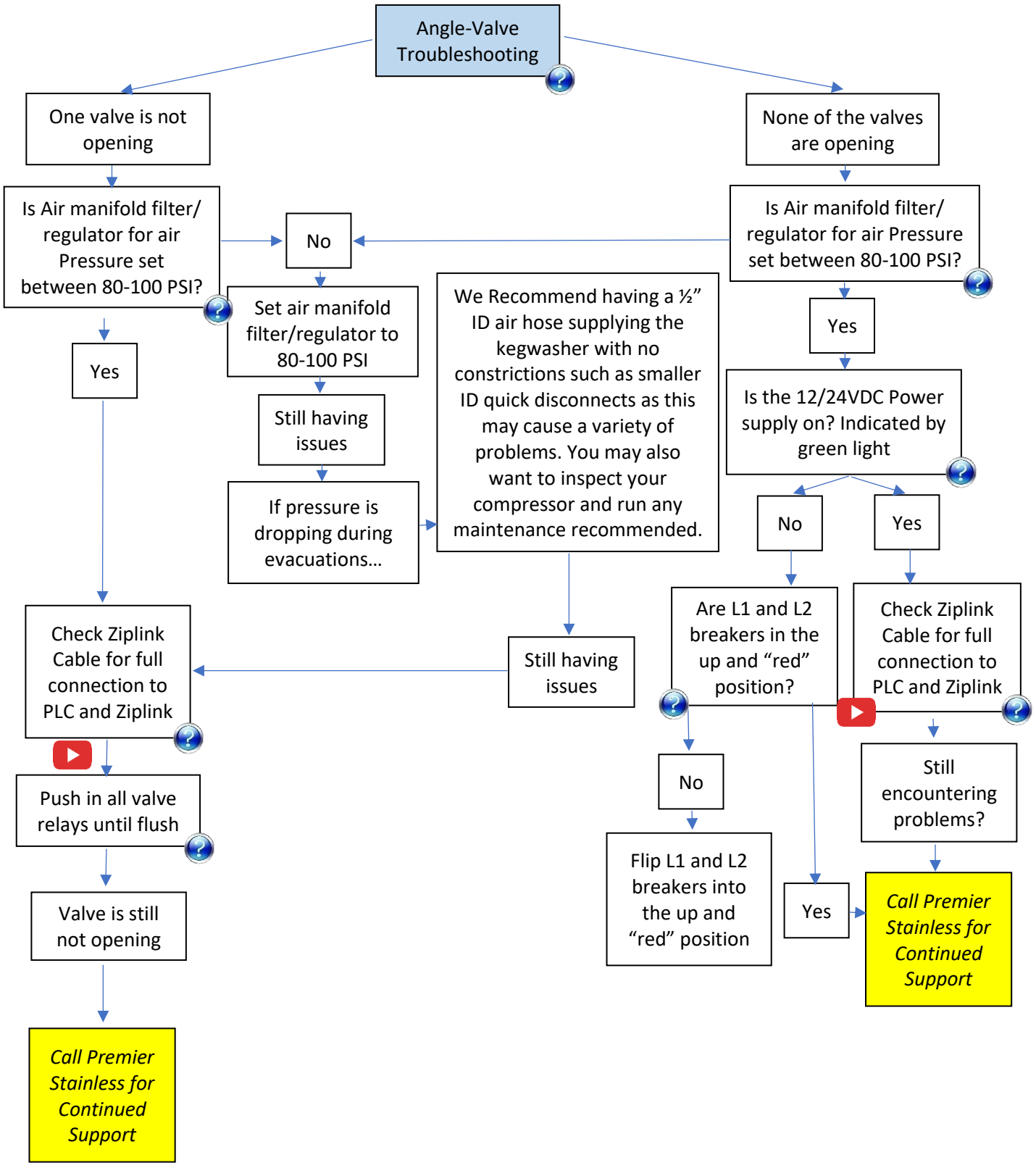
*Home website*: www.aspumps.com

*Troubleshooting*: http://www.aspumps.com/troubleshooting/sspcrepair.htm

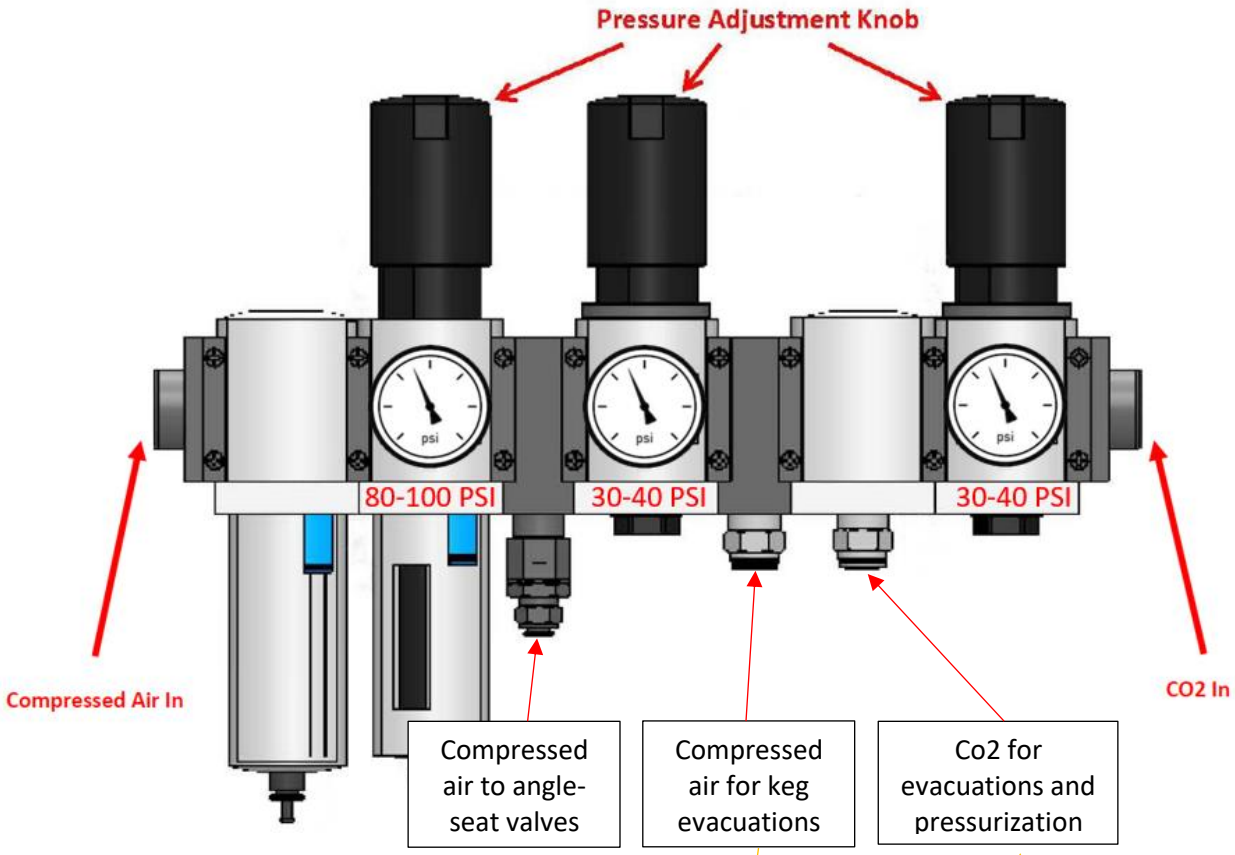
*Information/parts*: http://www.aspumps.com/products/sspc/model-ssp-sspc/

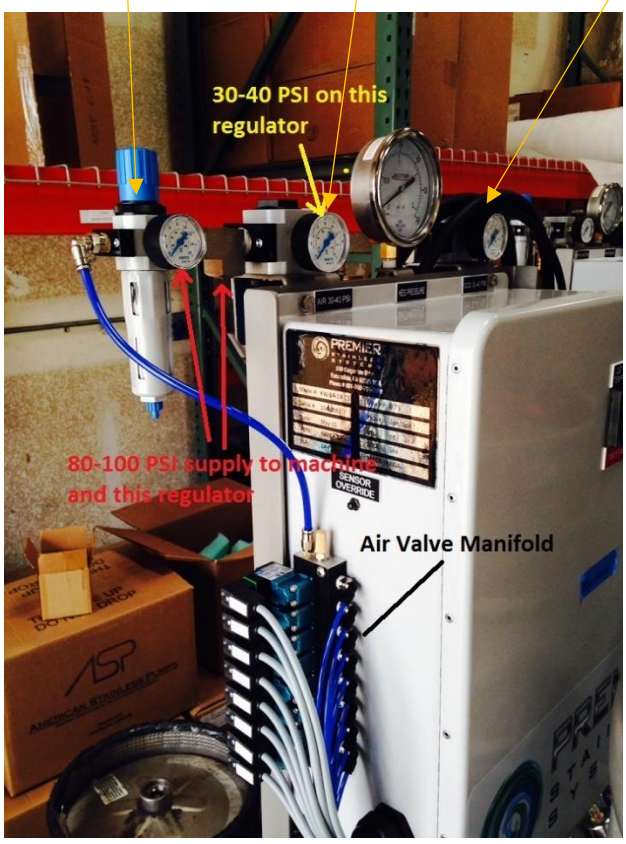
| | | |
|---|---|---|
| ***Call Premier or ASPumps*** | **Pump Seal Replacement kit, including O-ring** | KMS01012 (EPR, Carbon, Ceramic) |
| ***Call Premier or ASPumps*** | **Pump Seal Replacement kit, including O-ring** | KMS01017 (EPR, SiC, SiC) |
|  **McMaster*** | **Mechanical Seal** | 9281K62 (Viton, Phenolic, Ceramic) |
| **McMaster*** | **Lg. O-ring** | 9464K556 (Viton) |
| **Grainger*** | **Mechanical Seal** | 1R300 (Viton, Carbon, Ceramic) |
| **Grainger*** | **Mechanical Seal** | 3ACE8 (Viton, SiC, SiC) |
| **Grainger*** | **Lg. O-ring #258 round** | 1KAK9 (Viton) |

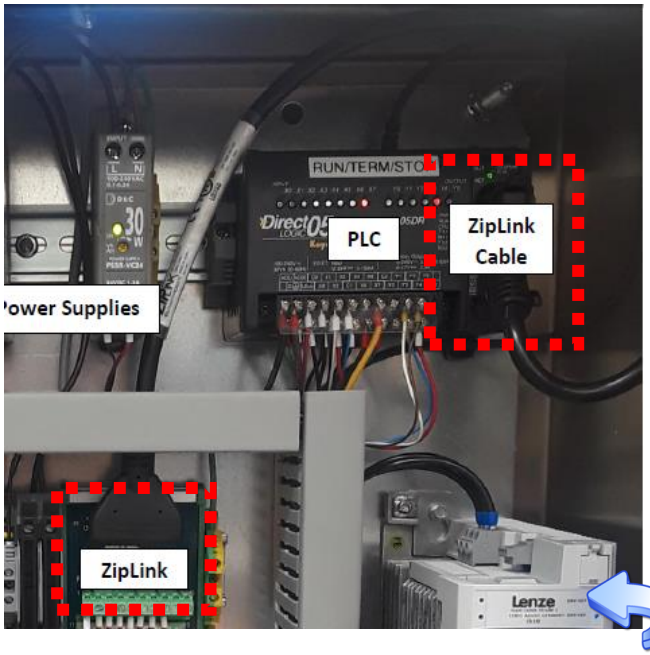

**Made for and distributed by Premier Stainless Systems, LLC. Do not copy or distribute without expressed, written permission.**

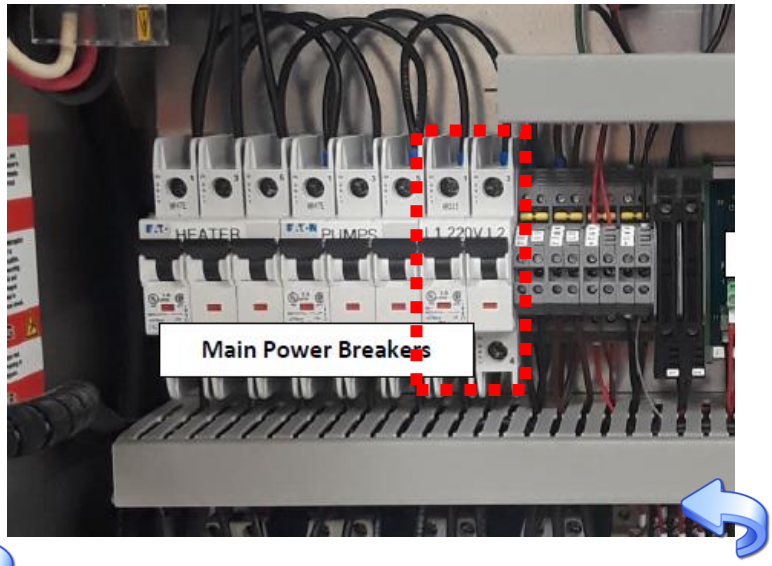



Made for and distributed by Premier Stainless Systems, LLC. Do not copy or distribute without expressed, written permission.


Pressure Adjustment Knob
80-100 PSI
30-40 PSI
30-40 PSI
Compressed Air In
CO2 In
Compressed air to angle-seat valves
Compressed air for keg evacuations
Co2 for evacuations and pressurization


30-40 PSI on this regulator
80-100 PSI supply to machine and this regulator
Air Valve Manifold



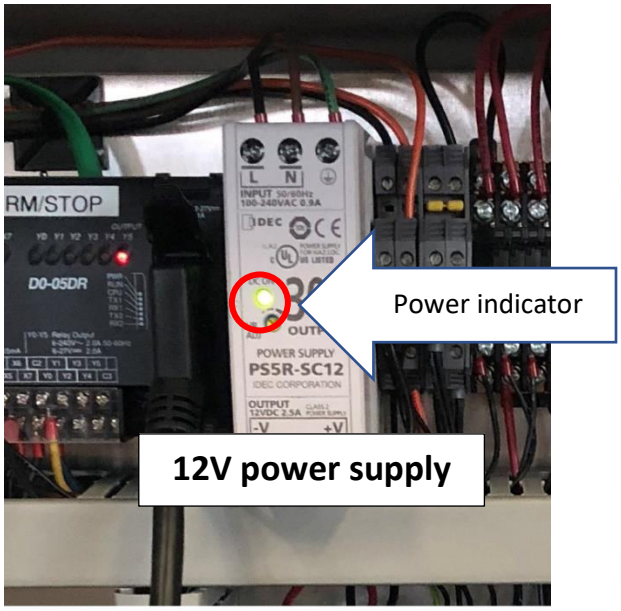



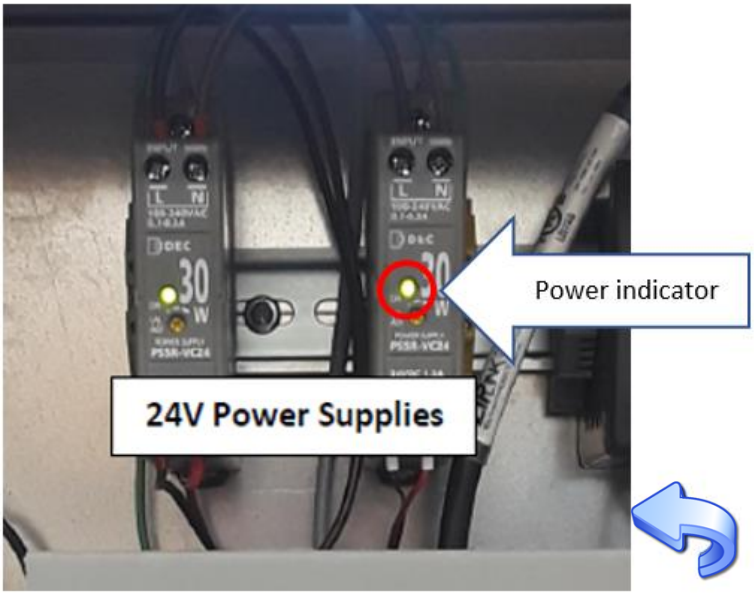
| 3V Valves | |
|---|---|
| 1 | Caustic Return |
| 2 | Drain |
| 3 | Air Supply |
| 4 | CO2 Supply |
| 5 | Detergent Supply |
| 6 | Acid Supply |
| 7 | Water Supply |
| 8 | Acid Return |
| 9 | Low Flow (Always ON) |

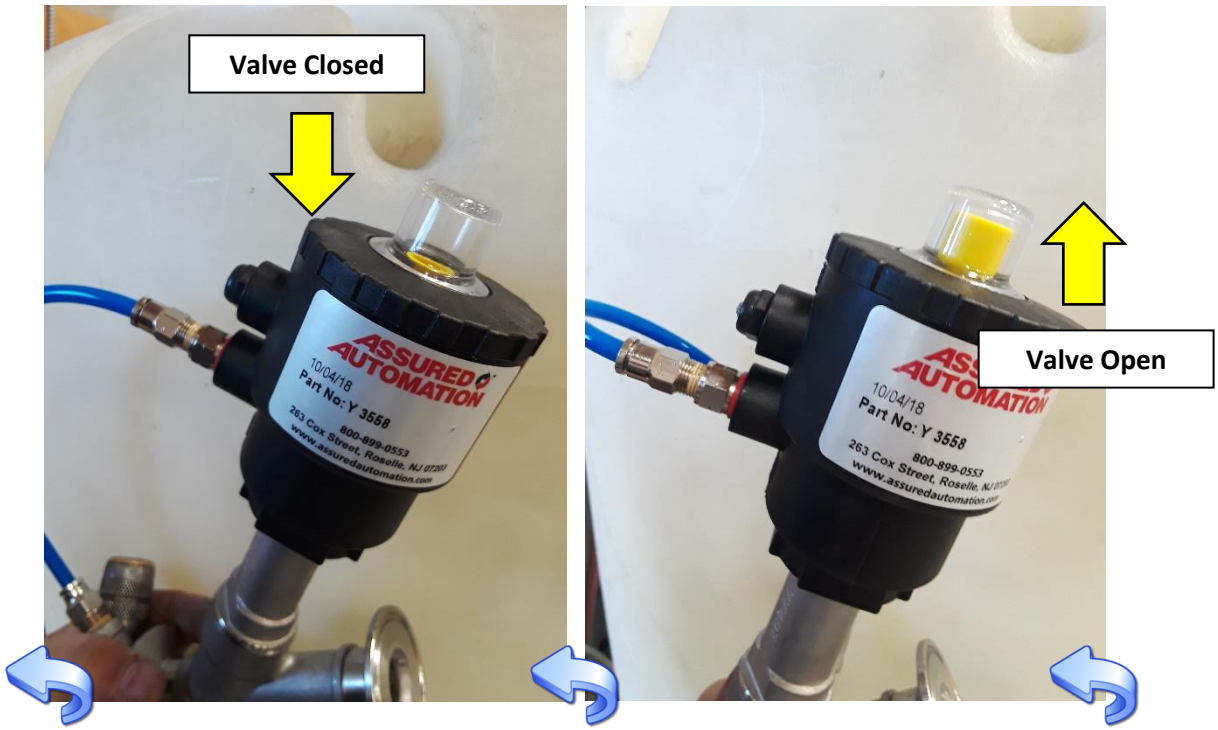
| 2V Valves | |
|---|---|
| 1 | Caustic Return |
| 2 | Drain |
| 3 | Air Supply |
| 4 | CO2 Supply |
| 5 | Detergent Supply |
| 6 | Water Supply |
| 7 | Low Flow (Always ON) |

| | |
|---|---|
| 1 | Caustic Return |
| 2 | Drain |
| 3 | Air Supply |
| 4 | CO2 Supply |
| 5 | Pump Out |
| 6 | Water In |
| 7 | Water Spear |
| 8 | Low Flow |

PREMIER STAINLESS SYSTEMS
Meeting the Needs of Brewers Worldwide
Made for and distributed by Premier Stainless Systems, LLC. Do not copy or distribute without expressed, written permission.




**Water Line Fault**

**Caustic/Acid Line Fault**

**Angle- Valve Troubleshooting**


Made for and distributed by Premier Stainless Systems, LLC. Do not copy or distribute without expressed, written permission.

Sankey Coupler troubleshooting

Are they the original, cleaning and filling style couplers?

Yes

Are the Sankey shut-off valves on both the gas-in and beer-out open?

If you turn the valves on and off, do they move with slight resistance or do they feel very loose?

Loose

Replace Valve(s)

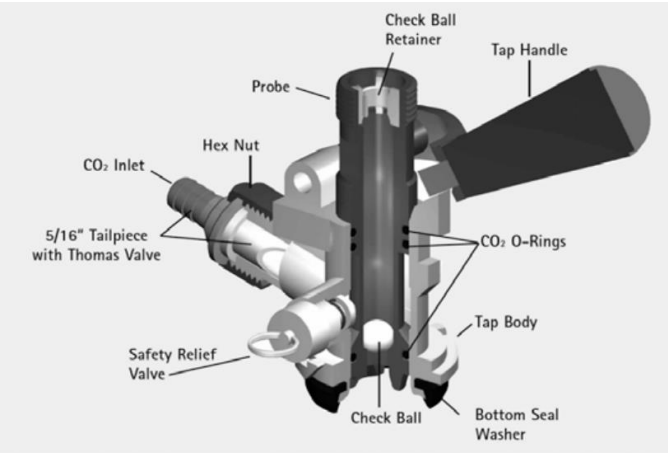
Resistance

Replace all gaskets and seals on Sankey coupler, especially the Bottom Seal Washer.

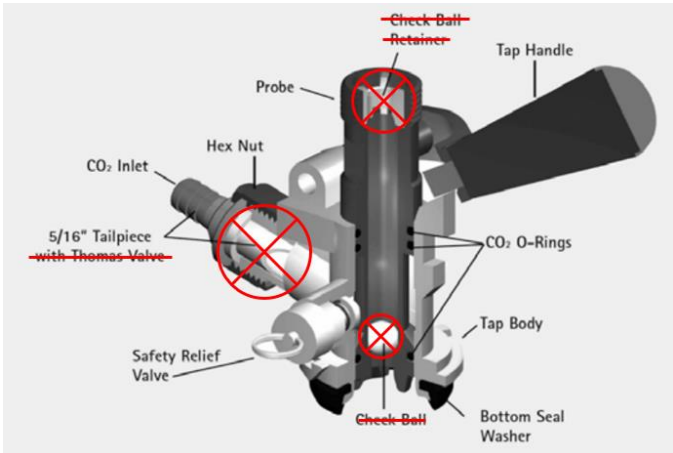
No

You may want to order cleaning/ filling style Sankey couplers as they differ from standard Sankey couplers in multiple ways. 1, they have larger openings on both Co2 inlet and Probe 2, they do not contain a Thomas valve on the Co2 inlet side. 3, cleaning/ filling style couplers do not contain a check ball and check ball retainer assembly which may constrict your flow with a standard pub- style serving Sankey coupler should you try using this instead of a filling/ cleaning style. ***These may be ordered through Premier Stainless Systems. Part no. P10197***

Pub-style Sankey Coupler




Filling/ cleaning Sankey Coupler




PREMIER STAINLESS SYSTEMS Meeting the Needs of Brewers Worldwide

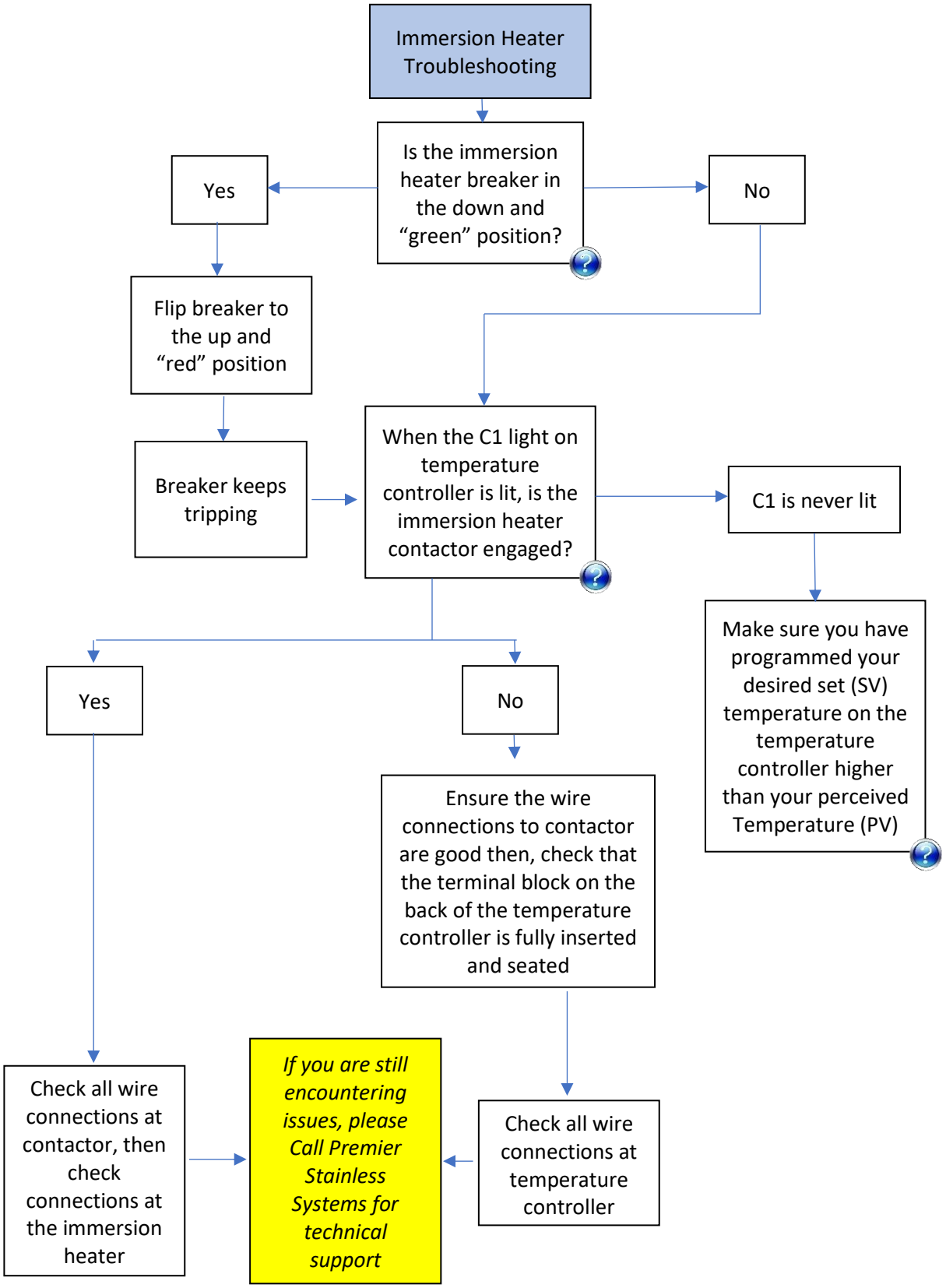
**Made for and distributed by Premier Stainless Systems, LLC. Do not copy or distribute without expressed, written permission.**

# SANKEY COUPLER PARTS

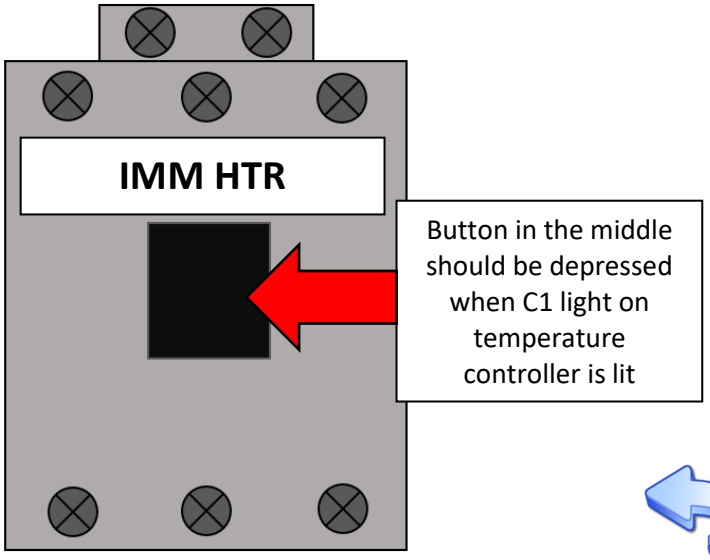
www.micromatic.com

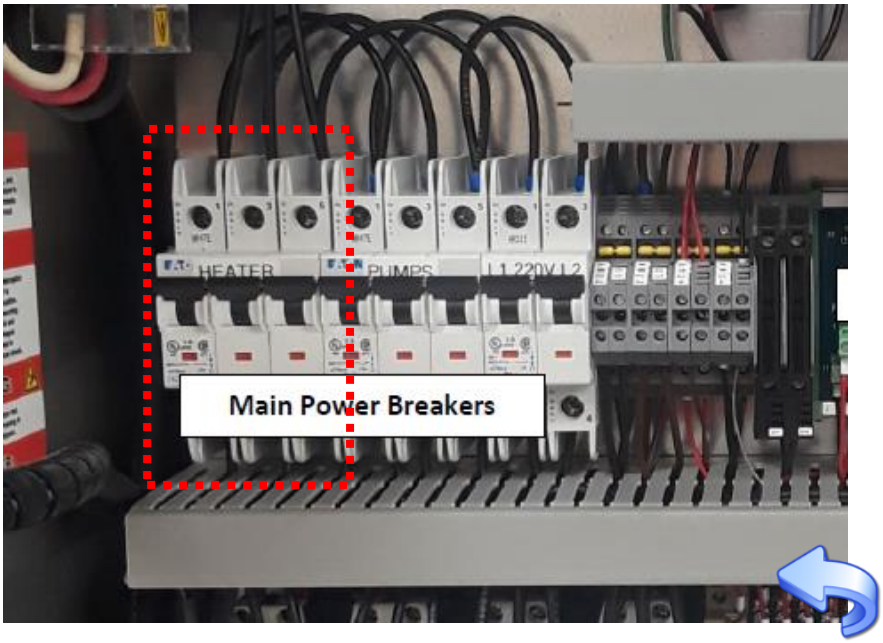
| | | |
|---|---|---|
| *Special Order through either MicroMatic or Premier Stainless* | **SS Washing Head, Complete** | 7485-CC<br>P10197 |
| | **SS Straight Shutoff Valve** | 7419-1 |
| | **Neoprene Washer** | 759 |
| | **White Probe Washer** | 102-579 |
| | **Black Bottom Seal Washer** | 102-521 |
| | **Ergo Handle** | 762-101-F001 |
| | **Sankey D & S- style Cleaning Cup** | 2S2-005 |
| | **Other Cleaning Cups** | A |
| | | G |


Made for and distributed by Premier Stainless Systems, LLC. Do not copy or distribute without expressed, written permission.



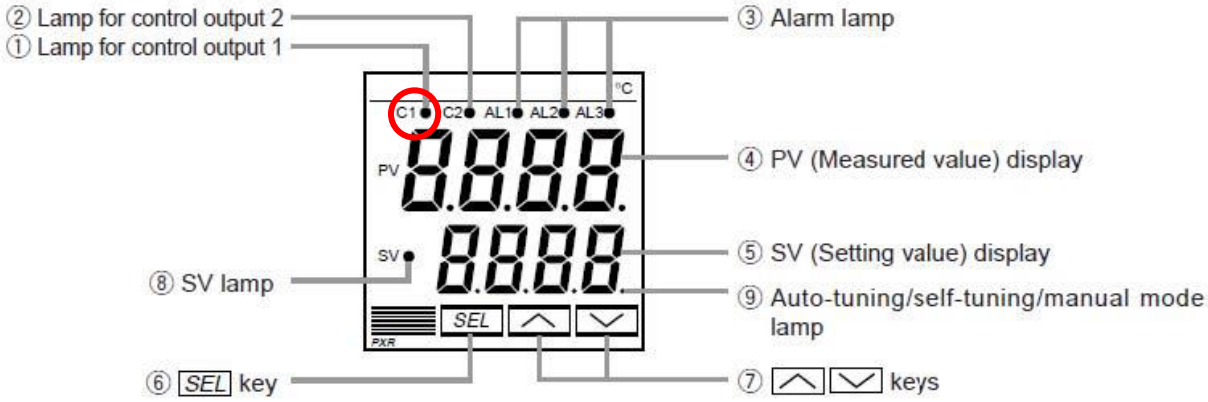

Made for and distributed by Premier Stainless Systems, LLC. Do not copy or distribute without expressed, written permission.





Made for and distributed by Premier Stainless Systems, LLC. Do not copy or distribute without expressed, written permission.




① Lamp for control output 1

Lights up while control output 1 stays ON.

② Lamp for control output 2

Lights up while control output 2 stays ON.

③ Alarm lamp

Lights up on detecting an alarm. The alarm output is turned ON at the same time.

If the optional heater break alarm is provided, the AL3 lamp lights up on detecting a heater break.

④ PV (Measured value) display

Displays the PV. When setting a parameter, its name appears.

⑤ SV (Setting value) display

Displays the SV. When setting a parameter, its value appears.

⑥ SEL key

Used to select a parameter block and a parameter, and register a set value.

⑦ keys

Used to change the SV, call parameters, and change parameter values.

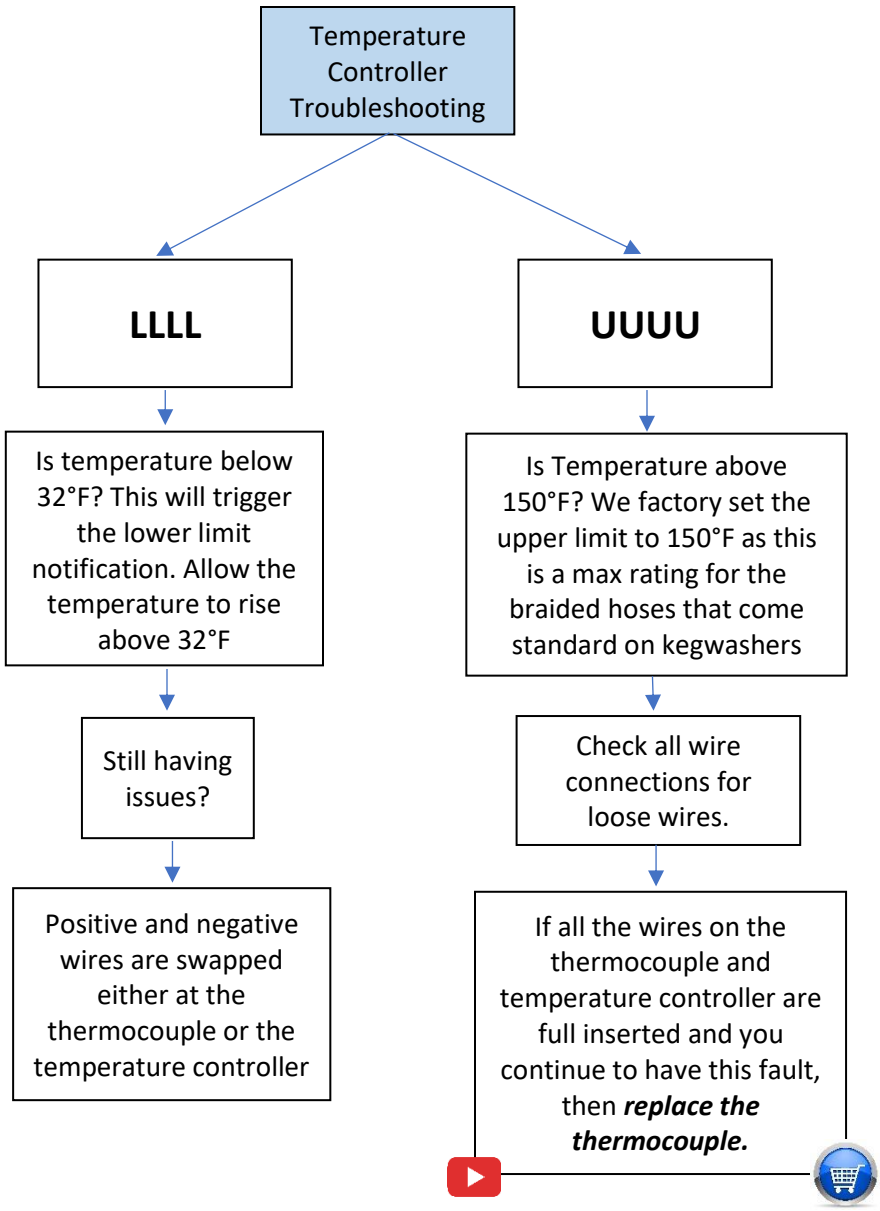
⑧ SV lamp

Lights up while the SV is displayed in the SV display. When parameters and data are displayed, the SV lamp goes out.

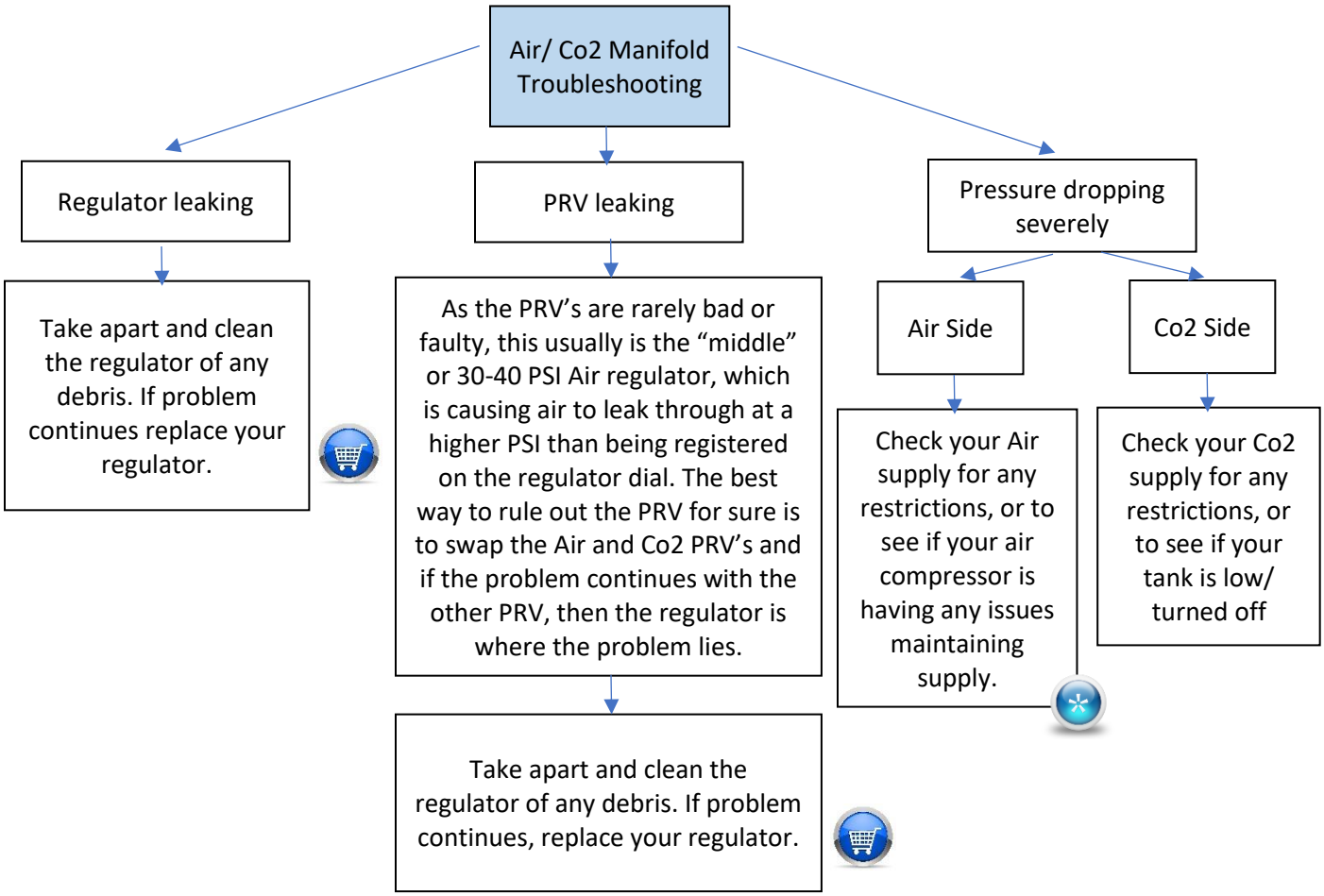
⑨ Auto-tuning/self-tuning/manual mode lamp

Flashes under an auto-tuning or self-tuning operation. The lamp is kept on in manual mode.

PREMIER STAINLESS SYSTEMS
Meeting the Needs of Brewers Worldwide
Made for and distributed by Premier Stainless Systems, LLC. Do not copy or distribute without expressed, written permission.




Made for and distributed by Premier Stainless Systems, LLC. Do not copy or distribute without expressed, written permission.




**Please note the size of your compressor to ensure it is within factory specifications:**

In the case of compressors for keg washers, bigger is better. If other machinery using air or similar increased air demand exist, or are planned, size the compressor accordingly. Oil free is ideal, but also very expensive, so a .01-micron, coalescing filter is required on oil lubricated compressors. A general-purpose filter upstream of the coalescing filter is also recommended. Air dryers are a matter of personal preference and are not required for keg washers. However, other machinery using air may require dry air, so you may want to plan accordingly. A minimum of ½" ID, appropriately rated supply line is required from the compressor to the keg washer for proper operation. All filters, valves, fittings, hoses, etc. should be at least ½" ID.

## 2 Station Semi-Auto Keg Washer (and 2 Station Manual KW's)

A commercial grade, 60 gallon, 12-14 SCFM, 3 hp compressor is our **MINIMUM** recommendation for the 2 station, SA keg washer.

## 3 Station Semi-Auto Keg Washer

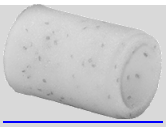
A commercial grade, 80 gallon, 15-17 SCFM, 5 hp compressor is our **MINIMUM** recommendation for the 3 station, SA keg washer.

PREMIER STAINLESS SYSTEMS Meeting the Needs of Brewers Worldwide

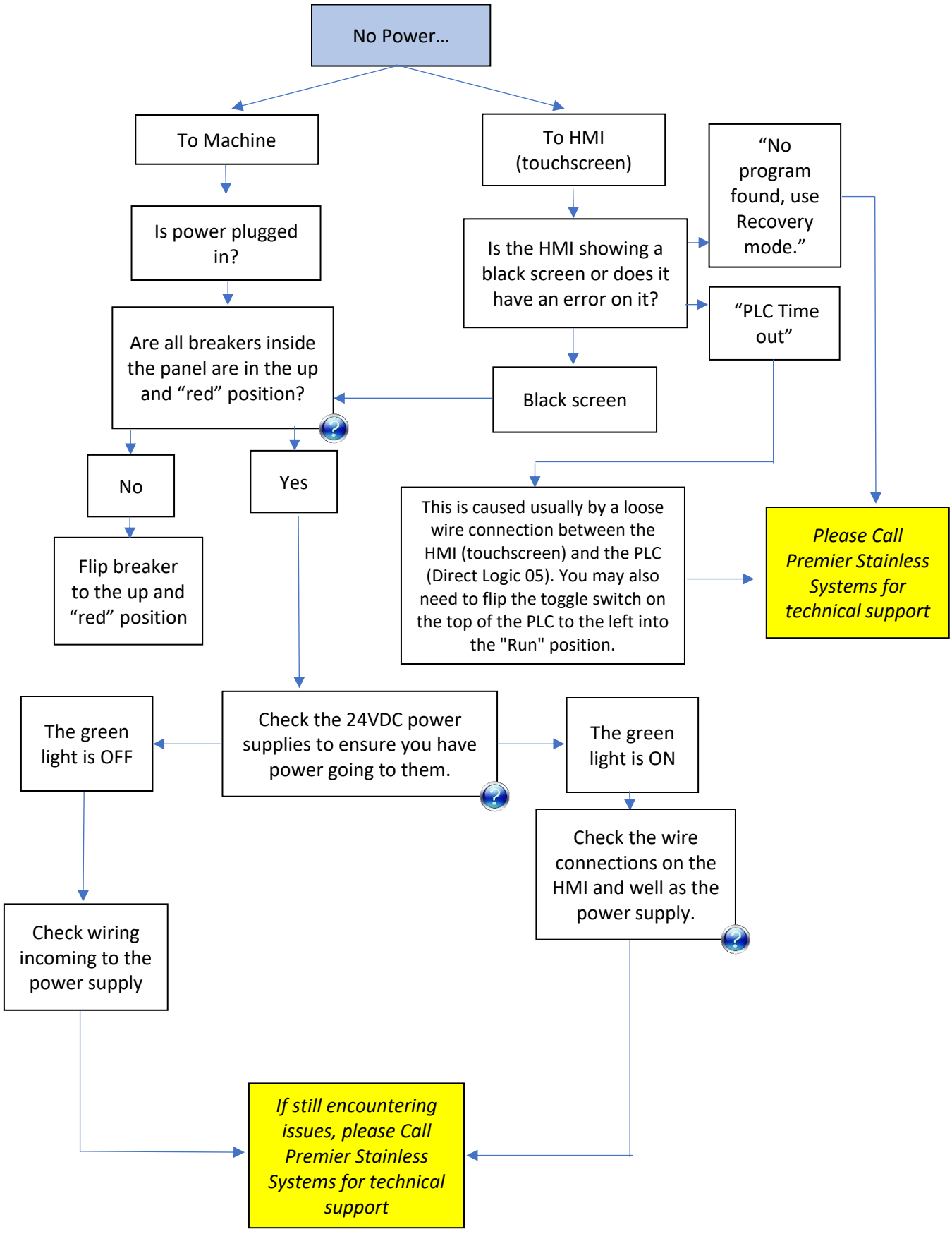
**Made for and distributed by Premier Stainless Systems, LLC. Do not copy or distribute without expressed, written permission.**

# AIR REGULATORS

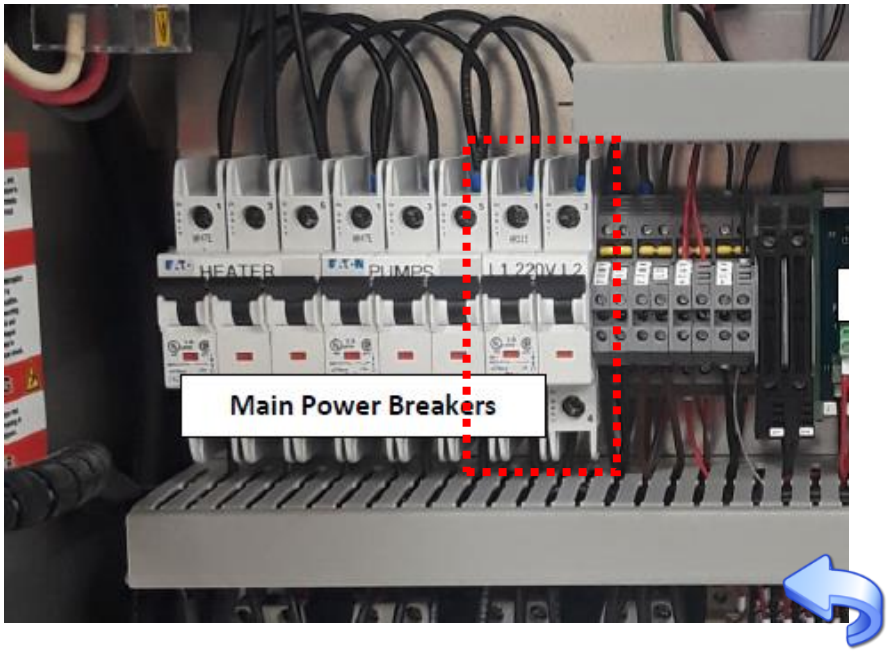
www.mcmaster.com | www.festos.com

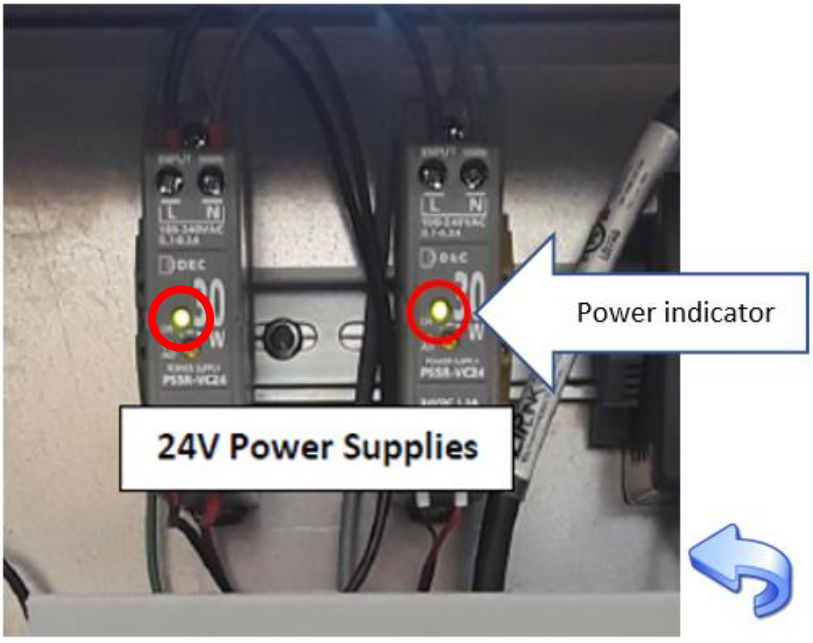
| | | |
|---|---|---|
| | **½" Air/CO2 Regulator** | 173660 |
| | **¼" Air Regulator** | 173764 |
| | **½" Air/CO2 Regulator (non-Festo)** | 8520T6 |
| | **¼" Air Regulator (non-Festo)** | 1399K12 |
|  | **Replacement Filter Element (for 1399K12)** | 1399K21 |

PREMIER STAINLESS SYSTEMS
Meeting the Needs of Brewers Worldwide
Made for and distributed by Premier Stainless Systems, LLC. Do not copy or distribute without expressed, written permission.

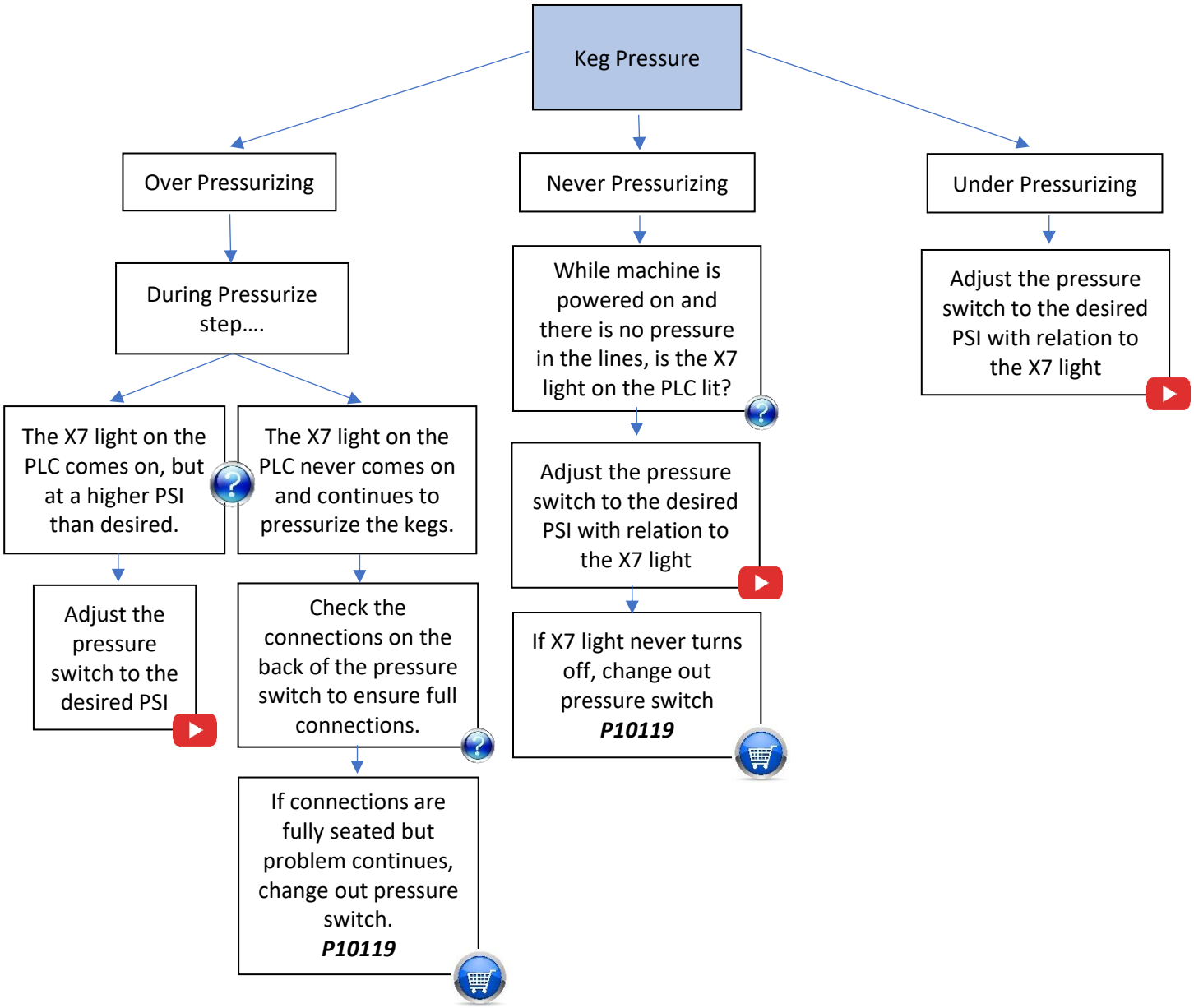



Made for and distributed by Premier Stainless Systems, LLC. Do not copy or distribute without expressed, written permission.

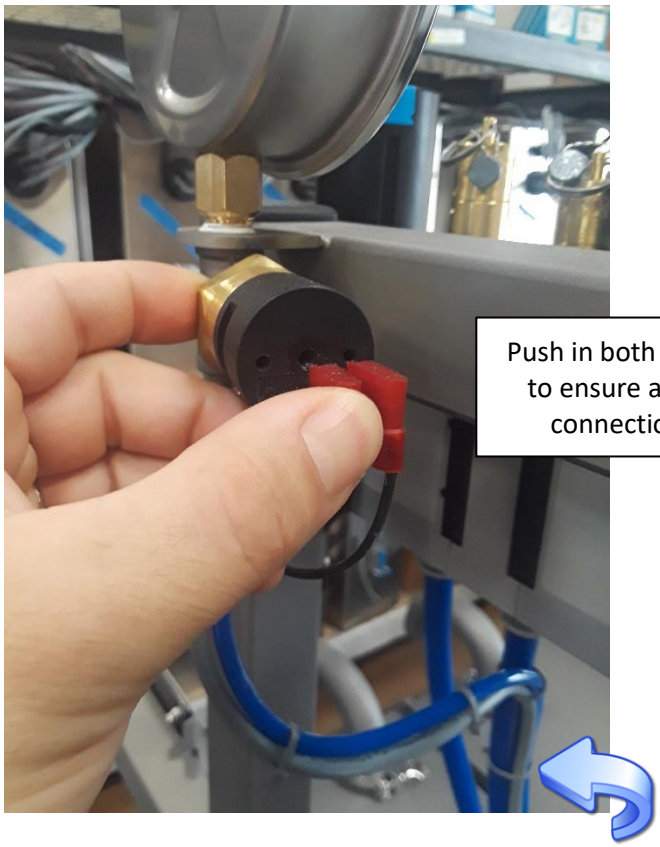


Made for and distributed by Premier Stainless Systems, LLC. Do not copy or distribute without expressed, written permission.




PREMIER STAINLESS SYSTEMS
Meeting the Needs of Brewers Worldwide
Made for and distributed by Premier Stainless Systems, LLC. Do not copy or distribute without expressed, written permission.





Made for and distributed by Premier Stainless Systems, LLC. Do not copy or distribute without expressed, written permission.

# Contact us:

**(760) 769- 7999**

| | |
|---|---|
| **Technical Support:** | **Ext. 119** |
| **Parts:** | **Ext. 104** |

**Help@premierstainless.com**

Mon- Friday
7:00am- 5:00pm

Saturday & Sunday
Closed

Made for and distributed by Premier Stainless Systems, LLC. Do not copy or distribute without expressed, written permission.