

## ZYMATIC TROUBLESHOOTING

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### What is the issue?

I am receiving a Fatal Error 1, 3, or 17 > **Go To 'Check Firmware'**

My step filter is overflowing or not draining > **Go To 'Make sure that your machine is level/Upper screen isn't floating'**

Liquid is not circulating correctly > **Go To 'Run Circulate to check flow'**

My step filter is leaking > **Go To 'My step filter is leaking'**

My step filter is cracked > **Go To 'PicoBrew Support'**

I am receiving a stepper motor fault > **Go To 'Stepper Motor Fault'**

I'm unable to update my firmware > **Go To 'I need to update my firmware'**

I am purchasing or selling a used Zymatic > **Go To 'Used Equipment'**

I am having a different issue -> **Go To 'PicoBrew Support'**

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### Check Firmware

Is your Zymatic currently running firmware version 1.1.14? (This will be in the top right corner of the OLED screen when you first power on your Zymatic)

v1.1.14 is the most up to date firmware, this version has more features and can help prevent errors.

I have the most up to date firmware -> **Go To 'I am receiving a Fatal Error 1, 3, or 17'**

I need to update my firmware -> **Go To 'I need to update my firmware'**

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### I am receiving a Fatal Error 1, 3, or 17

"Fatal Error 1" is a safety mechanism built in to the system. If the temperature difference between two of the three temp sensors is greater than 50°F, this will trigger Fatal Error 1.

Fatal Error 1 can also appear as other errors, such as 3 and 17.

This error is typically caused by a poor seal allowing air into the system, or lack of flow on the black fitting hose side.

If you are continuing to get Fatal Error #1 do not repeatedly try to run a brewing or cleaning cycle. This can potentially damage your Zymatic. Go into the Help menu and select Circulate. Allow the machine to circulate water until the Wort and Heat temps are within a few degrees of each other. (Board temp is irrelevant in this instance)

Is your Zymatic circulating liquid?

Yes -> **Go To 'Check Intake Line Components'**

No -> **Go To 'Check Components - No Circulation'**

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### **Check Intake Line Components**

Check the following:

- That the small white nylon washers are in place where the hoses attach to the machine, that the hoses are screwed on tightly (but with the included black plastic wrench, not an actual wrench which will over-tighten them). Ensure that they are not skewed or compressed in a way that they are restricting flow to the machine.
- The hoses are screwed onto the correct ports (gray towards the front, black towards the back).
- Check to make sure that the in-line filter is clear of debris, that the embedded gasket is in place, and that the bowl is screwed on tightly.



- The black ball lock fitting is attached to the keg correctly; it should click into place and be connected to the OUT fitting. The gray fitting should be attached to the IN keg post.
- Make sure that you are cleaning your keg posts and poppet valves between sessions, these can become clogged with debris over time.



- Inspect your keg post and dip tube O-rings to make sure that there are no nicks or damage that would prevent a proper seal.
- Make sure that the keg posts are screwed down tightly.
- Make sure that you have the keg posts installed correctly. The keg post with the notches is should be installed on IN with the short dip tube, the [post without the notches is the OUT post which belongs with the long dip tube.



- Confirm that the long dip tube is centered on the bottom of the keg, if it is skewed to the side the flow can be obstructed by the bottom of the keg. If you are using a keg that was not purchased from PicoBrew you will want to shave 1/2" (~12-13mm) off of the end of the long dip tube.
- You should never have your metal lid sealed on the keg while it is attached to the Zymatic, this will cause flow issues that can result in this error.
- If you have never cleaned your ball lock fittings or this isn't your first use, disassemble and check the ball lock fittings for any debris.
- Check to make sure that the hoses are securely connected to the ball lock fittings and not slipping off of the barb.
- Finally, make sure that you have enough water in your keg. If you don't have enough water and keg is running dry it will cause Fatal Error.

If this did not correct your issue, **Go To 'Run Circulate to check flow'**.

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### **Run Circulate to check flow**

1. Remove the keg seal from your keg so that it is open. Make sure that your keg is connected to your machine and contains liquid.
2. Select Circulate in the Help menu.
3. Allow this to run for a few minutes, then exit.

Do you see water passing into the step filter and draining back into the keg?

I see water passing through the machine -> **Go To 'FE#1 - Water is Circulating'**

Water is not being deposited into the step filter -> **Go To 'Check Components - No Circulation'**

Water is being deposited into the step filter, but not draining back into the keg -> **Go To 'Checking Drain Line Components'**

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## FE#1 - Water is Circulating

Try to start the deep-clean cycle. Does your Zymatic throw an error after it has been heating for a few minutes? If it does, Go To 'PicoBrew Support'.

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## Check Components - No Circulation

Check the following:

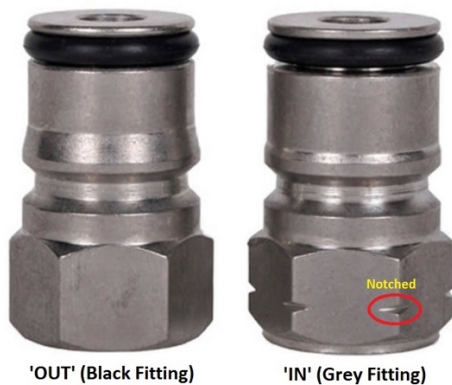
- That the small white nylon washers are in place where the hoses attach to the machine, that the hoses are screwed on tightly (but with the included black plastic wrench, not an actual wrench which will over-tighten them). Ensure that they are not skewed or compressed in a way that they are restricting flow to the machine.
- The hoses are screwed onto the correct ports (gray towards the front, black towards the back).
- Check to make sure that the in-line filter is clear of debris, that the embedded gasket is in place, and that the bowl is screwed on tightly.



- The black ball lock fitting is attached to the keg correctly; it should click into place and be connected to the OUT fitting. The gray fitting should be attached to the IN keg post.
- Make sure that you are cleaning your keg posts and poppet valves between sessions, these can become clogged with debris over time.



- Inspect your keg post and dip tube O-rings to make sure that there are no nicks or damage that would prevent a proper seal.
- Make sure that the keg posts are screwed down tightly.
- Make sure that you have the keg posts installed correctly. The keg post with the notches is should be installed on IN with the short dip tube, the [post without the notches is the OUT post which belongs with the long dip tube.



- Confirm that the long dip tube is centered on the bottom of the keg, if it is skewed to the side the flow can be obstructed by the bottom of the keg. If you are using a keg that was not purchased from PicoBrew you will want to shave 1/2" (~12-13mm) off of the end of the long dip tube.

- You should never have your metal lid sealed on the keg while it is attached to the Zymatic, this will cause flow issues that can result in this error.
- If you have never cleaned your ball lock fittings or this isn't your first use, disassemble and check the ball lock fittings for any debris.
- Check to make sure that the hoses are securely connected to the ball lock fittings and not slipping off of the barb.
- Finally, make sure that you have enough water in your keg. If you don't have enough water and keg is running dry it will cause Fatal Error.

Re-run Circulate, are you seeing flow through the machine? If not, **Go To 'Keg Pump Function Check'**

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### **Keg Pump Function Check**

While in this test menu be very careful to only go where instructed, if you end up in the wrong section just turn your machine off rather than try to exit. If you change the wrong thing in this menu you can permanently damage your machine.

1. Press down on the selection knob while turning the machine on. This will temporarily add a test menu to your main menu.
2. Go to the test menu and select Run Keg Pump, do you hear the pump kick on when you do this?
3. Turn off the machine to exit this menu.

Does the Keg Pump turn on when tested?

My Keg Pump turns on -> **Go To 'Force Prime Keg Pump'**

My Keg Pump does not turn on -> **Go To 'PicoBrew Support'**

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### **Force Prime Keg Pump**

1. Fill your brewing keg about halfway with water, and seal it with the metal lid. This is the only instance in which the lid should be sealing the keg while it is connected to the Zymatic.
2. Connect both hoses to the keg, and select Circulate in the Help menu. After a few minutes the drain pump should pressurize the keg and force water up the line so that the keg pump will prime.
3. As soon as you see water being deposited into the step filter, pull up on the pressure release valve on the keg lid to bleed off the pressure, and remove the keg lid.

4. Allow circulate to continue running for a few minutes to confirm that everything is working correctly before brewing.

Does water continue to flow into the Zymatic?

Water kept flowing -> **Go To 'Water kept flowing'**

Water stopped flowing when I removed the keg lid -> **Go To 'Re-checking Keg Pump'**

Nothing happened when I did this -> **Go To 'No Flow When Trying to Force Prime Keg Pump'**

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### **Water kept flowing**

Your keg pump should now be primed. Try resuming your recipe program, or running a recipe program with just water to confirm that everything is working correctly and that the machine is no longer throwing errors.

**If this did not correct your issue, Go To 'I am receiving a Fatal Error 1, 3, or 17'**

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### **Re-checking Keg Pump**

Re-check the Keg Pump to make absolutely sure that it is engaging.

While in this test menu be very careful to only go where instructed, if you end up in the wrong section just turn your machine off rather than try to exit. If you change the wrong thing in this menu you can permanently damage your machine.

1. Press down on the selection knob while turning the machine on. This will temporarily add a test menu to your main menu.
2. Go to the test menu and select Run Keg Pump, do you hear the pump kick on when you do this?
3. Turn off the machine to exit this menu.

**If this does not resolve your issue, Go To 'PicoBrew Support'.**

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### **No Flow When Trying to Force Prime Keg Pump**

1. Remove the lid from the keg



2. Remove your step filter and add about an inch of water to it. Reinsert it into the step filter into your Zymatic, and select Drain in the Help menu.

Does your drain pump kick on, and does the step filter begin draining?

My Drain Pump engages, and my step filter drains -> **Go To 'My Drain Pump engages, and my step filter drains'**

My Drain Pump does not engage -> **Go To 'PicoBrew Support'**

My Drain Pump engages, but does not drain the step filter -> **Go To 'Check Drain Line Components'**

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### **My Drain Pump engages, and my step filter drains**

- Check to make sure that you have the lid on correctly, and that the pressure relief is closed and sealing correctly.
- Check your O-Rings and Keg Posts. Make sure that the Keg Posts are screwed down tightly and that there isn't anywhere that air could be leaking from.
- Make sure that you are allowing enough time for pressure to build up, this process can take a few minutes.
- You can check that pressure is building up by pulling on the pressure relief valve. If air is not escaping when you do this, it means that the keg is not being pressurized by the keg pump.

If you want to keep troubleshooting, **Go To 'Force Prime Keg Pump'**.

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### **Checking Drain Line Components**

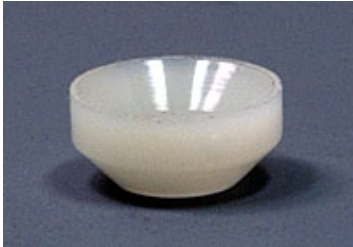
- Make sure that your keg is not sealed with a metal lid
- Disassemble and check the ball lock fittings to make sure that they are clear of debris. Check the clear plastic plunger to make certain that it is not damaged or bent.



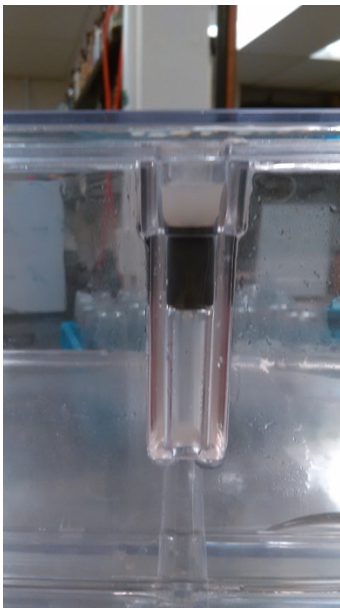
- Disassemble and check the keg posts and poppet valves to make sure that they are clear of debris



- Unscrew the hose with the grey fitting from the side of your machine. Check the small white washer to make sure that it is not compressed, skewed, or damaged in a way that would prevent flow.



- Check the duck valve in the drain port to make sure that it is clear of debris and not damaged. Avoid removing and reinserting the step filter while it is full of liquid as this can throw the drain tube out of alignment and damage the duck valve



Does everything appear to be correct and in good condition?

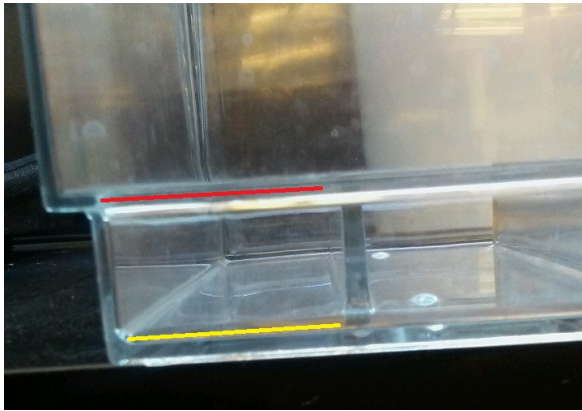
Yes -> **Go To 'Drain Pump Rate Test'**

No -> **Go To 'PicoBrew Support'**

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**Drain Pump Rate Test**

1. Fill your keg halfway with water and attach it to the machine without a keg seal or lid in place.
2. Remove the adjunct compartment insert, hop cages, and all screens from your step filter. Put the step filter lid in place and insert the step filter into the machine.
3. Go into the help menu and select Circulate. Allow this to run for about 15 minutes.
4. Watch the water level in the front portion of the step filter. Does it ever rise above the ledge upon which the lower mash screen would normally rest? (Red line in the picture below)
5. If you look inside of your keg, does liquid appear to be draining back into it?
6. Exit Circulate, and select Drain in the help menu. Allow this to run until the step filter is empty then exit.



Did the water rise above the ledge? Does it appear that water is draining back into the keg?

Water never rose over the ledge -> **Go To 'Drain Pump Test - Positive'**

Water rose over the ledge -> **Go To 'Checking Drain Line Components'**

Water was not being returned to the keg -> **Go To 'Checking Drain Line Components'**

Water was not being deposited into the Step Filter -> **Go To 'Check Intake Line Components'**

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### **Drain Pump Test - Positive**

If your drain pump is keeping up with the water being deposited into the step filter and water isn't backing up into the mash compartment after several minutes, your drain pump is running at a sufficient rate.

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## **I need to update my firmware**

Instructions and resources for updating your Zymatic's firmware can be found at <https://picobrew.com/Members/Software/Zymatic/Installation.cshtml>. Please note that you must be logged in to your PicoBrew account in order to access this area of the website.

Is your Zymatic now running the most up to date firmware?

Yes -> **Go To 'I am receiving a Fatal Error 1, 3, or 17'**

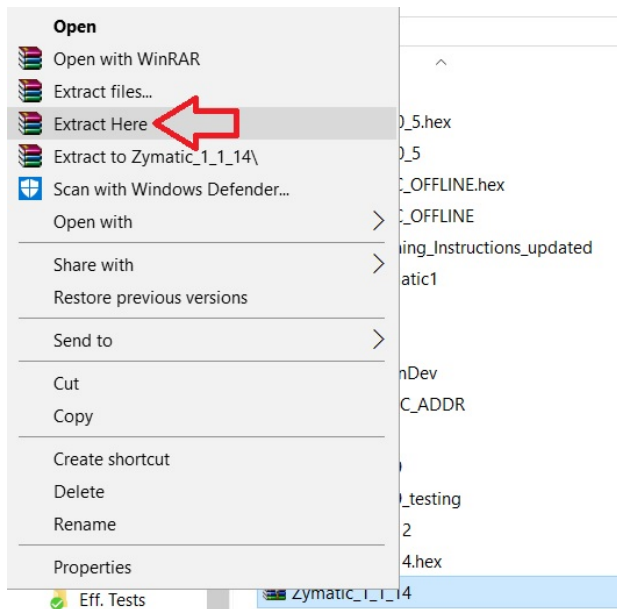
No, I Received an Error -> **Go To 'I Receive An Error When Installing My Firmware'**

No, I am using a Mac -> **Go To 'PicoBrew Support'**

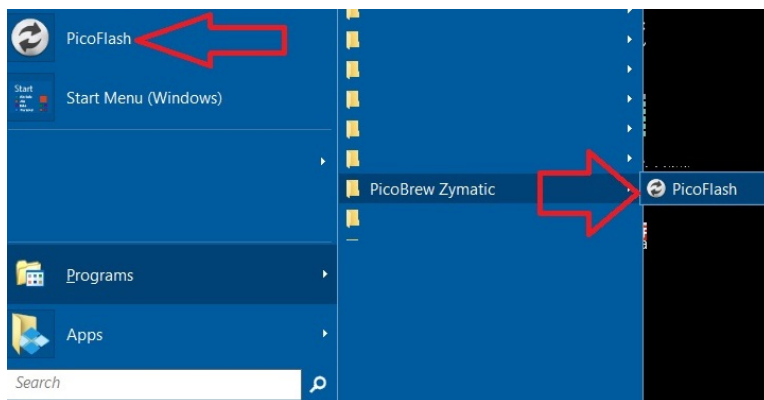
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## **I Receive An Error When Installing My Firmware**

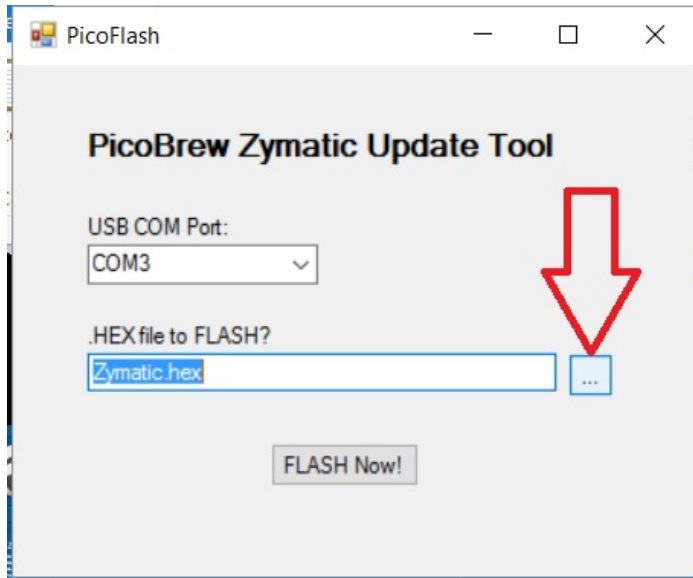
- Make sure that your Zymatic is plugged into power and is physically powered on.
  - Make sure that you have the USB cable installed correctly.
  - Try moving your USB cable to a different port on your computer.
  - Make sure that you have unzipped the .hex file, and that is the file which you are selecting.
  - Zymatic.hex in the field on the updating program is a placeholder. Make sure that you are clicking [...] and navigating to and selecting the correct file.
1. Download the if you haven't already from <https://picobrew.com/Members/Software/Zymatic/Installation.cshtml>. You will need a program to uncompress the firmware such as WinZip or WinRAR. Right click on the file containing the firmware and unzip or extract it.



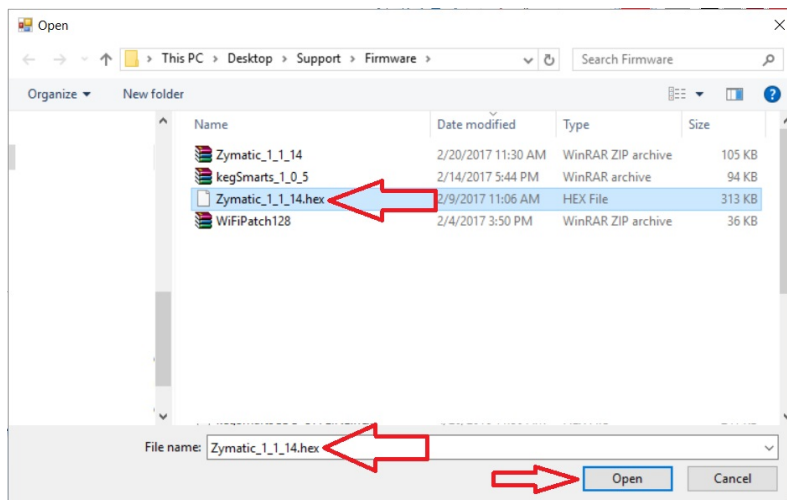
2. Install the PicoFlash utility tool if you have not already. Open the PicoFlash Utility.



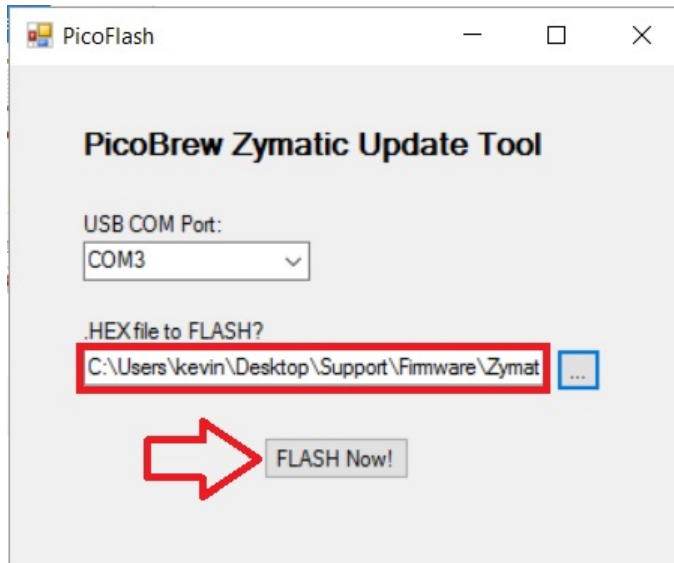
3. Click the [...] button. Do not click Flash Now! yet.



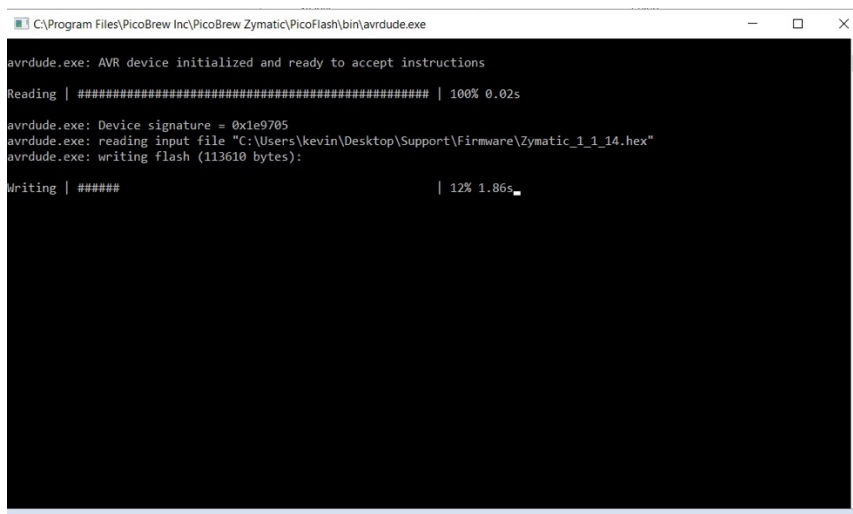
4. Navigate to and select the .hex firmware file



5. Make sure that the field now shows the file pathway, not the Zymatic.hex placeholder.



6. Your Zymatic should begin updating. If your update fails, re-check the points on this page to make sure that you are doing everything correctly.



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### Make sure that your machine is level/Upper screen isn't floating

- Make sure that you are operating your Zymatic on a completely level surface.
- Check your upper mash screen, does it appear to be floating?

My Zymatic is not on a level surface -> **Go To 'My Zymatic is not on a level surface'**

My upper mash screen is floating -> **Go To 'My upper mash screen is floating'**



Neither of these are my issue -> **Go To 'Not Draining - Check Step Filter Plugs'**

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### **My Zymatic is not on a level surface**

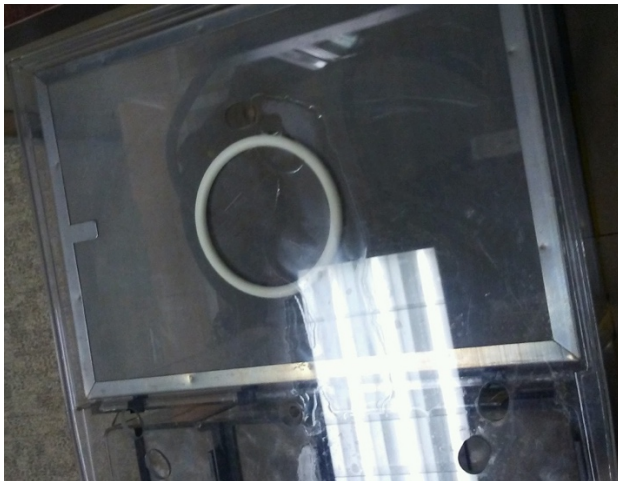
It's very important that the Zymatic is operated on a completely level surface. Not doing this can cause overflow during certain steps of the brewing process.

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### **My upper mash screen is floating**

Sometimes this can happen with high gravity beers. The increased density of the liquid during the mash will cause the screen to float and block the mash hole in the lid.

This can be prevented by placing the large O-ring from your keg lid on top of the mash screen to act as a spacer, or a spoon.



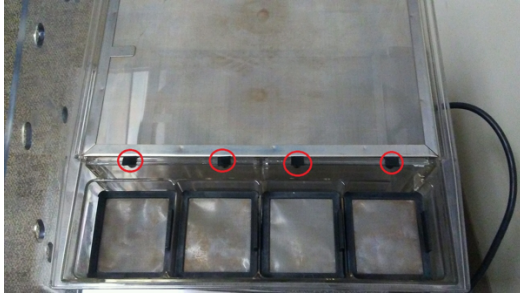
If this did not fix your issue, **Go To 'PicoBrew Support'**.

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### **Not Draining - Check Step Filter Plugs**

Are you certain that the issue is that your step filter is overflowing?

If you are only seeing leakage during the mash steps, check to make sure that your step filter plugs (circled below) are in place and sealing correctly.



You can make sure that they are sealing correctly by placing your step filter in a kitchen sink or bathtub, and filling it up completely to the point of overflowing. Watch for any dripping making its way around the plugs.

If you are not washing your step filter in the dishwasher, these plugs can be sealed permanently in place using clear NSF rated kitchen/bathroom silicone.

Keep in mind that when it is not inserted into the step filter it is normal to see some leakage from the duck valve.

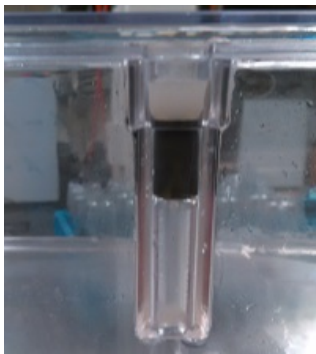
The step filter plugs are not the issue -> **Go To 'Drain Pump Function Check'**

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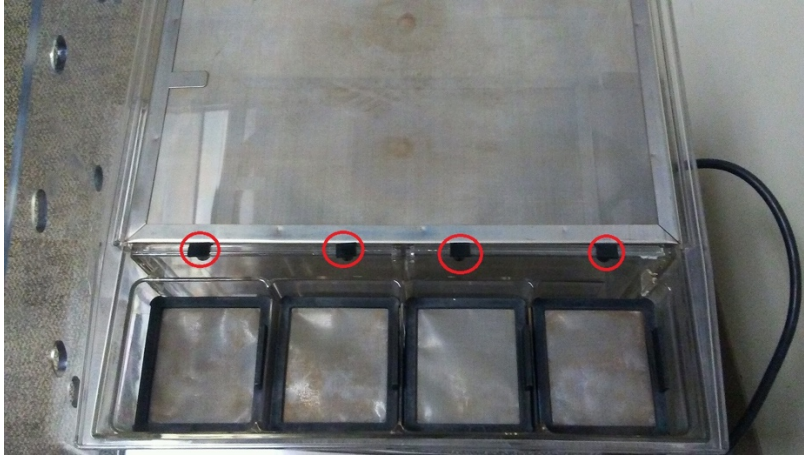
### **My step filter is leaking**

Examine your step filter for any cracks or damage that may be allowing liquid to leak.

Check the duck valve assembly (pictured below) and make sure that it isn't damaged in any way.



If you are only seeing leakage during the mash steps, check to make sure that your step filter plugs (circled below) are in place and sealing correctly.



You can make sure that they are sealing correctly by placing your step filter in a kitchen sink or bathtub, and filling it up completely to the point of overflowing. Watch for any dripping making its way around the plugs.

If you are not washing your step filter in the dishwasher, these plugs can be sealed permanently in place using clear NSF rated kitchen/bathroom silicone.

Keep in mind that when it is not inserted into the step filter it is normal to see some leakage from the duck valve.

If this did not fix your issue, **Go To 'PicoBrew Support'**.

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### Stepper Motor Fault

Is there a USB cable plugged in to the back of your Zymatic?

There is a USB cable -> **Go To 'There is a USB cable'**

There is not a USB cable -> **Go To 'PicoBrew Support'**

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### There is a USB cable

Remove the USB cable from the back of your Zymatic, and turn your Zymatic off and on again.

If this did not fix your issue, **Go To 'PicoBrew Support'**.

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## **Drain Pump Function Check**

With the gray fitting connected to the IN post on your keg, and no lid or seal on the keg, go into the Help menu and select Drain.

Do you hear the pump kick on when you do this? Does it run continuously? Or does it not kick on at all, only kick on for a second, or run continuously but surge?

My Drain Pump is running -> **Go To 'Checking Drain Line Components'**

My Drain Pump isn't running -> **Go To 'PicoBrew Support'**

My Drain Pump only kicked on for a second -> **Go To 'My Drain Pump is Surging'**

My Drain Pump is surging -> **Go To 'My Drain Pump is Surging'**

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## **My Drain Pump is Surging**

Keep in mind that it is normal to see gaps of flow in the sample port.

A surging pump will sound like it is cycling off and on repeatedly. Often you will see the hose moving as this happens. This usually means that your pump is hitting the maximum PSI due to something preventing proper flow.

Obstruction can also cause the pump to run for a second, then shut off after hitting the maximum PSI.

1. Disconnect the gray fitting from the keg and insert a keg wand into it.
2. Run the keg wand into the mouth of your open keg or another receptacle such as a bucket.
3. Run Circulate from the Help menu, is the pump still surging?

Did this correct your issue?

My pump is no longer surging-> **Go To 'Surging - Checking Ball Lock Fittings'**

My pump is not surging after all -> **Go To 'Drain Pump Function Check'**

My pump is still surging -> **Go To 'Drain Pump Surging - Check Fitting'**

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## **Surging - Checking Ball Lock Fittings**

If you are seeing your pump stop surging when you attach a keg wand, the issue is within your keg.

- Make absolutely certain that you do not have a lid sealing the keg.
- Disassemble and check the keg posts and poppet valves to make sure that they are clear of debris and assembled correctly.
- If you are using a keg that is not from PicoBrew, the issue may be your poppet valves themselves; some poppet valves can prevent proper flow.



If this did not fix your issue, **Go To 'PicoBrew Support'**.

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### Drain Pump Surging - Check Fitting

1. Slip the gray ball lock fitting out of the end of the hose. You should be able to do this without removing the clamp.
2. Run the end of the hose into the mouth of the keg.
3. Run Drain from the help menu.

Are you still seeing surging?

I am still seeing surging -> **Go To 'Drain Pump Surging - Check Flare Washer'**

I am no longer seeing surging -> **Go To 'Drain Pump Surging - Disassemble Fitting'**

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### Drain Pump Surging - Check Flare Washer

1. Unscrew your hose with the gray fitting from the side of your Zymatic.
2. Check the white flare washer to make sure that it is not damaged, skewed, or compressed in a way that may prevent proper flow.

If you need a replacement, these can be found in most homebrew shops in the draft section. It is a 1/4" nylon flare washer with a 45° taper.

Please note that washers from hardware or plumbing stores will have the incorrect taper angle.



Re-run Drain with the gray ball lock fitting connected to the IN post on your keg. If you are still seeing surging, **Go To 'PicoBrew Support'**.

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### **Drain Pump Surging - Disassemble Fitting**

If your drain pump is no longer surging after removing the ball lock fitting, the issue is within the fitting.

1. Unscrew the plug from the top of the fitting using a large flat-head screwdriver.
2. Disassemble and check the components to make sure that they are clear of debris.
3. Make sure that the clear plunger piece is not damaged, malformed, or bent. This can prevent it from opening properly.
4. Insert the barb back into the end of the hose, and connect the ball lock fitting back to the IN post on your keg.
5. Re-run Drain from the Help menu. Does this appear to have corrected the issue?



If you are still seeing surging, **Go To 'Drain Pump Surging - Check Flare Washer'**.

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#### **Used Equipment**

Please send an email to [pbfg.deregister@outlook.com](mailto:pbfg.deregister@outlook.com) with the product's serial number from the email account currently associated with the device. We will attempt to deregister the device so it can be used again by a new user. Please allow 7-10 business days and understand that no replies or support will be provided at this email address.

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#### **PicoBrew Support**

**Unfortunately PicoBrew is unable to provide additional support at this time. Your problem exceeds the scope of this basic troubleshooting guide which has been provided as a courtesy. PicoBrew users have several active communities on Facebook and other sites that may be able to answer your questions. Please do not continue to operate a machine that was not repairable under this guide.**