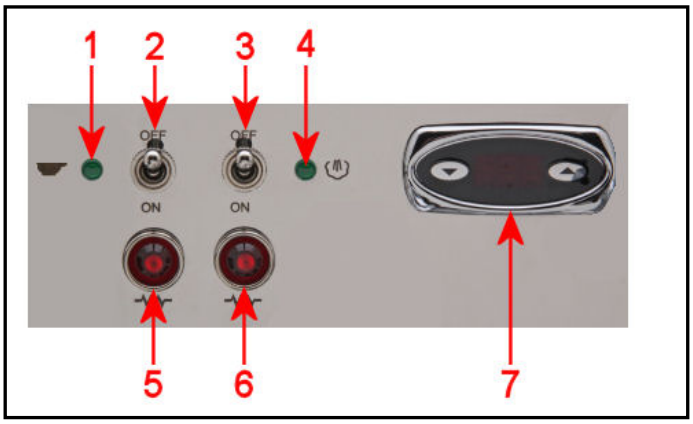
QM 67

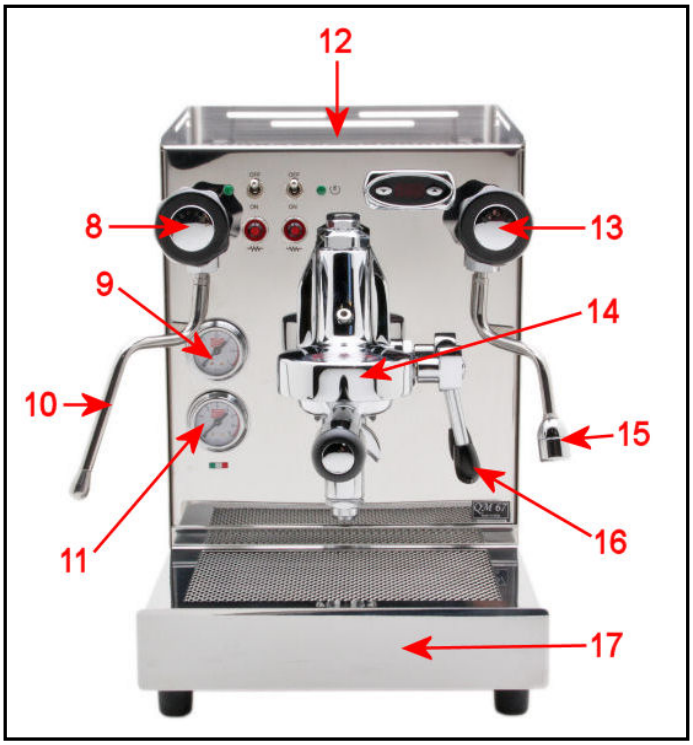
Dual Boiler
Espresso Machine
by

Made In Italy

Owner's Manual

Diagrams





1. Coffee Boiler Power Indicator
2. Coffee Boiler Power Switch
3. Steam Boiler Power Switch
4. Steam Boiler Power Indicator
5. Coffee Boiler Heating Indicator
6. Steam Boiler Heating Indicator
7. PID Controller
8. Steam Knob
9. Steam Pressure Gauge
10. Steam Wand
11. Pump Pressure Gauge
12. Cup Warming Tray (The water reservoir is located under the hinged lid of the cup warming tray)
13. Hot Water Wand (*Do not remove more than 6oz of water at one time until it has had time to refill or damage to the heating element may occur which will not be covered under warranty)
14. E61 Grouphead
15. Hot Water Faucet
16. E61 Brew Lever
17. Drip Tray
18. Single Portafilter
19. Double Portafilter
20. Cleaning Brush
21. Backflush Disc
22. Coffee Scoop/Tamper

Introduction

First of all, thank you for your business! You are going to love your new QM67 Dual Boiler Espresso Machine. It combines classic beauty, value, and great performance for making the best espressos, cappuccinos, and lattes you've ever tasted! These instructions include tips that will help bring out the Barista that's hidden within! Enjoy your new machine!

First Time Set Up

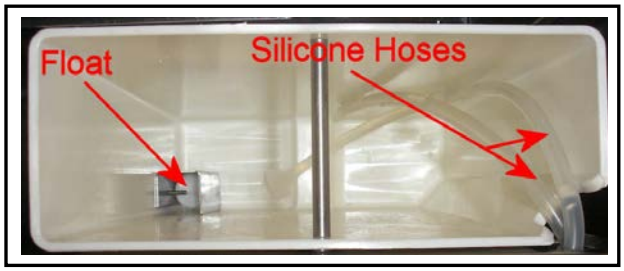
- Before using your machine, test your water for hardness using the provided test strips. Fill a glass with cold tap water; dip the tip of the test strip into the water for one second, then pull the strip out of the water and hold it horizontally for fifteen seconds. After fifteen seconds, compare the color of the strip to the chart on the side of the package to determine how many grains of hardness is in your tap water. Three grains or less of hardness is acceptable to be used in the machine.

  Note: Should your water's hardness level exceed three grains, then it is strongly recommended that an in tank softener be used or a different source of water that has been tested for hardness. Some bottled water can be extremely hard and should always be tested before using. Using a Brita or PUR style pitcher or faucet filter does NOT remove any hardness from the water and should only be used in the machine if your water source is under 3 grains of hardness. Using hard water in the machine will affect its performance and may cause damage to the machine which is not covered under warranty.

- Open the hinged reservoir door on the top of the machine and remove the water reservoir. Rinse the water reservoir out and fill with cold softened water and then install it back into the machine being careful not to spill any water inside the machine.

- Be sure that both silicone lines are sitting in the bottom of the reservoir like shown. There is a notch on the right side of the reservoir for the lines to sit in and the float should be on the left side of the machine.

- Make sure the silicone lines are not pushing the float down or the PID and heating lights will not turn on.



First Time Set Up, Continued

- Before plugging the machine in, verify the steam and hot water knobs are closed and the brew lever is in the down position. Also make sure the power switches are in the off position and the drip tray is in place.

- Plug the machine into the outlet* and then turn the coffee boiler power switch to the on position.

- The pump will come on to fill the boilers and then will turn off after the boilers have completed filling.

- If the pump turns off and the PID and heating lights do not come on then the water reservoir needs to be refilled. It may take 2 reservoirs to completely fill both boilers.

- After the boilers have finished filling then place whichever portafilter you intend to use into the group head. Then lift the brew lever to activate the pump and keep the lever up until water comes out of the portafilter for at least 15 seconds and then lower the brew lever.

- The heating indicator light and PID will illuminate and the machine will start heating. You will hear some gurgling noises and a small amount of steam and water will be discharged into the drip tray. This is normal to allow for the release of air and the expansion of water in the boiler.

- If you plan on steaming milk or using the hot water wand then also be sure to turn on the steam boiler power switch. The coffee boiler power switch must also be on for the steam boiler to operate.

- The machine should reach temperature in approximately 15 minutes, but to make delicious espresso with thick rich crema it is necessary to allow the machine to be heated for 30-45 minutes with the portafilter kept in the grouphead.

***** The electrical outlet must be a 3 prong 115V grounded outlet. No adaptors or extension cords should be used. A timer may be used to turn the machine on and off, but it must be a 3 prong grounded timer rated for 15 amps. A GFCI outlet is highly recommended but is not necessary.

Before Each Use

- Verify the steam and hot water knobs are both closed and your brew lever is pointing straight down.
- Fill the reservoir with cold softened water.
- Place whichever portafilter you intend to use into the group head and then turn the coffee boiler power switch to the on position. If you plan on using the steam or hot water wand then also turn on the steam boiler power switch.
- Let the machine warm up for 30-45 minutes for optimal performance.

Normal Operation

Gauges

- The top gauge is for your boiler steam pressure. After turning the machine on it will take approximately 15 minutes before the gauge will show any pressure. Once up to pressure the gauge will cycle back and forth roughly between 1.2-1.7 bar depending on the steam boiler temperature setting. Should you need to adjust the steam pressure please refer to the PID section of the owner's manual.
- The lower gauge is for your pump (brew) pressure. When sitting idle the gauge is reading trapped pressure in the system and may vary. To get an accurate pump pressure reading install your backflush disc in the portafilter and lock it into the grouphead and then raise the brew lever. After a few seconds the pressure should rise to about 9 - 10 bar. When you make espresso the pressure on the gauge will be slightly less at about 8.5 - 9.5 bar which is normal. This can be helpful in setting up your grinder. If your pressure goes to 9 - 10 bar with the backflush disc, but when you make espresso it is less than 8 bar then that means you need to go finer with your grind which will create more resistance to raise the pressure. Should you need to adjust the pump pressure please refer to the maintenance section of the owner's manual for instructions on setting the pump pressure.

Normal Operation, Continued

Lights

- On the front of the machine there are 4 indicator lights. The green indicator light to the left of the coffee boiler power switch will illuminate whenever the coffee boiler is turned on.

- The green indicator light to the right of the steam boiler power switch will illuminate whenever the steam boiler is turned on. The coffee boiler power switch must be turned on for the steam boiler to operate.

- The red coffee boiler heating indicator light located under the coffee boiler power switch will illuminate whenever the coffee boiler is heating.

- The red steam boiler heating indicator light located under the steam boiler power switch will illuminate whenever the steam boiler is heating. The coffee boiler must be up to temperature before the steam boiler is able to heat.

- It is normal for the red heating lights to flash rapidly back and forth to maintain the proper temperature in both boilers.

Pump

- The machine is equipped with a 52W vibratory pump that is thermally protected. Vibratory pumps can be loud by nature and their tone may change during the course of a shot which is normal.

- Periodically the pump will come on by itself to maintain the proper water level in the boiler. Sometimes the pump will come on when you turn on the machine and sometimes it may not depending on the water level in the boiler which is normal.

- The pump (brew) pressure is regulated by the expansion valve. To learn how to set the pump pressure please refer to the maintenance section of the owner's manual.

Normal Operation, Continued

Water Reservoir

- The water reservoir can be accessed by opening the hinged reservoir door on the top of the machine. It is recommended that the reservoir be removed prior to filling to prevent the spilling of water inside the machine which can cause damage to sensitive electrical components. Should water accidently get spilled inside the machine then immediately turn the power switch to the off position and unplug the machine from the electrical outlet. Do not plug the machine back in until it has had at least 1 full day to dry out. If it does not operate after that time then unplug the machine and refer to the troubleshooting section of the owner's manual.

- The reservoir must be installed properly for the machine to function. The float inside the reservoir must be on the left side of the machine. Also be sure the reservoir is seated as far down as possible and the silicone hoses are not pushing the float down or the PID and heating lights will not turn on.

- The machine is equipped with a magnetic float in the water reservoir to detect the water level. When the water level gets low the PID and heating lights will go out and the pump will no longer function until the reservoir has been refilled.

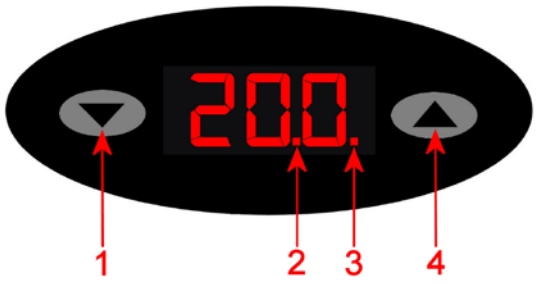
- The reservoir should be cleaned at least once a week with mild dish detergent and rinsed thoroughly before use. **DO NOT PUT IN DISHWASHER!!!**

- Depending on your water quality it may be necessary to periodically sanitize the reservoir or if you are using hard water and have a mineral build up inside. White vinegar can be used to sanitize and will also remove the mineral deposits that can accumulate. Fill the reservoir with white vinegar and then let it sit for an hour and then rinse and clean the reservoir thoroughly. If the reservoir still has a vinegar taste or odor you can mix some baking soda and water in the reservoir to remove the taste and odor and then wash it with a mild dish detergent and rinse thoroughly.

PID Controller

The PID controller's display will cycle back and forth to show the current temperature of each boiler. The position of the decimal point (2+3) indicates which boiler the temperature is being shown for at that time. The picture to the right shows which boiler is represented by which decimal point.

The down arrow is used to cycle through the various settings and the up arrow allows you to select a setting to change. After selecting a setting to change the up/down arrows must be pressed within 2-3 seconds or the display will revert back to the previous setting.



1. Cycle Through Settings (Down)
2. Steam Boiler Temperature
3. Coffee Boiler Temperature
4. Select Setting To Change (Up)

Setting Temperature

With the machine turned on press both arrow keys simultaneously until the display reads **T1** then release the keys. **T1** is the coffee boiler temperature. Press the up arrow key to see the current temperature setting. While the temperature is still being displayed press either arrow key to change the temperature.

After a few seconds the display will revert back to **T1**, then press the down arrow key to display **T2** which is your steam boiler temperature. Press the up arrow key to see the current temperature setting. While the temperature is still being displayed press either arrow key to change the temperature.

After the display reverts back to **T2** then press the down arrow key to save the new temperature settings and go back to normal operation.

Coffee Boiler Temperature - By default the coffee boiler temperature has been set to 200°F The recommended brew range is between 195°- 205°F or 90°- 96°C. This can be easily changed to match the coffee blend you are using and to bring out the different flavor characteristics in the coffee. A hotter temperature will bring out more of the bittersweet chocolate flavors and going colder will bring out more of the fruity flavors. Going too hot may cause the shot to taste bitter and going too cold it may taste sour. Experiment with different temperatures until you find the one you like best.

Steam Boiler Temperature - The steam boiler temperature has been set to 263° by default which is approximately 1.7 bars of steam pressure. The pressure may vary slightly at different elevations. This setting should never be changed unless the machine is at a higher elevation and the pressure exceeds 2 bar in which case the temperature should be reduced by a few degrees so it does not exceed 1.8 bar.

Advanced PID Settings

Warning - This section allows the user to change the machine from Fahrenheit to Celsius mode as well as other advanced settings that can greatly affect the performance of the machine. These settings have been calibrated using specialized test equipment and should not be changed unless the user has a thorough understanding of how a PID controller operates.

To get into the advanced programming mode, with the machine turned off hold down both arrow keys and then turn the machine on. Keep holding the arrow keys until the display reads **F.01** and then release the keys.

Use the down arrow key to cycle through parameters and then use the up arrow key to select a parameter to change. Then use the arrow keys to change the selected parameter.

Parameter	Setting	Description
F.01	F	Fahrenheit Mode
	C	Celsius Mode
F.02	4	Mode (Must be set to 4)
P	2.2	Proportional
I	.06	Integral
D	1.6	Derivative
T1	200°	Coffee Boiler Temperature
T2	263°	Steam Boiler Temperature
E1	20°	Coffee Boiler Offset
E2	0°	Steam Boiler Offset

To save the new changes turn the machine off and then back on again.

PID Basic Theory - The PID calculation algorithm involves three separate constant parameters, the proportional, integral, and derivative values. These values can be interpreted in terms of time: **P** depends on the present error, **I** on the accumulation of past errors, and **D** is a prediction of future errors based on the current rate of change. These 3 settings work together to determine when and how to apply power to the heating element to allow for a more precise temperature control. It is not recommended to change the PID settings unless you have a thorough understanding of how a PID controller operates. To learn more about PID controllers visit the following link. http://en.wikipedia.org/wiki/PID_controller

Offset - The coffee boiler offset setting has been calibrated using a special Scace device and should not be changed. The steam boiler offset setting is set to 0° by default. It can be changed up to 5° to increase the steam pressure, but the pressure may vary at higher elevations so make sure it does not exceed 2 bars of pressure.

Note - The PID controller and heating lights will turn off when the reservoir is empty.

Brewing Espresso

First let me begin by explaining the three main variables of preparing great espresso.

1. Quantity of ground coffee
2. Tamping
3. The grind

Quantity of ground coffee - Loosely fill the basket slightly mounding over the top. Then lightly run your finger arched across the basket from left to right, right to left, front to back, and then lay your finger flat on the basket and go from back to front to remove any excess coffee. This technique helps fill any voids in the basket to help achieve an even extraction.

Tamping - After filling the basket with coffee then use your tamper to apply 30lbs of pressure evenly on the coffee bed. Then without applying any pressure lightly twist the tamper on the bed of coffee to “polish” the loose grounds on top. Then lock the portafilter firmly into the group head and then raise the brew lever to start the extraction. When it has reached the desired level, lower the brew lever to stop the shot. It is very important to tamp consistently with the same pressure each time or your shot quality and timing will vary.

The grind - Adjust your grind so that when you activate the pump, the flow of coffee coming out of the portafilter spout looks like the tapered tail of a mouse. It should take approximately 25 seconds for a 2 oz. double shot. If it is coming out quicker then the grind needs to be adjusted finer, if it is coming out slower or not at all then the grind should be adjusted coarser. The grind particle size should look in between powder and salt. Not as fine as powder, but not as coarse as salt. Getting the right grind is crucial to making delicious espresso with thick rich crema.

Consistency - The quantity of ground coffee and tamping pressure should always be the same. Using more or less coffee or tamping lighter or harder will greatly affect the outcome and timing of the shot. If the shots are not coming out properly then the only variable that should be changed is the grind.

Cooling Flush - A cooling flush is not needed on a dual boiler machine and may actually ruin the temperature stability of the shot and is not recommended for optimal performance.

Cleaning Tip: Get into the habit of disposing of the spent grounds immediately after brewing espresso. After disposing of the grounds, return the portafilter to the group head and raise the brew lever for a few seconds to rinse away excess oils and loose grounds. By regularly following this procedure, you will greatly reduce the tar-like buildup on the shower screen that occurs if you allow coffee oils to dry and bake on the hot group.

Steaming Milk - Basics

First, let's talk about some of the things you need to learn in order to become '***barista-like***' in your techniques.

Milk – Whole milk works best to steam, both in technique and in flavor! Lower fat milks contain mostly water which will not foam well and will be almost tasteless when steamed. After all your hard work you will be left with a less than desirable tasting beverage.

Temperature – Your whole milk needs to be as cold as possible to ensure the creamiest, sweetest, and best tasting micro-foam. Once the milk has reached a temperature between 150-160 degrees, you must stop the process. The longer amount of time you have with the cold milk gives you that extra time to continue making the milk creamy and sweet tasting. Milk heated above 160 degrees will be burnt and taste terrible.

Frothing Pitcher – The size of your pitcher is relative to the size and number of drinks you will be preparing at the time. Our recommendation on pitcher choices would be our own ***"Pro Barista Steaming Pitcher"*** which has become the pitcher of choice of the renowned baristas who helped train Chris' Coffee Service in this frothing technique. These baristas felt the Pro Barista Steaming Pitcher promoted a user friendly rolling of the milk which made it simple to create thick rich micro-foam for pouring Latte Art.

Amount of Milk – Too little milk in your frothing pitcher will cause splashing when you turn on the steam arm; too much milk will cause overflow and make a huge mess. The pitcher must be filled between 1/3 to 1/2 full to have the maximum capacity for properly steaming milk. If your pitcher has a spout, fill it to half an inch below where the spout starts.

Stretching the milk – Refers to the initial heating of the milk and the forceful introduction of air. Stretching continues until the milk reaches an approximate temperature of 100 degrees or "body temperature"

Texturizing the milk – Refers to the next phase of frothing whereby the steam wand is submerged in the milk and the pressure continues to roll the milk. This process breaks down the large air bubbles into tiny air bubbles which then creates the smooth and creamy ***texture*** that is most desirable.

Note – It is highly recommended to steam your milk before pulling your shot. It is also recommended to not use a steaming pitcher that is larger than 20oz for optimal performance.

Steaming Milk - Technique

- As you face your espresso machine, point the steam arm over your drip tray and open up the steam valve in order to purge out any unwanted water that may have collected inside the wand due to condensation – you do not want that added to your delicious beverage!

- Next, position the steam arm so it is facing directly toward you and slightly angle it 45 degrees from the base.

- Holding your half-filled steam pitcher with the handle facing you, submerge the tip of the steam wand approximately an inch below the surface of the cold milk. Your pitcher bottom should be parallel with the countertop. The steam arm should gently rest in the spout of the steam pitcher. Now slightly tilt the pitcher left, keeping the arm away from the side of the pitcher. Open the steam knob completely and position the pitcher so the tip is just below the surface of the milk. This action creates the ***'stretching'*** of the milk – in other words, adding air to the milk. When done properly, the sound you hear at this point resembles 'sucking'. You continue this until the milk reaches an approximate temperature of 100 degrees or "body temperature".

- After your milk has reached this 'body temperature', submerge the tip of the steam arm approximately one inch below the surface of the milk to get the milk spinning. This process continues to roll the milk over itself again and again – breaking the large air bubbles into tiny air bubbles – resulting in a new creamy and sweeter '***texture'*** of the milk. When your milk has reached approximately 155 degrees or the bottom of the pitcher becomes too hot to hold then turn the steam knob off.

- Using a steaming thermometer is helpful when you are learning to steam milk. As you gain more experience and become more comfortable with the process you will be able to steam milk without the help of a thermometer. If you notice in the procedure above we mention temperatures and we also mention "body temperature" and the pitcher being "too hot to hold" We mention this because body temperature is 98.6 which is real close to 100 degrees and when the pitcher becomes too hot to hold the milk will be around 150 degrees. This makes it very easy to steam milk without a thermometer. You will "***stretch***" the milk until the pitcher becomes body temperature and then you start the "***texturizing***" of the milk until the pitcher becomes too hot to hold on the bottom and then you're all done.

Steaming Milk - Tips

Helpful Tips and Information

- When turning the steam knob off, always keep the tip under the surface of the milk for approximately 3 seconds. If you pull it out too soon, you will destroy the nice velvety micro-foam.
- After removing the steam wand from the milk, position it over the drip tray and then open the steam knob for 1-2 seconds to clean out any trapped milk inside the tip and then wipe it down with a damp cloth immediately or the milk will dry out on the steam wand and will be difficult to clean.
- While texturizing the milk, if you lower the tip too far into the milk you create turbulence rather than rolling. Turbulence will not make micro-foam.
- If there are a few bubbles in the milk after you have finished, wait 5-10 seconds to allow all the remaining bubbles to surface, then simply tap the edge of the pitcher on the counter and swirl the milk slightly and they will disappear.
- Be sure to keep your steamed milk moving/swirling until you are ready to pour since milk has a natural tendency to separate.

Hot Water Wand Operation

- The hot water wand uses the steam pressure to push the hot water out of the boiler so the steam boiler must be up to temperature before it is able to give any hot water.
- To use the hot water wand, position the cup or pitcher under the wand and then open the hot water knob. Once the water has reached the desired level then close the knob.

Important: Do not remove more than 6oz. of water at any one time until the machine has had time to refill the boiler. Failure to do so may cause damage to the heating element and will not be covered under warranty.

Warning: The water from the hot water wand is approximately 250° and exits the boiler under force due to the steam pressure. Extreme caution is advised when using the wand or injury may occur.

Maintenance

Backflushing is a vital maintenance procedure you must follow to help keep your machine running flawlessly for years to come. There are two types of backflushing; one with plain water, and the other with espresso machine cleaner.

Plain water backflushing should be done at least once a week, however if you are so inclined, feel free to backflush with plain water as often as you like. It won't harm the machine and keeps the shower screen clean.

To backflush, you use the portafilter's backflush disc. To remove your single or double portafilter basket, use the blank portafilter insert. Turn it upside down and use its edge to pry the basket out of one of your portafilters. (If you always make double espressos, you may choose to keep the blank portafilter insert in your other portafilter so you always have one ready.) Next, place the blank insert into the portafilter and slap it hard with the palm of your hand to secure it into the portafilter.

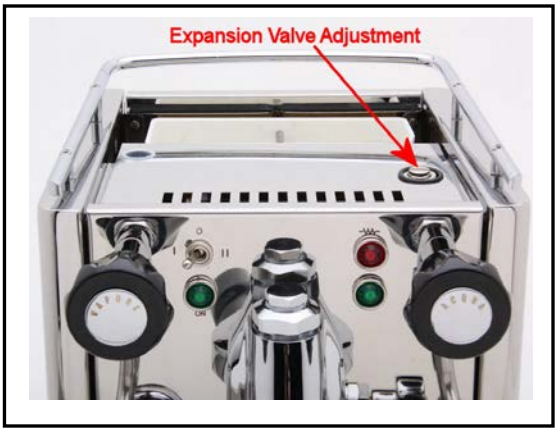
To perform a plain water backflush, place the portafilter into the group head. Then raise the brew lever all the way up for 15 seconds, and then lower it. Water will forcefully discharge out of the bottom of the group into the drip tray; this is normal. Repeat three to five times.

Backflushing with espresso machine cleaner is the same procedure as above with a few minor differences. The first difference is backflushing with espresso machine cleaner only needs to be done approximately once a month or every 35-50 espressos. I don't recommend backflushing with cleaner more often than once every three weeks since overuse will remove oils that lubricate the brew lever and valves.

To begin, place 1/4 of a teaspoon of espresso machine cleaner into the backflush disc in the portafilter and then lock the portafilter into the grouphead. Now follow the same procedure as above until the cleaner is dissolved and the water runs clear (about 5-10 flushes). Remove the portafilter from the group and rinse thoroughly. Then take a damp cloth and wipe the underside of the group. After you have finished this procedure, I recommend you pull a shot of espresso and dispose of it to cure the group. You're finished and ready for another month of espresso.

Maintenance – Continued

Setting Pump (Brew) Pressure



- To set the pump pressure, install the backflush disc into your portafilter and then lock it into the group head.
- Remove the top cup warming tray to expose the expansion valve adjustment screw shown on the picture to the right.
- Raise the brew lever and then wait a few seconds for the pressure to rise. After the pressure has risen, use a flat blade screwdriver to turn the expansion valve adjustment screw. Turning clockwise will increase the pressure, counter clockwise to decrease the pressure.
- The recommended setting with the backflush disc is 9.5 - 10bar. When you make espresso the pressure will be slightly less due to less resistance.
- If the machine is able to put out 9.5-10bars of pressure with the backflush disc, but when you make espresso the pressure is 8 bars or less then that means the grind needs to be adjusted finer which will create more resistance to raise the pressure. It is normal for the grinder to drift a little over time and using different coffees or depending on the freshness of the coffee may require a minor grind adjustment to stay in the preferred brew range.
- Tamping pressure can also affect brew pressure so be sure to tamp with the same 30lbs of pressure each time. Tamping too lightly will cause the pressure to be low and the shot will come out quicker. Tamping too hard and the pressure will be higher and the shot may come out too slow or not at all.

Maintenance – Continued

Group Gasket And Shower Screen Replacement

- The group gasket is a black rubber gasket that makes the seal between the portafilter and the group head. We recommend replacing the gasket on a yearly basis. The QM67 uses an E61 8.5mm gasket. They can be purchased from our website at the link below. http://www.chriscoffee.com/products/home/e61groupparts/e61groupgasket

- Replacing the group gasket requires the removal of the shower screen as well so we also recommend replacing the shower screen at the same time. The E61 shower screen can be purchased from our website at the link below. http://www.chriscoffee.com/products/home/e61groupparts/faemae61groupscreen

- Before replacing the group gasket and shower screen the machine should be turned off and cooled down so that the grouphead is cool to the touch.

Gasket and Screen Removal

- There are two ways to remove the group gasket and shower screen depending on how old they are. If you replace the gasket yearly then the first method shown is recommended. If the gasket is older and dried out then the second method shown will be necessary.

- Method 1

  In the picture to the right shows an indent that goes around the perimeter of the screen.

  Insert either a flat blade screwdriver or a spoon into the indent and then carefully pry the gasket and screen down. You may have to do this on a few different spots to remove it.

Shown Outside Of Machine

Gasket and Screen Removal - Continued

- Method 2

  If the gasket and screen will not come out using the previous method then you will need a scratch awl or ice pick to remove them.

  Using the scratch awl or ice pick, deeply pierce the gasket and then pry it down. If the gasket is old and dried out then it will be more difficult to remove and will come out in pieces. Repeat until all remnants of the old gasket are removed.

Cleaning The Group

- Before installing the new gasket and screen it is very important to clean the group head. Make up a solution of hot water and backflushing cleanser. Using the provided cleaning brush and cleanser, clean the group head and be sure the groove that the gasket sits in is completely free of any residual gasket material and coffee grounds or the new gasket will not seat properly.

Gasket And Screen Installation

- Step 1

  With the writing or beveled side of the gasket facing up insert the screen into the gasket as shown to the right. It is also recommended to use a little bit of food grade lubricant around the perimeter of the gasket to make installation easier.

Gasket And Screen Installation - Continued

- Step 2

  Remove the insert basket from one of your portafilters and then insert the screen and gasket into the portafilter as shown to the right.

- Step 3

  With the gasket and screen in the portafilter, press the portafilter into the group head as shown. Apply equal upward pressure on the portafilter so the gasket goes in evenly. Once the gasket is up far enough then lock the portafilter into the group head and turn as far right as possible. Then remove the portafilter and re-install the insert basket and then work the gasket up further into the grouphead using the portafilter with the basket installed. If you are having trouble then remove the portafilter and press the screen up further by hand and then try using the portafilter again.

Maintenance Tip: Replacing the gasket on a yearly basis will make the replacement procedure much easier. There are also benefits to having a new gasket. It will provide a better seal for a better espresso extraction and it also enables you to be able to remove the shower screen without ruining the gasket to provide for better cleaning which will result in better tasting shots.

Maintenance – Continued

Descaling

- Descaling is the process of running a descaling agent such as citric acid through the machine to remove the accumulation of mineral deposits.
- If you are using softened water then it should not be necessary to descale the machine.
- Often times descaling can cause more problems than it solves. It can react to the minerals and foam over ruining electrical components. If the solution is too strong it can cause the chrome plating inside the group to flake off and get in the coffee or if it's too weak it can dislodge minerals and cause a blockage. For liability reasons we strongly discourage descaling and will not provide any instructions on the process.

PID Controller

- The PID controller does not require any maintenance, but if the buttons have not been used in a long time then the contacts inside the controller can become oxidized and the buttons may no longer work.
- To resolve this issue with the machine turned off, rapidly and repeatedly press the up and down arrows over and over again. Do this for up to a minute and it should help clean off the contacts and the buttons should start working again.

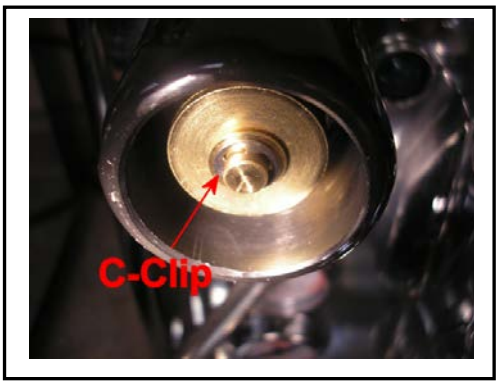
Cleaning The Stainless Steel

- Specialty stainless steel cleaners can be used, but glass cleaner works well also. If there are dried up water stains then they can be cleaned with white vinegar.
- After cleaning the machine using a dry lint free cloth to buff the machine will provide a nice mirror finish to the stainless steel.

Troubleshooting

No Steam From Steam Wand

- Make sure the coffee boiler and steam boiler power switches have been turned on for at least 15 minutes.
- Check the upper gauge for steam pressure. Pressure should be around 1.2-1.7 bar. If the gauge is at zero then refer to the **"Not Heating"** section of the troubleshooting manual. If pressure is good then continue with steps below.
- Check the steam tip for a blockage. Clean steam tip holes with a paper clip.
- Check the steam wand for a blockage by unscrewing the steam tip from the wand. Check the inside of the steam tip for dried up milk and then make sure the white teflon tube in the steam wand is also free of dried up milk.
- Check the steam knob for proper operation. Remove the end cap on the end of the steam knob. Check to make sure that the c-clip that is shown in the picture is attached.



No Water From Hot Water Wand

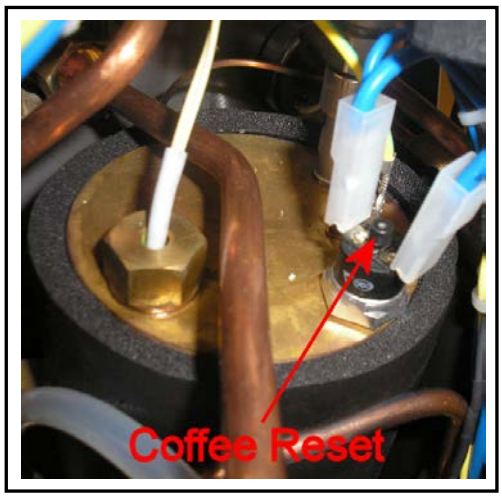
- Make sure the coffee boiler and steam boiler power switches have been turned on for at least 15 minutes.
- Check the upper gauge for steam pressure. Pressure should be about 1.2-1.7 bar. If the gauge is at zero then refer to the **"Not Heating"** section of the troubleshooting manual. If pressure is good then continue with steps below.
- Check the hot water knob for proper operation. Remove the end cap on the end of the hot water knob. Check to make sure that the c-clip shown in the picture above is attached.

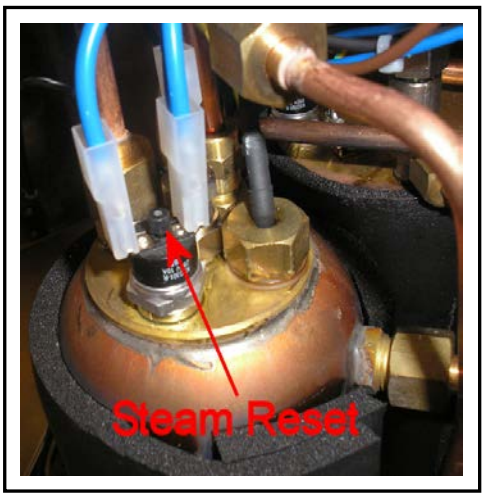
Note: If the steam gauge is showing normal pressure, but then when you open the steam or hot water knobs the pressure immediately drops to zero then heats normally afterwards that is called a vapor lock. This is caused by a sticking vacuum breaker valve not allowing the air pressure to escape the boiler during heat up.

Troubleshooting – Continued

Not Heating

- Verify the machine is plugged into the outlet and the outlet has power.
- Make sure the coffee and steam boiler power switches are both turned on.
- Make sure the water reservoir is filled with water and the silicone hoses are not pushing the float down in the reservoir.
- Check the resettable hi-limit switch on each boiler. To do so unplug the machine and then remove the outer shell. Using the pictures below as reference try firmly pressing the reset button on each boiler.





PID and Heating Lights Are Not Working

- Verify the machine is plugged into the outlet and the outlet has power.
- Make sure the coffee and steam boiler power switches are turned on.
- Make sure the water reservoir is filled with water and is fully seated as far down into the machine as it can go.
- Make sure the white float in the reservoir is on the left side of the machine and the silicone hoses are not pushing the float down.

Troubleshooting – Continued

PID Buttons Not Working

- If the PID buttons are not used too often then the contacts can become oxidized. To resolve this issue with the machine turned off, rapidly and repeatedly press the up and down arrows over and over again. Do this for up to a minute and it should help clean off the contacts and the buttons should start working again.

Espresso Coming Out Too Slow Or Not At All

- Install the backflush disc into your portafilter and then lock it into the group head. Raise the brew lever to check the pump pressure. Recommended setting with the backflush disc is 9.5-10 bar. Adjust the pump pressure if necessary. Please refer to the maintenance section of the owner's manual for instructions.
- If pump pressure is good then try adjusting the coffee grind coarser.
- Make sure the longer silicone water line in the reservoir is at the bottom of the reservoir below the water level.
- Make sure the screen on the end of the silicone water line in the reservoir is not clogged with debris.
- Be sure the insert basket is not over filled with coffee and you are tamping with no more than 30lbs of pressure.

Espresso Coming Out Too Fast

- Install the backflush disc into your portafilter and then lock it into the group head. Raise the brew lever to check the pump pressure. Recommended setting with the backflush disc is 9.5-10 bar. Adjust the pump pressure if necessary. Please refer to the maintenance section of the owner's manual for instructions.
- If pump pressure is good then try adjusting the coffee grind finer.
- Be sure the insert basket is filled with the proper amount of coffee and you are tamping with 30lbs of pressure.

Warranty

The QM67 comes with a 2 year warranty starting from the original date of purchase to protect against defects in materials or workmanship. The warranty is void if the product has been damaged by abuse, neglect, or modification. For more detailed information about the warranty please visit our website at the following link: http://www.chriscoffee.com/policy

We Are Here To Help

Enjoy your new espresso machine and remember, should you have any questions, either visit our FAQ section at the bottom of our web site or contact my staff or me by phone at 518-452-5995 or by email at service@chriscoffee.com

Please remember: Save the shipping carton and all the packing material that came with your machine. This is very important should you need to return your machine to us. If you do need to send your machine back for any reason, you must first call our service department and obtain a Return Authorization number prior to shipping. Be sure to insure your machine and pack it securely. We can't be responsible for any damage that might occur while in transit to us. Properly packing your machine with the original carton and packing material minimizes this possibility. Should it be necessary for you to file a damage claim with the shipper, we will of course be happy to assist you with the required forms.

Thank you again for your business,