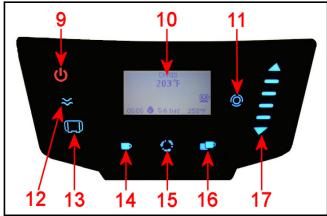
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DIAGRAMS







- 1. Steam Wand
- 2. Hot Water Faucet
- 3. Steam Knob
- 4. Cup Warming Tray
- 5. Touchpad/Display
- 6. Card Reader Interface
- 7. Group Head
- 8. Drip tray
- 9. Power Button
- 10. Display
- 11. Menu/Ok Button
- 12. Hot Water Button
- 13. Steam Boiler Button
- 14. Single Shot Button
- 15. Manual Shot Button
- 16. Double Shot Button
- 17. Menu Navigation Button
- 18. Group Gasket (Spare)
- 19. Coffee Tamper
- 20. Cleaning Brush
- 21. Coffee Scoop
- 22. Shower Screens (Spare)
- 23. Backflush Disc
- 24. Single Portafilter
- 25. Double Portafilter
- 26. Shower Screen Removal Tool
- 27. Card Reader/Memory Card

Introduction

First of all, thank you for your business! You are going to <u>love</u> your new S1 Dream 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

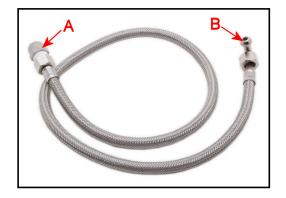
- Remove the machine from the box and then tighten the legs on the bottom of the machine if they have loosened in shipping.
- Before connecting your machine to a waterline check your water for hardness.
- Fill a glass with cold tap water; dip the tip of the test strip into the water for one second, then 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 are in your tap water. Three grains or less of hardness is acceptable.

<u>Note</u>: Should your water's hardness level exceed three grains, then it is strongly recommended that a water softener be installed to prolong the life of the machine. Failure to do so may cause damage to the machine which is not covered under warranty.

The S1 Dream comes with a stainless braided water line to connect to your water source. If you purchased your machine from Chris' Coffee Service then it will come with a John Guest fitting (A) already installed for an easy installation. If not then you will need an adaptor fitting to connect to your water source. It requires a 1/4" Male BSPP fitting.

The other end of the braided water line (B) connects to the pump connection located on the bottom of the machine.

Please refer to the next page for installation instructions.



Plumbing Installation

Step 1 Lift the front of the machine up to expose the cable tie on the bottom shown in the picture to the right. Cut the cable tie with scissors or dikes and discard. The cable tie is used to hold the motor in place for shipping and may cause excess vibration noise if not removed.



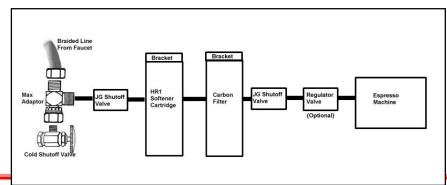
Step 2 Remove the two screws shown in the picture to the right and then pull the front panel away to expose the pump.



Step 3 Screw the elbow end of the braided water line on to the pump where shown in the picture to the right. No teflon tape or sealant is needed on the fitting. Make sure the fitting is screwed on tightly to prevent leaks.



- Step 4 If using a filter or softening system then install using the instructions provided by the manufacturer. A typical installation diagram is shown below.
- Step 5 Purge 1-2 gallons of water from the filters before connecting to the espresso machine.
- Step 6 Connect the braided line from the machine to your water source, turn the



water on, and check for leaks.

Turning the machine on for the first time

Step 1 Press and hold the button for approximately 3 seconds until the display lights up. The pump will come on to start filling the steam boiler and will turn off once it is filled.

If at any time the message "Low Water Pressure" or "Missing Water Connection" show on the display then check to make sure the water is turned on to the machine and then repeat step 1 again.

- Step 2 After the pump has turned off from filling the steam boiler then press the button for approximately 15 seconds until you have water flowing from the grouphead and then press the button again to stop the flow.
- <u>Step 3</u> Whichever portafilter you intend to use then lock it into the grouphead so it will warm up with the machine.
- Step 3 If you plan on using the steam boiler for steaming milk then press the button.
- Step 4 Allow the machine to heat up for at least 30 minutes for optimal performance and temperature stability. It is very important to keep the portafilter in the grouphead and also keep the cups on the cup warming tray. Failure to do so will result in a cold and sour shot.
- Step 5 Set your pump pressure. The recommended pump pressure setting is 9 bars.

To set the pump pressure loosen the locknut on the pump labeled as **B** in the picture.

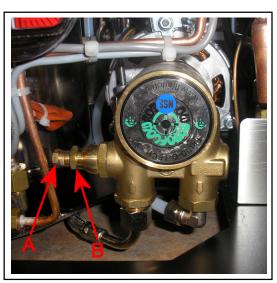
Press the button to activate the pump.
While the pump is running turn the adjustment nut labeled as A and adjust to 9 bar.

Turn clockwise to increase the pressure, counter clockwise to decrease. When done setting the pressure to 9 bars then tighten the locknut **B**.

Step 6 Set the grind particle size on your grinder.
This is very important to achieve good results.

Set the grind so that a 2oz double shot comes out in about 25 seconds.

The grind should be finer than salt, but coarser than powder.



Basic machine operation

Turning The Machine On And Off To turn the machine on press and hold the **b** button for approximately 3 seconds until the machine turns on.

To turn the machine off quickly press the **b** button. (Do not hold button down)

Pulling Shots There are a few ways you can pull a shot with the S1 Dream. You can use one of the two programmable shot buttons, single or double. These buttons can be individually programmed for volume, pre-infusion, and temperature. The shots will automatically stop dispensing at the desired level or you can press the same button again to stop the shot at any time.

You can also pull a shot using the manual button The manual button will use the existing temperature and pre-infusion settings, but will not turn off on its own. To pull a shot with the manual button press the button to start the shot and then press the button again to stop the shot when it has reached the desired level. This button is also useful for cleaning the group, backflushing, and rinsing or pre-heating the portafilter.

Note: After pulling a shot the shot timer will display the previous shot length for 3 seconds. During this time the shot and manual buttons will not be active. In version 1.19 the shot timer will be displayed for 10 seconds and the shots buttons can be used while being displayed.

Turning The Steam Boiler On And Off The steam boiler can be turned on/off independently from the coffee boiler. This is helpful if you will not be steaming milk and want to save on energy consumption. To turn the steam boiler on press the button. Press the button again to turn the steam boiler off.

Using The Hot Water Faucet To use the hot water faucet the steam boiler must be on and up to pressure. Under the menu in profiles the hot water faucet can be set up to work as a manual button or can be programmed to discharge a set amount of water each time. For manual mode if you press the button, the water will start to flow and then press the button again to stop the flow of water. It is not recommended to remove more than 8oz of water at any given time until the boiler has had time to refill.

In automatic mode the $\stackrel{\textstyle >}{\scriptstyle \sim}$ button can be programmed to give a pre-set amount of water and will automatically stop dispensing without having to press the $\stackrel{\textstyle >}{\scriptstyle \sim}$ again to stop dispensing.

Accessing The Menu To access the menu press and hold the \bigcirc button for approximately 3 seconds until the menu appears on the display. Then use the up/down arrow keys to cycle through the menu and then press the \bigcirc button to select a menu item to view or change.

To exit the menu press the up arrow key until "Home" is displayed at the top of the screen and then press the \bigcirc button to return to normal operation.

Understanding The Display

The display is the information center for the S1 Dream. It will tell you the time of day, boiler temperatures, water pressure, and will also give you an alarm message in the event of a component failure. The diagram below shows the display in normal operation mode.

- 1. Current Active User Profile
- 2. Coffee Boiler Temperature
- 3. Time Of Day
- 4. Indicates If Water Supply Is Present
- 5. Water Pressure (Shows line pressure when idle and pump pressure when pump is engaged)
- 6. Steam Boiler Temperature (Steam boiler must be on)
- 7. Indicates Steam Boiler Is Turned On



Power Modes

The S1 Dream can be set up to work in full power mode. In full power mode the machine draws 20amps of power so a 20 amp receptacle and breaker must be used. If one is not available then full power mode MUST be turned off.

In full power mode the machine is able to heat both boilers at the same time. This is helpful if you want to be able to pull a shot and steam milk at the same time.

When full power mode is turned off then it is only able to heat one boiler at a time and will always give priority to the coffee boiler. In this mode it is recommended to pull a shot and steam milk separately or the machine may lose steam pressure if done at the same time.

The power mode can be easily changed in the "Factory" menu. The password for the factory menu is J73MZ

<u>Note</u>: In version 1.19 the Factory menu has been removed and the full power mode can be accessed without a password.

<u>Warning</u>: Using the machine in full power mode in a 15 amp outlet should never be done. Failure to follow this warning could pose a fire hazard and is not recommended.

<u>Information Center</u> With the machine turned on, press and hold the up arrow key. The display will then show the serial # and current firmware version. Then press the down arrow key to

cycle through the machine settings and alarms. To exit out of the information screen press the ok/menu button.

FEATURES

User Profiles

The S1 Dream is capable of storing 4 different user profiles. This enables the machine to be programmed for different shot volumes, brew temperature, pre-infusion, steam boiler water temperature, and hot water delivery method. The machine can easily be switched between different user profiles to meet the discriminating demands of everyone that uses it. Profiles can also be used for different coffee blends that require different temperatures so use your imagination and the possibilities are endless.

Creating User Profiles

To create a user profile the machine should be turned on and up to temperature. To access the menu press and hold the \bigcirc button for approximately 3 seconds until the menu appears on the display. Then use the down arrow key to cycle through the menu until the display reads PROGRAM and then press the \bigcirc button to enter the program menu.

Once in the program menu you can use the arrow key to cycle through the user profiles. USER1 will be the default user and should be programmed first. Press the \bigcirc button to select and program USER1. Once in the USER1 profile you can cycle through the various options available for programming and then press the \bigcirc button to select that option to change. The following parameters can be changed in the user profiles menu.

Coffee Temperature Use the arrow keys to select the desired brew temperature and then press the D button to save the setting. The recommended brew temperature is between 200-204°F, but can be easily changed to match the coffee you are using. Experiment until you find the temperature your coffee tastes best at.

Boiler Temperature Use the arrow keys to select the desired steam boiler temperature and then press the button to save the setting. The recommended steam boiler temperature is between 250-260°F. Going too low in temperature may cause a loss of steam pressure.

<u>Coffee Doses</u> To program the coffee doses fresh coffee must be prepared for each button that is programmed and the machine should be up to temperature. To program a coffee dose, prepare and tamp the coffee and lock the portafilter into the grouphead. Whichever portafilter you have in the grouphead press the corresponding when the shot has reached the desired level then press the same button again to stop the shot and save the new setting. Repeat the above step to program the other shot

button. The recommended size for a single shot is 1oz and 2oz for a double shot, but can be fine tuned to your particular tastes.

<u>Creating User Profiles - Continued</u>

Hot Water The hot water faucet can be programmed to work in auto or manual mode. In the profile menu select the hot water faucet icon. You have the option to select auto or manual mode and then press the \bigcirc button. For manual mode the hot water button must be pressed to start water delivery and then pressed again to stop delivery. In auto mode the hot water delivery will stop at the pre-determined amount. By default it is set to 5 seconds. To program the faucet for auto mode, after selecting auto mode in the menu a screen will be displayed showing 5sec. Press the hot water button to start delivery and when the water has reached the desired level press the button again to stop delivery and save the new setting. The new setting will now be saved and 1 press of the hot water button will give the programmed amount each time. It is not recommended to remove more than 6-8oz of water at a time until the boiler has had time to refill or damage to the heater may occur.

<u>Pre-Infusion</u> Pre-infusion mode pre-wets the coffee grounds without the pump being enabled. This can help bring out different flavors in the coffee and also helps prevent channeling. Pre-infusion can be turned on or off. When it's turned on the pre-infusion time can be adjusted from 1-10seconds. The recommended time is 3-5 seconds, but can be changed to meet your personal tastes.

MAT The MAT option has not been enabled yet on the S1 Dream and is a feature that will be available in the near future. The MAT system requires an optional steam arm with a temperature sensor to detect the temperature of the milk while steaming.

Multiprofiles This is where the user profile name can be changed. Each user profile can be named up to 8 characters. To change the name of a user profile, press the \bigcirc button to enter this mode. Then press the up/down arrow keys to cycle through the letters and numbers available. Press the \bigcirc button to enter the selected letter/number and then it will cycle to the next character. Keep cycling through until the desired user profile name is entered. Once complete then cycle back up to the user name and then press the \bigcirc button to save. Then cycle down to program a NEW USER or cycle down to BACK and then press the \bigcirc to save and return to the main menu.

<u>Changing User Profiles</u> Once a few user profiles have been created then it easy to switch to a different user profile. With the machine turned on press and hold the down arrow button for 5 seconds. The display will show the current active user profile. Use the down arrow key to select a different user profile and then press the O button to enable the new user profile.

<u>Note</u>: At this time the <u>WRITE</u> feature is not available, but will be available in a future firmware release. Keep checking back on our website for firmware upgrades as well as updates to the owner's manual.

Features

<u>Calendar</u> This enables the user to change the date format of the machine. This is very important if you want to be able to use the timer feature.

<u>Time</u> This enables the user to set the time on the machine. This is very important if you want to be able to use the timer feature.

Beep This enables the beep tone to be turned on or off when the buttons are pressed.

<u>Language</u> The language of the machine can be changed to Italian, A-English, or B-English. A-English is for America and is in Fahrenheit mode. B-English is for Britain and is in Celsius mode.

<u>Backlight LCD</u> This enables the user to select the timeout feature to turn the display off when not in use.

<u>Timer</u> The timer feature allows the user to have the machine be turned on and off at 3 different time intervals throughout the day and also have each day programmed differently or not at all if you do not want the machine turned on that particular day. Each day will have 3 different on/off time slots to be programmed. If a time has been programmed into the timer that you no longer want to turn on that time of the day then if you set the on and off times at the same time then it will zero out that setting and no longer be active.

<u>Counters</u> The counters keep track of the amount of drinks being dispensed. To reset the counters while in the counters menu arrow down to reset and then press the \bigcirc button.

<u>Program</u> Allows the user to program user profiles such as coffee temperature, volume, etc.

<u>Service</u> This feature when enabled will give an alarm message on the display to indicate the machine is due for service. This can be set at different service intervals based on drink cycles.

<u>Filter</u> This feature when enabled will give a message to indicate that the filter needs to be replaced. To set this feature you will need to know the hardness of your water and capacity of the filter so that the appropriate gallon amount can be entered. To reset the filter alarm, go into the filter menu and then press and hold the button and when prompted press the button again to clear the filter alarm.

Alarms Gives the status of any active alarms in the machine. Use the arrow keys to cycle through the active alarms. To reset the alarms press and hold the \bigcirc button and then when prompted press the \bigcirc button again to clear the alarms.

Read Allows the user to read the contents of the SD memory card.

Write Feature not active at this time. Will be available in a future firmware update.

Features

<u>LED</u> The Barista LED lights can be turned on, off, or auto mode. In auto mode the LED's will only light up when a shot is being drawn.

Grinding This feature when enabled will give the user a notice while brewing if the grind is too fine or coarse. This is helpful to help achieve better results. When enabled the user can set the grinding for a tolerance of 5, 10, or 15 seconds. So if a shot button is programmed for 25 seconds and the grinding is set to 5 seconds then if the shot runs for less than 20 seconds a message will appear on the display "Coarse Grind" Adjusting the grind finer will improve the shots. If the shot runs for more than 30 seconds then the display will show the message "Too Fine Grind" Adjusting the grind coarser will improve the shots.

EGS When enabled the system will release a small amount of water from the grouphead after 20 minutes of inactivity. This is more for the European market where they keep ground coffee in the portafilter and the EGS system will keep it from drying out. It can also be enabled to help keep the shower screens clean after pulling a shot.

<u>Auto Shutdown</u> When enabled the machine will automatically turn itself off after a pre-set period of inactivity.

Group Cleaning Allows the user to backflush the machine without being stored in the counter menu. This is helpful if you are trying to keep track of how many shots are made on the machine and do not want the backflushing to be counted as a shot.

<u>Screensaver</u> The screensaver can be turned on or off. When turned on choose between The Coliseum and the Statue Of Liberty screensavers.

Time Update Choose to have daylight savings time activated.

<u>Contrast</u> Change the contrast setting of the display.

<u>Deact Pres Sens</u> Allows the user to deactivate the pressure sensor for the pump pressure shown on the display. This is only for plumbed in models.

Password Allows the user to create a password to block access to the main menu. The default password is 1-2-3-4. To change a password select modify. After changing the password then it must be activated in the password menu. If you forget the password then when prompted to enter the password press and hold the button for 5 seconds. The password will be changed back to default and turned off.

<u>SW Update</u> Allows the user to update the firmware in their machine. Check our website for future updates and improvements.

<u>Default Settings</u> Restores the machine to its original factory settings.

Features

Factory Allows access to advanced settings. Password J73MZ (See Note Below)

<u>Set Calibrate T</u> Calibration of the temperature sensor. Should only be performed by a factory trained espresso repair shop.

<u>Full Power</u> The S1 Dream-T can be set up to work in full power mode. In full power mode the machine draws 20amps of power so a 20 amp receptacle and breaker must be used. If one is not available then full power mode MUST be turned off.

In full power mode the machine is able to heat both boilers at the same time. This is helpful if you want to be able to pull a shot and steam milk at the same time.

When full power mode is turned off then it is only able to heat one boiler at a time and will always give priority to the coffee boiler. In this mode it is recommended to pull a shot and steam milk separately or the machine may lose steam pressure if done at the same time.

Warning: Using the machine in full power mode in a 15 amp outlet should never be done. Failure to follow this warning could pose a fire hazard and is not recommended.

Offset The temperature drop between the boiler and grouphead. Should be set to 10°F/5°C for all versions previous to 1.19. From firmware version 1.19 and later it should be set to 0°F/0°C.

<u>PID</u> The settings used to determine how power is applied to the coffee heater. These settings should not be changed or it will affect the performance and temperature stability of the machine. The PID settings should be programmed as follows.

P - 300

I - 100

D - 10000

Reset Resets the EEPROM chip on the control board. For firmware version 1.14 or later the following procedure must be done before using the machine after a reset. With the machine off press and hold the OK/MENU button for 5 seconds. The display will read "SELECT BOILER THRESHOLD" Press the up arrow button to select "THRESHOLD B" for machines up to serial # 259547 or set to "THRESHOLD A" for serial #'s after 259547 and then press the OK/MENU button to confirm. The machine can now be turned on and used normally. This procedure must also be done if the control board is replaced.

<u>Note</u>: In version 1.19 the Factory menu has been removed and the features can be accessed without a password. The reset feature has also been removed.

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.

<u>Tamping</u> - 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 press either shot button. 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.

<u>Consistency</u> - 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.

<u>Cooling Flush</u> - 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.

<u>Cleaning Tip</u>: 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 press the single or double cup button 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.

For espresso brewing tips check out our video here: http://vimeo.com/48819669

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.

<u>Temperature</u> – 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.

<u>Frothing Pitcher</u> – 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.

<u>Stretching the milk</u> – 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"

<u>Texturizing the milk</u> – 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.

<u>Note</u> – 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.

MAINTENANCE

<u>Backflushing</u> 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. The S1 Dream is equipped with a group cleaning feature to make this a simple process.

<u>Plain water backflushing</u> 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 screens clean.

To backflush, you insert the rubber backflush disc into your single portafilter and then lock the portafilter into the group head. Then enter the menu and cycle through to the "Group Cleaning" section and then press the OK/Menu button. The display will prompt you to press the Free Flow/Manual shot button. This will start the backflushing procedure. The pump will run for 5 seconds and then turn off and will repeat this cycle indefinitely until you press the Free Flow/Manual shot button to stop. For a water backflush it is recommended to do this for 5 cycles and then press the Free Flow/Manual shot button to stop the procedure. Then press the OK/Menu button to exit the group cleaning menu.

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 every 2 weeks or every 35-50 espressos. I don't recommend backflushing with cleaner more often than once every two weeks unless the machine gets heavy use.

To begin, place 1/4 of a teaspoon of espresso machine cleaner into the backflush disc 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 and rinse thoroughly. After rinsing then perform a plain water backflush for another 5 cycles to remove the cleaner residue. 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 and then you're finished.

Alarms

The Dream machine has built in diagnostics to notify the user of a potential problem with the machine. The alarms will appear on the display and will also show in the alarms menu. Sometimes an alarm will appear if there is a change in water pressure or a power surge and may not be an indication of a problem. Some alarms will still allow the machine to function and others will block it out until the alarm is cleared and problem is resolved. If an alarm appears then unplug the machine and plug it back in. Turn it back on and then go into the alarms menu to clear the alarm. If the alarm re-appears then follow the instructions below or call an authorized service center for assistance.

<u>Coffee Group Temperature Probe Failure</u> The coffee boiler temperature probe is damaged. Check connections at probe and control board and then reset the alarm. If problem persists then replace coffee boiler temperature probe.

<u>Boiler Temperature Probe Failure</u> The steam boiler temperature probe is damaged. Check connections at probe and control board and then reset the alarm. If problem persists then replace steam boiler temperature probe.

MAT Temperature Probe Failure MAT feature not available at this time so if this alarm appears then that means the MAT feature has been activated in the current user profile. To clear alarm, enter the user profile and turn off the MAT feature. After disabling the MAT feature go into the alarms menu to reset the MAT alarm.

<u>Boiler Refill System Failure</u> This alarm appears if the steam boiler refill system has been active for over a minute. This may appear on the first time set up of the machine in which case cycling the machine on and off should solve the problem. If not then for plumbed in models make sure the water is turned on to the machine and the filter or softening system is not clogged.

For reservoir models make sure the water reservoir is filled and properly inserted into the machine. If using a softener in the reservoir then make sure it is standing in an upright position and has not yet expired. Try removing the softener to see if the problem persists.

If problem still persists then contact an authorized repair center.

Failed Boiler Temperature This alarm will appear if the steam boiler has not reached at least 60°C/140°F within 12 minutes of turning the steam boiler on. Try turning the machine on and off to clear the alarm. For 15 amp machines it will only heat 1 boiler at a time and will always give priority to the coffee boiler so if a lot of water is removed from the coffee boiler then it will prevent the steam boiler from heating until the coffee boiler reaches temperature. Refrain from using the coffee boiler until the steam boiler has reached temperature. If problem persists then check the resettable hi-limit switch on the steam boiler and check wire terminals going to the steam boiler heater for a good connection. Check steam heater for resistance and for a short and proper continuity.

Alarms Continued

Boiler High Temperature This alarm will appear if the steam boiler temperature has reached 130°C/266°F. Check temperature sensor wires to make sure they are firmly connected. Check temperature sensor for proper calibration. Replace power relay if the temperature sensor is properly calibrated.

Failed Coffee Group Temperature This alarm will appear if the coffee boiler has not reached at least 60°C/140°F within 5 minutes of being turned on. Try turning the machine on and off to clear alarm. Make sure large volumes of water are not being removed from the group while the machine is heating up or it may prevent it from reaching temperature. Check the resettable hi-limit switch on the coffee boiler and check the wire terminals to the heater for a good connection. Check coffee heater for resistance and for a short and proper continuity.

High Coffee Group Temperature This alarm will appear if the coffee group temperature probe detects 125°C/257°F. Check temperature sensor wires to make sure they are firmly connected. Check temperature sensor for proper calibration. Replace power relay if the temperature sensor is properly calibrated.

<u>Low Water Pressure</u> This alarm will appear if the water pressure sensor detects water pressure less than 1 bar for 3 consecutive seconds. Make sure the water supply is turned on to the machine and the filter/softening system is not clogged. Disconnect braided water line to machine to verify proper water pressure.

<u>High Water Pressure</u> This alarm will appear if the water pressure sensor detects water pressure greater than 6 bar for 3 consecutive seconds. An occasional rise of pressure above 6 bar is fine, but if the alarm is repeatedly shown then a water regulator should be used to bring the pressure down. 20-30psi is the recommended water pressure setting for the machine.

Low Pump Pressure This alarm will appear if the pressure sensor detects pump pressure less than 6 bar after 5 seconds of delivery. If the machine was recently installed then calibrate pump pressure. Make sure the water supply is turned on to the machine and the filter/softening system is not clogged. Disconnect braided water line to machine to verify proper water pressure. Inspect pump for signs of a leak and verify pump shaft is not seized.

<u>High Pump Pressure</u> This alarm will appear if the pressure sensor detects pump pressure greater than 12 bar after 5 seconds of delivery. Check water supply to make sure water inlet pressure does not exceed 6 bar. Install a water pressure regulator for pressure above 6 bar. If water pressure to machine is below 6 bar then calibrate pump pressure.

<u>Water Pressure Sensor Failure</u> Verify water is turned on to machine. Check connections to pressure sensor and control board. Replace pressure sensor.

Alarms Continued

Flow Meter Failure This alarm will appear if the machine is unable to sense the signal from the flowmeter. For plumbed in machines make sure the water is turned on and the filter or softening system is not clogged. For reservoir models make sure the reservoir is filled with water and the white softener is standing in an upright position and is not clogged/expired. Check that the flowmeter electrical plug/wires are firmly seated into the flowmeter. Clean the white impeller inside the flowmeter by removing and soaking in citric acid or white vinegar. Check inlet and outlet lines of flowmeter for a blockage.

Missing Water Connection This alarm will appear if the pressure sensor has detected 0 bar of pressure for 3 seconds. Check that the water is turned on to the machine and the filter and softening system are not clogged. Check wire connections to pressure sensor. Check for blockage leading up to pressure sensor. Replace pressure sensor.

<u>Failed Communication Touch Keyboard</u> This alarm will appear if the touchpad is not detected by the control board. Check all connections to touchpad and control board.

<u>Damaged Timekeeper</u> The clock module is damaged. Check connections to the touchpad and control board. Replace clock module.

<u>Default Data Loaded</u> This alarm will appear if the firmware has been recently updated or if a system reset has been done. Can be reset in alarms menu.

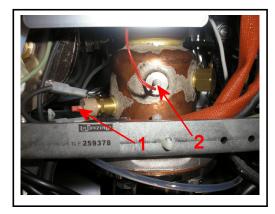
Service This alarm will appear if the service feature has been enabled in the menu. This feature is helpful to notify the user it is time to perform periodic maintenance. The type of maintenance needed to be done will vary based on how the machine is used and the hardness of the water. Some common things to be done would be replace the group gasket, clean/replace shower screens, backflush, recharge/replace water softener, check machine for leaks, calibrate pump pressure, and verify proper operation of vacuum breaker valve. After performing service the alarm can be reset in the alarms menu.

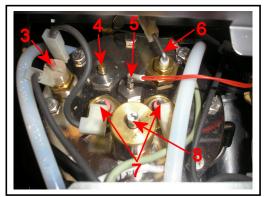
<u>Filter</u> This alarm will appear if the filter feature has been enabled in the menu. This is helpful to notify the user it is time to replace the water filter and or softener. The alarm can then be reset in the alarms menu.

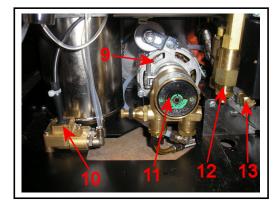
<u>Fine Grind</u> This alarm will appear if the grinding feature has been enabled in the menu and the shot extraction time is longer than the value set in the grinding menu. Adjust grind to a coarser setting and make sure you are tamping with no more than 30lbs of pressure.

<u>Coarse Grind</u> This alarm will appear if the grinding feature has been enabled in the menu and the shot extraction time is shorter than the value set in the grinding menu. Adjust grind to a finer setting and make sure you are tamping with 30lbs of pressure.

Technical Diagrams









<u>Coffee Boiler</u> (Top center of machine)

1. Hi Limit Reset

2. Temperature Sensor/Probe

Steam Boiler (Top back left of machine)

3. Hi Limit Reset

4. Vacuum Breaker Valve

5. Temperature Sensor/Probe

6. Fill Probe

7. Heating Element Terminals

8. Over Pressure Valve/Pressure Relief Valve

Behind Front Lower Panel

9. Motor

10. Flowmeter

11. Rotary Pump

12. Expansion Valve

13. Discharge Fitting/Tube (Newer machines have a copper pipe in place of fitting)

Bottom Of Machine

14. Fuses/Fuse Holders

Right Fuse - Relays for valves, pump, etc

Left Fuse - Main Power