LA SPAZIALE
MINI VIVALDI
INSTRUCTION MANUAL

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2 Reference Photos

These numbered photos will be referenced throughout the document; i.e. (13)

FIGURE 1 – Indicator Lights and Control Buttons

Label	Function	Label	Function	Label	Function	Label	Function
1	Drip Tray	9	Control Panel	17	94°C Lamp	25	Double Cup Button
2	Steam Arm	10	Group	18	95°C Lamp	26	Boiler Button
3	Rubber Feet	11	Portafilter Handle	19	96°C Lamp	27	On/Off Button
4	Water Tank	12	Drip Tray Grate	20	97°C Lamp	28	Hot Water Outlet
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3 Document Scope – Caveats and Clarifications

This manual includes material that both duplicates and enhances the official LaSpaziale S1 Mini Vivaldi Instruction Manual in key areas. However, it does not duplicate the detailed and very important information covering machine certifications or ratings nor does it repeat all the warning and safety information contained on the "lawyer" pages. That information, as contained in LaSpaziale Instruction Manual Part # LSC 014-UK Rev.00 or later, is considered included in this document by reference.

The official LaSpaziale S1 Mini Manual covers the Mini Vivaldi I and the Mini Vivaldi II plus one option not currently offered or required in the consumer market. That option, as well as material intended specifically for the Mini Vivaldi I, has been omitted from this document.

This document solely covers the S1 Mini Vivaldi II plus options available and supported by Chris Coffee Service and/or other vendors supplied by Chris Coffee Service through its exclusive distribution agreements with La Spaziale S.p.A.

4 Basic Machine Operation

(**BOLD** = lamps, **Reverse** = buttons, numbers in parentheses reference to above table)

4.1 15 Amp opperation

The La Spaziale Mini Vivaldi previously could operate in either 15 amps or 20 amps, however effective 2019 they can only be run in 15amps. When purchased a convertor cord will be included free of charge.

Most modern kitchens have 20 amp circuits so if you're looking for a machine to run in 20 amps you may want to consider the Spaziale Dream T instead.

The advantage of using it in 20 amps is that both boilers can reheat simultaneously therefore giving you better recovery and less concern for running out of steam power. This tends to not be an issue with any Spaziale machine regardless of 15 vs. 20 amp operation due to their incredible steam pressure.

CONVERTOR CORD

Note: new machines use a dual Solid State Relay (SSR) rather than the triac.

4.2 Optional Bluetooth Digital Timer - On/Off Capabilities

We all love La Spaziale Vivaldi S1 and Mini S1, but it is missing one important feature– warm up schedule and remote power on/off. Let's face it, the timer supplied by La Spaziale is expensive and outdated. We now have a smaller, better, and cheaper version. Now you can schedule warm up of the Vivaldi S1, remotely turn it On or Off via phone and ask Google, Alexa or Siri, to control it.

The S1 Power Retain Timer is installed the same way the factory timer is. It plugs into a pre-wired connector inside the machine. The S1 power cable is then plugged into a smart plug outlet. A smart plug outlet (not provided) is what controls the power to the machine. There are a number of smart plug outlets available on the market. Use the smart plug outlet provided phone application to schedule the Vivaldi turn On and Off times. Any smart plugs with scheduled On/Off will work. The S1 Power Retain Timer turns the machine on as soon as it gets the power from the smart plug outlet.

Must haves

External smart plug outlet (min. 15amp capacity) is required and sold separately. Use any smart plug outlet with schedule On/Off capabilities. Most smart plug outlets are sold for around $25 and have an app to control them remotely.

Must know

This will only be able to work using the machine in 15amp / half power mode. The smart outlet uses a mechanical relay designed with a safety margin to operate with constant max load.

4.3 Initial Installation Before Connecting Power

After removing the Mini VII from its packing carton and setting it on the counter, check for additional installation instructions that may be included. You should also have all the accessories shown in the photo below plus a rubber backflush disk (not shown).

Tip the Mini VII on its side. Twist all four rubber feet (3) hand tight as they may vibrate loose during shipping. While performing that task, use a screwdriver to ensure that the four screws on the bottom (two on each side between the rubber feet) which fasten the two side panels (5) to the chassis bottom are tight. These steps will help ensure the quietest possible operation of your Mini VII.

Important Tip: Your Mini VII dealer may request that you check that your water hardness is below a certain level to ensure long life and trouble free operation. Hardness test strips may be included for this purpose. If your water fails this test, contact your Mini VII dealer and discuss the available options. This test should be done before using your machine. Water over 3 grains of hardness needs to be softened or else consider using bottle water. Hard water will require frequent descaling which is not a trivial procedure on this machine. Over time use of very hard water could result in the need to replace the steam boiler heater element. Since the VII Mini has a sealed boiler, replacement of the entire boiler is required. This is not an inexpensive repair. Be forewarned. Use soft water.

4.4 Filling the Water Tank

- Remove the drip tray (1)
- Remove the water tank (4) and fill with soft water to ensure against mineral buildup in your boilers
- Replace the water tank (4) and the drip tray (1)
- Insert the plug into the 110V AC socket, the **On/STBY** light (22) starts flashing. (Stand-by mode).
- Press the **ON/OFF** (27) and **Hot Water** (23) buttons simultaneously. During this stage, the control lights **EMPTY** and **On/STBY** (22) blink while the pump runs
- Once you see water coming from the group (10), release both buttons. The unit is now in Standby mode with the **On/STBY** light blinking. You have now primed the pump and filled both boilers with water.
- machine includes an oscar softening pouch. Add this item to the tank to help remove calcium and magnesium from hard water.

Important Tip: The above procedure is only required on the initial use of the machine or any time when starting up with empty boilers such as after storage, boiler clean out, shipment, etc. or any time the boilers have previously been drained. Otherwise, once this procedure is performed once, it is only necessary to turn the machine on using the ON/OFF (27) button. It is NOT required to perform the above procedure each time the water tank is refilled*.*

4.5 Turning On and Heating the Machine

1) Place the desired coffee basket (Single or Double) into one of the portafilter handles and attach it to the group.
2) Insert the plug into the 110V AC socket, the **On/STBY** light (22) starts flashing. (Stand-by mode).
3) Press the **ON / OFF** (27) and button and keep it pressed for about 3 seconds, the green **On/STBY** light (22) changes from flashing to steady indicating the machine is ON. At the same time the lights from (14) to (21) turn on steadily for about a second (indicating power on test mode).
4) The light corresponding to the set temperature starts flashing to indicate that the group is heating and the automatic boiler refill starts until the water level preset by the manufacturer is reached.
5) Once the filling process is finished, the **BOILER** light (13) starts flashing to indicate that the boiler is heating. However, after first switching on, the boiler doesn't work until the group has reached the set temperature.
6) Fasten the portafilter handle (11) to the brewing group (10).
7) Wait until the set temperature is reached, by checking that the lights on the control panel (9) gradually turn on as the temperature rises. The visualization starts as soon as the temperature reaches 91°C (turning on of light 14) and

continues until the machine has reached its operating temperature (light from flashing to fixed).

8) When the group has reached the set temperature, the boiler heating starts (**BOILER** light (13) flashing), once it reaches the set temperature the light becomes fixed.

9) Every time the group temperature or the boiler temperature drops under the set value, the respective light starts flashing (heating phase) until the set temperature is reached.

10) The machine is now ready.

Important Tip: To activate and deactivate the boiler mode press the **ON/OFF** *(26)* button. When the unit it turned off, then back on or even unplugged, then plugged back in, the Mini VII will remember the last state of the Boiler mode. When the boiler is turned off, it is impossible to use hot water for infusions or steam delivery.

4.6   Espresso Brewing

1. Unfasten the portafilter handle (11) from the brewing group (10) and insert the filter for one or Double Cups. Fill it with ground coffee, making sure not to leave coffee powder on the upper edge of the portafilter handle (11), and press it with the suitable coffee tamper provided.
2. Firmly attach the portafilter handle (11) to the brewing group (10).
3. Place one or Double Cups under the portafilter handle (11).
4. Press the button corresponding to Single Cup (24) if you want to make one coffee or Double Cups (25) to start the delivery. Once the desired quantity of coffee programmed is reached, the delivery automatically stops.

4.7   Volumetric Dose Programming

The programmable volumetric dosing feature allows programming of the **Single Cup** (24) and **Double Cup** (25) buttons to dispense whatever quantities of espresso the user desires. Their use for single cup and double cup quantities is merely a suggestion. Many users only pull double shots and program the double shot button for 1.5-2.0oz for that purpose. Then they program the **Single Cup** button for a larger amount for use in flushing the portafilter basket and/or the group between shots. The beauty of the programmable dosing feature is that the machine owner can be creative. The following are the instructions for programming each button assuming they are being used for single and double shots.

1. With the machine on, press the **ON//OFF** (27) button and keep it pressed for about 3 seconds; the control light (22) and the one indicating the set temperature start flashing.
2. Insert the single cup basket into the portafilter handle (11) and fill it with 7-8g of ground coffee making sure not to leave coffee powder on the upper edge of the

portafilter handle, and press it with the included plastic tamper or, more optimally, a high quality 53mm coffee tamper.

3. Fasten the portafilter handle (11) to the brewing group (10), placing a cup under the portafilter handle.
4. By pressing the **Single Cup** button (24) the delivery starts and the lights 14-15-16 turn on to show that the one shot espresso dose is being programmed.
5. When the coffee inside the cup has reached the desired quantity, again press the button (24) to stop the delivery.
6. You automatically return to the initial visualization.
7. Repeat the previous steps above using the **Double Cup** button (25) making sure you change the filter inside the portafilter handle (11) to the double shot basket and fill it with 14-16g of espresso first.

4.8 Hot Water Delivery
(only possible with the boiler turned on, **BOILER** light 13 on)

1. Place the pitcher below the hot water output (28):
2. Press the **Hot Water** delivery push-button (23).
3. The hot water delivery starts.
4. Once the desired quantity is reached, stop the delivery by pressing the **Hot Water** button (23) again.

Important Tip: The steam/hot water boiler on the V2 Mini is not very large. When using it for hot water, it is suggested that no more than ~6oz be removed at a time and then let the unit refill the boiler before using again. Otherwise, you run the risk of exposing the steam boiler heater element while it is powered up and possibly damaging it.

4.9 Steam Delivery
(only possible with the boiler turned on, light 13 turned on)

1. Insert the steam wand (2) in the pitcher containing the drink to be heated.
2. Push the steam lever (6) up, regulating the steam flow according to the need.
3. At the end of the heating phase of the drink, stop the steam delivery by pulling the steam lever (6) all the way down.
4. Remove the pitcher from the steam wand (2) and wipe the steam wand and tip immediately with a clean, damp sponge in order to remove all residue of the heated drink.
5. NOTE: The steam lever (6) will remain in the all the way up position when released. However, if released in any other position, the lever will automatically drop to the off position.

   Important Tip: Do not engage the steam lever (6) before placing the steam wand (2) inside the pitcher, in order to avoid burns.

4.10 Boiler Operational Modes

Both boilers are completely independent, turning on and off according to the needs of each. Both can be on at the same time.

The **BOILER** button can toggle the Boiler on and off. This mode is useful for those that only drink espresso and do not need steam or hot water and want to conserve energy.

Important Tip: The state of the BOILER button is kept in memory and is maintained through On/Standby cycles, when the unit is unplugged, or if there is a power failure

Turning the Steam/Hot Water Boiler On and Off

1. The Mini VII must be in ON mode, not Standby for all operations below.
2. With the BOILER lamp on, press and hold the **BOILER** button until the **BOILER** lamp turns off. Neither steam nor hot water is available.
    As noted above, the Mini V2 remembers the current state of the BOILER button through Off/On cycles, when the machine is unplugged, and through power failures.
3. Press the **BOILER** button again until the BOILER lamp turns back on.
4. When the **BOILER** lamp is on (or blinking), steam and hot water are available.

4.11 Espresso Group Water Temperature Regulation

4.11.1 Standard Temperature Adjustment

1. When the machine is On (**ON/STBY** solid green), press the button **ON/OFF**
   and keep it pressed for 3 seconds, the control light (22) and the one concerning
   the set temperature start flashing. For example, if the set temperature is 95°C,
   light (18) starts flashing.

2. In order to change the operating temperature, press and release the **Hot Water
   button (23)** Every press of the button corresponds an increase of the temperature of 1°C
   (with the flashing of the corresponding light). When the maximum temperature of 97°C (20)
   is reached, the selection restarts from the minimum temperature of 91°C (14) (cyclic mode).

3. Once you choose the desired temperature, in order to lock in this value, press
   the ON/OFF (27) button, the machine will then go back to its normal functioning.

The value of the operating temperature of the machine is easily changed in order to
improve the final result in the cup depending on the coffee blend used and the user's
personal preference.

4.11.2 Offset Temperature Adjustment

What Does Temperature Offset Do? / How Do I Use it?

The Vivaldi group design exhibits a temperature drop between where the group boiler temperature probe is located and where the hot water exits the group. Consequently, the temperature setting shown by the temperature lamps on the front panel may differ from the water temperature at the group. Ideally, most users would prefer that the temperature indicated by the temperate lamps exactly matches the water temperature exiting the group. LaSpaziale has partially accounted for this in its basic design. However, there are too many machine to machine electrical and mechanical variances for this to be completely effective. That's where the temperature offset comes in. The programmable temperature offset allows a user with accurate group temperature measuring equipment to enter an offset in the range of $\pm 8°C$ (for extended offset option or 0 to $-8°C$ for standard offset option) in order to allow their machines temperature lamps to exactly match the water temperature exiting the group.

Those purchasing new machines from Chris Coffee Service have had the temperature offset professionally programmed used a Scace device. However, for those obtaining the expanded offset capability via an upgrade, it is recommended that you note the current offset prior to upgrading and then duplicate that offset using the instructions below. If you do not know how to tell what your current offset is, you can find out by entering the temperature offset mode and then following instructions in paragraph

4.11.2.

To Which Machines Do These Instructions Apply?

Instructions are given in the two sections below both. This first is for machines with the original offset adjustment. The section that follows is for machines with the extended temperature offset adjustment. In general if you purchased a new VII Mini from Chris Coffee after 7/1/2008, then the extended offset instructions should apply.

If you are unsure, try both methods outlined below. Only one will work and then you'll know which version you have.

4.11.2.1 Standard Temperature Offset Adjustment

With the machine in Standby (only **ON/STBY** green lamp blinking), press the **BOILER** button until the green **ON/STBY** lamp and the red **BOILER** lamp are blinking (about 10 seconds).

If the Offset = 0ºC, then no other lamps are lit. Assuming a start with Offset = 0ºC , each press of the **BOILER** button, changes the offset by -1ºC and lights an additional lamp starting with the **91ºC** lamp and going up through the **ECON** lamp. Once all eight offset lamps are lit, an additional press of the **BOILER** button cycles back to 0ºC offset.

To exit the Offset mode, press **ON/OFF** (machine in Standby – ON/STBY blinking). When entering the Offset mode the next time, the last stored value is displayed.

See table below:

Offset	91ºC Lamp	92ºC Lamp	93ºC Lamp	94ºC Lamp	95ºC Lamp	96ºC Lamp	97ºC Lamp	ECON Lamp
0ºC	Off	Off	Off	Off	Off	Off	Off	Off
-1ºC	On	Off	Off	Off	Off	Off	Off	Off
-2ºC	On	On	Off	Off	Off	Off	Off	Off
-3ºC	On	On	On	Off	Off	Off	Off	Off
-4ºC	On	On	On	On	Off	Off	Off	Off
-5ºC	On	On	On	On	On	Off	Off	Off
-6ºC	On	On	On	On	On	On	Off	Off
-7ºC	On	On	On	On	On	On	On	Off
-8ºC	On	On	On	On	On	On	On	On

4.11.2.2 Extended Temperature Offset Adjustment

Start with the machine in Standby mode (**ON/STBY** blinking green). Press and hold the **BOILER** button for about 10 seconds until the **Boiler** light and the **ON/STBY** light start flashing. You are now in the temperature offset programming mode.

To enter a positive temperature offset between 0˚C and +8˚C push the **Single Cup** button. Each press will change the offset by +1˚C. An offset of 0˚C is designated by all temperature lamps off. A +8˚C offset is designated by all temperature lamps plus **ECON** on (Low Water on Mini VII Mini). If your positive offset is more than you wish, each press of the **Double Cup** button changes the offset by -1˚C.

To enter a negative temperature offset between 0˚C and -8˚C mode push the **Double Cup** button. Each press will change the offset by -1˚C. An offset of 0˚C is designated by all temperature lamps off. A -8˚C offset is designated by all temperature lamps plus **EMPTY** on. If your negative offset is more than you wish, each press of the **Single Cup** button changes the offset by +1˚C.

How Do I Tell If My Current Offset is Negative or Positive?

Example: You enter Offset Programming mode and see that three lamps are on. This can indicate either ±3˚C. Which is it? Since each press of the **Double Cup** button changes the offset by -1˚C, press it and see what happens. There will either be two or four lamps lit. If four lamps are lit the offset must have been -3˚C since pressing **Double Cup** always changes the setting by -1˚C with each press. If two lamps are lit the offset was +3˚C. By pressing **Double Cup** the offset has changed to +2˚C.

-8 -7 -6 -5 -4 -3 -2 -1 0 +1 +2 +3 +4 +5 +6 +7 +8 ˚C Offset

---→ **Single Cup** Button

←--- **Double Cup** Button

Note that neither the **Single Cup** nor the **Double Cup** button presses wrap around when they reach the limit of their range. Once you get to +8˚C additional presses of the **Single Cup** button do nothing. Same with the **Double Cup** button once -8˚C is reached.

See table below:

Offset	91ºC Lamp	92ºC Lamp	93ºC Lamp	94ºC Lamp	95ºC Lamp	96ºC Lamp	97ºC Lamp	EMPTY Lamp
0ºC	Off	Off	Off	Off	Off	Off	Off	Off
±1ºC	On	Off	Off	Off	Off	Off	Off	Off
±2ºC	On	On	Off	Off	Off	Off	Off	Off
±3ºC	On	On	On	Off	Off	Off	Off	Off
±4ºC	On	On	On	On	Off	Off	Off	Off
±5ºC	On	On	On	On	On	Off	Off	Off
±6ºC	On	On	On	On	On	On	Off	Off
±7ºC	On	On	On	On	On	On	On	Off
±8ºC	On	On	On	On	On	On	On	On

4.11.3 Steam Pressure Adjustment

Steam pressure can be adjusted up or down in 1, 2, or 3 increments of slightly less than 0.1 bar each. The overall pressure range is from approximately 0.9 bar to about 1.4

bar. In reality this adjustment is changing the steam boiler temperature in increments of 1**º**C and you get the resulting pressure change.

This adjustment starts with the S2V2 Mini in Standby mode (**ON/STBY** light flashing).

- Press and hold the `One Cup` button for 3 seconds.
- At this point the 94 **º**C and 95 **º**C yellow lamps will be on solid. If no other lights come on, your pressure is at the default settings and has not previously been raised or lowered from that setting.
- If additional lights are blinking here is the meaning:

Offset	91ºC Lamp	92ºC Lamp	93ºC Lamp	94ºC Lamp	95ºC Lamp	96ºC Lamp	97ºC Lamp	ECON Lamp
Default	Off	Off	Off	On	On	Off	Off	Off
+1	Off	Off	Off	On	On	Blinking	Off	Off
+2	Off	Off	Off	On	On	Blinking	Blinking	Off
+3	Off	Off	Off	On	On	Blinking	Blinking	Blinking
-1	Off	Off	Blinking	On	On	Off	Off	Off
-2	Off	Blinking	Blinking	On	On	Off	Off	Off
-3	Blinking	Blinking	Blinking	On	On	Off	Off	Off

- To increase steam pressure, press the `Two Cup` button. For each button press the blinking lights will cycle through indicating 0, +1, +2, +3, then back to 0, repeating this sequence for each `Two Cup` button press.
- To decrease steam pressure, press the `Hot Water` button. For each press the blinking lights will cycle through indicating 0, -1, -2, -3, then back to zero, repeating this sequence for each `Hot Water` button press.
- Once the blinking lights indicate your desired value, press the `One Cup` button to save the value and exit the steam pressure adjustment mode as indicated when the 94 **º**C and 95 **º**C lights turn off.

To check the current value for steam pressure without changing it, enter the adjustment mode as indicated above, check the state of the blinking lamps, then immediately press the `One Cup` button to exit back to Standby mode (**ON/STBY** light flashing). If you previously changed this adjustment the blinking lights reflect your last setting.

4.11.4 Extreme Temperature Set Function

Standard temperature programming described in section 4.10.1 allows a range from 91**º**C to 97**º**C in 1**º**C increments. There may be times when the user desires a temperature outside of this range. While the Offset mode described in section 4.10.2 could be used for this purpose, it is best to use the offset as intended. Once set properly, the offset should be left alone. Instead, the VII Mini includes a mode specifically for use in extending the temperature range above 97**º**C or below 91**º**C up to a max of 3**º**C. While the ability to extend the temperature above 97**º**C is of limited use, there are some types of coffee whose flavor is optimum in the 88ºC to 90ºC range**.**

Note that the method below only works if the master temperature is set to either 91ºC or 97ºC. If the temperature is set to 91ºC you can only use the instructions below to lower the temperature by 1ºC, 2ºC, or 3ºC. If the temperature is set to 97ºC you can only use the instructions below to raise the temperature by 1ºC, 2ºC, or 3ºC. Consequently you must use the instructions provided in section 4.10.1 to set the master temperature to 91ºC or 97ºC BEFORE using the instructions below. If this is not done, the instructions below for entering the Extreme Temperature Set mode will work as described, but once in that mode attempting to a raise or lower the temperature has no effect.

Instructions for programming this mode AFTER setting the master temperature to 91ºC or 97ºC are:

- Start with the machine in Standby mode (**ON/STBY** light flashing).

- Press and hold the **Two Cup** button for ~3 seconds until lights 94**º**C (17) and 95**º**C(18) come on indicating that the Extreme Temperature Function setting mode is active.

- If you start with the master temperature set to 97**º**C**,** each time that the **Hot Water** button is pressed, lights 96ºC **(**19), 97ºC **(**20), and Tank Low (21) will switch on in succession. Each light indicates a 1ºC increase. All three lights on = 100ºC.

- If you start with the master temperature set to 91**º**C**,** each time that the **One Cup** button is pressed, lights 93ºC **(**16), 92ºC **(**15), and 91ºC (14) will switch on in succession. Each light indicates a 1ºC decrease. All three lights on = 88ºC.

- Press the **Two Cup** button again to exit Extreme Temperature set mode and return back to Standby mode

Note:

> **When you change the temperature of the 91ºC and/or 97ºC buttons according to the above instructions, the change only remains in effect until the temperature is changed. For example, if you change the 91ºC selection**

by 3ºC to yield 88 ºC, then later change the temperature to 93C, the next time you select 91ºC, you will get 91ºC, not 88 ºC. If you wish to obtain 88ºC again you will need to follow the above instructions to reprogram in the 3 ºC decrease.

5 Alarm Handling

The Mini VII uses computerized sensors to robustly handle Mini VII device malfunctions. There are two types of alarms the Mini VII can generate:

Blocking Alarms – these are the most serious. The VII will turn itself Off and display the alarm codes noted below when one of these alarms occurs.

Non-Blocking Alarms – These are informational only and, while they do represent an error condition, the machine will continue to function.

5.1 No Water in Tank

When the tank (4) is out of water the red **EMPTY** light (21) comes on and remains on until at least 1liter of water is added. The tank can hold up to 3 liters.

5.2 Coffee Group Water Dosing System Failure

When the flow meter isn't working properly or when the coffee grind is too fine, this is indicated by the turning on of the lights 14-15-16; if you are making one coffee dose, and the lights 17-18-19 if you are making two coffee doses. This is a non-blocking alarm. This alarm is actually useful when back flushing as an indication of when to turn off the pump and allow the 3-way valve to operate.

5.3 Coffee Group Temperature Detection System Failure

This alarm is a blocking one, and occurs when the temperature probe of the group is in short circuit (temperature >145°C) or is in open circuit (disconnected) condition (temperature <60°C). The lights 20-21 turn on.

If the group water temperature does not exceed 60°C within 5 minutes of turning the unit on, this alarm will also occur.

Turn off the Mini V2 and request service.

5.4 Steam Boiler Temperature Detection System Failure
(only with the boiler turned on)

This is a blocking alarm and occurs when the temperature probe of the boiler is in short circuit (temperature >145°C) or it is in open circuit (disconnected) condition (temperature <60°C). The lights 19-20-21 turn on.

The alarm can be temporarily cleared by turning the boiler off (Press **BOILER** (26) button.) Eventually you will need to turn off the Mini V2 and request service.

5.5 Damaged Group Heating Element Triac / SSR

This alarm is a blocking one, and occurs when the group triac always remains in conduction (temperature >140°C). The lights 20-21 are flashing.

Turn off the Mini V2 and request service. Note: new machines use a dual Solid State Relay (SSR) rather than the triac.

5.6 Damaged Boiler Heating Element Triac SSR
(only with the boiler turned on)

This alarm is a blocking one, and occurs when the boiler triac always remains in conduction (temperature >140°C). The lights 19-20-21 are flashing.

Turn off the Mini V2 and request service. Note: new machines use a dual Solid State Relay (SSR) rather than the triac.

### 5.7 Boiler Automatic Refill System Failure
(only with the boiler turned on)

This is a blocking alarm which is signaled by blinking of the **Boiler** (13) light. If the pump runs for more than 1 minute attempted to refill the boiler without the controller circuit receiving a boiler full signal, this alarm is triggered.
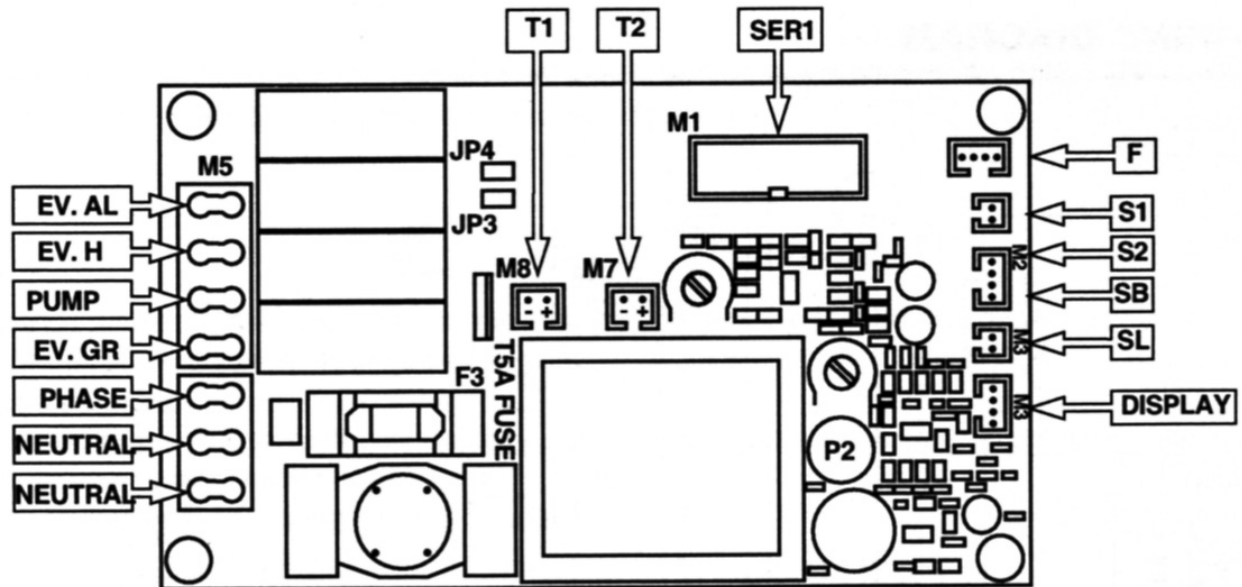
This alarm can be temporarily cancelled by pressing the **BOILER** (26) button to turn off the boiler. The Mini VII can be operated with the steam boiler off until repairs to the boiler function occur.

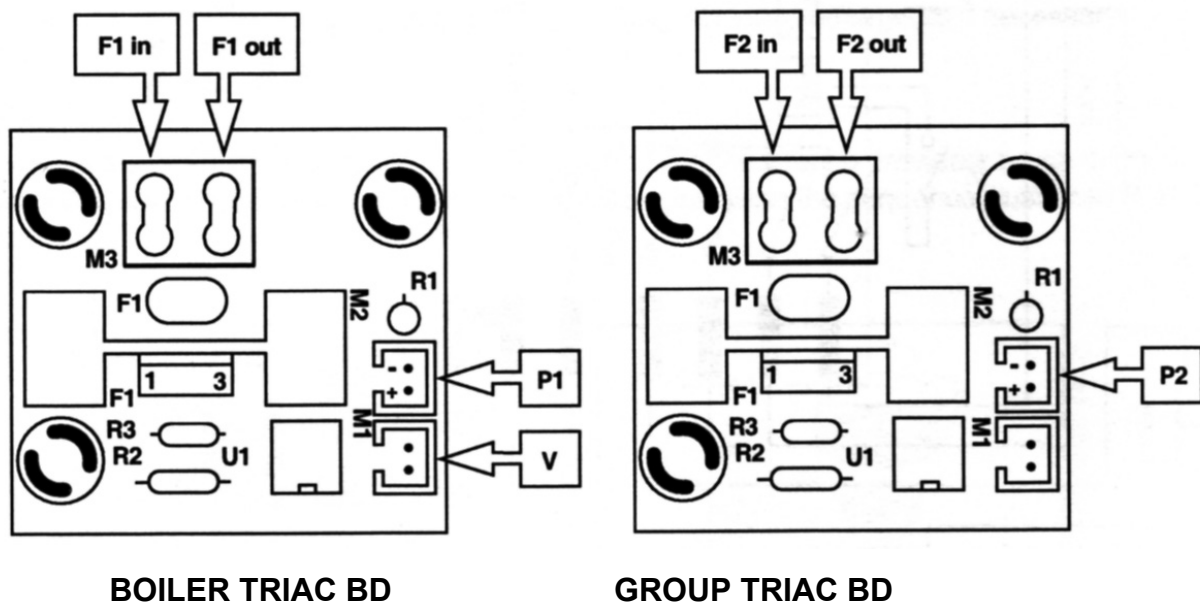# 6 Connection Diagrams

6.1 Electrical Connection Diagram
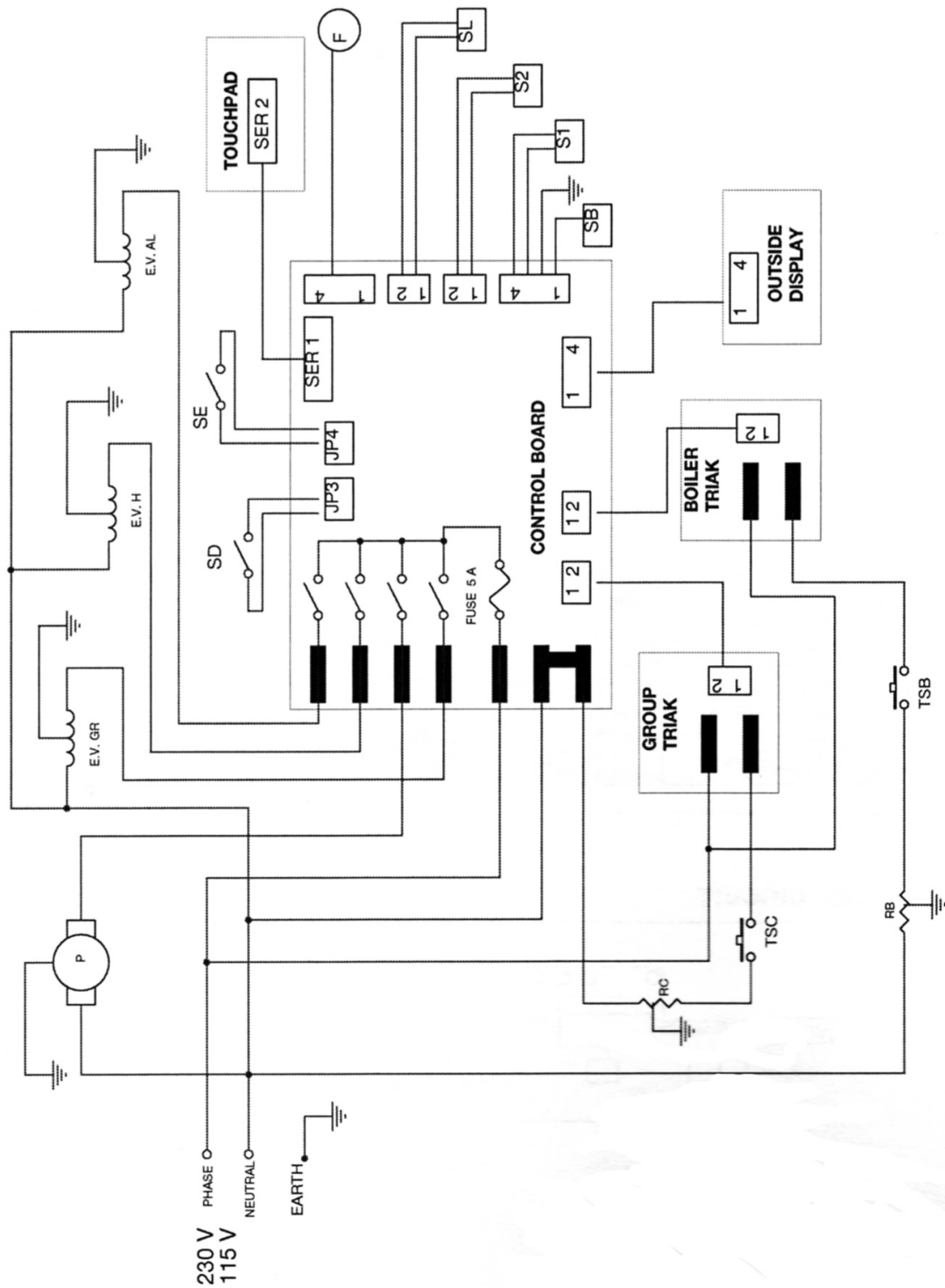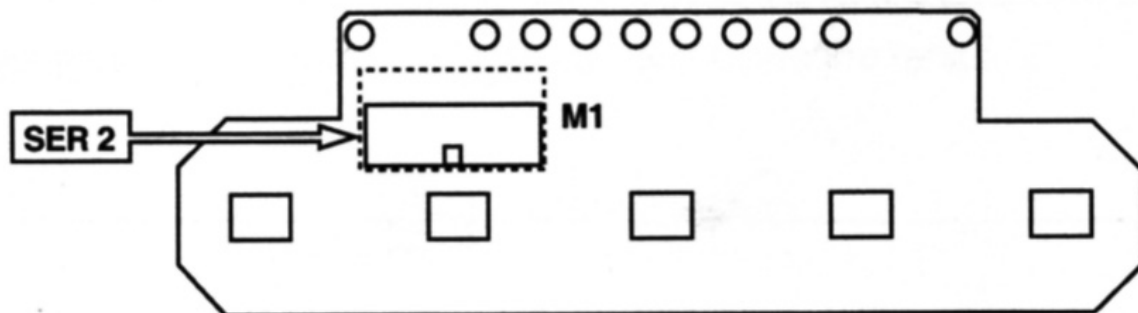
6.2 Control Board Connection Diagram

6.3 Triac Board Connection Diagram

Note these two boards and the fan have been replaced with a single – dual Solid State Relay module (SSR) on new models.

BOILER TRIAC BD   **GROUP TRIAC BD**

**(Cooling Fan is below this board
and runs only when boiler is heating)**

6.4   Control Panel Connection Diagram


6.5   Wiring Diagram Definitions

EV GR   Coffee brewing group solenoid valve
EV H   Hot water delivery solenoid valve
EV AL   Automatic refill system solenoid valve
T1   Connection on control board of the triac that feeds the boiler heating element
T2   Connection on control board of the triac that feeds the group heating element
P1   Connection of the control board on the triac that feeds the boiler heating element
P2   Connection of the control board on the triac that feeds the group heating element
SER 1   Connection control panel on control board
SER 2   Connection control board on control panel
F   Flow meter
F1 in   Phase inlet into the triac that feeds the boiler heating element
F1 out   Phase outlet from the triac that feeds the boiler heating element
F2 in   Phase inlet into the triac that feeds the group heating element
F2 out   Phase outlet from the triac that feeds the group heating element
S1   Boiler temperature probe
S2   Brewing group temperature probe
SL   Container water level sensor
SB   Boiler Water Level Control
Display   Cable Connector for Optional Timer Module
V   Ventilator connection (steam boiler triac cooling fan)
P   Vibe Pump
RC   Heating element brewing group
TSC   Safety thermostat for brewing group heating element
RB   Boiler heating element
TSB   Safety thermostat for boiler heating element
JP4   15/20A Mode Selector Connection
JP3   Optional Timer Switch Connector
SD   Optional Timer On/Off Switch
SE   15/20A Mode Switch

7 Mini VII Water Flow Diagram

The information below is provided strictly as a reference for Mini VII owners who are curious about the function of their Mini VII Dual Boiler design.


LaSpaziale V2 Mini Water Flow Diagram
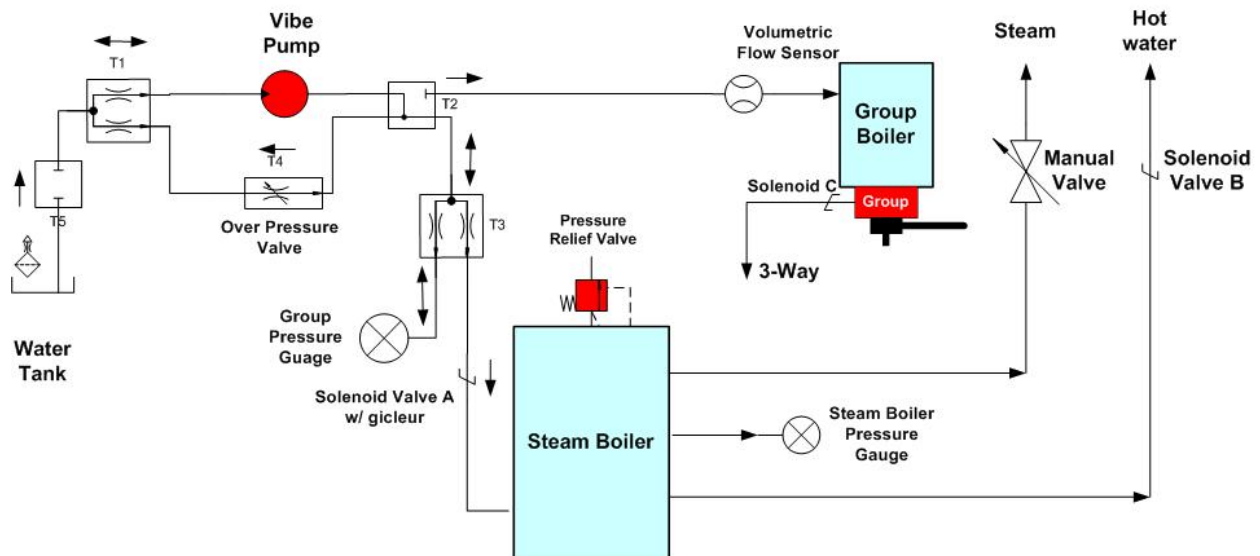
8 Adjustments and Maintenance

8.1 Group Pressure Adjustment

Conventional espresso guidelines call for group pressure in the range of 8.25-9.5 Bars. This is normally set to 9.0 bar prior to shipment. Should you wish to try a lower pressure or, if adjustments are required at some future time, use the procedure documented below.

1) Pull out the drip tray and set it aside

2) Remove the two screws holding the chrome front splash panel in place. (The panel that the pressure gauge protrudes through.)

3) With the panel removed you will see the adjustment nut shown in the photo below.

4) Insert the portafilter with the rubber disk inserted or using a "blind basket", the same as you would do for backflushing.

5) Press the One Cup or Two Cup Button.

6) Use either the correct metric box wrench or an adjustable wrench to adjust the group pressure as noted on the group pressure gauge to your desired value. Turn right to increase pressure, left to decrease pressure.

Turn Expansion Valve Here
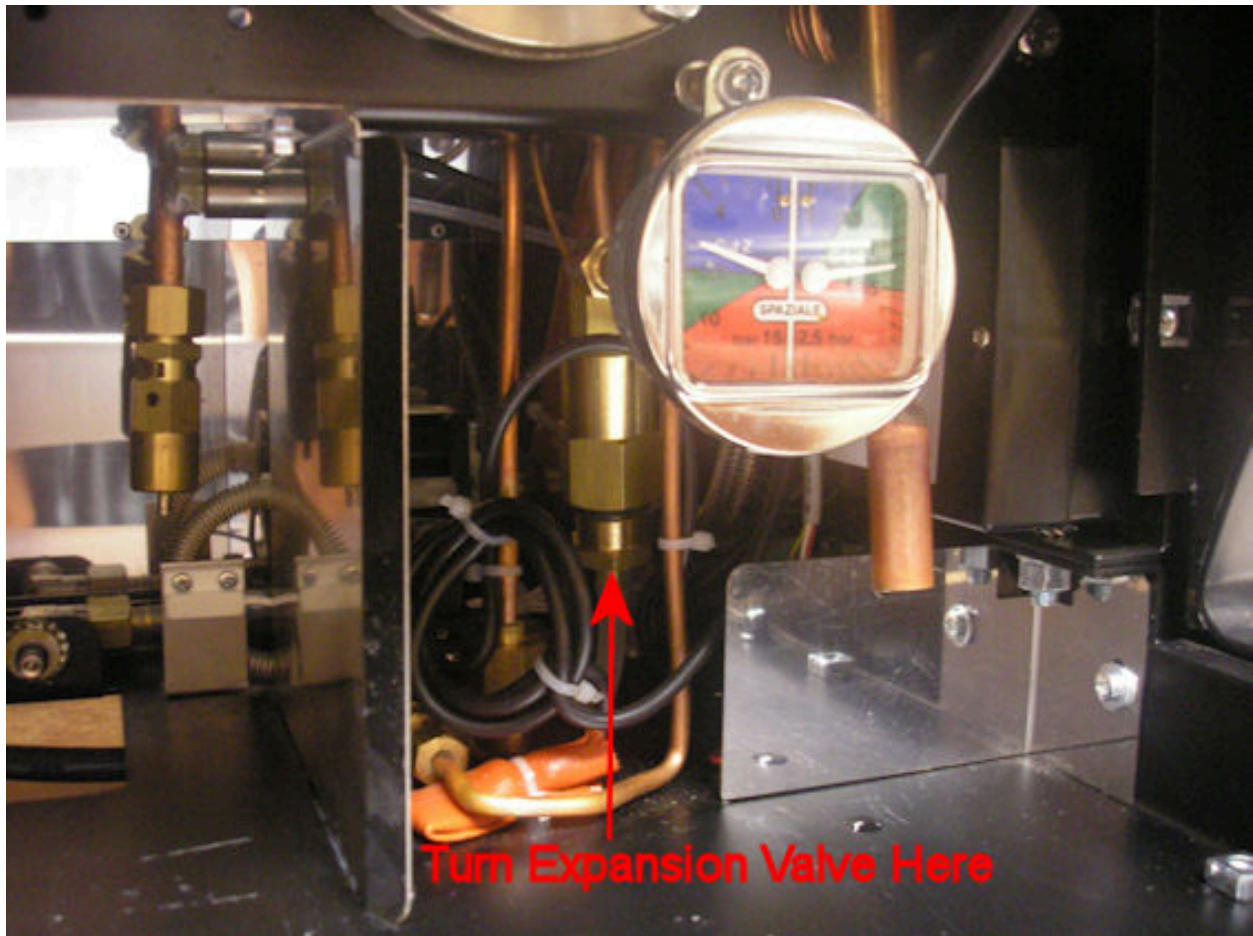
8.2   External Mini VII Surface Cleaning

Use a damp sponge and wipe dry with a soft cloth. Alternately, window cleaner wiped off with a dry soft cloth works well.

8.3   Routine Group Cleaning
The Official LaSpaziale Method"

The extra pair of shower screens was not included with your Mini VII so you'd have an extra set. They are included as part of LaSpaziale's recommended cleaning regimen which is targeted at light commercial use where there is no time for a complete detergent based back flush routine. The reason for LaSpaziale's double shower screen arrangement is to trap grounds between the screens so that the 3-way valve rarely, if ever, needs a detergent cleaning.

- With the Mini VII on and fully heated, use the included key wrench to remove the shower screen bolt.
- Drop out the two screens and the dispersion disk.

- Use the included plastic handled wire brush to quickly scrub the group head while water is running through the group to flush out the particles. (This is why the long handled brush - to keep your hands away from hot water.)
- Also, give the dispersion disk a quick scrub.
- Reassemble using the other set of screens.
- Soak the original set of screens in Cafiza, Joe Glo, or similar detergent, scrub, rinse, and put away for next time.

The Way Most Mini V2 Users Actually Do It:

As noted above the official LaSpaziale method was developed assuming the machine is in light commercial use. This is certainly not the target market for the Mini V2. Here is how most users clean their coffee group (once every 3-4 weeks is enough):

- Start with the basic procedure above, though most folks use something like a Pallo brush rather than the wire brush that came with the machine for the 3rd step. Once the clean screens and dispersion disk are back in the machine perform the following steps.
- Using 1/3 tsp Cafiza, Joe Glo, or similar detergent every 2-4 weeks is plenty for home use. Backflush the S1 Vivaldi II Mini more often with plain water.
- Place the backflush disk in the double basket with 1/3 tsp of Cafiza powder.
- Press the single cup button. Wait 5-10 seconds.
- Press the single cup button again to stop the pump which automatically engages the 3-way valve.
- Perform the above cycle 5 times waiting about 30 seconds between each cycle.
- Then rinse the remaining detergent from the basket and replace the portafilter with the backflush disk still installed.
- Backflush for 5 more cycles to rinse the remaining residue from the group and 3-way valve.
- Remove the backflush disk, make shot of espresso and throw it out.

Important Tip: To maximize the effectiveness of the cleaning process and minimize how often a detergent cleaning is required, after every series of shots is pulled, run a shot with the PF remove. Scrub the screens and around the gasket with a Pallo brush while the hot water is exiting the group. This will flush most of the grounds and sediment into the drip tray.

9 Optional Accessories

These can be ordered and installation arranged at the time you order the Mini V2. In addition, they can be ordered latter and self-installed if you are the handy with simple metric tools.

Pre-Infusion Chamber

Click the link below for the Installation Guide:

http://s1cafe.com/s1v2/images/LaSpazialeProgressionPreinfusionInstallationManual.pdf

Drain Kit

Optional Bluetooth Digital Timer - On/Off Capabilities

The S1 Power Retain Timer is installed the same way the factory timer is. It plugs into a pre-wired connector inside the machine. The S1 power cable is then plugged into a smart plug outlet. A smart plug outlet (not provided) is what controls the power to the machine. There are a number of smart plug outlets available on the market. Use the smart plug outlet provided phone application to schedule the Vivaldi turn On and Off times. Any smart plugs with scheduled On/ Off will work. The S1 Power Retain Timer turns the machine on as soon as it gets the power from the smart plug outlet

Longer Steam Arm (Shown next to stock arm)
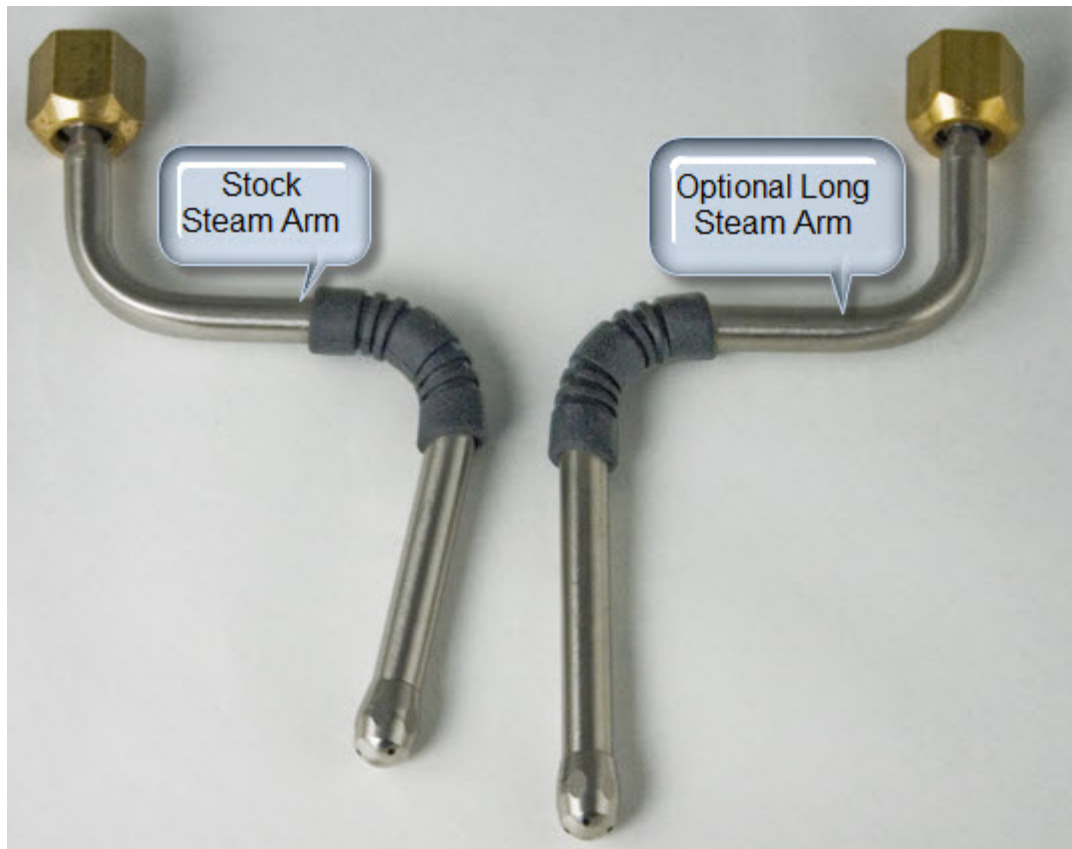
Optional "No Burn" Steam Arm (shown next to stock steam arm)

Optional 4 Hole Tip for "No Burn" Steam Arm

This tip is available on the Chris Coffee website: http://www.chriscoffee.com Pictured below side-by-side are the stock 2 hole tip and the new 4 hole tip.

Precision Bottomless portafilter (Part#5050112)

This bottomless portafilter helps you become a better barista by showing you exactly what might be negatively affecting your shots. Includes a precision (21gram) triple insert basket, but will also hold any other 53mm size you may prefer.

10 Other LaSpaziale Mini Vivaldi II Resources

In addition to your Mini VII supplier, current users are an excellent information resource: Check out these internet sites:

http://www.home-barista.com – reviews, forums, and lively discussions on all coffee topics
http://www.coffeegeek.com - Here you will find lively debate on all things coffee and Mini VII information, including reviews by owners.
http://www.s1cafe.com/s1v2 – Website devoted solely to the LaSpaziale VII and Mini VII with links to one dedicated to the VI and to the forum below
http://www.s1cafe.com - an on-line forum for VI, Mini VII, and Mini VII Mini owners to share information and ask questions.

http://www.bellabarista.co.uk/pdf/Laspaziales1MiniVivaldicloserlookv2.pdf - This is actually a detailed review of the VI Mini widely sold outside the United States. However, most of this information is equally applicable to the VII Mini.

11 Quick Setting Guide

Feature	Starting State (ON/STBY)	Key Press	How Long? (Seconds)	How to know when in correct state to configure feature?	Next Button Press	Next Button Press	Exit Strategy
Set Volumetric Dosing for Single Cup	ON	ON/OFF	3	ON/STBY and current set temp lamps blinking	Single Cup Button	Single Cup again when desired amount of water is dispensed	Momentarily Press ON/STBY to exit and save setting
Set Volumetric Dosing for Double Cup					Double Cup Button	Double Cup again when desired amount of water is dispensed	
Set Main Temp					Hot Water	Press and release Hot Water Button until desired temp lamp is On	
Economy Mode ON/OFF	ON	BOILER	10	ECON Lamp switches state	Note: Remains in current ECON state until this step is repeated even through ON/STBY transitions and Power Fail conditions		
Boiler ON/OFF			Momentary	BOILER Lamp switches state	Note: Boiler off state is not "remembered" through ON/STBY transitions or Power Fail conditions. Boiler always returns to On.		
Standard Temp Offset Machines w/o upgraded controller board	STBY	BOILER	10	On/STBY and BOILER lamps blinking	BOILER	Each press of Boiler lights one more lamp. No lamps on = 0C offset. All eight on = -8C offset. When all 8 lamps are lit, 1 more BOILER press cycles back to 0C offset.	Momentarily Press ON/STBY to exit and save setting
Enhanced Temp Offset Machines with upgraded controller board					Double Cup or Single Cup	Double Cup decreases offset by 1C for each press up to -8C. Single Cup increases offset by 1C up to +8C	
V1/VII Mode Change	STBY	HOT WATER	3	3 Yellow Lamps Blink = VII mode 3 Green Lamps Blink = VI mode Warning: If you change modes and later switch to back to original mode, all configuration changes for that mode are lost. If you want to know what mode you are in without losing your current configuration, unplug V2, then plug back in. Mode lamps blink once when plugged in.			
Steam Pressure - Higher	STBY	One Cup	3	94ºC (17) and 95ºC(18) lights on steady	Two Cup	Pressure increases by .1 bar for each press up to .3 bar as indicated by blinking lights	Momentarily press One Cup to exit and save setting
Steam Pressure - Lower	STBY	One Cup	3	94ºC (17) and 95ºC(18) lights on steady	HOT WATER	Pressure decreases by .1 bar for each press up to .3 bar as indicated by blinking lights	Momentarily press One Cup to exit and save setting
Extreme Temp Set - Higher	STBY w/ Master Temp = 97C	Two Cup	3	94ºC (17) and 95ºC(18) lights on steady	Hot Water	Hot Water increases temp by 1C for each press up to +3C as indicated by lights	Momentarily press Two Cup to exit and save setting
Extreme Temp Set - Lower	STBY w/ Master Temp = 91C	Two Cup	3	94ºC (17) and 95ºC(18) lights on steady	One Cup	One Cup decreases temp by 1C for each press down to -3C as indicated by lights	Momentarily press Two Cup to exit and save setting