

**Data Sheet and Service Manual**

**EC9665 - LA SPECIALISTA MAESTRO**

**Date: 08.10.2020**



**TABLE OF CONTENTS**

<b>1. TECHNICAL DATA .....</b>	<b>2</b>
<b>2. HYDRAULIC DIAGRAM .....</b>	<b>3</b>
<b>3. WIRING DIAGRAM.....</b>	<b>4</b>
<b>4. WORKING PRICIPLE .....</b>	<b>6</b>
<b>5. TEST MODE .....</b>	<b>16</b>
<b>6. TROUBLESHOOTING .....</b>	<b>24</b>

## 1. TECHNICAL DATA

Voltage 220 – 240V / 50 - 60Hz (INT – AU/NZ)  
120V / 60Hz (US/CA)

Max. Input Power 1450 W

### COMPONENTS

Pump 220 – 240Vac / 70W – 19Bar (INT – AU/NZ)  
120Vac / 70W – 19Bar (US/CA)

Grinder motor 230Vac (INT – AU/NZ) ÷ 120Vac (US/CA)

Solenoid valves EV1 ÷ EV6 230Vac (INT – AU/NZ) ÷ 120Vac (US/CA)

#### Thermoblock

- Temperature probe NTC sensor
- Thermal fuse TCO 192°C
- Heating element 230Vac – 1300W – R≈41Ohm (INT – AU/NZ)  
120Vac – 1300W – R≈11Ohm (US/CA)

#### Steamer

- Temperature probe NTC sensor
- Thermal fuse TCO 318°C
- Heating element 230Vac – 1070W (2 x 535W) – R≈50Ohm (INT – AU/NZ)  
120Vac – 1070W (2 x 535W) – R≈14Ohm (US/CA)

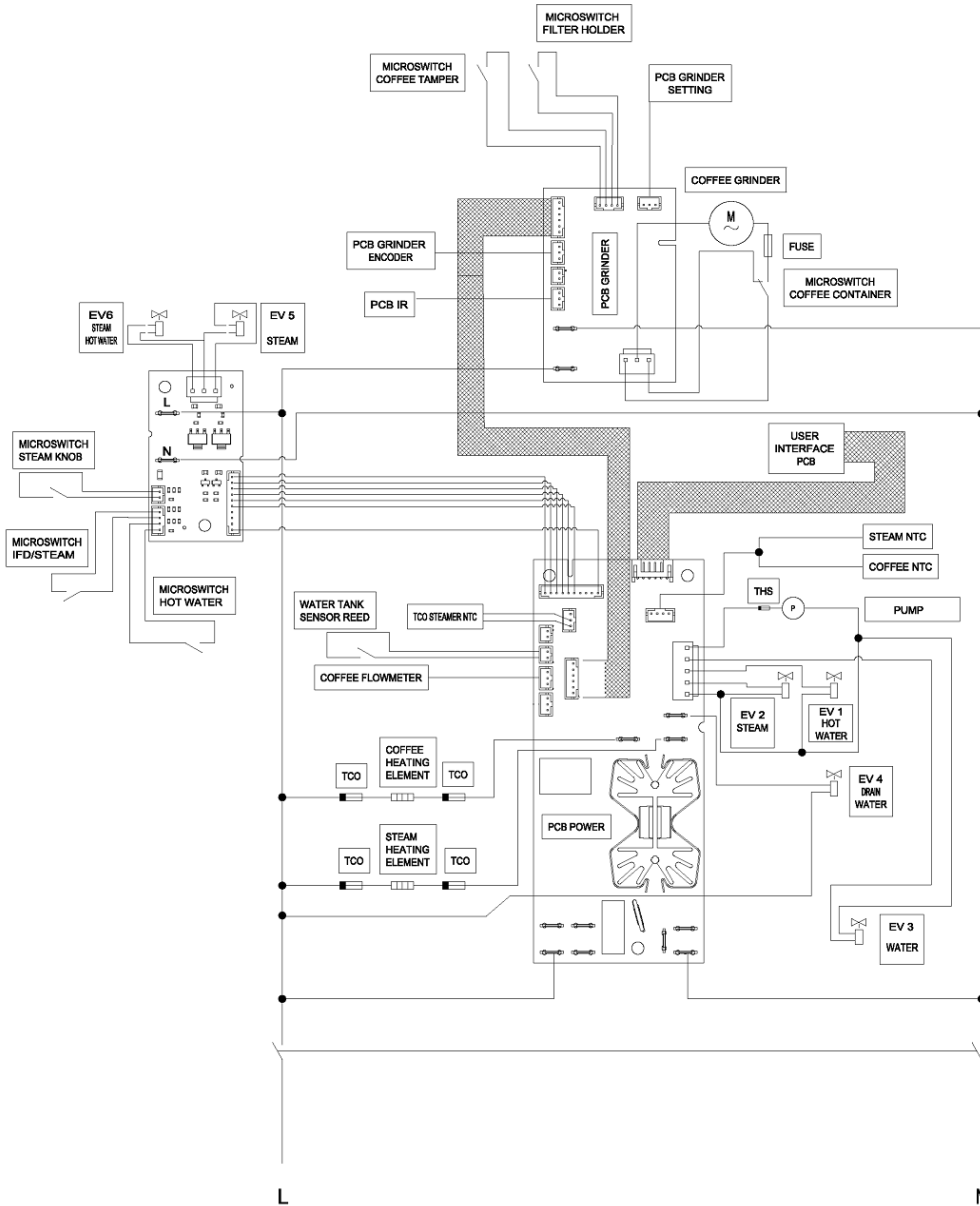
### NTC Resistance-Temperature Characteristics (Thermoblock and Steamer)

TEMP. °C	MINIMUM k $\Omega$	NOMINAL k $\Omega$	MAXIMUM k $\Omega$	Temp. Accy $\pm$ °C	Resi. Accy $\pm$ %
0.0	310.0	328.9	348.8	1.17	6.05
20.0	118.6	124.6	130.9	1.10	5.00
40.0	50.75	52.85	55.02	1.01	4.10
60.0	23.82	24.61	25.43	0.92	3.31
80.0	12.09	12.41	12.73	0.81	2.62
100.0	6.557	6.691	6.825	0.60	2.00
120.0	3.664	3.759	3.855	0.94	2.55
140.0	2.161	2.228	2.296	1.22	3.06
160.0	1.327	1.375	1.423	1.51	3.51
180.0	0.8445	0.8781	0.9126	1.82	3.93
200.0	0.5541	0.5783	0.6033	2.14	4.32





**CIRCUIT DIAGRAM**



**CAPTION:**

**L:** Line/Phase

**N:** Neutral

**THS:** Pump motoprotector

**EV1 Hot Water:** 2 ways electrovalve

**EV2 Steam:** 3 ways electrovalve

**EV3 Water:** 3 ways electrovalve

**EV4 Drain Water:** 2 ways electrovalve

**EV5 Steam:** 2 ways electrovalve

**EV6 Steam / Hot Water:** 2 ways electrovalve

**TCO:** Thermal cut off/thermal link

## 4. WORKING PRINCIPLE

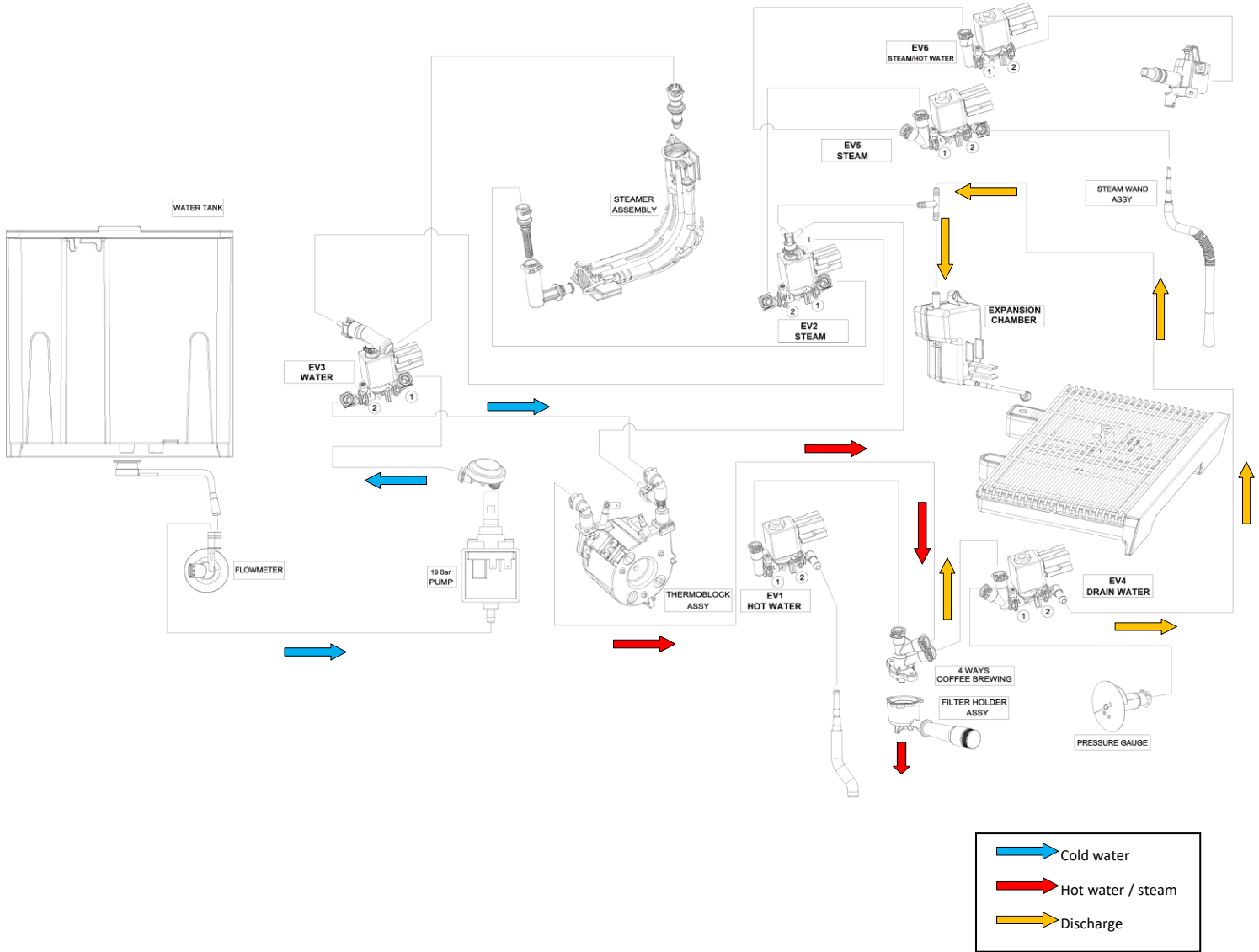
### 4.1. MICROSWITCHES, SENSORS AND SOLENOID VALVES

MICROSWITCHES	Function	Logic
COFFEE TAMPER MICRO SWITCH	Detects when the tamping is done	"CLOSED" when the lever is in position 0
FILTER HOLDER MICRO SWITCH	Detects when the sump is inserted	"NO" when the sump is NOT inserted
BEANS CONTAINER MICRO SWITCH	Detects when the container is inserted	3-pin micro-switch. When the beans container is inserted and the grinder adjustment ring is between 1 and 8: <ul style="list-style-type: none"> <li>- the contact for the beans container detection is "OPEN";</li> <li>- the contact for the grinder power supply is "CLOSED".</li> </ul>
STEAM KNOB MICRO SWITCH	Detects when steam knob is in I position	"NO" when the steam knob is NOT in I position.
IFD/STEAM MICRO SWITCH	Detects when the milk jug is connected	"NC" when the milk jug is NOT inserted, it opens when the milk jug is inserted.
HOT WATER MICRO SWITCH	Detects when the descaling pipe is connected or when the milk jug knob is in the CLEAN position	"NC" when the descaling pipe is NOT inserted (or when the jug knob is NOT in CLEAN position), it opens when the descaling pipe is inserted (or when the milk jug knob is rotated to the CLEAN position).

REED AND ENCODER	Function	Logic
REED SENSOR WATER TANK	Detects when the water level is at minimum	

SOLENOID VALVES	Function	Logic
<b>EV1</b> = 2-ways HOT WATER solenoid valve	It allows the hot water flow to go to the hot water pipe	
<b>EV2</b> = 3-ways STEAM solenoid valve	When activated, it allows the steam flow coming out from the steamer to be addressed to the steam wand branch or to the IFD branch (depending on which outlet is activated). When deactivated, it discharges the residual pressure of the steam branches towards the expansion chamber.	
<b>EV3</b> = 2-ways WATER solenoid valve	When activated, it allows the water coming from the pump to flow towards the Thermoblock. When deactivated, it allows the water coming from the pump to flow towards the Steamer.	
<b>EV4</b> = 2-ways DRAIN WATER solenoid valve	When the coffee delivery finishes, it activates for 1 seconds to eliminate the pressure from the coffee branch (the gauge drops to zero) and, therefore, to dry the coffee pod. The removed pressure is released towards the expansion chamber.	
<b>EV5</b> = 2-ways STEAM solenoid valve	It allows the steam flow to go to the steam wand.	
<b>EV6</b> = 2-ways STEAM/HOT WATER solenoid valve	It allows the steam (or hot water during descaling) to go to the IFD outlet.	

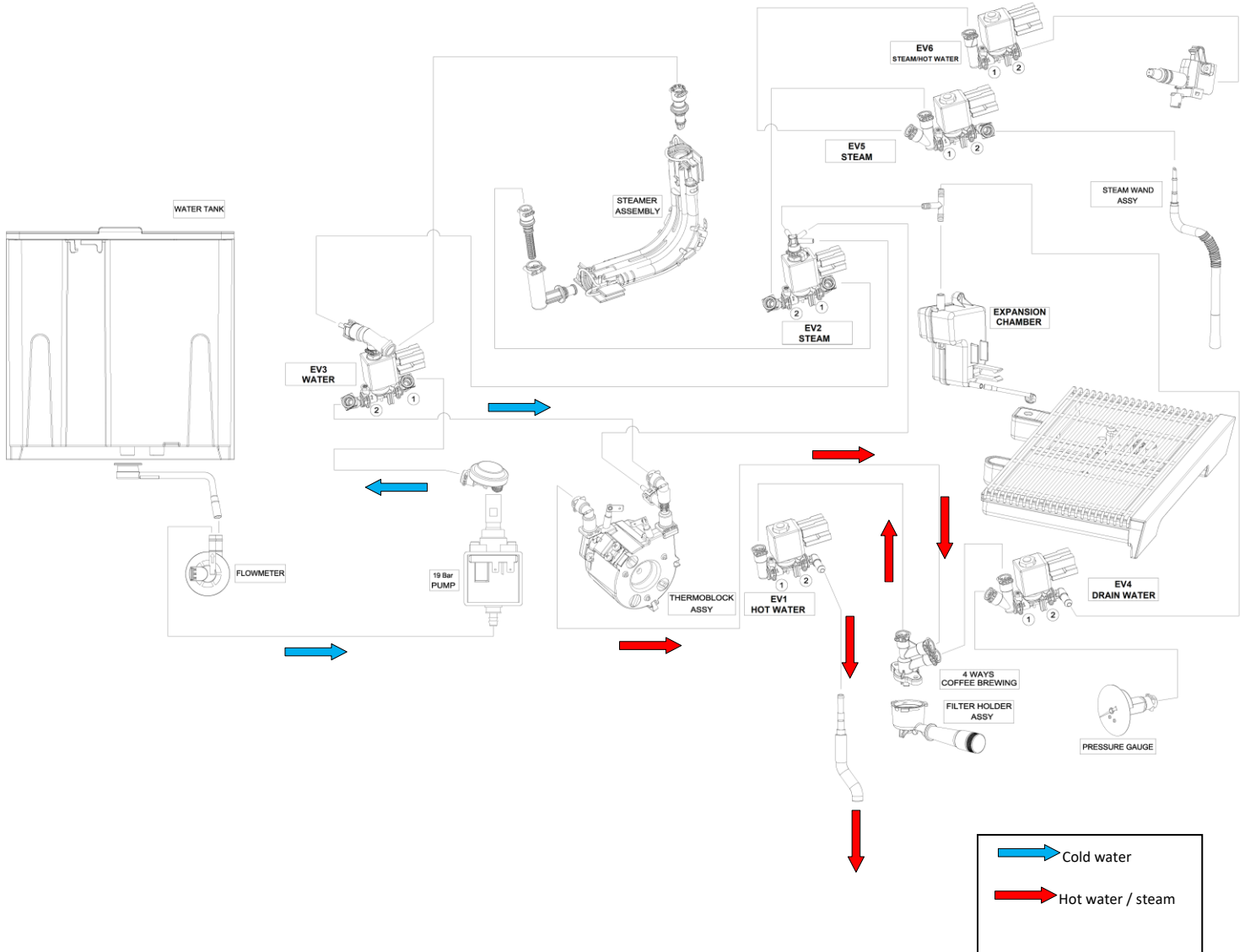
## 4.2. COFFEE PREPARATION



### Coffee Preparation Steps:

- The Thermoblock is activated, EV3 solenoid valve is activated to force the water to flow towards the Thermoblock.
- The pump is activated in continuous mode for the coffee delivery.
- At the end of the coffee delivery, the pump, the Thermoblock and EV3 stop, the EV4 solenoid valve opens for 1 second to drain the residual pressure/water from the coffee filter towards the expansion chamber.

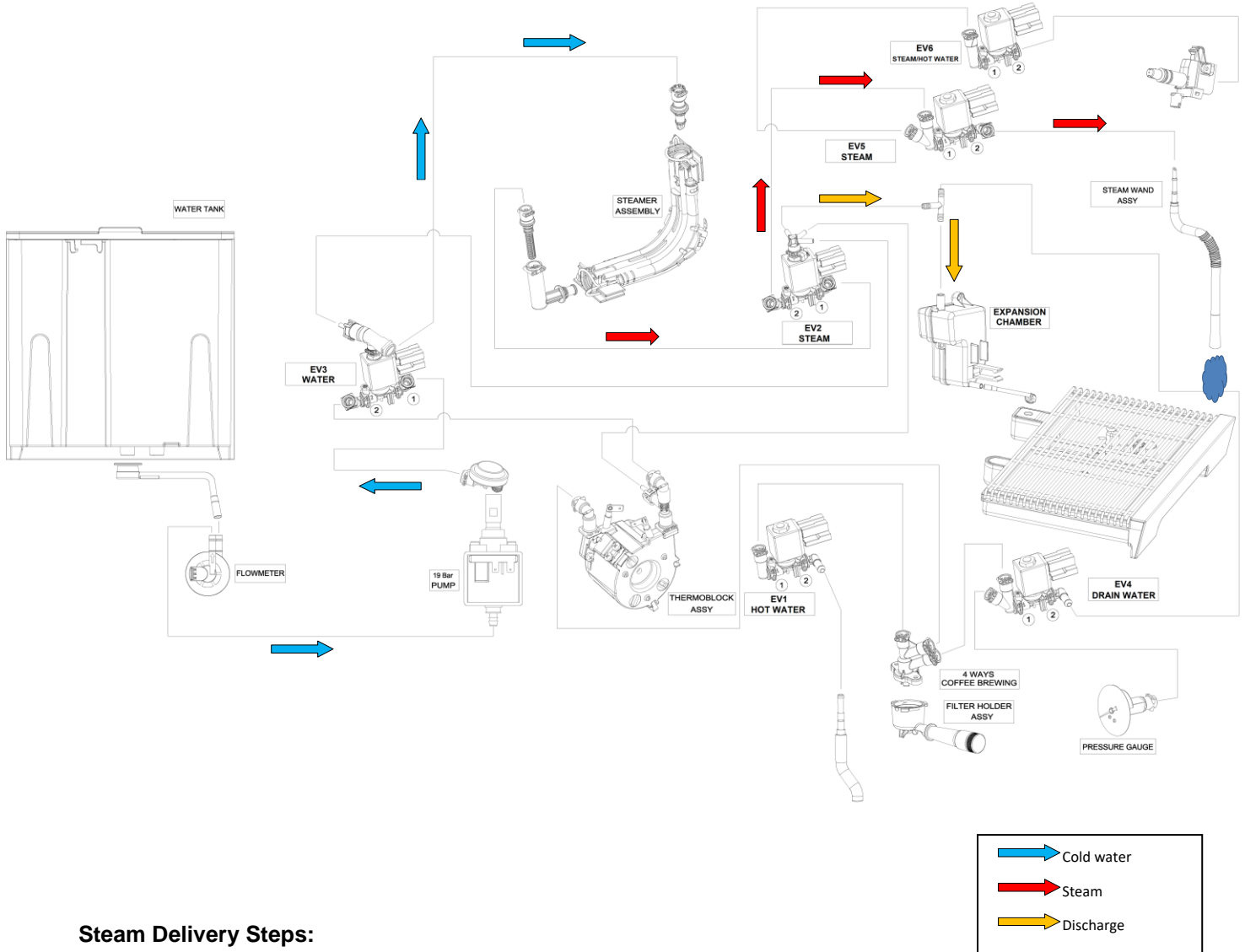
### 4.3. HOT WATER DELIVERY



#### Hot Water Delivery Steps:

- The Thermoblock is activated, EV3 solenoid valve is activated to force the water to flow towards the Thermoblock.
- The pump is activated in fast pulsing mode, EV1 solenoid valve opens to deliver hot water.
- The pump and the Thermoblock stop, EV1 and EV3 close.

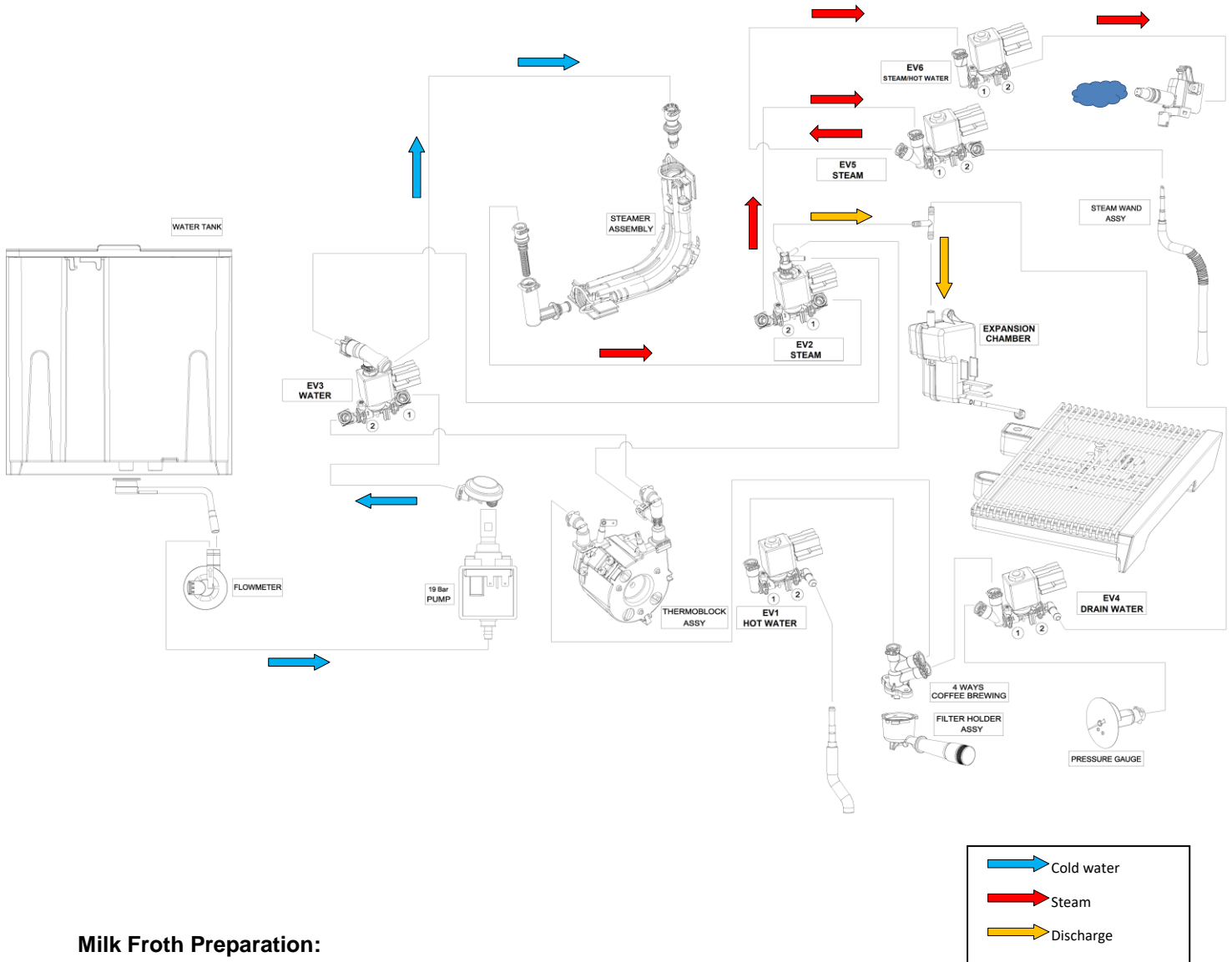
#### 4.4. STEAM DELIVERY



#### Steam Delivery Steps:

- The Steamer is activated.
- EV2 solenoid valve is activated.
- The pump is activated in slow pulsing mode to inject water into the Steamer for steam preparation.
- EV5 solenoid valve opens to deliver steam from the wand.
- The pump stops, the Steamer, EV2 and EV5 solenoid valves are deactivated.
- The residual pressure is discharged from the steam outlet branch towards the expansion chamber.

## 4.5. MILK FROTH PREPARATION



### Milk Froth Preparation:

- The Steamer is activated.
- EV2 solenoid valve is activated.
- The pump is activated in slow pulsing mode to inject water into the Steamer for steam preparation.
- EV6 solenoid valve opens to deliver steam from the IFD connector into the milk jug.
- The pump stops, the Steamer, EV2 and EV6 solenoid valves are deactivated.
- The residual pressure is discharged from the steam outlet branch towards the expansion chamber.

**IMPORTANT:** This function is active only while the milk jug is connected to the IFD nozzle.

#### 4.6. BEVERAGES QUANTITIES

ESPRESSO				
Selected Coffee	Quantity	Program. Qty.	Pre-Inf.	Filter
ESPRESSO	35 cc	25-90 cc	Yes	Single
ESPRESSO X2	70 cc	50-180 cc	Yes	Double

COFFEE				
Selected Coffee	Quantity	Program. Qty.	Pre-Inf.	Filter
COFFEE	70 cc	50-120 cc	No	Single
COFFEE X2	140 cc	120-240 cc	No	Double

AMERICANO/LONG BLACK (*)						
Selected Coffee	Quantity (Coffee + Water)	Pre-Inf.	Filter	Program. Coffee Qty.	Program. Water Qty.	Sequence
LONG BLACK	100 cc (35-65)	Yes	Single	25-60 cc	25-120 cc	1. Water 2. Coffee
LONG BLACK X2	200 cc (70-130)	Yes	Double	50-120 cc	50-240 cc	1. Water 2. Coffee
AMERICANO	120 cc (35-85)	Yes	Single	25-60 cc	25-120 cc	1. Coffee 2. Water
AMERICANO X2	240 cc (70-170)	Yes	Double	50-120 cc	50-240 cc	1. Coffee 2. Water

(\*) Long Black recipe will be available only on machines produced for the Australian market, the appliances of the other markets will have the Americano beverage.

OTHER FUNCTIONS		
Selected Function	Quantity	Programming
STEAM	120 sec	No
HOT WATER	250 cc	No

#### 4.7. DESCALING LEVELS

WATER HARDNESS	IMPULSE VALUE	WATER LITERS (*)
SOFT WATER	312.000	156 lt.
MEDIUM WATER	168.000	84 lt.
HARD OR VERY HARD WATER	96.000	48 lt.

- (\*) Please note that these values consider the usage of machine only for coffee delivery.  
 Hot water production counts 3 times the value and steam counts for 6 times.  
 For example, at value medium, 18 lt. for coffee and 10 lt. for hot water correspond to the descaling alarm target (i.e.  $18 + 10 \times 3 = 48$  lt.).

#### 4.8. TEMPERATURE TEST

##### Coffee Temperature Test

To perform a coffee temperature test, follow in sequence the below steps:

- Turn the appliance ON.
- Make sure the **ECO mode is deactivated** (refer to the user manual for more details).
- Simulate the preparation of **four 2x ESPRESSO beverages in a row**, by keeping the filter holder with the empty 2-cup filter connected to the coffee outlet, to warm up the entire coffee circuit.
- Set the appliance to prepare a **2x ESPRESSO** beverage (refer to the user manual for more details).
- Start the **2x ESPRESSO** beverage preparation into a unique cup.
- Wait until **at least 20cc of coffee** have been delivered into the cup.
- Measure the **coffee flow temperature at about 2÷10mm from the coffee spout**, as shown in the below picture:



- The **optimal indicative temperature measurement** for coffee for **each of the 5 available temperature settings** of the appliance is resumed in the below table:

TEMPERATURE SETTING	TEMPERATURE MEASUREMENT
1	82°C±3°C
2	84°C±3°C
3	86°C±3°C
4	88°C±3°C
5	90°C±3°C

### **Hot Water Temperature Test**

To perform a hot water temperature test, follow in sequence the below steps:

- Turn the appliance ON.
- Make sure the ECO mode is deactivated (refer to the user manual for more details).
- Press the TEA button to deliver hot water, to warm up the hot water circuit.
- Once the warm-up delivery is completed, press again the TEA button to start the hot water delivery into a cup.
- Wait until at least 20cc of hot water have been delivered into the cup.
- Measure the hot water flow temperature at about 2÷10mm from the hot water outlet, as shown in the below picture:



The **optimal indicative temperature measurement** for hot water should be **93°C±2°C**.

### Frothed Milk Consistency and Temperature Test

To perform the frothed milk consistency and temperature test, follow in sequence the below steps:

- Turn the appliance ON.
- Fill the milk jug with 300ml of semi-skimmed milk at a temperature of  $5^{\circ}\text{C}\pm 2^{\circ}\text{C}$ . Insert the lid to the jug and connect it to the appliance.
- Set the maximum level of froth by rotating the frothing adjustment knob on the jug lid accordingly.
- Place a 300ml PIREX graduated container under the milk spout.
- Select the **LATTE beverage** and wait until at least 80ml of frothed milk have been delivered into the container.
- Measure the milk flow temperature during the delivery at about  $2\div 10\text{mm}$  from the spout, as shown in the below picture:



The optimal conditions for the frothed milk (without considering the coffee in cup) should be as resumed below:

- Froth appearance: small bubbles without splashes.
- Milk temperature:  $60^{\circ}\text{C}\pm 5^{\circ}\text{C}$ .
- Froth amount: finally the container must have 50% milk and 50% froth.

## 5. TEST MODE

### 5.1. HOW TO ENTER IN THE VARIOUS TEST MODES/STATISTICS

**NOTE:** To access properly the test modes, make sure the appliance is ON from both the main back switch and from the front ON/STAND-BY switch. Then, turn the appliance OFF from the main back switch and follow the below steps.

- a. Set the position of the coffee dose knob as indicated in the second column of the below table:

TEST	COFFEE DOSE KNOB	SWITCH
COFFEE DOSE KNOB CALIBRATION	NOT PRE-GROUND	OK
USER INTERFACE TEST	NOT PRE-GROUND	--
FUNCTIONAL TEST	NOT PRE-GROUND	X2
LOAD TEST	NOT PRE-GROUND	TEMPERATURE
INPUT TEST	NOT PRE-GROUND	RINSE
STATISTICS	PRE-GROUND	--

- b. Turn on the coffee machine by the main switch while holding the ON/STAND-BY and the corresponding button of the third column of the above table at the same time for more than 5s. Do not release at the first blinking but wait for the 5 seconds. This will allow the unit to access the corresponding test mode indicated in the first column.
- c. To quit the test mode switch the coffee machine OFF from the main switch on the back.

### 5.2. COFFEE DOSE KNOB CALIBRATION

During this procedure, only the OK LED and the coffee dose display are ON, all the other indicators of the control panel are OFF.

The calibration process consists in the rotation of the coffee dose knob in different positions to acquire the values of the ADC for each position.

The procedure consists in the following steps:

PROCESS STEP	DISPLAYED VALUE	OPERATION
1	30	Turn the knob to MAX position, then press OK to confirm.
2	01	Turn the knob to MIN position, then press OK to confirm.
3	-P	Turn the knob to PRE-GROUND position, then press OK to confirm.
4	01	Turn the knob to MIN position, then press OK to confirm.

**IMPORTANT:** The dose knob calibration must be performed all the time the control panel PCB and/or the main PCB are replaced.

### 5.3. USER INTERFACE TEST

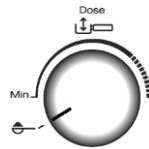
#### BUTTONS TEST

BUTTON PUSHED	LEDS STATE						
	x2	TEMP.	RINSE	OK	TEA	DESC.	MY
x2	ON	OFF	OFF	OFF	OFF	OFF	OFF
TEMPERATURE	OFF	ON	OFF	OFF	OFF	OFF	OFF
RINSE	OFF	OFF	FLASH (White/Orange)	OFF	OFF	OFF	OFF
OK	OFF	OFF	OFF	ON	OFF	OFF	OFF
TEA	OFF	OFF	OFF	OFF	ON	OFF	OFF
DESCALING	OFF	OFF	OFF	OFF	OFF	FLASH (White/Orange)	OFF
MY	OFF	OFF	OFF	OFF	OFF	OFF	ON
ON/OFF	ON	ON	ON	ON	ON	ON	ON

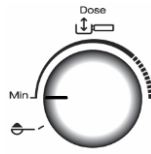
#### COFFEE DOSE KNOB TEST

For each position of the dose knob, a series of symbols and segments will progressively turn ON in the dose display and on the control panel:

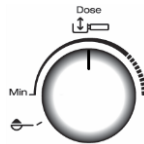
- Pre-Ground Position:



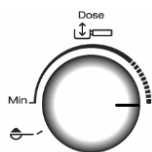
- MIN Position:










- MED Position:



- MAX Position:



*BEVERAGE KNOB TEST*

KNOB POSITION 	DISPLAY STATE					
	COFFEE 	ESPRESSO 	AMERICANO/ LONG BLACK 	FLAT WHITE 	LATTE <sup>(*)</sup> 	CAPPUCCINO 
COFFEE	ON	OFF	OFF	OFF	OFF	OFF
ESPRESSO	OFF	ON	OFF	OFF	OFF	OFF
AMERICANO/LONG BLACK	OFF	OFF	ON	OFF	OFF	OFF
FLAT WHITE	OFF	OFF	OFF	ON	OFF	OFF
LATTE	OFF	OFF	OFF	OFF	ON	OFF
CAPPUCCINO	OFF	OFF	OFF	OFF	OFF	ON

<sup>(\*)</sup> LATTE or LATTE MACCHIATO, depending on the appliance version

## 5.4. FUNCTIONAL TEST

In this mode LEDs Tank, Generic Alarm, Energy Label and Steam are ON

TEST	HOW TO ACTIVATE TEST	NOTE	LED	LOAD STATE										
				PUMP	EV1	EV2	EV3	EV4	EV5	EV6	HEATER	STEAMER	GRINDER	
"STEAM" HYDRAULIC CIRCUIT	KEEP RINSE PUSHED	Water from Steam Wand	Rinse Flash, Others OFF	ON	OFF	ON	OFF	OFF	OFF	ON	OFF	OFF	OFF	OFF
"IFD" HYDRAULIC CIRCUIT	KEEP DESCALE PUSHED	Water from Descale Accessory	Descalate Flash, Others OFF	ON	OFF	ON	OFF	OFF	OFF	OFF	ON	OFF	OFF	OFF
"COFFEE" HYDRAULIC CIRCUIT	KEEP OK PUSHED	Water from Coffee Spout	OK Flash, Others OFF	ON	OFF	OFF	ON	OFF	OFF	OFF	OFF	OFF	OFF	OFF
GRINDER	PUSH TEA	Place filter holder under Tamper	TEA Flash, Others OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	About 7 seconds
EMPTYING HYDRAULIC CIRCUIT	PUSH MY (Empty water Tank before starting)	PHASE 1 (also reset "first use")	MY Flash, Others OFF	ON	ON	OFF	ON	OFF	OFF	OFF	OFF	ON 110 °C	OFF	OFF
		PHASE 2	MY Flash, Others OFF	ON	OFF	ON	OFF	OFF	OFF	ON	ON	OFF	ON 120 °C	OFF
RESET TO FACTORY DEFAULT	PUSH ON/OFF	RESET ALL PARAMETERS TO FACTORY DEFAULT (also reset "first use")												

## 5.5. LOAD TEST








In this mode LEDs Empty Beans and Beans Container Missing are ON





LOAD	LOAD STATE	LOAD STATE										LED	
		PUMP	EV1	EV2	EV3	EV4	EV5	EV6	HEATER	STEAMER	GRINDER		
EV1	X2 PUSHED + STEAM OFF	OFF	ON	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	X2 Flash, Others OFF
EV2	TEMP. PUSHED + STEAM ON	OFF	OFF	ON	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	Temp. + Steam Flash, Others OFF
EV3	DESCALE PUSHED	OFF	OFF	OFF	ON	OFF	OFF	OFF	OFF	OFF	OFF	OFF	Descalate Flash, Others OFF
EV4	TEMP. PUSHED + STEAM OFF	OFF	OFF	OFF	OFF	ON	OFF	OFF	OFF	OFF	OFF	OFF	Temp. Flash, Others OFF
EV5	X2 PUSHED + STEAM ON	OFF	OFF	OFF	OFF	OFF	ON	OFF	OFF	OFF	OFF	OFF	X2 + Steam Flash, Others OFF
EV6	RINSE PUSHED + STEAM ON	OFF	OFF	OFF	OFF	OFF	OFF	ON	OFF	OFF	OFF	OFF	Rinse + Steam Flash, Others OFF
STEAMER	OK PUSHED	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	ON 120 °C	OFF	OK Flash, Others OFF
PUMP	TEA PUSHED	ON	OFF	OFF	ON	OFF	OFF	OFF	OFF	OFF	OFF	OFF	TEA Flash, Others OFF
HEATER	PUSH MY	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	ON 110 °C	OFF	OFF	MY Flash, Others OFF
GRINDER	PUSH ON/OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	About 22 seconds	

**NOTE:** To activate the grinder from the Load Test, connect the filter holder to the tamping station.

## 5.6. INPUT TEST






In this mode LED Beans Container Missing is ON

INPUT	LEDS STATE						
	TAMPING MESSAGE 	ECO 	GENERAL ALARM 	BEANS PRESENCE 	STEAM 	WATER TANK 	MILK JUG 
TAMPER DOWN	ON	OFF	OFF	OFF	ON	OFF	OFF
FILTER HOLDER (Grinder Side)	OFF	ON	OFF	OFF	ON	OFF	OFF
BEANS CONTAINER PRESENCE	OFF	OFF	ON	OFF	ON	OFF	OFF
COFFEE BEANS SENSOR	OFF	OFF	OFF	ON	ON	OFF	OFF
STEAM KNOB ON I POSITION	OFF	OFF	OFF	OFF	OFF	OFF	OFF
WATER TANK MISSING	OFF	OFF	OFF	OFF	ON	ON	OFF
MILK JUG PRESENCE	OFF	OFF	OFF	OFF	ON	OFF	ON
CLEAN JUG / DESCALING ACCESSORY	OFF	OFF	OFF	OFF	ON	OFF	FLASH

GRINDER GEAR POSITIONS	LEDS STATE			
	X2 	RINSE 	OK 	TEA 
1÷2	ON	OFF	OFF	OFF
3÷4	ON	ON	OFF	OFF
5÷6	ON	ON	ON	OFF
>6	ON	ON	ON	ON

## 5.7. STATISTICS

- Press the button to select the correct statistic value to be displayed (see the below table for reference).
- The left display will show in sequence the digits of the units, tens, hundreds, thousands and tens of thousands for each statistic value.
- Each digit is separated by a 2 second interval during which the display stays OFF.

BUTTON TO BE PRESSED	STATISTIC VALUE
TEA BUTTON 	Total Amount of Beverages (Espresso + Americano/Long Black + Coffee)
MY BUTTON 	Litres for all Coffee Beverages
RINSE BUTTON 	Litres for Hot Water
DESCALING BUTTON 	Number of Descaling Processes
OK BUTTON 	Water for Steam Production (counted in Decilitres)

### Example of How to Read Statistics

Here below an example of digits displaying sequence while reading statistics for the Total Amount of Beverages delivered (TEA button):

First digit:



⇒ UNITS = 5

Second digit:



⇒ TENS = 8

Third digit:



⇒ HUNDREDS = 0

Fourth digit:



⇒ THOUSANDS = 0

Fifth digit:

























⇒ TENS OF THOUSANDS = 0

⇒ TOTAL AMOUNT OF BEVERAGES = 00085






## 6. TROUBLESHOOTING

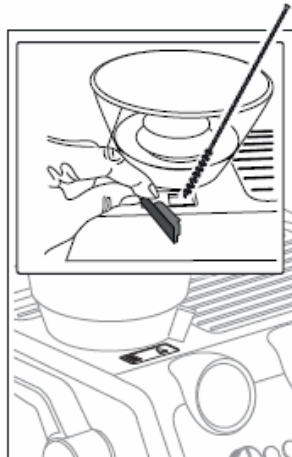
### EXPLANATION OF LIGHTS

LIGHTS	EXPLANATION OF LIGHTS	OPERATION
All the lights flash briefly	Turning the machine on	Self-diagnosis
 on	The appliance is being turned on for the first time and the water circuit must be filled	Proceed as described in section "Setting la specialista for first use" of the quick guide.
 on	Energy saving is enabled	If you want to disable the function, see section "Menu settings" of the user manual
 on	The beans container is empty	Fill the beans container
 flashing	You are trying to grind coffee but the beans container is empty	Fill the beans container
 on	Insufficient water in tank or water tank not inserted correctly	Fill the tank or extract the tank and put it back correctly
 flashing	You are trying to deliver a beverage but water tank is empty	Fill the tank
 on	General alarm	Check and/or replace the NTC sensors
 on	The beans container is not inserted	Insert beans container or check that is completely locked
 flashing	The grinder adjustment selector is out of range	Move the selector within the 8 levels from coarse to fine, keeping in mind to: <ul style="list-style-type: none"> <li>• Always adjust the coffee mill during the grinding</li> <li>• Adjust one grinding level at a time and make at least 5 coffees before adjusting again</li> </ul>
	The coffee beans container is not completely inserted: the machine does not work for safety reasons	Check that the beans container is completely locked
 on	After every use, the LatteCrema System must be cleaned	When all the milk drinks are ready, proceed with automatic cleaning turning the knob to Clean
 on	The appliance is on and ready for use	The appliance is at the right temperature to deliver steam. To deliver steam, turn the steam dial
 flashing	The appliance is on and energy saving is enabled. The steam dial (A4) is in the steam delivery position	The light flashes to indicate that the appliance is preparing to deliver steam. Delivery begins as soon as the appliance is at temperature
	The appliance is heating up to be ready for use	The appliance is at temperature when the light remains on steadily
	The appliance is delivering steam	
 on (orange)	Descaling must be performed	Descale the appliance as described in section "Descaling" of the user manual

LIGHTS	EXPLANATION OF LIGHTS	OPERATION
 flashing (orange)	Descaling is underway	Complete the operation as described in the user manual: the light comes white when the rinsing cycle of descaling is required
 on (white)	The rinsing cycle of descaling must be performed	
 flashing (white)	The rinsing cycle of descaling is underway	
 on (orange)	Cleaning of the coffee outlet must be performed	See section "Cleaning of the coffee outlet" of the user manual
 flashing (orange)	Cleaning of the coffee outlet is underway	
 flashing (white)	The active rinse is underway	
 +  flashing	If the water softener filter is present, an air bubble may have been released inside the circuit, obstructing delivery	Press the button corresponding to the  light. Delivery begins and stops automatically.
	The grinding is too fine and the coffee is delivered too slowly or not at all	Extract the filter holder and repeat the operations to make the perfect dose ( see Quick Guide - Step 1 Grinding).
	The coffee filter is blocked.	Rinse the filters under abundant running water or by Active Rinse function.
	The tank has been inserted incorrectly and the valves on the bottom are not open	Press the tank down slightly to open the valves on the bottom
	Limescale in the water circuit	Descal as described in the user manual

**TROUBLESHOOTING**

PROBLEM	CAUSE	SOLUTION
There is water in the drip tray	It is normal: due to the internal water circuits operations	Regularly empty and clean the drip tray
No espresso coffee is delivered	No water in the tank	Fill the tank
	The  light is on to indicate that the coffee or steam circuit is empty	Press the button corresponding to the  light to fill the circuit
	The coffee filter is blocked	Rinse the filter under abundant running water or by Active Rinse function.
	The tank has been inserted incorrectly and the valves on the bottom are not open	Press the tank down slightly to open the valves on the bottom
	Limescale in the water circuit	Descalc the machine as described in the user manual
	Coffee ground is too fine	Adjust coffee dose and grinding (refer to Quick Guide)
The portafilter cannot be attached to the appliance	The ground coffee has not been pressed or is too much	Repeat grinding with new settings. Reduce the powder quantity: check if the filter (single or double filter) is the same size as the selector of grinding quantity (2x button selected or not)
The espresso coffee drips from the edges of the portafilter rather than the holes	The portafilter is inserted incorrectly	Attach the portafilter correctly and rotate firmly as far as it will go
	The coffee outlet gasket has lost elasticity or is dirty	Replace the coffee outlet gasket
	The coffee filter is clogged	Rinse the filter under abundant running water or by Active Rinse function.
The coffee crema is too light (delivered from the spout too fast)	The appliance settings need reviewing	Refer to coffee guide for suggestions
The coffee crema is too dark (delivered from the spout too slowly)	The appliance settings need reviewing	Refer to coffee guide for suggestions
No milk froth is formed when making cappuccino with LatteCrema System	Milk not cold enough	Always use milk at refrigerator temperature
	The froth selection knob (D5) is not in the correct position	Check and turn to the right position the froth selection knob (  max froth;  med froth;  min froth )
	The LatteCrema System is dirty	Clean the cappuccino maker as described in the user manual
	Limescale in the water circuit	Descalc the machine as described in the user manual
At the end of descaling, the appliance requests a further rinse	During the rinse cycle, the water tank has not been filled to the MAX level	Complete the rinse cycle from point (8) as described in the Descaling procedure

PROBLEM	CAUSE	SOLUTION
The appliance does not grind the coffee	There is foreign matter that cannot be ground in the coffee mill	Clean the burrs as described in the user manual, making sure you remove all the beans from the beans container before extracting it. Before putting the burr back, vacuum all residues from the housing
	The coffee beans container is not in the right position	The container is correctly inserted when the arrow ▲ is lined up with the ☐ symbol and you hear a "click".
If you want to change the type of coffee	You must remove all the beans present in the machine	<ul style="list-style-type: none"> <li>• Empty the beans container (if necessary, operate the coffee mill without beans or use a vacuum cleaner to remove any remaining beans)</li> <li>• Attach the filter holder and operate the coffee mill a number of times without beans to free the grinder. Attach the filter holder to the outlet of the grinder, lining it up with "INSERT", then turning it to the right. Grinding begins when the filter holder reaches the CLOSE position and stops automatically. Repeat until the filter is empty</li> <li>• Place the new coffee in the beans container</li> <li>• If the amount of coffee ground is not enough to reach the perfect dose, proceed setting the appliance as for the first use</li> </ul>
<p>After grinding, the coffee filter is empty</p> <p>After tamping, there is too much coffee in the filter</p>	The coffee grinder coffee funnel is clogged	<p>Clean the coffee funnel as described in the user manual. If the problem persists, access the guide by opening the hatch and free it using the brush</p> 

PROBLEM	CAUSE	SOLUTION
After grinding, the ground coffee in the filter does not reach the "perfect dose"	The "Smart Tamping Station" needs cleaning	Clean the Smart Tamping Station as described in the user manual, then grind again
	The quantity of ground coffee needs adjusting	Adjust the quantity of coffee with the dial. If the dial is already in the max. position, proceed with the "Extra grinding adjustment"
	Over time the burrs wear down	Replace the burrs as described in the user manual