

Troubleshooting and errors

- OptiMe with Fresh Milk option
- Refrigerator
- Cup heater
- Water reservoir



Content

1. Basics
2. Errors codes
3. Non error codes related problems
4. Fresh milk system problems
5. Refrigerator
6. Cup heater
7. Water reservoir

1. Basics

From Software version V 1.2 (release date April 2020) the error screen contains extra information.

Error display information

- Reset button [A]

When the door is closed the reset button is NOT active. This prevents users from pressing the reset button. Only after opening the door by the operator the reset button is active (red).

- Error number & description [B]

The error is also stored in the error log, which stores the 20 last errors complete with date and time.

- Instructions for the machine Operator [C]

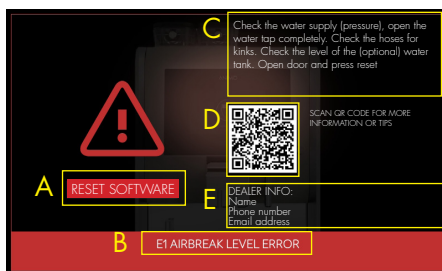
If the error is caused by something the machine operator can try to solve, instructions are displayed here.

- QR code [D].

Scan the QR code (if available) with your smart phone for additional online instructions.

- Dealer information [E].

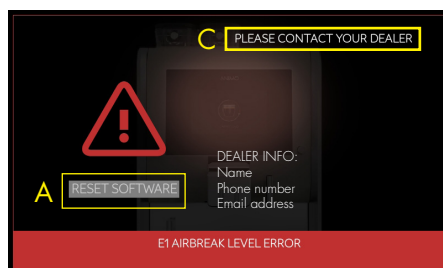
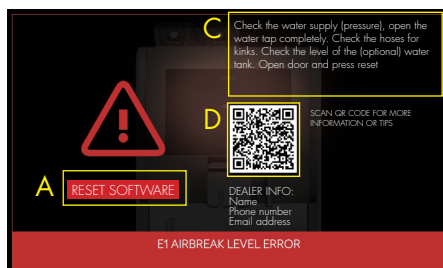
This information will only appear if it's entered during the installation of the machine.



Reset an error (operator)

Follow the instructions [C] and [D] is displayed, for example: check water pressure and restore it. The operator solves the problem, someone closed the water tap accidentally.

1. First open the door and then press the reset button [A].
2. Close the door. The internal Application will restart.
3. When no error is shown anymore the problem is solved. When the error returns you can repeat it two more times. (3 reset attempts can be made in total) .
4. After 3 reset attempts the reset button [A] is not active anymore. The display will now show the message [C] PLEASE CONTACT YOUR DEALER. It is therefore very important that you entered your dealer details during installation so your customer know who to contact.



Reset an error (service engineer)

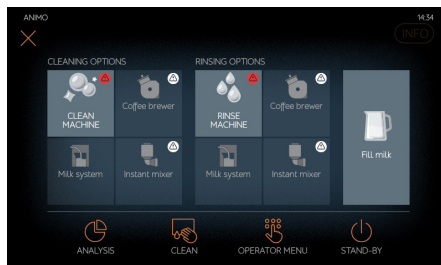
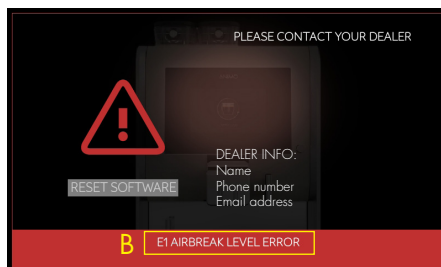
If your service technician wants to reset the software and the reset button [A] is no longer active, there are two options

1. Open the door.
2. Switch the machine OFF, and 5 seconds later ON again.
3. The second option is given below.

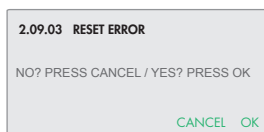
Menu access via the error display

You can still access the service menu when the display shows you an error [B].

1. Open the door.
2. Press the error text line [B] in the red bar at the bottom. The menu will appear. Close the door for easy navigation.
3. Enter the OPERATOR MENU



4. To check components IN- and OUTPUT go to:
SERVICE MENU / 2.07 HARDWARE TEST /
2.07.00 INPUTS or 2.07.01 OUTPUTS and
search further what's causing the problem.
5. To reset the software, go to:
SERVICE MENU / 2.09 REMOVE LOG FILES /
2.09.03 RESET ERROR.



Fill in your dealer details

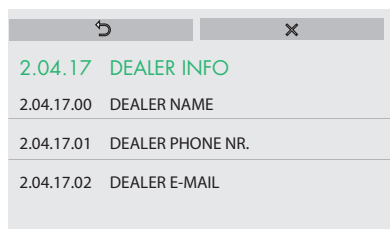
it is possible to enter your dealer info into the machine.
Your dealer info will be shown in the following screens:

- Analyses screen



- Error screen

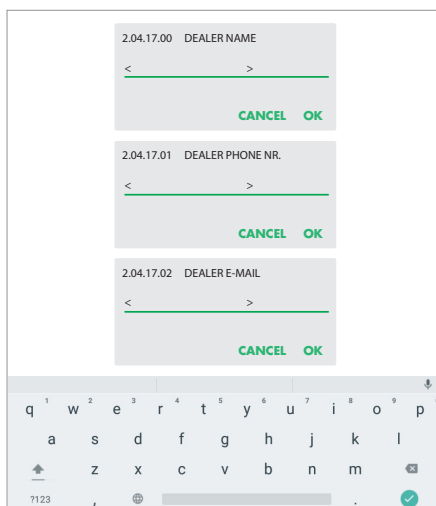
1. Enter the Service menu and navigate to
2.04. SETTINGS / 2.04.17 DEALER INFO



2. Select one of the items, a keyboard appears.
Write your text and confirm with OK.

If you want to use capital letters (fast) double click
the shift button twice .

3. When an error screen appears you dealer details
are shown [A].



2. Error codes



WARNING

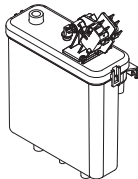
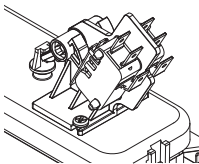
- When there are defects and/or (cleaning) activities in the machine, the plug must be removed from the wall socket before the machine is opened.

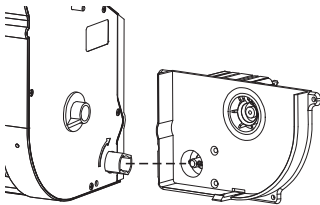
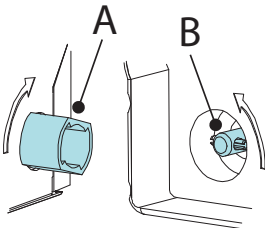
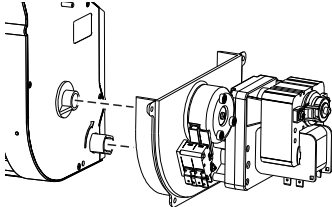
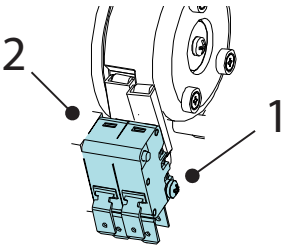
Introduction

Check, before troubleshooting, whether all the components are still in the correct location. To do this, remove the back- and side covers from the machine and make sure that all circuit boards, connectors, wiring looms and hoses are still properly mounted.

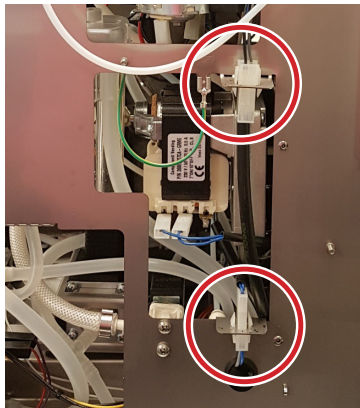
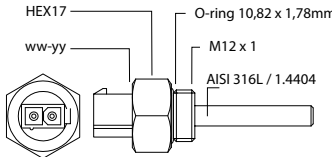
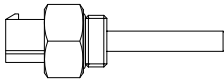
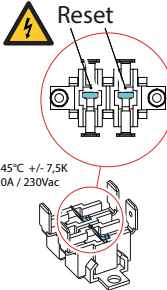
After a general inspection of the components, use the fault analysis table below to check what the possible cause of the problem is.

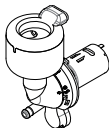
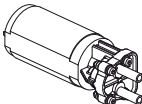
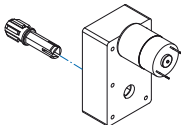
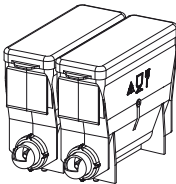
If the 'solution' column advises replacing the component concerned, there is always the possibility that the defect is caused by another problem. Therefore, test the machine thoroughly for operation to check whether the defect occurs again.

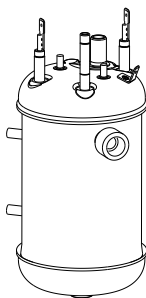

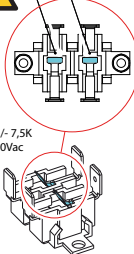
Display	Possible cause	Solution
<p>E1 AIR BREAK LEVEL ERROR</p> 	<p>Air break minimum water level switch <u>does not</u> detect water but the Maximum water level switch <u>does</u> detect water.</p> <p>The control has disabled the inlet valve output.</p> 	<p>Check the mechanical operation of the float mechanism from the air break.</p> <p>Check the operation of the level switches in the service menu 2.07 Hardware test / inputs / level sensors / level air break low and high.</p>
<p>E2 AIR BREAK LEVEL ERROR</p>	<p>The air break <u>maximum</u> level switch must be reached within 20 seconds by the inlet valve KW1, when the espresso pump KW2 is NOT active.</p> <p>The control has disabled the inlet valve output.</p>	<p>Check the water supply (pressure), fully open the water supply tap.</p>
<p>E3 AIR BREAK FILL ERROR</p>	<p><u>During commissioning</u> the EMPTY air break fills up to slowly.</p> <p>The air break <u>maximum</u> level switch must be reached within 50 seconds by the inlet valve KW1.</p> <p>The control has disabled the inlet valve and espresso pump output.</p>	<p>Check the connecting hose for kinks.</p> <p>Check the level from manual water tank.</p>

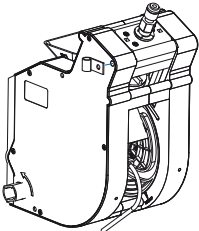
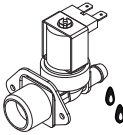
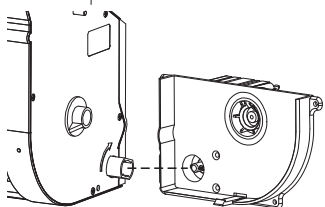
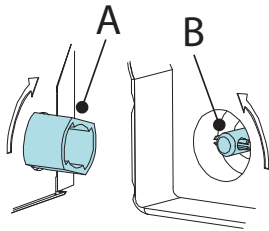
Display	Possible cause	Solution
E5 BREWER ERROR	<p>The brewer position switches detect that the brewer is NOT rotating.</p> <p>The control has disabled the brewer motor output.</p> 	<p>Check whether the brewer [A] is properly positioned in the motor unit [B].</p> <p>Check if the brewer runs if when the brewer motor is activated in the service menu 2.07 Hardware test / outputs / brewer motor</p> 
	<p>During the initialisation process runs the brewer 1 or 2 complete cycles.</p> <p>During this cycle both brewer switches must be detected.</p> <p>The control has disabled the brewer motor output.</p> 	<p>Rotate the switch drum by hand and check of both switch positions are passing by.</p> <p>Check the brewer switches for correct operation in the service menu 2.07 Hardware test / inputs / brewer switch 1 & 2.</p> 

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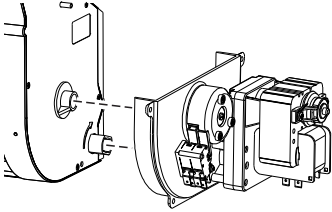
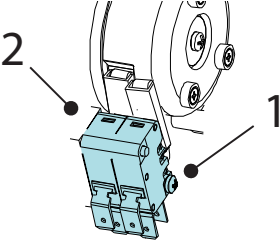
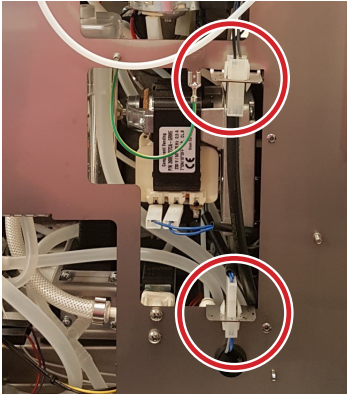
Display	Possible cause	Solution																																																
E5 BREWER ERROR	<p>The problem can be caused by bad contact sockets from the 2 and 4 pole Molex connectors. Check if all the socket (male/female) make contact with each other.</p> <p>The connectors are to be found behind the left panel.</p> <p>The 2 pole Molex is responsible for the motor signal 230Vac.</p> <p>The 4 pole Molex is responsible for the position switch signals (low voltage).</p>																																																	
E6 TEMPERATURE HOT WATER BOILER TO HIGH	<p>Temperature sensor measures a temperature over 105 °C.</p> <p>The control has disabled the heater output.</p> <div></div> <table><tr><th>T (°C)</th><th>R (Ohm)</th><th>T (°C)</th><th>R (Ohm)</th></tr><tr><td>0</td><td>334.000</td><td>70</td><td>16.874</td></tr><tr><td>10</td><td>201.660</td><td>75</td><td>14.198</td></tr><tr><td>20</td><td>125.470</td><td>80</td><td>11.998</td></tr><tr><td>25</td><td>100.000</td><td>85</td><td>10.181</td></tr><tr><td>30</td><td>80.223</td><td>90</td><td>8.674</td></tr><tr><td>40</td><td>52.589</td><td>95</td><td>7.419</td></tr><tr><td>45</td><td>42.951</td><td>100</td><td>6.369</td></tr><tr><td>50</td><td>35.272</td><td>120</td><td>3.581</td></tr><tr><td>55</td><td>29.119</td><td>140</td><td>2.117</td></tr><tr><td>60</td><td>24.161</td><td>160</td><td>1.307</td></tr><tr><td>65</td><td>20.144</td><td></td><td></td></tr></table> <p>NTC resistance table</p>	T (°C)	R (Ohm)	T (°C)	R (Ohm)	0	334.000	70	16.874	10	201.660	75	14.198	20	125.470	80	11.998	25	100.000	85	10.181	30	80.223	90	8.674	40	52.589	95	7.419	45	42.951	100	6.369	50	35.272	120	3.581	55	29.119	140	2.117	60	24.161	160	1.307	65	20.144			<p>Check the temperature sensor operation in the service menu 2.07 Hardware test / inputs / temperature.</p>  <p>Boiler overheated, let the boiler cool down.</p> <p>Check whether the boil-dry protection was activated. Reset if necessary.</p> <p>Attention; the metal reset levers are LIVE!</p> <div></div>
T (°C)	R (Ohm)	T (°C)	R (Ohm)																																															
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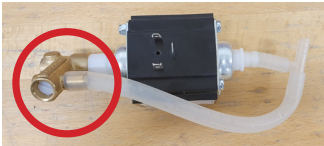
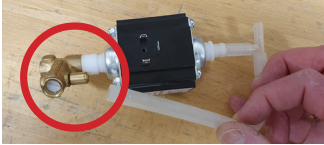



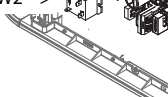
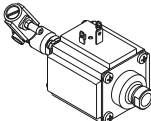
Display	Possible cause	Solution
<p>E8 MIXER ERROR</p> 	<p>Mixer motor stalled. Mixer motor outputs overloaded The motor current is over 3000mA. The control has disabled the mixer output.</p>	<p>Check whether mixer is contaminated or incorrectly mounted. Clean and/or check whether the rotor turns freely. Check the motor current in the service menu 2.07 Hardware test / outputs / Mixer motor. A motor current (unloaded) between 300-450mA is OK.</p>
<p>E9 MILK PUMP ERROR</p> 	<p>Milk pump motor stalled. Milk pump motor outputs overloaded The motor current is over 3000mA. The control has disabled the milk pump output.</p>	<p>Check is the internal pump gear is contaminated. Check the motor current in the service menu 2.07 Hardware test / outputs / Milk motor. A motor current (unloaded) max. 150 mA is OK.</p>
<p>E10 VALVE ERROR</p>	<p>Valve outputs overloaded. The valve current is over 2500mA. The control has disabled the output.</p>	<p>Check the valves and wiring for short circuits.</p>
<p>E11 INGREDIENT MOTOR ERROR</p> 	<p>Ingredient motor or canister stalled. Ingredient motor current is over 600mA. The control has disabled the output.</p>	<p>Empty the canisters and clean thoroughly.</p>  <p>Check the motor current of the ingredient motors in the service menu 2.07 Hardware test / outputs / Ingredient motor. A motor current (unloaded) between 25-50mA is OK.</p>
<p>E13 MIXER GROUP ERROR</p>	<p>Mixer and Milk motor output group overload (current too high). The control has disabled the outputs.</p>	<p>Carry out the checks as specified for E8 and E9.</p>


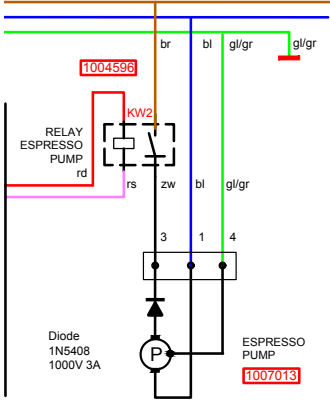

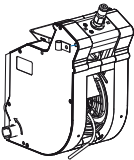
Display	Possible cause	Solution
E14 OUTPUT ERROR	Ingredient motor and valve output group overloaded (current too high). The control has disabled the output.	Carry out the checks as specified for E10 and E11.
E15 AIR BREAK LEVEL ERROR	Air break <u>minimum</u> water level switch <u>does not</u> detect water for 8 seconds during the espresso pump KW2 is active. The control has disabled the espresso pump output.	Check the water supply (pressure), fully open the water supply tap. Check the connecting hose for kinks. Check the level from manual water tank.
E17 MDB ERROR	There is no communication between the machine and the MDB payment system.	Check the connection between the machine and the MDB payment system. Start up de machine software again.
E18 MIXER GROUP FET ERROR	Brewer or mixer motor output remains activated.	Brewer or mixer motor output (FET) is defective. Replace the main control board on the right.
E19 OUTPUT FET ERROR	Ingredient motor / valve remains activated.	Ingredient motor / valve output (FET) defective. Replace control board.
E21 HOT WATER BOILER TIME OUT 	<p>Heating element is active for 6 minutes. If the boiler has not come to the set temperature this error is the result. The control has disabled the heater output.</p> <div data-bbox="397 1145 580 1444">  <p>Reset</p>  <p>145°C +/- 7.5K 10A / 230Vac</p> </div>	Check the log menu. If E6 Temperature hot water to high error also occurred, the boiler has boiled dry. Check the NTC sensor and wiring/connection and check the relays.
		Check whether the boil-dry protection was activated. Reset if necessary. Attention; the metal reset levers are LIVE!
		Check the heating element. The resistance must be approx. 30 Ω

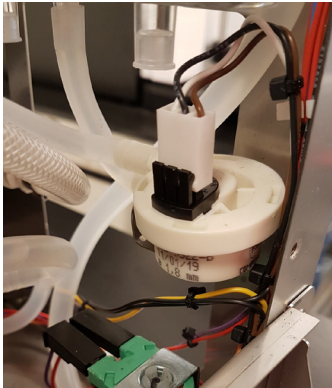
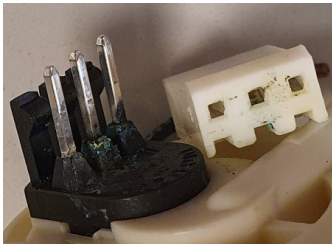
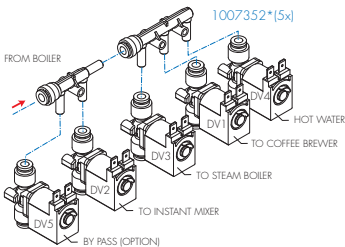
Display	Possible cause	Solution
E22 BREW TIME OUT	<p>Maximum coffee preparation time has been exceeded (120 sec).</p> 	Wipe the upper brewer filter with a clean towel.
		Run the BREWER CLEANING program.
		Check if the coffee grind is not too fine.
		Check the brewer system for internal obstructions.
		Check the pump pressure (10 bar). Use the pump test program.
		Clean or replace the brewer filters.
E23 INLET VALVE ERROR	<p>Flow meter registers water flow while the inlet valve is electrically closed.</p> 	Check the operation of the inlet valve.
E24 BREWER ERROR	<p>The brewer position switches detect that the brewer is NOT rotating.</p> <p>The control has disabled the brewer motor output.</p> 	<p>Check whether the brewer [A] is properly positioned in the motor unit [B].</p> <p>Check if the brewer runs if when the brewer motor is activated in the service menu 2.07 Hardware test / outputs / brewer motor</p> 

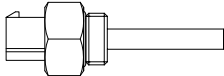
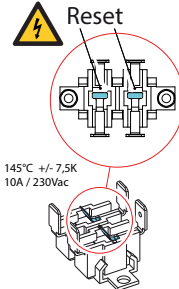
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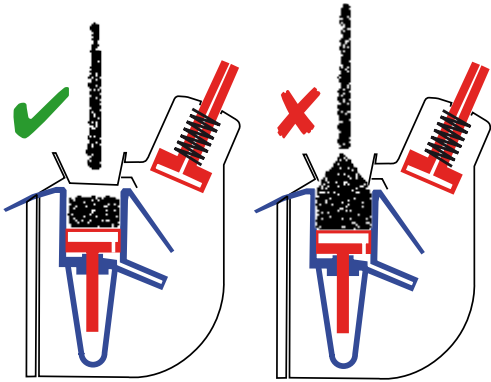
Display	Possible cause	Solution
<p>E24 BREWER ERROR</p>	<p>During the initialisation process runs the brewer 1 or 2 complete cycles. During this cycle both brewer switches must be detected. The control has disabled the brewer motor output.</p> 	<p>Rotate the switch drum by hand and check of both switch positions are passing by. Check the brewer switches for correct operation in the service menu 2.07 Hardware test / inputs / brewer switch 1 & 2.</p> 
	<p>The problem can be caused by bad contact sockets from the 2 and 4 pole Molex connectors. Check if all the socket (male/female) make contact with each other. The connectors are to be found behind the left panel. The 2 pole Molex is responsible for the motor signal 230Vac. The 4 pole Molex is responsible for the position switch signals (low voltage).</p>	

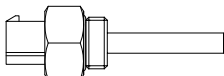
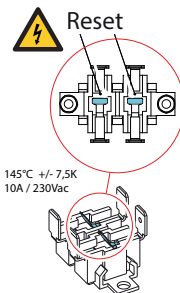
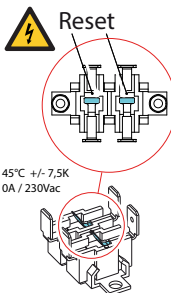
Display	Possible cause	Solution
<p>E25 FLOW METER ERROR</p> <p>Attention; Flow meter error does not always mean that the flow meter is defect.</p> <p>When the software starts the espresso pump the flow meter must produce impulses.</p> <p>Why the flow meter impulses are not made or do not arrive must be investigated.</p>	<p>The pump just makes a noise (vibrate).</p> <p>There is probably an air bubble in the pump supply that prevents the pump from taking water in.</p> <p>As a result, there is no water flow, which causes the flow meter not produce impulses.</p> <p>This can occur if the machine has been <u>in stock for a long period</u> and the machine <u>is commissioned for the first time</u>.</p>	<p>Remove the back wall of the machine. Locate the pump.</p> <p>Remove the bypass hose from the brass control valve (see red circle).</p>  <p>Let the air escape from the hose and put the hose back on the control valve.</p>  <p>It may help to squeeze the supply hose a few times. Perform these actions while the pump is running.</p> <p>Activate the pump in the Service menu 2.07 Hardware test / outputs / pump (KW2)</p>
	<p>The pump does not get power (230Vac) by the relays KW2</p> <p>Relay:</p> <p>Steam boiler H2 --> </p> <p>Coffee boiler H1 --> </p> <p>Brewer motor BR --> </p> <p>Espresso pump KW2 --> </p>	<p>Check if you hear the pump relay KW2 click.</p> <p>Service menu 2.07 Hardware test / outputs / Pump (KW3)</p> <p>The KW2 relay can be found by removing the left side panel.</p> 

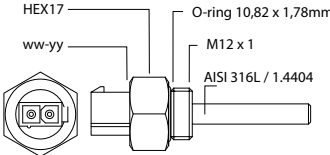
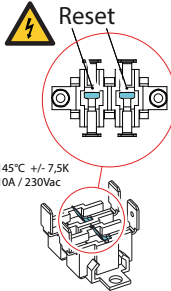
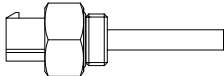
Display	Possible cause	Solution
continuation... E25 FLOW METER ERROR Attention; Flow meter error does not always mean that the flow meter is defect. When the software starts the espresso pump the flow meter must produce impulses. Why the flow meter impulses are not made or do not arrive must be investigated.	Pump still does not work despite hearing the relay clicking and the pump gets power	Try to shock the pump by tapping it with the back of a screwdriver. No result Replace the pump.
	The pump coil is defect.	Resistance pump coil is approx. 102 Ohm
	The diode is defect	The pump connector contains a build-in diode. Type 1N5408 1000V / 3A which may not be removed.  Attention; the pump may not operate without diode!
		
	The water- and coffee ways in the brewer is blocked by dirt.	Clean the brewer inlet (douche) and outlet (micro filter) for dirt and/or obstructions. 

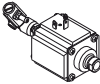
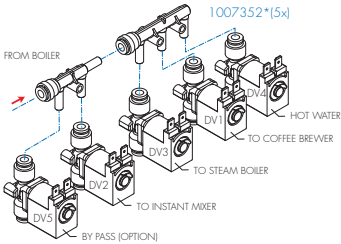
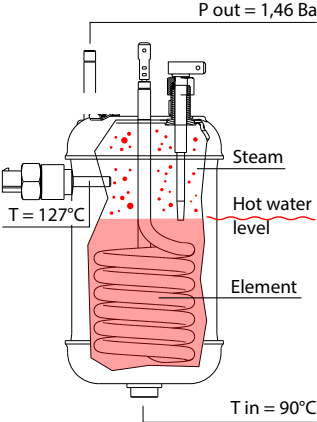
Display	Possible cause	Solution
<p>continuation...</p> <p>E25 FLOW METER ERROR</p> <p>Attention; Flow meter error does not always mean that the flow meter is defect.</p> <p>When the software starts the espresso pump the flow meter must produce impulses.</p> <p>Why the flow meter impulses are not made or do not arrive must be investigated.</p>	<p>The espresso pump KW2 is activated and takes water from the air break, but the flow meter FL1 does not register water flow.</p>  	<p>Check if the flow meter FL1 connector is mounted correctly.</p> <p>Check that the connector is not wet or oxidized. See picture on the left.</p> <p>Check after which recipe the error occurs and check if one of below mentioned dispensing valves are involved with the problem: DV1 brewer, DV2 mixer, DV4 hot water recipe. Replace if necessary.</p> 
<p>E26 TEMPERATURE HOT WATER BOILER TOO LOW</p>	<p>Temperature sensor in hot water boiler measures a boiler temperature below 0 °C.</p>	<p>Boiler and/or NTC sensor is below 0 °C. Let the machine warm up to room temperature.</p>

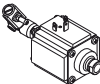
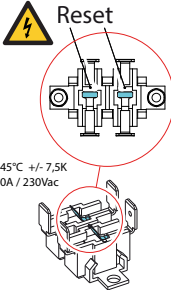
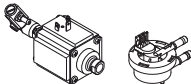
Display	Possible cause	Solution																																																
E27 NTC SHORT CIRCUIT HOT WATER BOILER	<p>Temperature sensor measures a temperature over 125 °C or has a short circuit.</p> <p>The control has disabled the heater output.</p> <table><tr><th>T (°C)</th><th>R (Ohm)</th><th>T (°C)</th><th>R (Ohm)</th></tr><tr><td>0</td><td>334.000</td><td>70</td><td>16.874</td></tr><tr><td>10</td><td>201.660</td><td>75</td><td>14.198</td></tr><tr><td>20</td><td>125.470</td><td>80</td><td>11.998</td></tr><tr><td>25</td><td>100.000</td><td>85</td><td>10.181</td></tr><tr><td>30</td><td>80.223</td><td>90</td><td>8.674</td></tr><tr><td>40</td><td>52.589</td><td>95</td><td>7.419</td></tr><tr><td>45</td><td>42.951</td><td>100</td><td>6.369</td></tr><tr><td>50</td><td>35.272</td><td>120</td><td>3.581</td></tr><tr><td>55</td><td>29.119</td><td>140</td><td>2.117</td></tr><tr><td>60</td><td>24.161</td><td>160</td><td>1.307</td></tr><tr><td>65</td><td>20.144</td><td></td><td></td></tr></table> <p>NTC resistance table</p>	T (°C)	R (Ohm)	T (°C)	R (Ohm)	0	334.000	70	16.874	10	201.660	75	14.198	20	125.470	80	11.998	25	100.000	85	10.181	30	80.223	90	8.674	40	52.589	95	7.419	45	42.951	100	6.369	50	35.272	120	3.581	55	29.119	140	2.117	60	24.161	160	1.307	65	20.144			<p>Check the temperature sensor operation in the service menu 2.07 Hardware test / inputs / temperature.</p>  <p>Boiler overheated, let the boiler cool down.</p> <p>Check whether the boil-dry protection was activated. Reset if necessary.</p> <p>Attention; the metal reset levers are LIVE!</p> 
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E28 NO NTC HOT WATER BOILER DETECTED	<p>Temperature sensor is not detected.</p>	<p>Check the NTC sensor and wiring / connection.</p>																																																
E29 BREWER LEAVE HOME TIME OUT	<p>The brewer did not leave the home position within 1,7 sec.</p>	<p>Check if the brewer unit is blocked.</p> <p>Take the brewer out. Open the brewer and remove all the coffee residue from the cylinder and clean the thorough under the hot water tap.</p> <p>Treat the error like described in Error 30.</p>																																																

Display	Possible cause	Solution
<p>E30 BREWER REACH BREW TIME OUT</p>	<p>The brewer has left the home position but did not reach the brew position within 5,1 sec.</p> <p>To much ground coffee dispensed in the brewer cylinder. This happens during or on the end of the run-in time of the grinder discs.</p> <p>The used coffee puck is not pushed out completely, so when fresh coffee is dispensed again the brewer cylinder is overfilled.</p>	<p>Check if the brewer motor runs.</p> <p>Check if the brewer unit is blocked.</p> <p>Check if dispensed ground coffee does not exceed the brewer cylinder volume (overflow) and readjust the grinder.</p> <p>Check is the coffee puck is not to wet and if it is pushed out completely.</p> <p>Brewer cylinder must me empty after the puck has been emitted.</p> <p>The coffee puck should not stick to the slide, this causes Error 30 again!</p> <p>Extra: please also read the instructions in chapter 3. No error code related problems.</p>
		
<p>E31 BREWER LEAVE BREW TIME OUT</p>	<p>The brewer did not leave its brewing position within 1,3 sec.</p> <p>The brewer can't open anymore after a brewing cycle.</p>	<p>Check if the brewer unit is mechanical blocked. Take the brewer out.</p> <p>Open the brewer.</p> <p>Remove all the coffee residue from the cylinder.</p> <p>Clean the thorough under the hot water tap.</p> <p>Treat the error like described as Error 30</p>


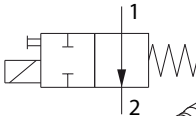
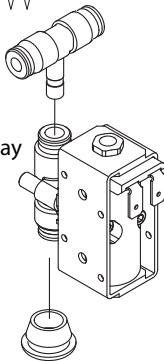

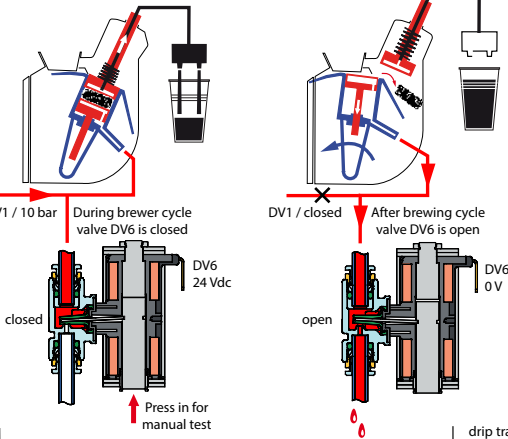
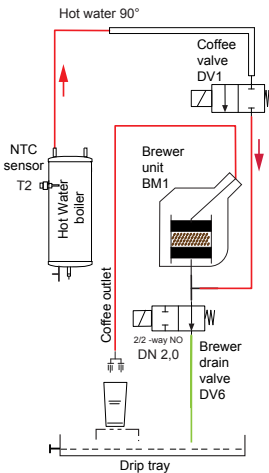
Display	Possible cause	Solution																																																
E32 BREWER REACH OME TIME OUT	The brewer has left its brewing position but did not reach its home position within 6,6 sec.	Check if the brewer motor runs. Check if the brewer unit is blocked.																																																
E33 TEMPERATURE STEAM BOILER TOO HIGH	<p>Temperature sensor measures a temperature over 140 °C.</p> <p>The control has disabled the heater output.</p> <table><thead><tr><th>T (°C)</th><th>R (Ohm)</th><th>T (°C)</th><th>R (Ohm)</th></tr></thead><tbody><tr><td>0</td><td>334.000</td><td>70</td><td>16.874</td></tr><tr><td>10</td><td>201.660</td><td>75</td><td>14.198</td></tr><tr><td>20</td><td>125.470</td><td>80</td><td>11.998</td></tr><tr><td>25</td><td>100.000</td><td>85</td><td>10.181</td></tr><tr><td>30</td><td>80.223</td><td>90</td><td>8.674</td></tr><tr><td>40</td><td>52.589</td><td>95</td><td>7.419</td></tr><tr><td>45</td><td>42.951</td><td>100</td><td>6.369</td></tr><tr><td>50</td><td>35.272</td><td>120</td><td>3.581</td></tr><tr><td>55</td><td>29.119</td><td>140</td><td>2.117</td></tr><tr><td>60</td><td>24.161</td><td>160</td><td>1.307</td></tr><tr><td>65</td><td>20.144</td><td></td><td></td></tr></tbody></table> <p>NTC resistance table</p>	T (°C)	R (Ohm)	T (°C)	R (Ohm)	0	334.000	70	16.874	10	201.660	75	14.198	20	125.470	80	11.998	25	100.000	85	10.181	30	80.223	90	8.674	40	52.589	95	7.419	45	42.951	100	6.369	50	35.272	120	3.581	55	29.119	140	2.117	60	24.161	160	1.307	65	20.144			<p>Check the temperature sensor operation in the service menu 2.07 Hardware test / inputs / temperature.</p>  <p>Check whether the boil-dry protection was activated. Reset if necessary. Attention; the metal reset levers are LIVE!</p>  <p>145°C +/- 7,5K 10A / 230Vac</p>
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E34 STEAM BOILER TIME OUT	<p>During commissioning the steam boiler does not heat up to the set temperature within 6 minutes.</p> <p>The control has disabled the heater output.</p>  <p>145°C +/- 7,5K 10A / 230Vac</p>	<p>Check the log menu. If Error 33 steam boiler overheated was registered, the steam boiler has boiled dry. Check the NTC sensor and wiring/connection and check the relays.</p> <p>Check whether the boil-dry protection was activated. Reset if necessary. Attention; the metal reset levers are LIVE!</p> <p>Check the steam boiler heating element. The resistance must be approx. 30 Ω</p>																																																


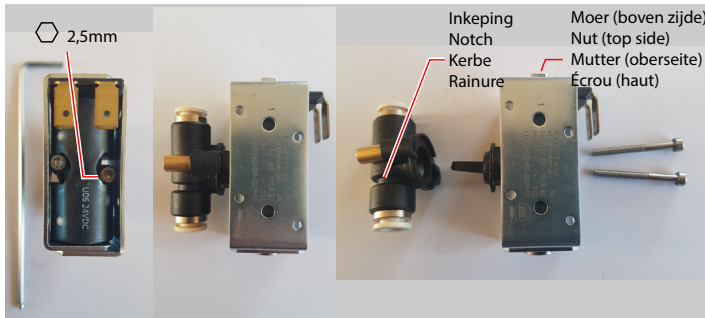
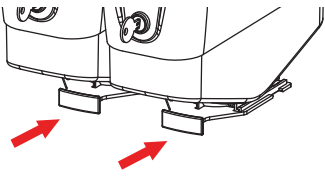


Display	Possible cause	Solution																																																
E35 TEMPERATURE STEAM BOILER TO LOW	Temperature sensor measures a boiler temperature below 0 °C.	Steam boiler and/or NTC sensor is below 0 °C. Let the machine warm up to room temperature.																																																
E36 NTC SHORT CIRCUIT STEAM BOILER	<p>Temperature sensor measures a temperature over 145°C or the NTC sensor is short circuit.</p> <p>The control has disabled the heater output.</p> <div></div> <table><tr><th>T (°C)</th><th>R (Ohm)</th><th>T (°C)</th><th>R (Ohm)</th></tr><tr><td>0</td><td>334.000</td><td>70</td><td>16.874</td></tr><tr><td>10</td><td>201.660</td><td>75</td><td>14.198</td></tr><tr><td>20</td><td>125.470</td><td>80</td><td>11.998</td></tr><tr><td>25</td><td>100.000</td><td>85</td><td>10.181</td></tr><tr><td>30</td><td>80.223</td><td>90</td><td>8.674</td></tr><tr><td>40</td><td>52.589</td><td>95</td><td>7.419</td></tr><tr><td>45</td><td>42.951</td><td>100</td><td>6.369</td></tr><tr><td>50</td><td>35.272</td><td>120</td><td>3.581</td></tr><tr><td>55</td><td>29.119</td><td>140</td><td>2.117</td></tr><tr><td>60</td><td>24.161</td><td>160</td><td>1.307</td></tr><tr><td>65</td><td>20.144</td><td></td><td></td></tr></table> <p>NTC resistance table</p>	T (°C)	R (Ohm)	T (°C)	R (Ohm)	0	334.000	70	16.874	10	201.660	75	14.198	20	125.470	80	11.998	25	100.000	85	10.181	30	80.223	90	8.674	40	52.589	95	7.419	45	42.951	100	6.369	50	35.272	120	3.581	55	29.119	140	2.117	60	24.161	160	1.307	65	20.144			<p>Check the temperature sensor operation in the Service menu 2.07 Hardware test / inputs / Temperature steam boiler.</p> <p>Boiler overheated, let the boiler cool down.</p> <p>Check whether the boil-dry protection was activated. Reset if necessary.</p> <p>Attention; the metal reset levers are LIVE!</p> <div></div>
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E37 NO NTC STEAM BOILER DETECTED	Temperature sensor is not detected.	<p>Check the NTC sensor and wiring / connection from the steam boiler.</p> <div></div>																																																

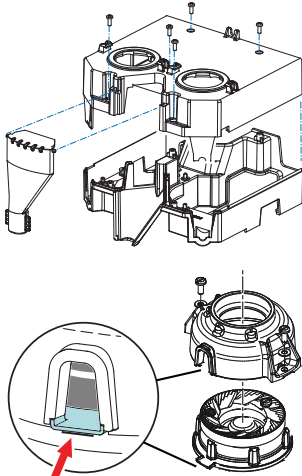
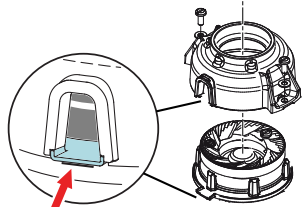
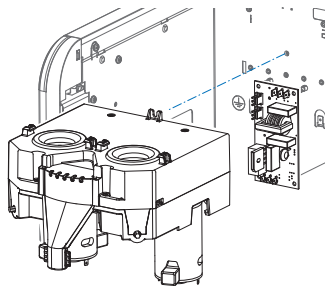
Display	Possible cause	Solution
E38 STEAM BOILER LEVEL ERROR	<p>E38: <u>During use</u> the steam boiler does not REFILL or fills up to slowly. The steam boiler dosing valve DV3 must REFILL the steam boiler within <u>20 seconds</u> with hot water from the coffee boiler until the level sensor is reached.</p> <p>The espresso pump KW2 and dosing valve DV3 is responsible for the water supply.</p> <p>In case the steam boiler gets over-filled the espresso pump presses the excess water into the drip tray via de 4bar overpressure valve.</p>	<p>Check if espresso pump is functioning. Service menu 2.07 Hardware test / inputs / espresso pump</p> <p>If the pump does not function please follow the instructions in chapter 3. No error code related problems.</p>  <p>Check if valve DV3 is functioning. Service menu 2.07 Hardware test / outputs / dosing valve 3 (DV3)</p> 
E39 STEAM BOILER FILL ERROR	 <p>E39: <u>During commissioning</u> the EMPTY steam boiler does not fill or fills up to slowly.</p> <p>The steam boiler dosing valve DV3 must fill the EMPTY steam boiler within <u>80 seconds</u> with hot water from the coffee boiler until the level sensor is reached.</p>	<p>Check the steam boiler level sensor operation. Service menu 2.07 Hardware test / inputs / level steam boiler</p> <p>Check the steam boiler level sensor on lime-scale build up. This lime-scale can insulate the tip of the sensor so no water will be detected.</p> <p>Before taking out the level sensor the steam system it needs to be de-pressurised. Service menu 2.14 Installation / Shut down / de-pressurise system.</p>

Display	Possible cause	Solution
E40 HOT WATER BOILER FILL ERROR	<p><u>During commissioning</u> the EMPTY coffee boiler does not fill or fills up too slowly.</p> <p>The espresso pump KW2 must fill the coffee boiler within 2 minutes.</p>	<p>Check if espresso pump is functioning.</p> <p>Service menu 2.07 Hardware test / inputs / espresso pump.</p> <p>If the pump does not function please follow the instructions in chapter 3. No error code related problems.</p> 
E41 STEAM BOILER TIME OUT	<p><u>During normal use</u> the steam boiler does not heat up to the set temperature (default 127°C) within 2 minutes.</p> <p>The control has disabled the heater output.</p>	<p>Check whether the boil-dry protection was activated. Reset if necessary.</p> <p>Attention; the metal reset levers are LIVE!</p> 
E42 LEVEL ERROR	<p>The water level in the air break refills for the 2nd time without the espresso pump KW2 is activated.</p> <p>This suggest water leaks away somewhere after the air break.</p>	<p>Check if water leaks away from water circuit:</p> <p>Check air break, flow meter FL1 or espresso pump KW2.</p> 

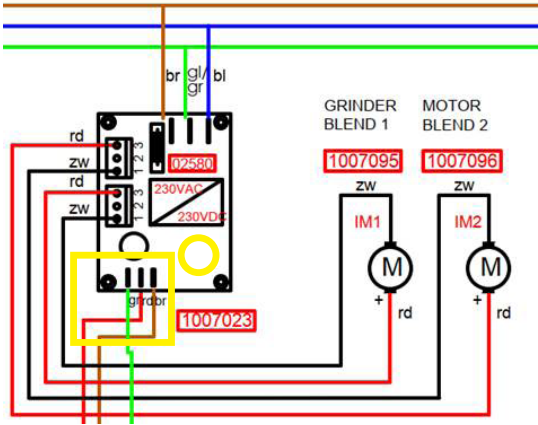
3. No error code related problems (under construction)

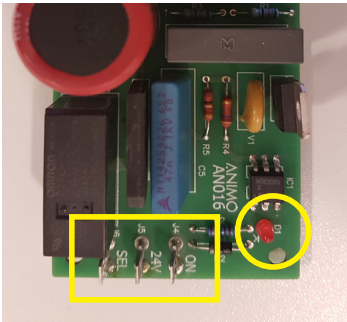
Problem	Possible cause	Solution
<p>No coffee is brewed. Water ejecting straight in the drip tray during coffee brew process.</p> <p>When the brewer return to it home position water sprays up from the brewer cylinder, see picture.</p>		<p>Valve DV6 is located just below the brewer motor and can be reached from the inside by removing the rear panel.</p> <p>The valve can taken apart completely, see the instructions hereafter.</p> <p>Clean the interior or replace the valve.</p>   <p>Normally Open 2-way valve 24Vdc 0-3 bar DN 2,0</p>
<p>When the brewer has reached its home position water stays behind in the brewer cylinder.</p> <p>This water results in wet and sticky coffee pucks when it's discharged from the brewer.</p>		
 <p>DV1 / 10 bar</p> <p>During brewer cycle valve DV6 is closed</p> <p>DV6 24 Vdc</p> <p>closed</p> <p>Press in for manual test</p> <p>DV1 / closed</p> <p>After brewing cycle valve DV6 is open</p> <p>DV6 0 V</p> <p>open</p> <p>drip tray</p>		 <p>Hot water 90°</p> <p>NTC sensor T2</p> <p>Hot Water boiler</p> <p>Coffee valve DV1</p> <p>Brewer unit BM1</p> <p>Coffee outlet</p> <p>2/2-way NO DN 2,0</p> <p>Brewer drain valve DV6</p> <p>Drip tray</p>

Problem	Possible cause	Solution
Valve DV6 is dirty	<p>To clean the valve:</p> <p>Disassemble the coil from the body.</p> <p>Clean the silicon lever and the inside of the valve body.</p> <p>Pay attention to the notch position when assembling the valve.</p>	
		
Grinder motor runs but no grinded coffee come out.	<p>Check whether the bean slide of the bean container is fully open.</p> <p>Slide(s) must be pressed in.</p>	
	<p>Grinder motor 230Vdc isn't properly connected.</p> <p>The grinding disc rotate in the reverse direction.</p> <p>The right direction is counter clockwise.</p>	<p>Check the direction of rotation of the grinder discs by watching it from above.</p> <p>If the grinding disk turns clockwise the motor connection polarity must be reversed.</p> <p> Unplug the machine first before disconnecting the motor wires!</p>
	<p>The grinder is set to fine</p>	<p>Set the grinder 1/4 turn coarser and try again.</p> 

Problem	Possible cause	Solution
Grinder motor(s) does not run.	<p>The coffee grinder is jammed by a foreign object.</p> 	<p>Disassemble the upper part where the grinder(s) are build-in.</p>
		<p>Disassemble the top half of the coffee grinder.</p> <p>Vacuum / brush away all coffee residues and check the grinding discs for damage.</p> <p>If necessary, clean the grinding wheel grooves with a copper wire brush.</p> <p>Refit the top and test the grinder.</p> <p>i Ensure that the plastic disc falls back into the recess after installation, see picture.</p>
continued on next page	<p>The grinder PC board does not operate.</p> 	<p>To reach the grinder PC board the complete grinder housing must be removed.</p> <p>⚡ Unplug the machine first before disconnecting the motor wires!</p> <p>There is one screw hidden behind the left panel. The second screw can be reached from the front. Now the complete grinder 'box' can be tilted out of the machine from the front.</p>

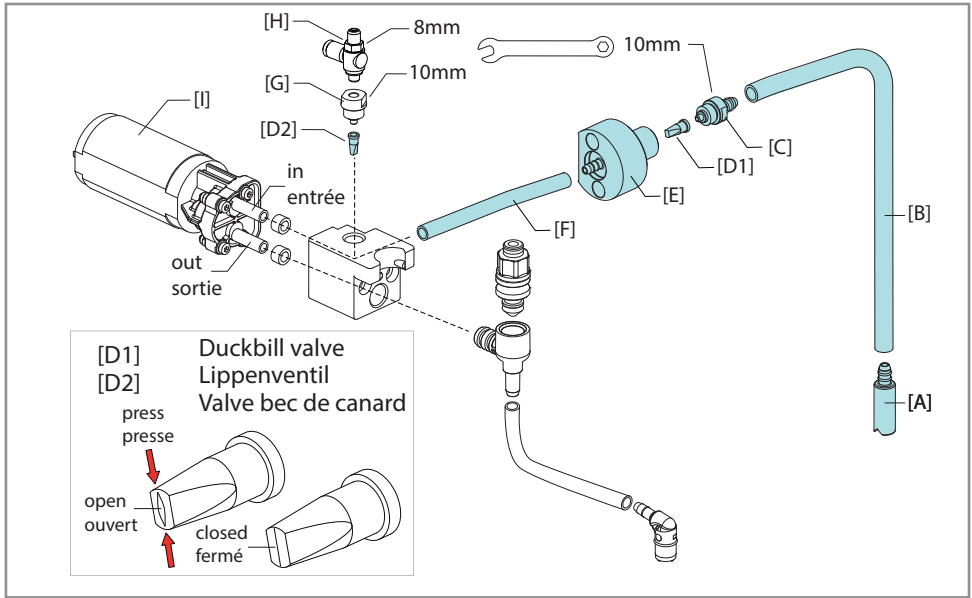
Problem	Possible cause	Solution
		<p>Please check the following connections and signals.</p> <p>Power (top); The grinder board must be connected to the 230Vac brown and blue.</p> <p>Fuse: the fuse secures the Phase, 3, 1.5A (T)</p>
		<p>Grinder motor(s); both motors (230Vdc) must be connected on the two (2) pin connectors.</p> <p>Top left connector is IM2 motor (blend 2)</p> <p>Bottom left connector is IM1 motor (blend 1)</p>

Problem	Possible cause	Solution
		<p>LED; the LED lights up when one of the grinder motor signals are activated.</p> <p>Signals; from the I/O board</p> <ul style="list-style-type: none">- Red; 24V from the I/O Platine.- Brown; Signal to start grinder motor 1 (left grinder).- Green; Signal to start grinder motor 2 (right grinder) * <p>* Grinder motor 2 is controlled under the following condition:</p> <p>First a signal on Green arrives from main board IM2 (you must hear a click from the relay on the grinder board) + delayed signal on Brown from main board IM1 to start motor 2</p>


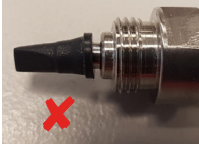





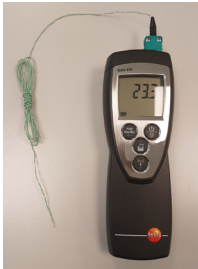



4. Fresh milk system problems


Use below drawing to identify the mentioned components mentioned in the trouble shooting table.





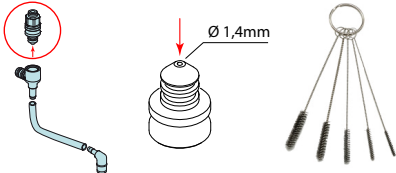
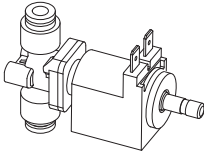


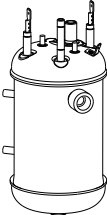
Problem	Possible cause	Solution	
Steam leaves from the milk outlet.	Milk intake tube between machine and refrigerator damaged or kinked	Check the milk inlet tube [B] for cracks. Shorten or replace if necessary.	
No milk dispensing	Cold milk supply obstructed	Check for obstructions in the blue selected parts. Clean or replace if necessary. Art.no. cleaning brushes: 1008122	

Problem	Possible cause	Solution	
(continuation) Steam leaves from the milk outlet. No milk dispensing	Duckbill valve is missing, defect or dirty	Check the duckbill valve [D1] for: - Correct assembly - Correct function and contamination. Clean or replace if necessary. Art. no. duckbill valve: 1007799	  
	Milk system needs cleaning	Run the milk cleaning program. Art.no. milk cleaner: 1008126	
	The milk system was not cleaned with the advised milk cleaner. The pump is clogged up by milk residues.	Check the milk pump. Clean or replace if necessary. Activate the milk pump in the hardware test, cold milk must be transported to the outlet. Motor current (empty) max. 150mA is OK. Motor current (with milk) max. 265mA is OK.	

Problem	Possible cause	Solution	
Milk spouts from dispensing outlet	Milk pump speed too low. The milk is too hot	Check the milk temperature. Calibrate the milk temperature	
	False air enters the system	Check the milk inlet tube [B] for cracks. Shorten or replace if necessary	
	The milk inlet tube [B] runs empty when no milk is dispensed. The duckbill valve does not close anymore.	Check the duckbill valve [D1] for: <ul style="list-style-type: none">- Correct assembly- Correct function and contamination.- Clean or replace if necessary. Art.no. duckbill valve: 1007799	
	Duckbill valve is missing, defect or dirty		

Problem	Possible cause	Solution	
(continuation) Milk spouts from dispensing outlet	Air valve [G] adjustment / fixation needs attention	Check if the air valve [G] needs re-adjustment. Check if the air valve [G] and stainless steel coupling are properly tightened.	

Problem	Possible cause	Solution	
Poor or no milk foam quality from dispensing outlet	No air intake	Check if the air valve [G] needs re-adjustment.	
	No air intake	Check the duckbill valve [D2] for: Correct assembly Correct function and contamination. Clean or replace if necessary. Art.no. duckbill valve: 1007799	

Problem	Possible cause	Solution
Milk temperature to low. Reducing the milk pump speed does not have effect.	Insufficient steam supply to the milk venturi.	<p>Check the steam boiler temperature setting. Factory setting = 127°C (approx. 1,46 Bar)</p> <p>Clean the steam venturi injector. The injector opening \varnothing 1,4mm can be constipated or reduced by caked milk remains. Use a small cleaning brush set to clean out the opening.</p> 
		<p>The Steam valve does not opening well.</p> <p>3-way 24Vdc 0-3 bar DN 2,5</p>  <p>Clean or replace if necessary. The valve my be opened completely to identify the problem.</p> <p> Before removing the steam valve from the boiler system it needs to be de-pressurised. Service menu 2.14 Installation / Shut down / de-pressurise system.</p> <p> ATTENTION: modification available, see next page.</p>
		<p>The steam boiler is full with lime-scale. Replace the complete steam boiler.</p> 

Problem / Possible cause	Modification
<p>Milk temperature to low. Reducing the milk pump speed does not have effect.</p>	
<p>Insufficient steam supply to the milk venturi.</p>	
<p>During 24/7 use of the machine, sealing of the steam supply valve can develop a deformation leading to a reduced flow resulting in the above mentioned problem.</p> <p>From production week 50/2020 (s / n: 2VD61344) the valve is mounted in a new position and is then no longer on top of the steam boiler.</p> <p>Art. No. 1010013 Replacement set steam valve</p>	<p>1 PARTS OF STEAM VALVE</p>  <p>2</p> 
<p>Explanation of the pictures on the right:</p> <ol style="list-style-type: none"> 1. Location of the seal in the steam valve 2. Deformed and good sealing 3. Original steam valve position 4. New steam valve position 	
<p>Select the link below or scan the QR code</p> <p>Build-in instructions modification kit.</p>	
 <p>Guide: Service OPTIME Instruction: Replacement set steam valve</p>	<p>3</p>  <p>4</p> 

Modification!

Problem / Possible cause**Dirty duckbill valves**

By placing the duckbill valves deeper in the milk circuit, they are cleaned even better during the rinsing process (water) and the cleaning process (milk cleaner).

Milk Venturi and Rinse Adapter Blocks [A]

From production week 50/2020 (s/n: 2VD61344) a new milk venturi- and rinse adapter block [A] is used in the machine.

The new milk venturi and rinse adapter block can be recognized by the shallow hole, see red dot [A].

Duckbill [B]

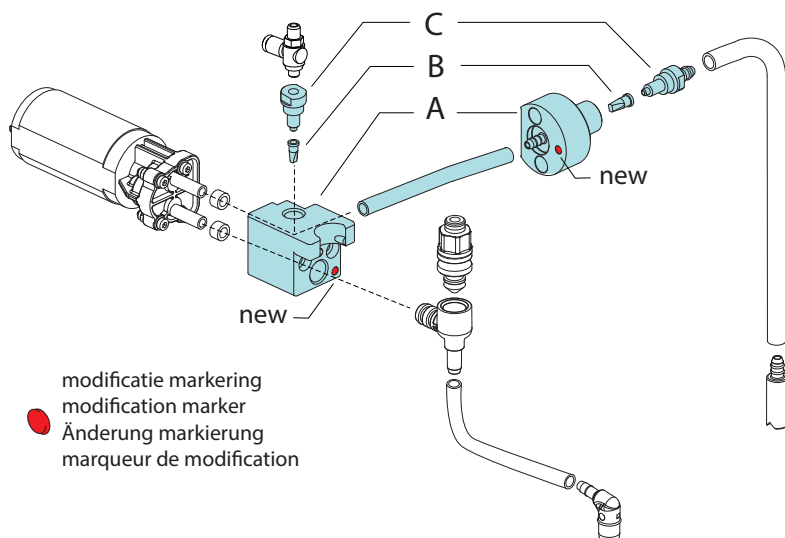
In the new adapter blocks, the duckbill valves [B] are placed deeper in the milk circuit, making the rinsing and cleaning process even better.


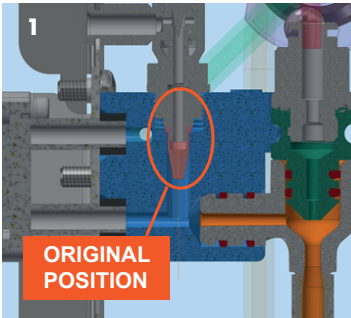
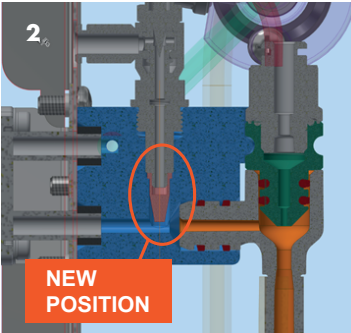
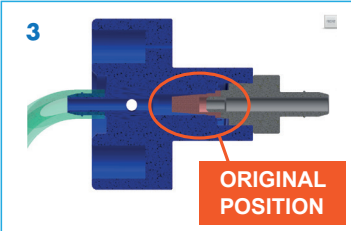
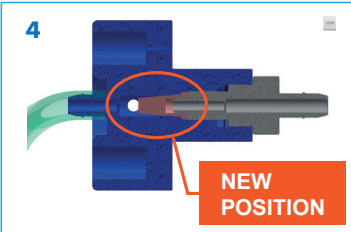
Stainless steel couplings [C]

The stainless steel couplings [C] where the duckbill is slid onto the end have become longer due to this adjustment. Therefore, always use the long stainless steel couplings included in the replacement set

Replacement set


Item No. 1010019 Replacement set duckbill adapter blocks. The set includes the blue marked parts.

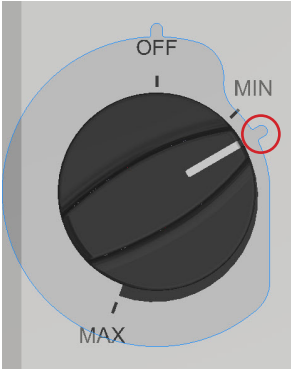



Continuation...	Modification
<p>Explanation of the images on the right:</p> <ol style="list-style-type: none">1. Original duckbill position (air inlet)2. New duckbill position (air inlet)3. Original duckbill position (milk inlet)4. New duckbill position (milk inlet) <p>Select the link below or scan the QR code</p> <p>Installation instructions replacement duckbill adapter blocks</p> <div><p>Guide: Service OPTIME Instruction: Replacement set duckbill adapter blocks</p></div> <div>Modification!</div>	<div><p>1</p><p>ORIGINAL POSITION</p></div> <div><p>2</p><p>NEW POSITION</p></div> <div><p>3</p><p>ORIGINAL POSITION</p></div> <div><p>4</p><p>NEW POSITION</p></div>

5. Refrigerator




Problem	Possible cause	Solution
The refrigerator will not start	Power supply	Make sure the power plug is correctly plugged into the power sockets.
		Make sure the main power switch is on 'I' position. <div></div>
		Make sure the power socket is working.
		Make sure the power cord is not damaged and/or broken.
Continued on next page....		

Problem	Possible cause	Solution
....continued from previous page		Make sure the thermostat is not OFF. The thermostat can only be reached by removing the top cover of the refrigerator.
The refrigerator will not start	Thermostat	 <p>The notch (in the red circle) shows the Position at which the thermostat is set to approx. 5 ° C.</p>
The refrigerator is noisy	Position	Make sure the refrigerator has been properly leveled.
	Refrigerant pipes	Make sure the refrigerator is not in contact with furniture or other items that increase its vibrations. Make sure the internal pipes and/or components of the refrigerant circuit are not touching each other.

Problem	Possible cause	Solution
The cooling power of the refrigerator is not sufficient.	Door closure	Make sure the door is correctly closed and also the gasket is not damaged in any point.
	Position	Make sure the refrigerator is not too close to a heating source.
	Condenser	Make sure the refrigerator is positioned so the condensation air can be discharged correctly (from the rear panel).
		Make sure the condenser fan is rotating correctly
	Defrosting	Check the condenser for dust and clean if necessary.
		Make sure the insides of the refrigerator are not excessively covered in ice. Defrost if necessary.
The cup heater does not heat	Power supply	Make sure the power plug is correctly plugged into the power sockets.
		Make sure the main power switch is on 'I' position.
		
		Make sure the power socket is connected.
		Make sure the power cord is not damaged and/or broken.

6. Cup heater



Problem	Possible cause	Solution
The cup hater does not heat	Power supply	Make sure the power plug is correctly plugged into the power sockets.
		Make sure the main power switch is on 'I' position. <div></div>
		Make sure the power socket is connected.
		Make sure the power cord is not damaged and/or broken.

7. Water reservoir (under construction)



Problem	Possible cause	Solution

