

## 12. Diagnostic messages

MALFUN. CODE	DESCRIPTION	POSSIBLE CAUSES	VERIFICATIONS and SOLUTIONS
020	USB power-supply malfunction.	<ul style="list-style-type: none"> <li>• USB-port current-consumption too high.</li> </ul>	<ul style="list-style-type: none"> <li>• Check the status of the USB port and its connections in order to identify possible causes of excessive consumption (e.g. short-circuit).</li> <li>• Once the cause of the malfunction is fixed the USB port should restore itself automatically and return to normal operation.</li> <li>• If the problem persists, replace the CPU board.</li> </ul>
(x)21*	Group boiler pressure sensor x out of range (x = 1, 2, 3, 4) Note: Group 1 is to the far left.	<ul style="list-style-type: none"> <li>• Sensor failure</li> <li>• Card failure.</li> </ul>	<ul style="list-style-type: none"> <li>• Check cabling</li> <li>• Replace the sensor</li> <li>• Replace the card.</li> </ul>
023	AC 24V power supply malfunction.	<ul style="list-style-type: none"> <li>• The glass fuse on the CPU board is likely broken.</li> </ul>	<ul style="list-style-type: none"> <li>• Replace the fuse.</li> </ul>
024	Clock malfunction.	<ul style="list-style-type: none"> <li>• Contacts oxidised.</li> <li>• Dead battery.</li> <li>• Clock blocked.</li> </ul>	<ul style="list-style-type: none"> <li>• Clean the contacts on the battery.</li> <li>• Measure the voltage of the battery (3 V DC) and, if necessary, replace it.</li> <li>• If the battery is OK try, with the machine turned off, to remove it from the board and wait 2-3 minutes. Then reinsert the battery and check that the clock is working properly.</li> </ul>
025*	No power: group, EV, milk pump	<ul style="list-style-type: none"> <li>• Voltage drop in the power supply</li> </ul>	<ul style="list-style-type: none"> <li>• Check if CPU card has power.</li> <li>• Check power supply unit (protection)</li> <li>• Check cabling</li> </ul>
029 *	LCD display not connected (applies only to machines other than Emblem R and M100).	<ul style="list-style-type: none"> <li>• Break in cabling.</li> <li>• Display fault.</li> </ul>	<ul style="list-style-type: none"> <li>• Check cabling.</li> </ul>
030	Slave micro processor malfunction.		<ul style="list-style-type: none"> <li>• If the problem persists, replace the Newton board.</li> </ul>
041*	Milk pump motor overcurrent	<ul style="list-style-type: none"> <li>• Consequence of applied force</li> <li>• Rotor blocked</li> <li>• Pump motor faulty</li> </ul>	<ul style="list-style-type: none"> <li>• Check wiring.</li> <li>• Check whether the circuit or pump is clogged.</li> <li>• Replace the pump.</li> </ul>
051	Temperature sensor signal out of range.	<ul style="list-style-type: none"> <li>• Sensor failure</li> <li>• Card failure.</li> </ul>	<ul style="list-style-type: none"> <li>• Check cabling</li> <li>• Replace the sensor</li> <li>• Replace the card.</li> </ul>
(x)51*	Group boiler temperature sensor x out of range (x = 1, 2, 3, 4) Note: Group 1 is to the far left.	<ul style="list-style-type: none"> <li>• Thermocouple disconnected</li> <li>• Sensor failure.</li> </ul>	<ul style="list-style-type: none"> <li>• Check cabling</li> <li>• Replace the sensor.</li> </ul>
052	Boiler heating timeout - 45 minutes.	<ul style="list-style-type: none"> <li>• The safety thermocouple has been triggered</li> <li>• The resistance is interrupted (cabling defect)</li> <li>• The Triac card is malfunctioning.</li> </ul>	<ul style="list-style-type: none"> <li>• Check if the safety thermostat has been triggered, and reset it if necessary</li> <li>• Check if there are interruptions or detached fastons on the cabling</li> <li>• Check that the boiler resistance is not interrupted and replace it if necessary</li> <li>• Replace the Triac card.</li> </ul>

MALFUN CODE	DESCRIPTION	POSSIBLE CAUSES	VERIFICATIONS and SOLUTIONS
(x)52*	<b>Group x boiler heating timeout - 20 minutes (x = 1, 2, 3, 4)</b> Note: Group 1 is to the far left.	<ul style="list-style-type: none"> <li>The group x boiler safety thermostat has been triggered</li> <li>The resistance is interrupted (cabling defect).</li> <li>Triac board fault.</li> </ul>	<ul style="list-style-type: none"> <li>Check if the safety thermostat of the group x boiler has been triggered, and reset it if necessary</li> <li>Check if there are interruptions or detached fastons on the cabling</li> <li>Check that the group x boiler resistance is not interrupted and replace it if necessary</li> <li>Replace Triac board.</li> </ul>
(x) 53*	<b>Steam thermocouple out of range.</b>  <b>DX &gt; 053; SX &gt; 153</b>	<ul style="list-style-type: none"> <li>Thermocuple disconnected</li> <li>Wrong configuration during standard data insertion.</li> </ul>	<ul style="list-style-type: none"> <li>Enter in the programming mode and insert the correct standard data..</li> <li>Check connections.</li> <li>Replace the steam temperature probe.</li> </ul>
058	<b>Boiler overpressure alarm.</b>	<ul style="list-style-type: none"> <li>Resistanc alwayspowered.</li> <li>Temperature sensor out of range.</li> </ul>	<ul style="list-style-type: none"> <li>Check cabling</li> <li>Replace the sensor.</li> </ul>
059	<b>Boiler: Refill timeout - 15 minutes.</b>	<ul style="list-style-type: none"> <li>No water</li> <li>Refill EV failure</li> <li>Wiring interrupted</li> <li>Card failure.</li> </ul>	<ul style="list-style-type: none"> <li>Check water is supplied from the main line.</li> <li>Replace the refill EV.</li> <li>Check cabling.</li> <li>Replace the card.</li> </ul>
060	<b>Boiler-level signal errors.</b>	<ul style="list-style-type: none"> <li>Electrical fault.</li> <li>Leakage to earth.</li> </ul>	<ul style="list-style-type: none"> <li>Check wiring.</li> <li>Check, by activating the components individually on the manual control panel, that the level signal does not show any anomalies (%).</li> </ul>
062	<b>Coffees dispensed for MM1 with flow under the limit (3 consecutive coffees dispensed).</b>	<ul style="list-style-type: none"> <li>coffee filter blocked</li> <li>coffee type changed</li> <li>qref calibration wrong</li> <li>grind too fine, excessive dose ground.</li> </ul>	<ul style="list-style-type: none"> <li>wash the group</li> <li>clean/replace the coffee filter</li> <li>use a coarser grind</li> <li>calibrate the machine correctly on the basis of the coffee/recipe.</li> </ul>
063	<b>Coffees dispensed referred to MM1 with flow over the limit (3 consecutive coffees dispensed).</b>	<ul style="list-style-type: none"> <li>coffee type changed</li> <li>qref calibration wrong</li> <li>grinding too coarse</li> <li>grinder/dispenser blocked, insufficient dose of ground coffee.</li> </ul>	<ul style="list-style-type: none"> <li>check that there are no external elements in the grinders</li> <li>check that the measure grinder is working (pick-up current and fuses)</li> <li>use a finer grind</li> <li>calibrate the machine correctly on the basis of the coffee/recipe.</li> </ul>
064	<b>Coffees dispensed referred to MM2 with flow under the limit (3 consecutive coffees dispensed).</b>	<ul style="list-style-type: none"> <li>coffee filter blocked</li> <li>coffee type changed</li> <li>qref calibration wrong</li> <li>grind too fine, excessive dose ground.</li> </ul>	<ul style="list-style-type: none"> <li>wash the group</li> <li>clean/replace the coffee filter</li> <li>use a coarser grind</li> <li>calibrate the machine correctly on the basis of the coffee/recipe.</li> </ul>
065	<b>Coffees dispensed referred to MM2 with flow over the limit (3 consecutive coffees dispensed).</b>	<ul style="list-style-type: none"> <li>coffee type changed</li> <li>qref calibration wrong</li> <li>grinding too coarse</li> <li>grinder/dispenser blocked, insufficient dose of ground coffee.</li> </ul>	<ul style="list-style-type: none"> <li>check that there are no external elements in the grinders</li> <li>check that the measure grinder is working (pick-up current and fuses)</li> <li>use a finer grind</li> <li>calibrate the machine correctly on the basis of the coffee/recipe.</li> </ul>

MALFUN CODE	DESCRIPTION	POSSIBLE CAUSES	VERIFICATIONS and SOLUTIONS
(x)66	<b>Error in the group that is dispensing.</b> (x = 1, 2, 3, 4) Note: Group 1 is to the far left.		<ul style="list-style-type: none"> <li>• Check water is supplied from the main line.</li> <li>• Check there are no fitting obstructions or leakage.</li> <li>• Check flowmeter electrical connections.</li> <li>• Replace the broken flowmeter.</li> <li>• Replace the broken board.</li> </ul>
(x)70	<b>Measure-grinder adjustment: Bluetooth set up by the technician.</b> (x = 1, 2) MM1 > 170; MM2 > 270		Event only archived and not displayed on the display during normal machine operation.
082	<b>Temporary communication problem with the keyboards/ TFT display.</b>		<ul style="list-style-type: none"> <li>• Check the insulation.</li> <li>• Check the wiring and connections.</li> </ul>
083	<b>Services key communication error.</b>	<ul style="list-style-type: none"> <li>• Incorrect keyboard configuration (if applicable).</li> <li>• Wiring interrupted</li> <li>• Card failure.</li> </ul>	<ul style="list-style-type: none"> <li>• Check that the dip switches are correctly configured on the key board (if applicable).</li> <li>• Check cabling</li> <li>• Replace key board.</li> </ul>
(x)83*	<b>Group x (x = 1, 2, 3, 4) keypad communication error</b> Note: Group 1 is to the far left. <b>Communication error with light-module board (RGB) x = 5 or light/turbo-steam board.</b>	<ul style="list-style-type: none"> <li>• Incorrect keyboard configuration (if applicable).</li> <li>• Wiring interrupted</li> <li>• Card failure.</li> </ul>	<ul style="list-style-type: none"> <li>• Check that the dip switches are correctly configured on the key board (if applicable).</li> <li>• Check cabling</li> <li>• Replace key board.</li> </ul>
(x)85*	<b>Bluetooth communication error (x = 1, 2)</b> MM1 > 185; MM2 > 285	<ul style="list-style-type: none"> <li>• Incorrect association with measure grinder.</li> <li>• Measure grinder turned off.</li> </ul>	<ul style="list-style-type: none"> <li>• Turn on the grinder.</li> <li>• Repeat device association.</li> </ul>
089	<b>NVM RAM data integrity error</b>	<ul style="list-style-type: none"> <li>• Incorrect association with measure grinder.</li> <li>• Measure grinder turned off.</li> </ul>	Turn the machine off and on again. If the error persists, replace the CPU board. Check the condition of the clock battery.
091*	<b>No tank during milk washing cycle</b>	Data integrity error in non-volatile RAM memory of the CPU board.	<ul style="list-style-type: none"> <li>• Check the correct operation of the tank presence sensor on the manual control panel.</li> <li>• Check the wiring.</li> </ul>
092	<b>Request water softener resin regeneration.</b>	<ul style="list-style-type: none"> <li>• Removal of tank during the wash.</li> <li>• Tank presence sensor faulty.</li> </ul>	<ul style="list-style-type: none"> <li>• Softener maintenance.</li> </ul>
093	<b>Request replacement water filter.</b>		<ul style="list-style-type: none"> <li>• Replace the water-softner filter.</li> </ul>
096	<b>Maintenance needed.</b>		<ul style="list-style-type: none"> <li>• The machine has displayed the message to warn the user that maintenance must be performed. Carry out maintenance operations.</li> </ul>

<b>MALFUN CODE</b>	<b>DESCRIPTION</b>	<b>POSSIBLE CAUSES</b>	<b>VERIFICATIONS and SOLUTIONS</b>
<b>097*</b>	<b>Reset standard password.</b>	<ul style="list-style-type: none"> <li>• Action desired by the user by entering the special code (applicable only for machines with TFT display).</li> </ul>	
<b>098</b>	<b>Historical malfunctions and wash 1 reset.</b>	<ul style="list-style-type: none"> <li>• Initialisation malfunction history (and washing history for machines without TFT display)</li> </ul>	<ul style="list-style-type: none"> <li>• Event only archived and not displayed on the display during normal machine operation.</li> </ul>
<b>099</b>	<b>Default data input.</b>		
<b>105</b>	<b>SD card communication malfunction.</b>	<ul style="list-style-type: none"> <li>• SD card corrupted or malfunction.</li> </ul>	<ul style="list-style-type: none"> <li>• Replace SD card.</li> </ul>
<b>282</b>	<b>Keypad reset operation carried out by CPU board due to repeated communication problems.</b>		<ul style="list-style-type: none"> <li>• Check the insulation.</li> <li>• Check the wiring and connections.</li> </ul>
<b>683</b>	<b>Turbosteam module communication malfunction.</b>	<ul style="list-style-type: none"> <li>• Break in wiring.</li> <li>• Board failure.</li> </ul>	<ul style="list-style-type: none"> <li>• Check wiring.</li> <li>• Replace Turbosteam board.</li> </ul>

**Faults - \* - appear only in some produit configurations.**