

13 Troubleshooting

This troubleshooting helps technician to find the cause of a problem starting from the error message shown by the **touch screen**.

All these error messages has been covered during the HLF Technical Training Course, where we strongly recommended to have a multimeter always available, in order to check possible bad connections.

13.1 E11-DRIP TRAY FULL

Why?

The option **DRIP TRAY SENSOR FLOAT** is active and the **drip tray switch** is engaged.

Cause of fault	Troubleshooting measure(s)
The drip tray is full of waste water;	Remove the drip tray , empty and clean it.
The plastic float is blocked;	Check if the plastic float inside the drip tray is free to move.
The drip tray switch is damaged or doesn't work;	Turn off the option DRIP TRAY FLOAT SENSOR inside the programming, to let the machine working anyway (refer to the user manual); Replace the drip tray switch .
The connection is compromised	Check the wires from the drip tray switch to the motherboard (refer to the Input/Output table to understand which input number); Replace the motherboard .

13.2 E12-PLACE YOUR CUP**Why?**

The option **CUP SENSOR** is active and there's no cup placed on the dispensing point

Cause of fault	Troubleshooting measure(s)
There's no cup placed on the dispensing point;	Place a cup.
The cup sensor is not installed in the machine;	Turn off the option CUP SENSOR (refer to the user manual).
The cup sensor doesn't work;	Turn off the option CUP SENSOR inside the programming, to let the machine working anyway (refer to the user manual); Replace the cup sensor .
The connection is compromised	Check the wires from the cup sensor to the motherboard (refer to the Input/Output table to understand which input number); Replace the motherboard .

13.3 E13-FLOW METER K.O.

Why?

The flow meter is not detecting the water passing through the circuit.

Cause of fault	Troubleshooting measure(s)
<p>The message appears during a coffee cycle only, and not during a hot water or soluble drink. No coffee comes out or at least a very poor flow:</p> <ul style="list-style-type: none"> ▪ The coffee group is dirty; ▪ The grinder is set too fine; ▪ The coffee valve may be blocked by lime scale; ▪ The coffee valve got fault. ▪ The connection is compromised. 	<p>Launch a Coffee Group Cleaning Cycle.</p> <p>Wash the coffee group under hot water.</p> <p>Move the grinder blades to a coarser position.</p> <p>Take it off and clean it or replace it.</p> <p>Replace it.</p> <p>Check the wires from the coffee valve to the output board (refer to the Input/Output table to understand which output number).</p>
<p>The message appears during the dispensing of a specific product, while is not appearing during the dispensing of all the other products; The water for that specific product doesn't come out:</p> <ul style="list-style-type: none"> ▪ The valve related to the product that fails may be blocked by lime scale; ▪ The valve related to the product that fails got fault; 	<p>Take it off and clean it or replace it.</p> <p>Replace it.</p>

Cause of fault	Troubleshooting measure(s)
<ul style="list-style-type: none"> ▪ The connection is compromised. <p>The message appears during the stand-by:</p> <ul style="list-style-type: none"> ▪ The discharge valve may be blocked by lime scale; ▪ The discharge valve doesn't work. ▪ The connection is compromised. <p>The message appears during the dispensing of any product and the water doesn't come out:</p> <ul style="list-style-type: none"> ▪ The air-break is empty, but no E-16 CHECK WATER message appears; ▪ The pump doesn't work: <ul style="list-style-type: none"> - The pump got fault; - The output board got fault. 	<p>Check the wires from the valve related to the product that fails, to the output board (refer to the Input/Output table to understand which output board and output number).</p> <p>Take it off and clean it or replace it.</p> <p>Replace it.</p> <p>Check the wires from the discharge valve to the output board (refer to the Input/Output table to understand which output number).</p> <p>Refer to paragraph 13.5 E16-CHECK WATER</p> <p>Check the connection between the pump and the output board (refer to the Input/Output table to understand which output number).</p> <p>Replace it.</p> <p>Replace it.</p>

Cause of fault	Troubleshooting measure(s)
<ul style="list-style-type: none">▪ The flow meter is blocked; <p>The message appears during the dispensing of any product and the water comes out for few seconds, then stops:</p> <ul style="list-style-type: none">▪ The connection is compromised; <ul style="list-style-type: none">▪ The flow meter got fault.	<p>Check if the flow meter is blocked. If yes, replace it.</p> <p>Check if the green LED of the motherboard blinks while the pump is working. It shouldn't. Check the wires from the flow meter to the motherboard (refer to the Input/Output table to understand which input number).</p> <p>Replace it.</p>

13.4 E15-COFFEE GROUP OUT**Why?**

The **coffee group presence switch** is not engaged.

Cause of fault	Troubleshooting measure(s)
The coffee group is not in the correct position;	Check the coffee group .
The coffee group presence switch is damaged or doesn't work;	Replace the coffee group presence switch .
The connection is compromised	Check the wires from the coffee group presence switch to the motherboard (refer to the Input/Output table to understand which input number). Replace the motherboard .

13.5 E16-CHECK WATER

Why?

The machine has asked for water inside the **air-break** for more than the time set on the option **FILLING WATER TIMEOUT**.

Cause of fault	Troubleshooting measure(s)
<p>Switch ON the machine and look if the time the air-break needs to fill up completely is too long. If yes, it means the pressure of the plumb circuit is very low;</p> <p>The machine is not filling water at all, but the LED on the water level board is ON:</p> <ul style="list-style-type: none"> ▪ Maybe the overflow system has been engaged because the machine has been moved without draining the air-break first; ▪ The main inlet water valve is gone. <p>The machine is filling water, but once reached the shorter probe, it keeps filling all the time. The LED on the water level board is still ON;</p> <ul style="list-style-type: none"> ▪ Wrong sensitivity setting; ▪ The air-break probes are dirty; ▪ The connection is compromised; ▪ The water level board got fault. 	<p>Raise up the FILLING WATER TIMEOUT option.</p> <p>Follow the procedure at the end of the paragraph.</p> <p>Replace it.</p> <p>Check the sensitivity bridge on the water level board. Only position 1 should be activated.</p> <p>Clean them.</p> <p>Check the connections from the air-break probes to the water level board.</p> <p>Replace it.</p>

Cause of fault	Troubleshooting measure(s)
<p>The machine is filling water, but once reached the shorter probe, it keeps filling all the time. The LED on the water level board turns OFF once reached the shorter probes;</p> <ul style="list-style-type: none"> ▪ The main inlet water valve stays open all the time; ▪ The output board got fault; ▪ The motherboard got fault; 	<p>Replace it</p> <p>Replace it.</p> <p>Replace it.</p>

How to unblock the main inlet water valve

- Switch OFF the machine;
- Disconnect the water line pipe;
- Disconnect the overflow pipe from the **main inlet water valve** and drain the water inside;
- Switch back ON the machine and wait for the **coffee group** positioning. The **main inlet water valve** opens.
- Switch OFF the machine and connect back the water line pipe and the overflow pipe;
- Switch ON the machine.

13.6 E17-HEATING

Why?

The machine is heating up the **boiler**. Wait for the machine to be ready.

13.7 E18-CLEANING CYCLE REQUIRED

Why?

Or the option **HEATING CONTROL** is active.

Maybe it's the first time the machine is installed and it needs a cleaning cycle in order to fill the **boiler** with water, or somebody has switched ON the **HEATING CONTROL** option.



NOTE

Once the option **HEATING CONTROL** is activated, it can't be turned off from the programming.

Access the cleaning routine and run a **WHIPPER CLEANING**.

13.8 E19-DESCALING REQUIRED

Why?

The number of liters set in the **DESCALING CAPACITY** option has been done and the option **IN-LINE FILTER** is disable.

Clean the water boiler from lime scale by dismounting it from the machine.

After that, go into the programming > **COUNTERS** > **TECHNICAL DATA** and clear the liters counter.

13.9 E23-EMPTY GROUNDS DRAWER

Why?

The number of coffee set in the **MAX NUMBER OF GROUNDS** option menu has been done.

Follow the instruction manual to clear the message.

13.10 E24-DOOR OPEN**Why?**

The front door micro switch is not engaged.

Cause of fault	Troubleshooting measure(s)
The front door is open;	Close it;
The front door is closed, but the message stays still.	The front door micro switch is damaged. Replace it
The connection is compromised	Check the wires from the front door switch to the motherboard (refer to the Input/Output table to understand which input number). Replace the motherboard .

13.11 E25-CHECK FILTER**Why?**

The number of liters set in the **DESCALING CAPACITY** option has been done and the option **IN-LINE FILTER** is active.

Replace the de-scaling filter with a new one and go into the programming > **COUNTERS > TECHNICAL DATA** and clear the liters counter.

13.12 E39-COFFEE GROUP POSITIONING**Why?**

The coffee group is moving. Wait for the completion of the movement.

Cause of fault	Troubleshooting measure(s)
The message stays still even if the coffee group doesn't move.	Maybe you've just put back the coffee group. Remove the white door key and put it back, or close the front door .

13.13 E58-BOILER 1 PROBE OVER TEMPERATURE**Why?**

The board is measuring a temperature above 120°C

Cause of fault	Troubleshooting measure(s)
The temperature probe got fault;	Replace it.

13.14 E59-BOILER 1 PROBE DISCONNECTED**Why?**

The board is measuring a temperature below 0°C

Cause of fault	Troubleshooting measure(s)
The temperature probe is disconnected;	Check the connections
The temperature probe got fault.	Replace it.

13.15 E62-CHECK GRINDER 1**Why?**

The **grinder** is blocked.

Cause of fault	Troubleshooting measure(s)
A harder beans has gone into the grinder. The coffee grinder is blocked also with the blades totally opened.	Move as more as possible the grinder blades to the coarse position and run a coffee. Check if it's time to replace the blades; Open the grinder blades and check if there is something inside.

13.16 E72-CLEAN COFFEE GROUP**Why?**

The machine has detected an unusual current consumption of the **coffee group gearmotor**.

Cause of fault	Troubleshooting measure(s)
The coffee group is dirty.	Remove the coffee group and clean it from the coffee. Put some grease on the main screw and O-Rings.

13.17 E73-FLASH MEMORY ERROR / E102-EEPROM WRITE ERROR MOTHERBOARD**Why?**

Error while saving data on the motherboard. Replace it.

13.18 E74-COFFEE GROUP TIMEOUT**Why?**

The **coffee group** has taken too much time to finish a positioning than usual.

Cause of fault	Troubleshooting measure(s)
The coffee group wasn't in the position the machine expected.	Push on the notification to reset the coffee group.

13.19 E75-COFFEE GROUP MOTOR TIMEOUT**Why?**

The **coffee group counter** is no more counting.

Cause of fault	Troubleshooting measure(s)
The coffee group has suddenly blocked during a movement;	Check that the coffee group chamber is not completely on the bottom or on the top of the unit.
The coffee group is dirty;	Clean the coffee group.
The coffee group is full of coffee puck;	Remove the coffee group and clean it.
The connection is compromised;	Check the connection between the coffee group motor counter and the output board .
The motor counter got fault.	Replace it.

13.20 E100-FLASH WRITE ERROR OUTPUT BOARD 1**Why?**

Error while saving data on the output board 1. Replace it.

13.21 E102-EEPROM WRITE ERROR MOTHERBOARD**Why?**

Error while saving data on the output board 1 or 2. Replace it.

13.22 E111-OUTPUT BOARD 1 VERSION INCOMPATIBLE**Why?**

The motherboard has detected an output board 1 software version that is not compatible to its current version.

Usually the problem happens after a manual motherboard software update, because the motherboard software version becomes more recent while the output board software version is too old to suite the motherboard new features.

**NOTE**

Normally you shouldn't need to upgrade a board manually, because everytime a new touch screen software version is installed, the touch screen automatically updates the boards according to its features.

Solution:

Make sure to have all the boards upgraded to the latest versions at the same time.

13.23 E119-CHANGE GIVER INCOMPATIBLE**Why?**

The change giver connected to the machine is not compatible to the current machine settings.

Cause of fault	Troubleshooting measure(s)
The base coin of the change giver is different than the one set into the machine.	Check which base coin the change giver uses (refer to the instruction manual of the change giver) and make sure the machine is using the same value.

13.24 E120-CASHLESS DEVICE INCOMPATIBLE**Why?**

The cashless device connected to the machine is not compatible to the current machine settings.

Cause of fault	Troubleshooting measure(s)
The base coin of the cashless device is different than the one set into the machine.	Check which base coin the cashless device uses (refer to the instruction manual of the cashless device) and make sure the machine is using the same value.

13.25 E121-BILL VALIDATOR INCOMPATIBLE**Why?**

The bill validator connected to the machine is not compatible to the current machine settings.

Cause of fault	Troubleshooting measure(s)
The base coin of the bill validator is different than the one set into the machine.	Check which base coin the bill validator uses (refer to the instruction manual of the bill validator) and make sure the machine is using the same value.

13.26 E122-OUT OF COFFEE GRINDER 1**Why?**

1. The **coffee group** has not been able to press the coffee properly.

Cause of fault	Troubleshooting measure(s)
The beans hopper is empty or closed;	Re-fill coffee beans hopper with fresh coffee beans and open the coffee stopper making sure the safety pin is completely out of the hopper;
The grinder runs, but there's not enough coffee inside the coffee group chamber ;	The blades need to be changed (verify if 20000 cycles are reached) or the ground is too fine. Open the grinder adjuster ;
The grinder runs but no coffee falls inside the coffee group chamber .	The coffee is blocked somewhere. Check the grinder funnel .

13.27 E124-COFFEE GROUP CLEANING REQUIRED

Why?

The number of coffee set with the option **NUMBER OF COFFEES FOR CLEANING CYCLE** has been reached.

Enter the cleaning routines and run a **Coffee Group Cleaning**.

13.28 E125-NOT CONNECTED

Why?

The **touch screen** is not connected to the **Bluetooth module** installed on the **motherboard**.

Cause of fault	Troubleshooting measure(s)
The screen is stucked;	Switch OFF the machine and back ON again.
The Bluetooth device used by the touch screen is not matching the one installed into the machine;	Follow the connection procedure at the end of this paragraph
The Bluetooth module got fault.;	Replace it
The touch screen got fault.	Replace it.

Bluetooth module connection procedure

Everytime there's the need to replace the **Bluetooth module** or the **touch screen**, the connection must be set up from the beginning.

1. Enter the programming > Settings > BLUETOOTH
2. Press the button **RESET DEVICE LIST** to clear all the devices previously registered. (all the buttons should become unavailable for few seconds)
3. Once the buttons are back available, press **SEARCH**;
4. On the "Bluetooth device search" window Press **SEARCH** again. The touch screen is now searching for any bluetooth device around;

During the searching, the button **SEARCH** turns into **STOP**. Once the touch screen has finished the searching it will turn back to **SEARCH** again. (This could take even few minutes);

5. Push on the device that's named with the serial number of the machine (i.e. 140000123) The message **CONNECTING...** will be displayed in yellow;
6. After few seconds the touch screen will ask for a PIN. Put **1234**;
7. In few seconds the message **CONNECTING...** should turn into **CONNECTED** displayed in green;
8. Go all the way back pushing the arrow on the the top left corner.

13.29 E128-CASHLESS 2 MALFUNCTION**Why?**

The mobile cashless device is reporting a generic malfunction

Cause of fault	Troubleshooting measure(s)
Generic malfunction of the mobile cashless device.	Check with the Service and Support of the mobile cashless device.

13.30 E129-BOILER HEATING FAILURE**Why?**

The boiler has taken more than 5 minutes to reach the temperature set.

Cause of fault	Troubleshooting measure(s)
The communication is compromised.	Check the continuity between the wires that goes on the thermostats from the output board (refer to the Input/Output table to understand which output number).
The boiler heating element got fault.	Replace it.
The output board got fault.	Replace it.

13.31 E130-REFUND CASHLESS 1 NOT AVAILABLE

Why?

The cashless device is reporting that it doesn't have the capability to refund money if a transaction goes wrong.

No solutions

13.32 E131-CASHLESS DEVICE 2 INCOMPATIBLE

Why?

The mobile cashless device connected to the machine is not compatible to the current machine settings

Cause:

The base coin of the mobile cashless device is different than the one set into the machine.

Solution:

Check which base coin the mobile cashless device uses (refer to the instruction manual of the mobile cashless device) and make sure the machine is using the same value.

13.33 E132-REFUND CASHLESS 2 NOT AVAILABLE

Why?

The mobile cashless device is reporting that it doesn't have the capability to refund money if a transaction goes wrong.

No solutions

13.34 E133-CASHLESS 1 MALFUNCTION

Why?

The cashless device is reporting a generic malfunction

Cause of fault	Troubleshooting measure(s)
Generic malfunction of the cashless device.	Check with the Service and Support of the cashless device

13.35 E141-FILLING WATER

Why?

The option **FILLING WATER CONTROL** is active and the machine is filling the **air-break**.

This option is active by default, because it guarantees that the **air-break** is full of water before to start the dispensing of any drink.

This avoids potential blockage of the milk coil due to a lack of water from the main water line and also makes a possible water line problem more visible.



CAUTION

The decision to switch this option to OFF is completely responsibility of the technician, who must make sure at least to meet the minimum requirements reported on the Instructions Manual of the machine.

13.36 E168-OUTPUT BOARD 1 INCOMPATIBLE

Why?

The machine is detecting that the hardware of the output board 1 is not compatible with the machine.

Cause of fault	Troubleshooting measure(s)
The output board hardware is not compatible with the machine;	Please check if the boards code, printed on the board's label is 9SSOB0104. If it is different, remove it and replace with one with the right code.
The output board got fault	Replace it.

13.37 E198-DETERGENT TANK LEVEL LOW**Why?**

The machine is detecting that the detergent inside the tank is insufficient.

Cause of fault	Troubleshooting measure(s)
Insufficient level of detergent in the tank.	Fill the detergent tank.
The detergent tank level sensor got fault.	Replace it.

13.38 E198-COMMUNICATION ERROR**Why?**

The touch screen is not communicating with the machine.

Cause of fault	Troubleshooting measure(s)
The usb communication board is faulty.	Replace the board.
The serial cable that connects the usb communication board to the motherboard is interrupted.	Replace the serial cable.
The cables and the board are fine but there's no power coming from the motherboard.	Check the main supply to the motherboard, if present change the motherboard.

13.39 E198-USB NOT CONNECTED**Why?**

The touch screen is not connected to the usb communication board.

Cause of fault	Troubleshooting measure(s)
The usb communication board is faulty.	Replace the board.
The usb cable that connects the usb communication board to the touch screen is interrupted.	Ensure the usb cable is connected to the touch screen's port. Replace the usb cable.
The cable and the board are fine but the error is still showing.	Change the usb port where the usb cable is connected to. Change the touch screen.