

### General Troubleshooting guide

This Service Bulletin is addressed to Service Engineer that will serve Built-In coffee machines. The first thing to determine is whether the fault can be described as:

1. Customer misuse
2. Technical faults

#### 1. CUSTOMER MISUSES:

- a. Bad coffee taste or not creamy coffee
- b. Cold coffee
- c. Bad milk frothing

In these cases proceed as follows:

- a. "Bad coffee taste or not creamy coffee": Check the coarseness of the coffee powder and reset the position of the knob to factory setting (pos. 4 to 5).

**ATTENTION:** The knob has to be rotated **ONLY** while the grinder motor is running. In case the knob is already on the min (1) or max (7) possible position, it may be necessary to dismantle the grinder and reset the gears following the procedure (it is described in Service Manual 599720047).

- b. "Cold coffee": Most probably, the customer is **NOT** warming the cup; before you make coffee is vital to have a good temperature, in particular in cold days. Check the temperature of the coffee by: make a couple of coffees first and while making the third, measure the temperature of the coffee coming out from the spouts. Temp. should be  $78^{\circ}\text{C} \pm 3^{\circ}\text{C}$ . If less perform a descale procedure and check the coffee temperature again.
- c. "Bad milk frothing": see Service Bulletin 599748011

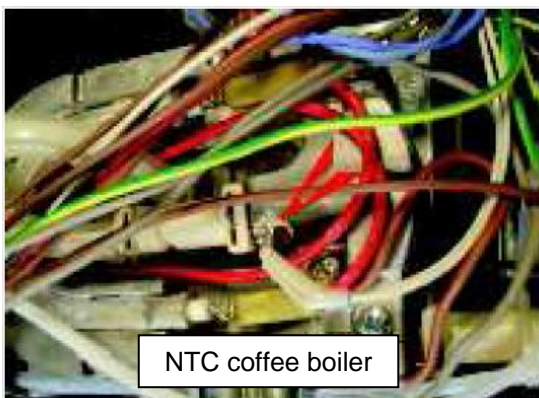
#### 2. TECHNICAL FAULTS:

If the machine displays a message such as:

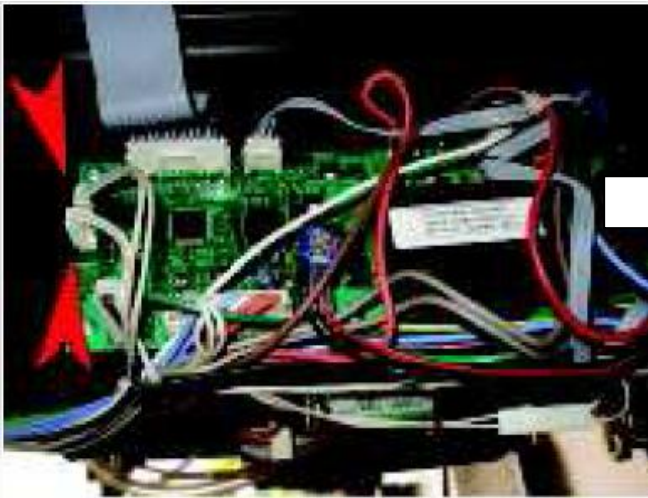
- d. General (or "Generic" Alarm)
- e. Ground too fine , adjust mill/grinder
- f. Fill beans container
- g. Fill tank
- h. Descaling

**IMPORTANT:** Conduct test procedure to find technical fault prior to next following step.

- d. General (or "Generic" Alarm) might be displayed for different reasons, the common ones are:
  - Message displayed right after you switch the machine "ON". Check:
    - NTC (temperature sensor on both coffee and steam boiler) check or faulty sensor.

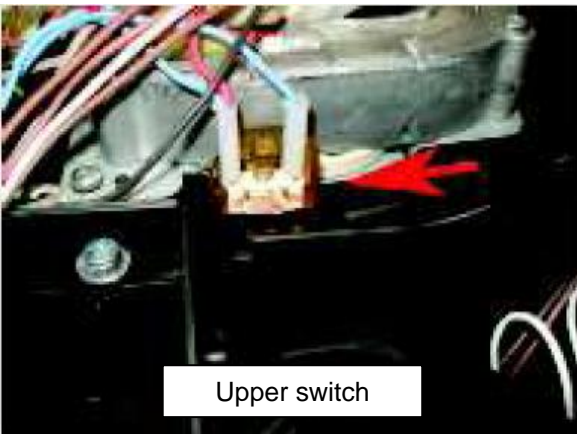


- Check both NTC sensor connections on the board for loose connections, check the ohm resistance: if 0 (short circuit) or infinite replace it.



NTC connections

- Message displayed right after a short movement of the motor.
  - Check upper and lower limit switch and replace if required

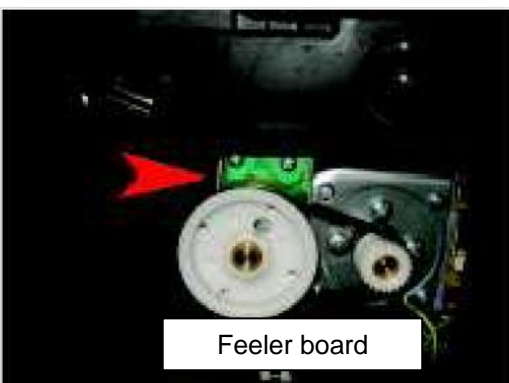


Upper switch

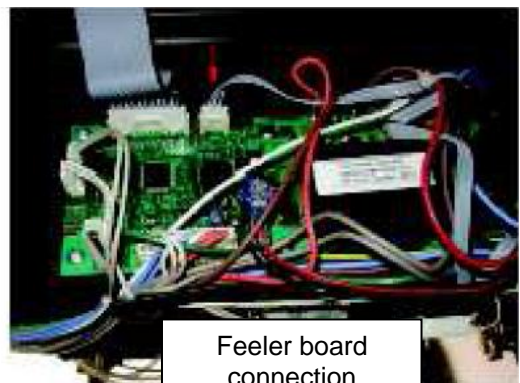


Lower switch

- Check connection on the main board of the feeler board and replace if required.



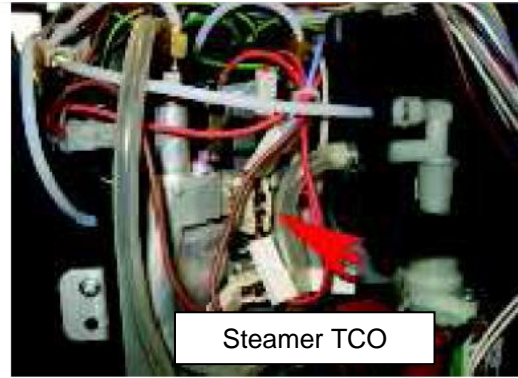
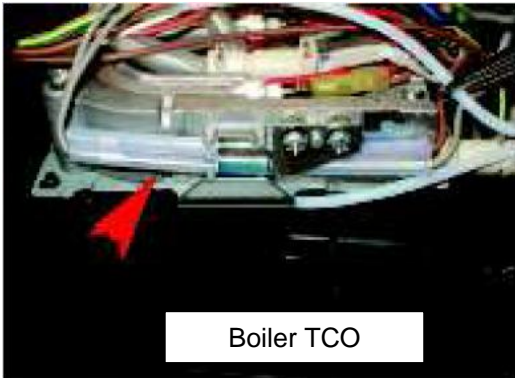
Feeler board



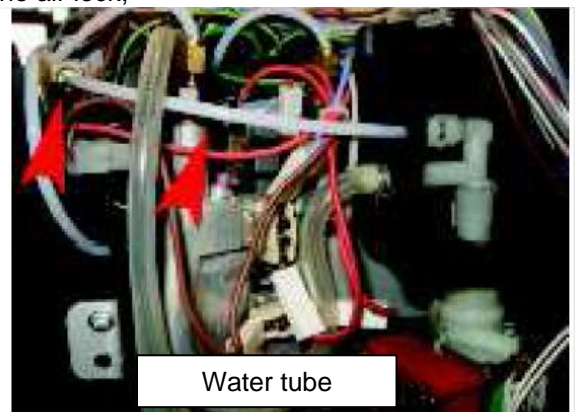
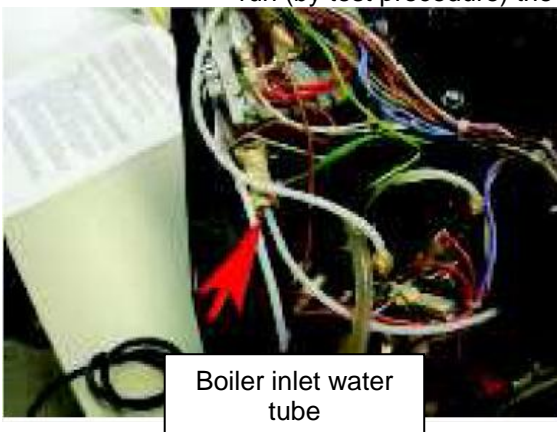
Feeler board connection

- Replace main PCB.

- Turn on machine. Allow up to 6 minute delay time to expire while machine displays, “Heating up, please wait”, check:
  - The boiler did not reach the set temperature;
  - Check the TCO and/or boilers;



- Check the connection on the board first and replace the faulty board if required. Remember that using the test procedure you can immediately see which boiler/TCO is faulty.
- If general/generic alarm is still displayed and a strange “sound” is heard after movement of the infuser motor, check:
  - The lower or upper limit switches (see pictures 5 and 6) do not mechanically close. Check the switches and replace if required.
- e. “Ground too fine, adjust mill/grinder” might be displayed for the following reasons:
  - Air in the water circuit:
    - Reset coarseness of the grinder turning the knob toward a higher number (ONLY WHILE GRINDER MOTOR IS RUNNING);
    - Push in the water tank to make sure it is well in place, then insert water spout (or turn steam knob), to clear the circuit form air lock;
    - Check connection and or replace water flow meter;
    - Check permanent filter, underneath the water tank, for any obstructions of water flow; clean or replace;
    - Check for the fault on the blocked boiler, disconnect the inlet water tube from the boiler and run (by test procedure) the pump, clearing the air lock;



- f. “Fill beans container” might be displayed for the following reasons (ensure coffee beans are in container):
  - The motor runs but makes a strange sound (runs free); mechanical clutch intervention because there is a stone (or any other object) between the gears.
    - Dismantle the upper part of the grinder then remove the stone, or excessive coffee powder inside the grinder (clean it).

- Enter the test procedure to check the grinder motor, if grinder motor still runs free, the internal belt is faulty, replace the whole grinder.
- Motor does not run:
  - Motor is faulty, replace the whole grinder.
- g. “Fill tank” message might be displayed for the following reasons (ensure water is in the tank):
  - Check for the presence and ensure free travel of float inside the water tank;
  - Check “reed” switch and ensure proper connection on the main board. Replace if required.

h. “Descaling”:

The machine has an electronic device /flow meter, that counts the quantity of water used. When the quantity reached is over the limit set according to the water hardness test, then the message “Descaling” will flash on the display. To perform descaling, enter the descaling procedure through the menu functions and follow the messages on the display. In the event that the message is still displayed; the procedure was not precisely followed and it is necessary to repeat the procedure.

The 4 set water hardness settings are:

Water hardness	Litres
1	250
2	130
3	80
4	40

**PRECAUTIONS:**

Before performing any operations, the machine must be turned off and disconnected from the mains power supply to avoid any danger of electric shock.

Only one exception, cleaning the coffee grounds container must be carried out while the machine is turned on.

**REVISION:**

Revision	Date	Description	Author	Approved by - on
00	11/2011	Document Creation	PR	