

T B S E R I E S

indelB

trouble shooting

TB_22AM_(DC)_TS_04-12-2018

T B S E R I E S

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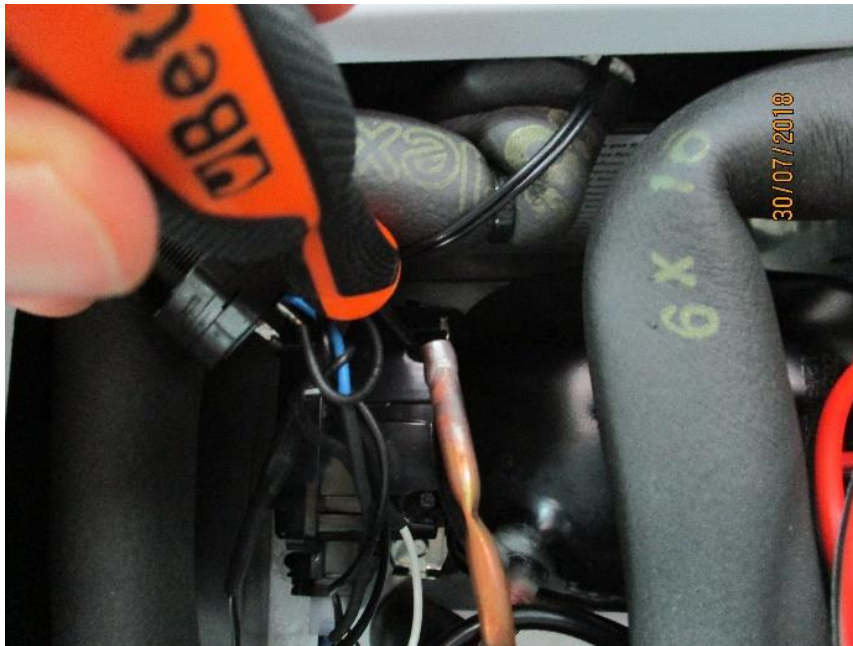
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HOW TO DETECT THE TYPE OF FAULT

A. FLASHING ERRORS

This refrigerator is not equipped with display, so you need to unscrew the ECU and control the number of flashes. You may detect errors from the ECU. Each error corresponds to a number of flashes from a led inside the ECU:



Unscrew the 2 bolts fixing the ECU, and move the ECU



Control in the highlighted area to see the number of flashes

Kind of faults:

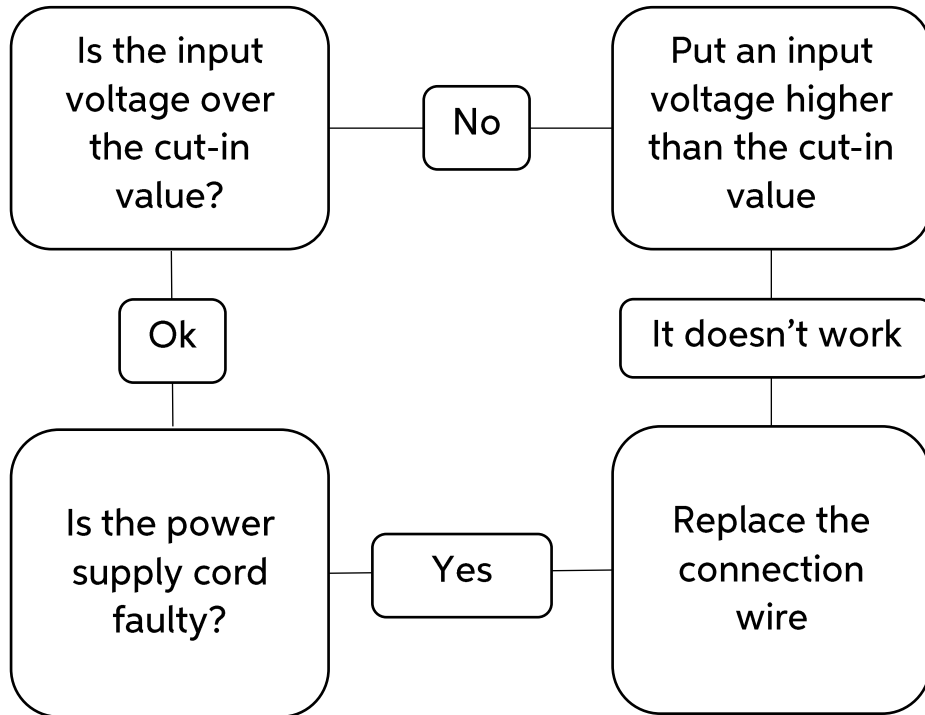
ERROR CODE	ERROR TYPE
E1	Battery protection cut-out (The voltage is outside the cut-out setting).
E2	Fan over-current cut-out (The fan loads the electronic unit with more than 1A _{peak}).
E3	Motor start error (The rotor is blocked or the differential pressure in the refrigeration system is too high (>5 bar)).
E4	Minimum motor speed error (If the refrigeration system is too heavily loaded, the motor cannot maintain minimum speed 1,850 rpm).
E5	Thermal cut-out of electronic unit (If the refrigeration system has been too heavily loaded, or if the ambient temperature is high, the electronic unit will run too hot).
E6	Faulty temperature sensor, or not properly connected to the control unit

B. NON-FLASHING ERROR

There are also errors that aren't detected by the ECU:

- 1. NO POWER SUPPLY:** Check the connection between the power supply and the battery. Check if the cable's length is correct (see the instruction manual)
- 2. FAULTY THERMOSTAT:** You need to disconnect the wire from the C, P and T plug of the ECU, then make a bridge between C and T. If the refrigerator operates the thermostat is faulty and need to be replaced. Otherwise the ECU need to be replaced.
- 3. THE MOTOR OPERATES BUT THE REFRIGERATOR DOES NOT COOL:** Check if the evaporator/freezer has not been punctured or damaged by user. Otherwise let check the refrigerator from a service station.

- ERROR E1: Battery protection cut-out



- **ERROR E2: Fan over-current cut-out**

This error is caused by an over-current that arrived at the fan. In this case you must replace the fan (see “How to replace the fan”).

- ERROR E3: Motor start error

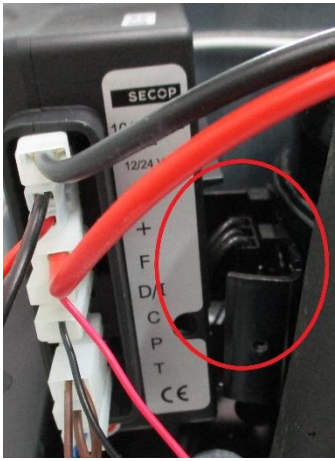
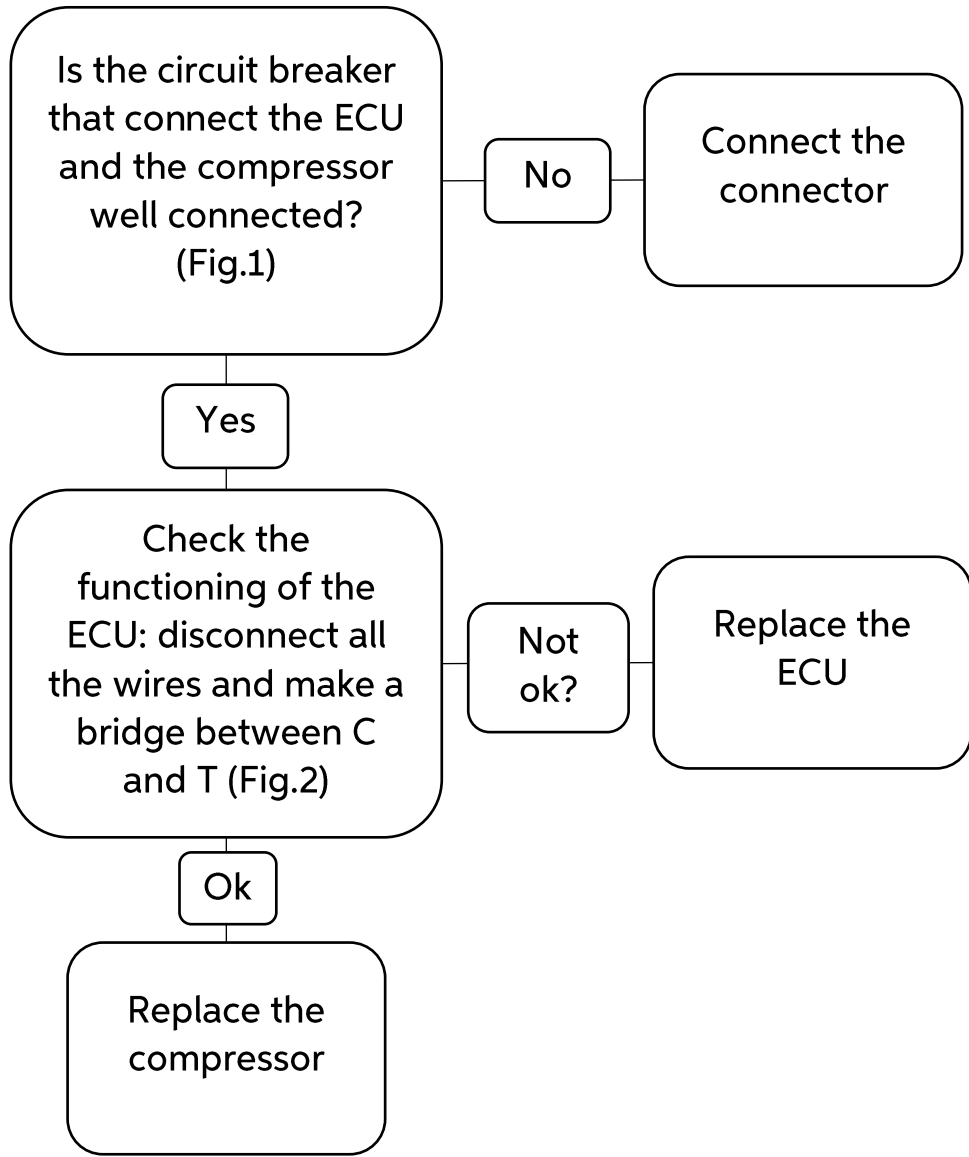


Fig. 1

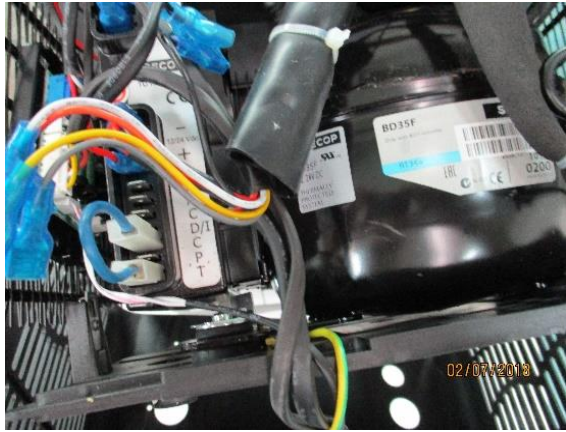
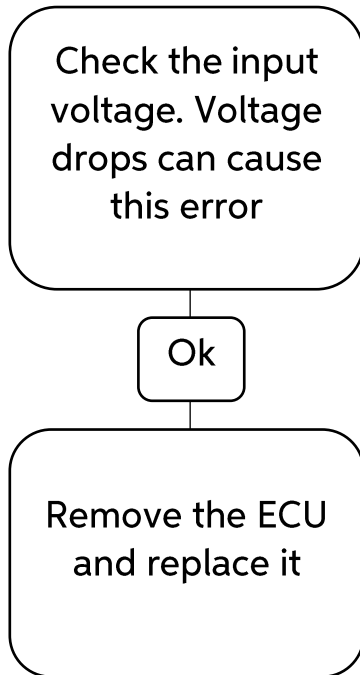
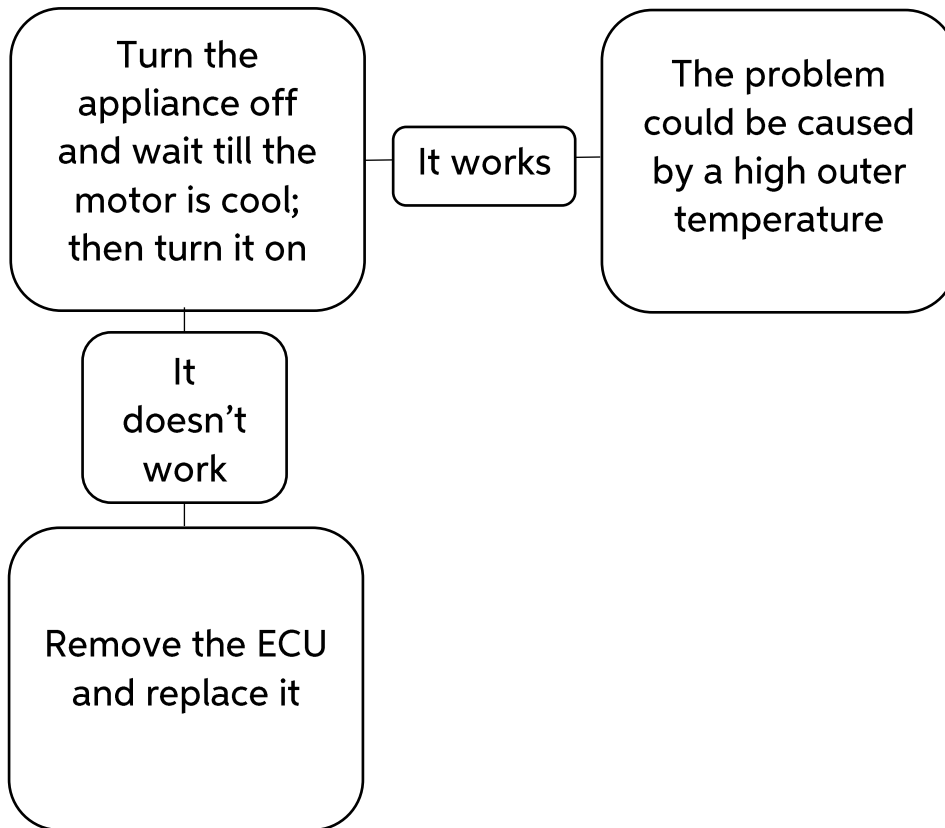


Fig. 2

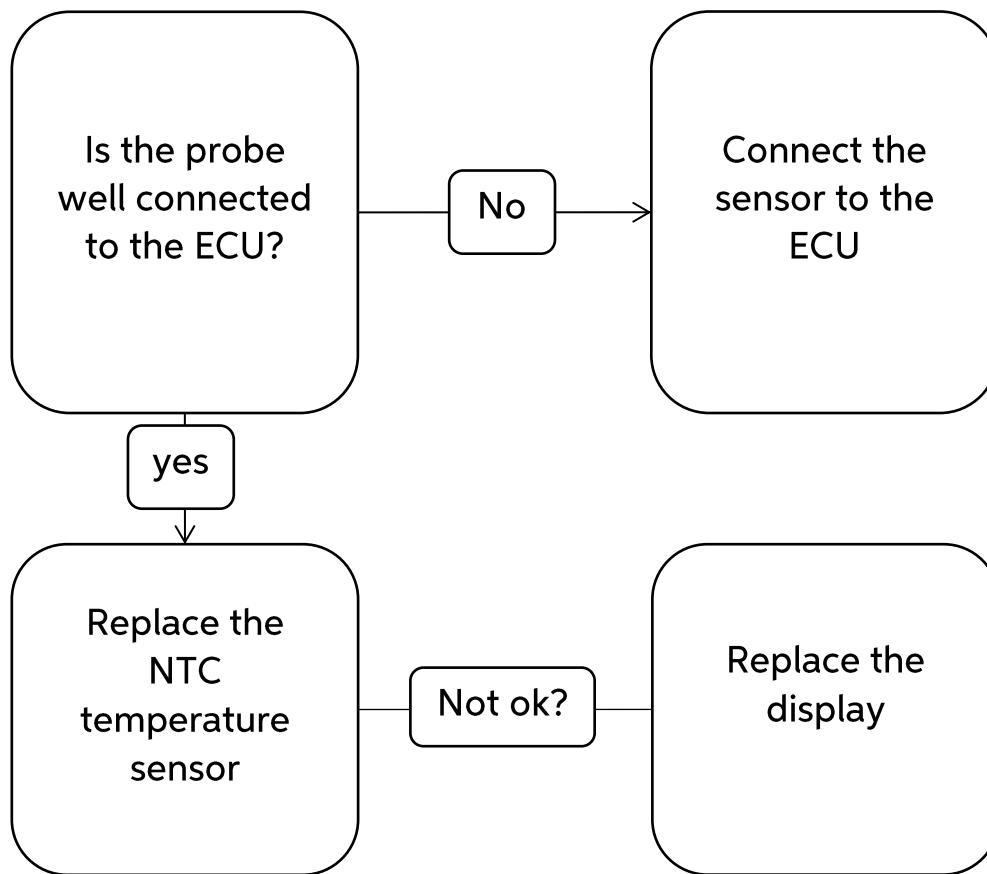
- ERROR E4: Minimum motor speed error



- ERROR E5: Thermal cut-out of electronic unit



- ERROR E6: Faulty or disconnected temperature probe



HOW TO REPLACE THE TEMPERATURE PROBE



1. Remove the cap and insert a thin object to push the pivot and remove the lid



2. Remove the thermostat knob



3. Unscrew the screw nut fixing the thermostat



4. Open the 2 caps and unscrew the 2 bolts



5. Unscrew the bracket fixing the lid (2 screws)



6. Unscrew the last bolt fixing the lid and remove the lid

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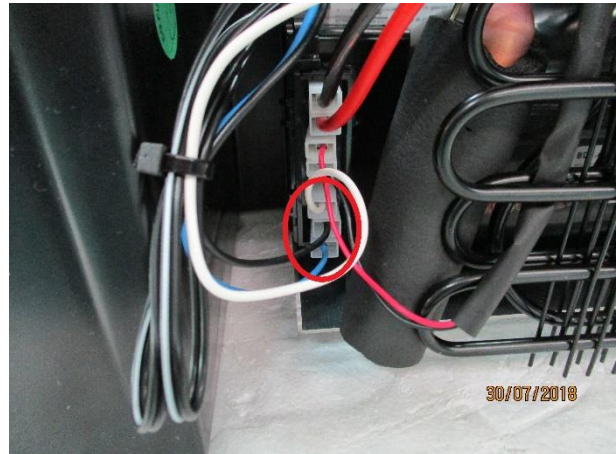
7. Use a screwdriver as a leverage to remove the probe's box



8. Remove the temperature probe



9. Pull the probe's wire and remove it from the inner of the cabinet



10. Disconnect the 3 temperature sensor's wires from the ECU and reverse the procedure to replace the probe

HOW TO REPLACE THE FAN



1. Cut the 4 cable ties fixing the fan and disconnect the fan's wires from the ECU

HOW TO REPLACE THE ECU



1. Remove the cap and insert a thin object to push the pivot and remove the lid



2. Remove the thermostat knob



3. Unscrew the screw nut fixing the thermostat



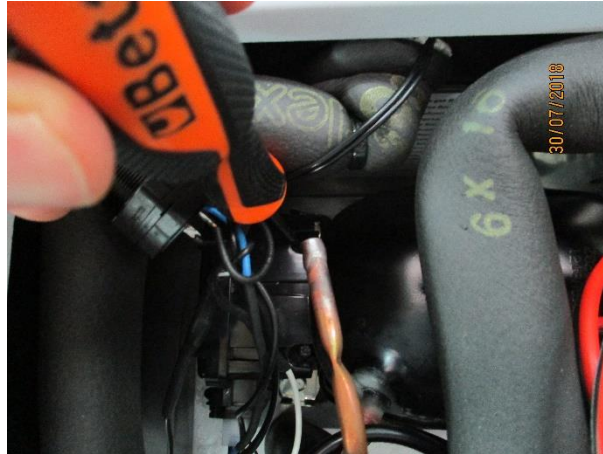
4. Open the 2 caps and unscrew the 2 bolts



5. Unscrew the bracket fixing the lid (2 screws)



6. Unscrew the last bolt fixing the lid and remove the lid



7. Unscrew the 2 bolts fixing the ECU, disconnect the wires from the ECU and remove it; reverse the procedure to replace it

HOW TO REPLACE THE LID



1. Remove the cap and insert a thin object to push the pivot and remove the lid



2. Remove the thermostat knob



3. Unscrew the screw nut fixing the thermostat



4. Open the 2 caps and unscrew the 2 bolts



5. Unscrew the bracket fixing the lid (2 screws)



6. Unscrew the last bolt fixing the lid and remove the lid