

CRUISE

***intel*B**

trouble shooting

CRUISE40_(DC)_TS_11-12-2018

CRUISE

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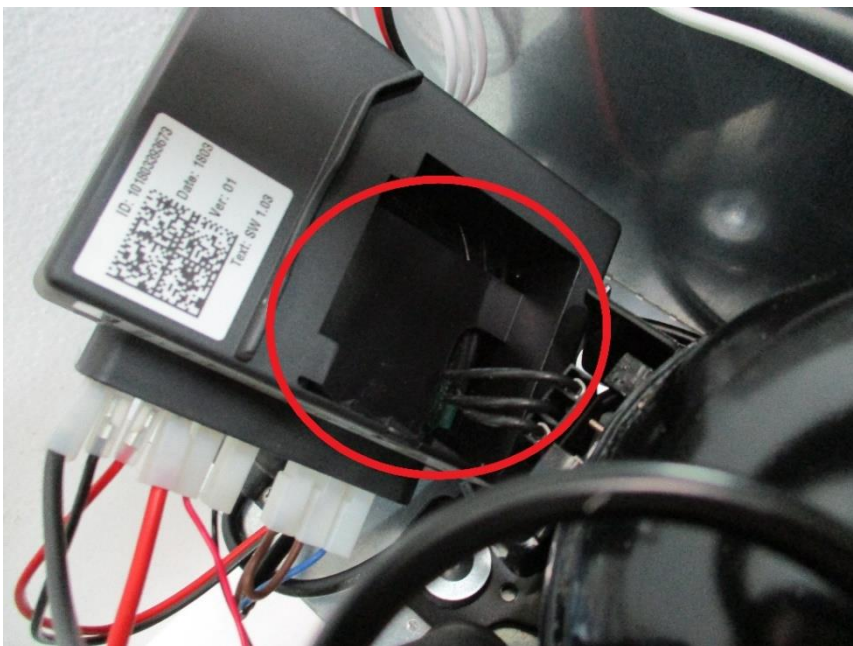
HOW TO DETECT THE TYPE OF FAULT

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 bolt fixing the ECU, and move the ECU



Control in the highlighted area to see the number of flashes

Kind of faults:

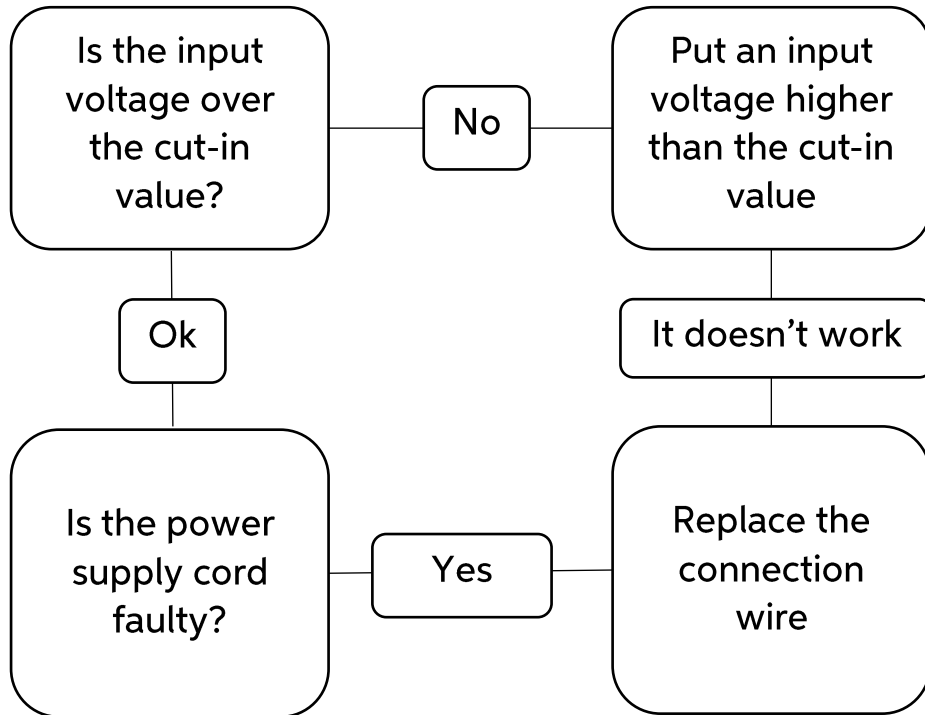
ERROR CODE	ERROR TYPE
E1	Battery protection cut-out (The voltage is outside the cut-out setting).
E2	Fan over-current cut-out (The fan loads the electronic unit with more than $1A_{peak}$).
E3	Motor start error (The rotor is blocked or the differential pressure in the refrigeration system is too high (>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).

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

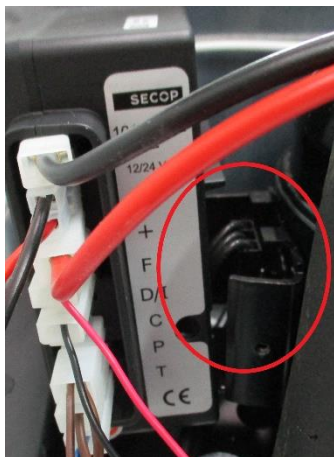
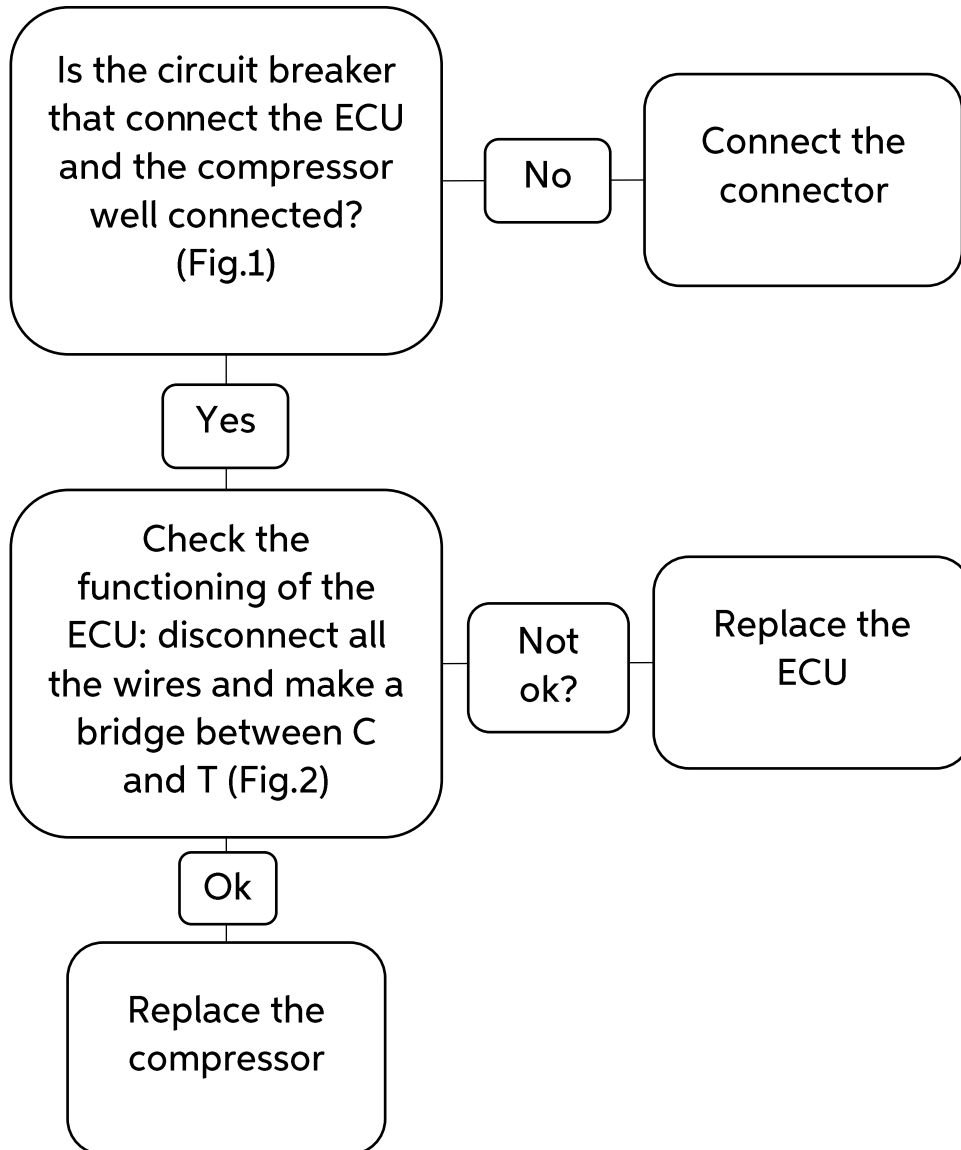
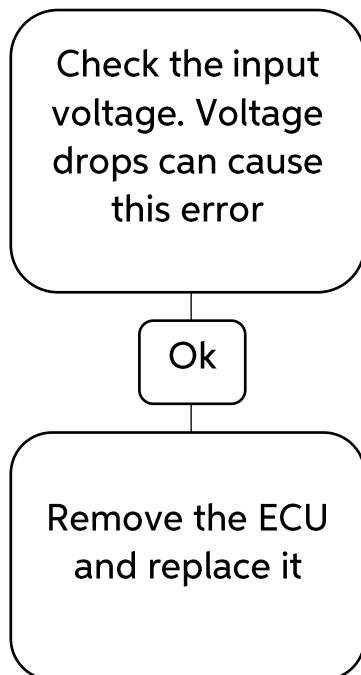


Fig. 1

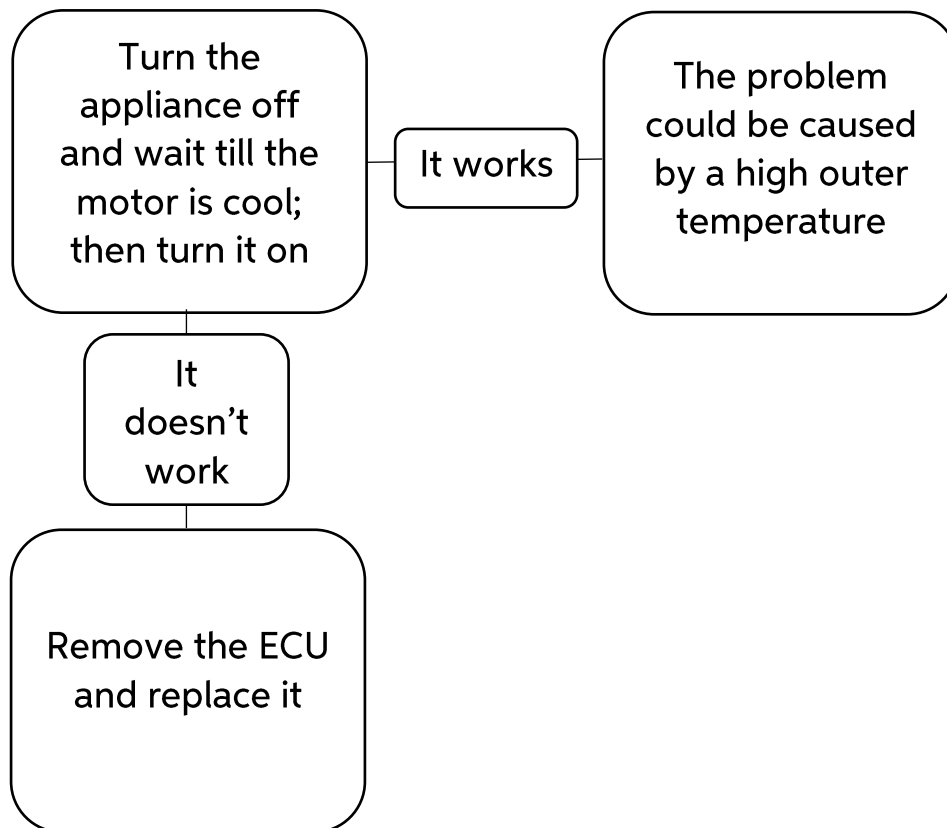


Fig. 2

- ERROR E4: Minimum motor speed error



- ERROR E5: Thermal cut-out of electronic unit



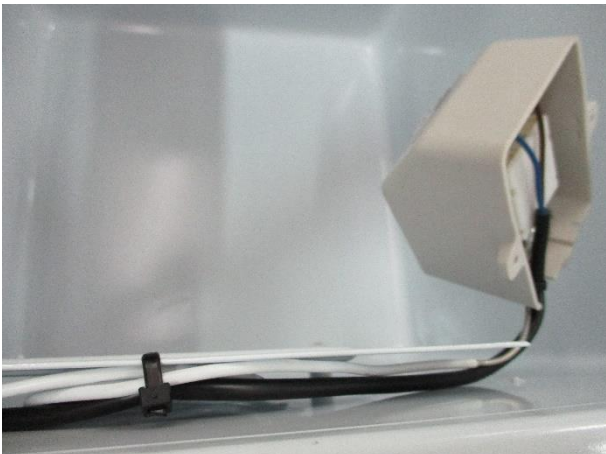
HOW TO REPLACE THE THERMOSTAT



1. Use a thin object as a lever to remove the thermostat knob



2. Unscrew the 2 bolts fixing the thermostat box



3. Cut all the cable ties fixing the thermostat's wires and disconnect them from the ECU



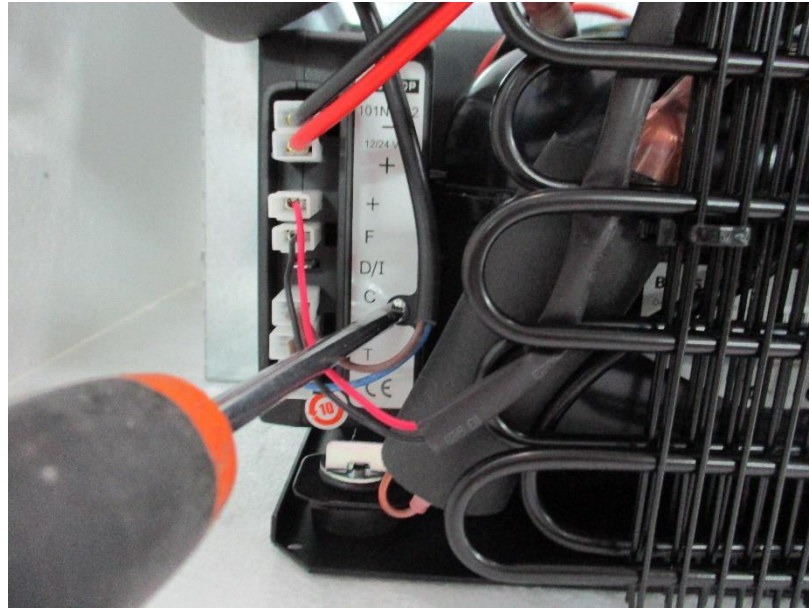
4. Pull the thermostat wires and reverse the procedure to replace the thermostat

HOW TO REPLACE THE FAN



Cut the 4 cable ties fixing the fan and remove it

HOW TO REPLACE THE ECU



Unscrew the bolt fixing the ECU, disconnect the wires and remove it