

**CRUISE**

***indelB***

**trouble shooting**

CRUISE49DRAWER\_(DC)\_TS\_11-12-2018

# CRUISE

3 - 5	HOW TO DETECT THE TYPE OF FAULT
6	ERROR E1
7	ERROR E2
8	ERROR E3
9	ERROR E4
10	ERROR E5
11 - 12	HOW TO REPLACE THE THERMOSTAT
13	HOW TO REPLACE THE FAN
14	HOW TO REPLACE THE ECU
15	HOW TO REPLACE THE DRAWERS

***indelB***

CRUISE49DRAWER\_(DC)\_TS\_11-12-2018

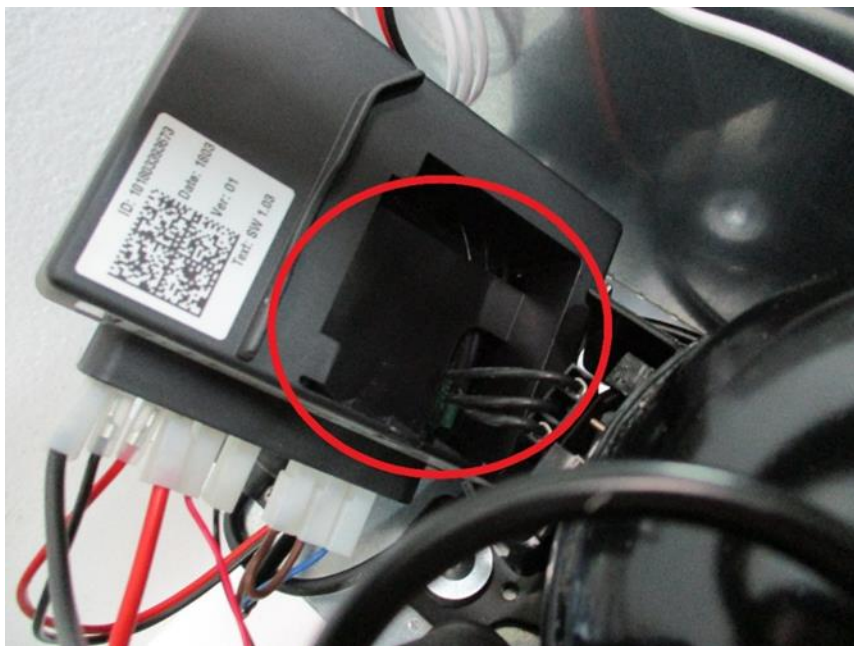
# HOW TO DETECT THE TYPE OF FAULT

## 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:**

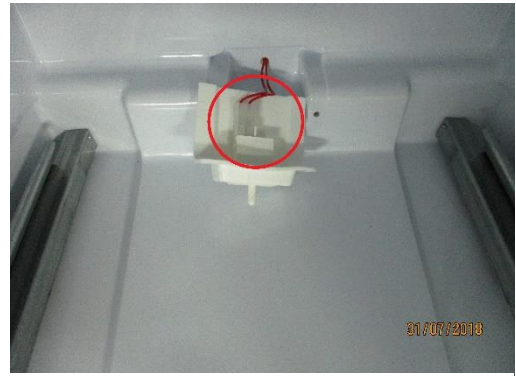
<b>ERROR CODE</b>	<b>ERROR TYPE</b>
E1	<b>Battery protection cut-out</b> (The voltage is outside the cut-out setting).
E2	<b>Fan over-current cut-out</b> (The fan loads the electronic unit with more than $1A_{peak}$ ).
E3	<b>Motor start error</b> (The rotor is blocked or the differential pressure in the refrigeration system is too high (>5 bar)).
E4	<b>Minimum motor speed error</b> (If the refrigeration system is too heavily loaded, the motor cannot maintain minimum speed 1,850 rpm).
E5	<b>Thermal cut-out of electronic unit</b> (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**

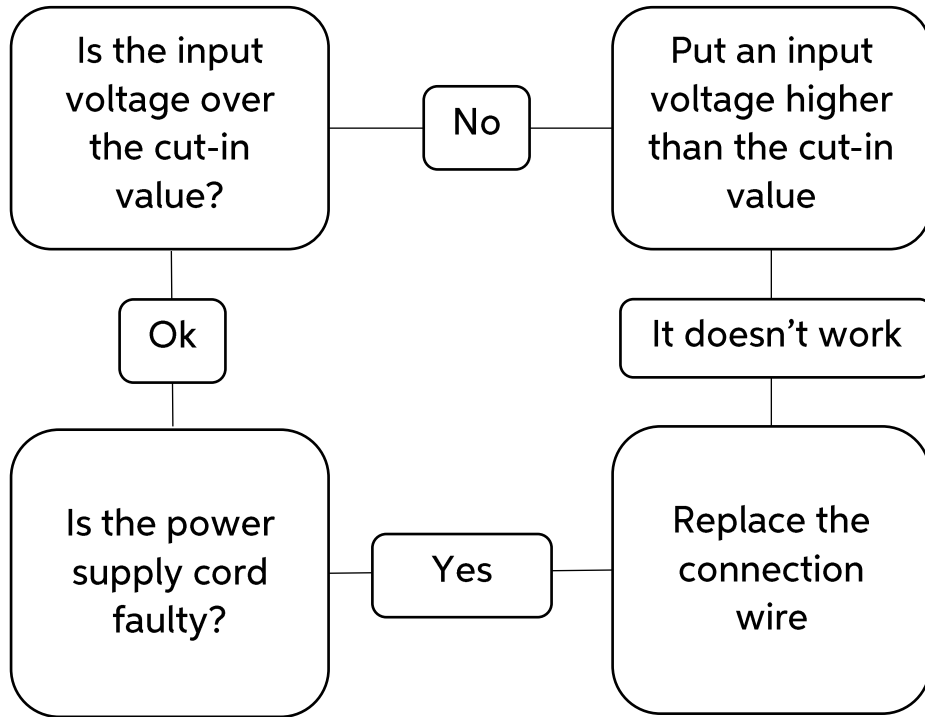
There are also errors that aren't detected by the ECU:

- 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.

4. LED LIGHT DOESN'T TURN ON: Connect the refrigerator to the 12/24V and test the voltage to the led's wires (Fig.1). If there's no voltage replace the led's wires, otherwise test the continuity to the led's switch (Fig.2). If there's no voltage replace the switch's wires, otherwise replace the ECU.

*Fig. 1**Fig. 2*

- **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 3: Motor start error**

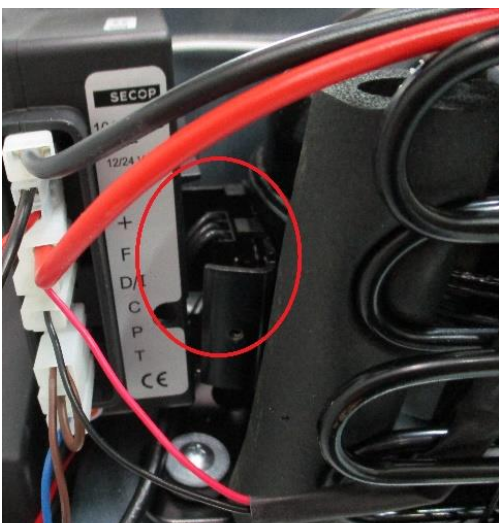
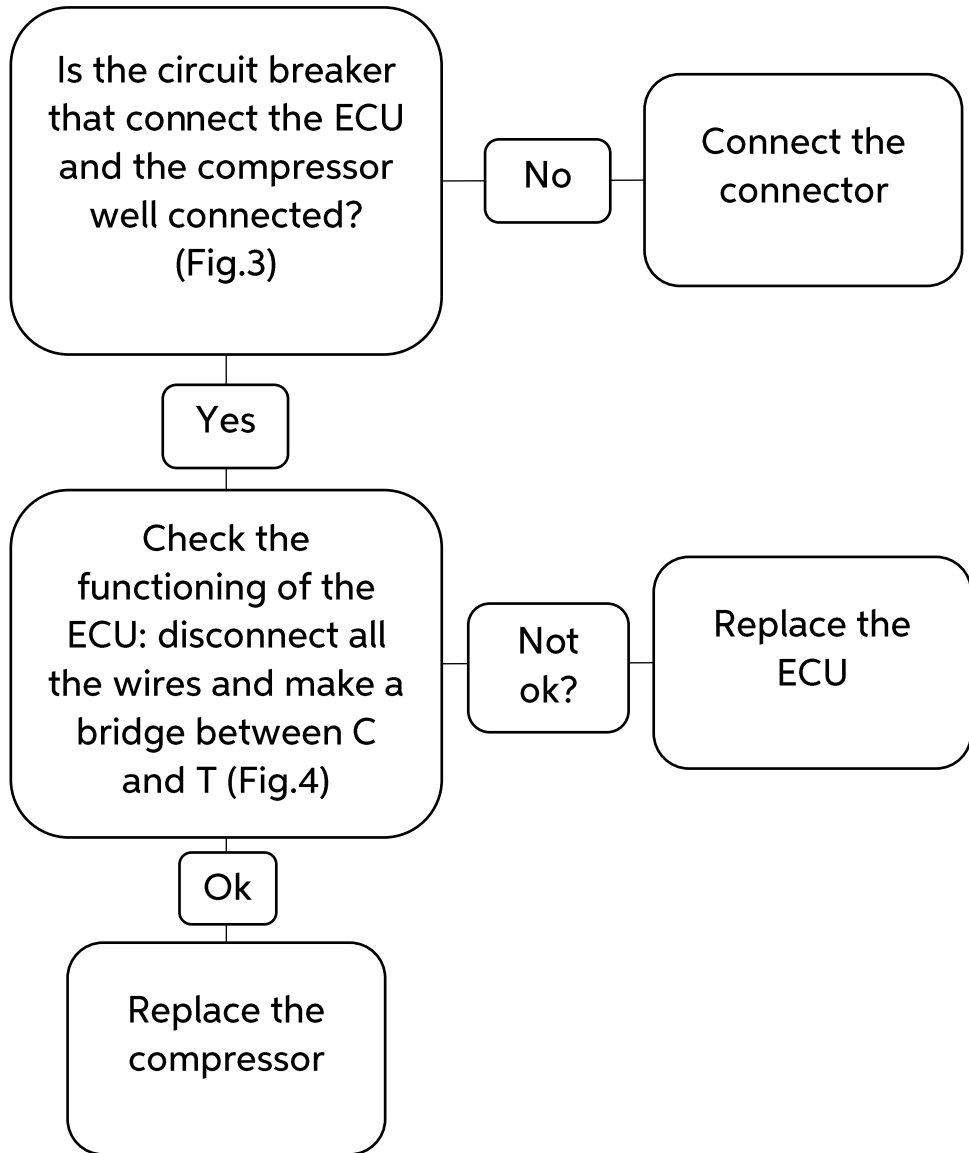


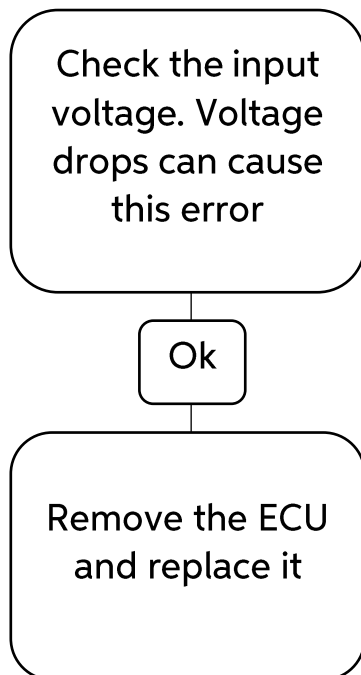
Fig. 3



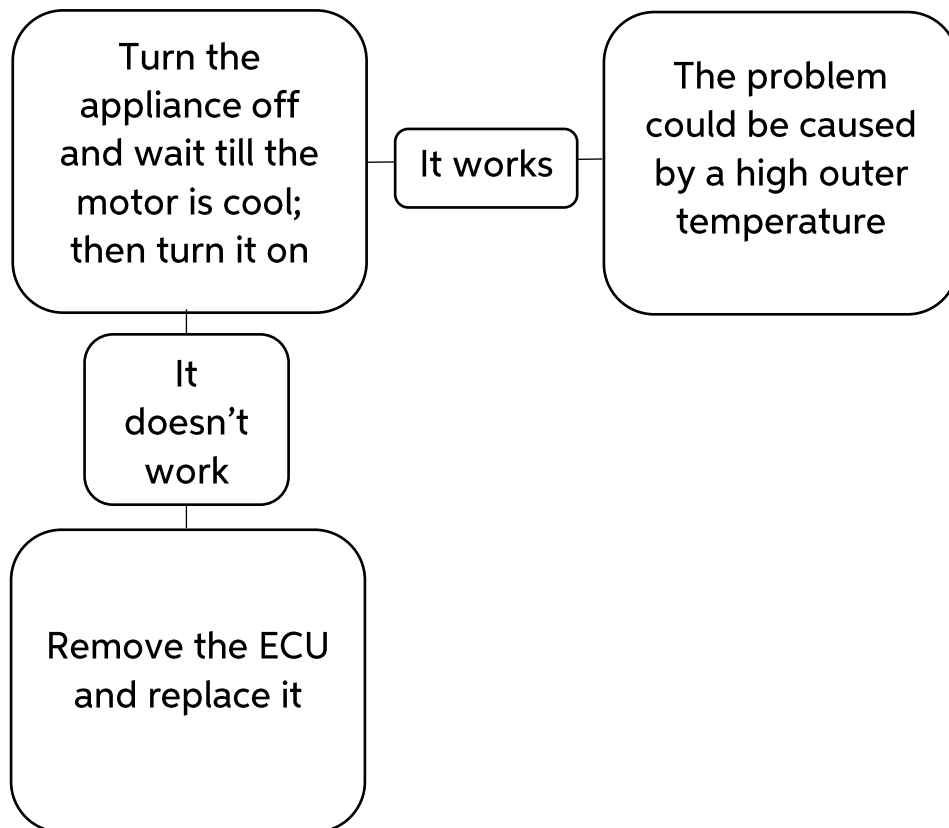
Fig. 4



- **ERROR E4: Minimum motor speed error**



- **ERROR E5: Thermal cut-out of electronic unit**



# HOW TO REPLACE THE THERMOSTAT



1. Switch the position of the hooks in both sides of the drawer (see the following picture)



2. While you hold the hooks in reverse position, pull the drawer to remove it



3. Pull up the drawer door and pull it out to remove it



4. Remove the thermostat's knob



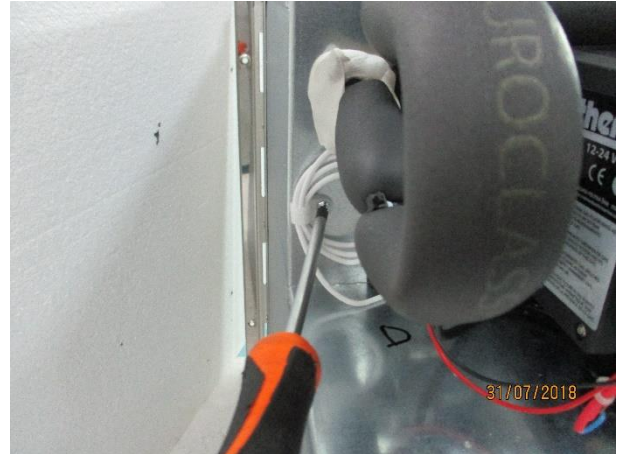
5. Unscrew the evaporator (7 bolts) to remove the thermostat bulb



6. Remove the thermostat's box (3 bolts)



7. Unscrew the 2 bolts fixing the thermostat and disconnect the wires from it



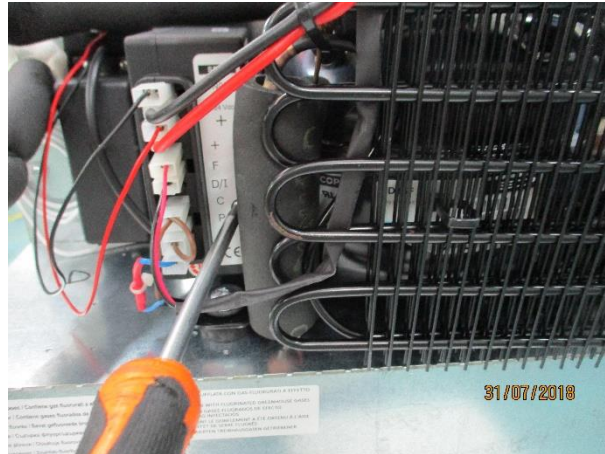
8. Unscrew the bolt fixing the bulb's wires and pull it to remove it. Reverse the procedure to replace the thermostat

## HOW TO REPLACE THE FAN



Cut the 4 cable ties and disconnect the fan's wires from the ECU, then remove the fan

## HOW TO REPLACE THE ECU



Unscrew the bolt fixing the ECU, disconnect the wires from it and replace it

## HOW TO REPLACE THE DRAWERS



1. Switch the position of the hooks in both sides of the drawer (see the following picture)



2. While you hold the hooks in reverse position, pull the drawer to remove it



3. Pull up the drawer door and pull it out to remove it