

**CRUISE**

***intel*B**

**trouble shooting**

CRUISE100\_(DC)\_TS\_11-12-2018

# CRUISE

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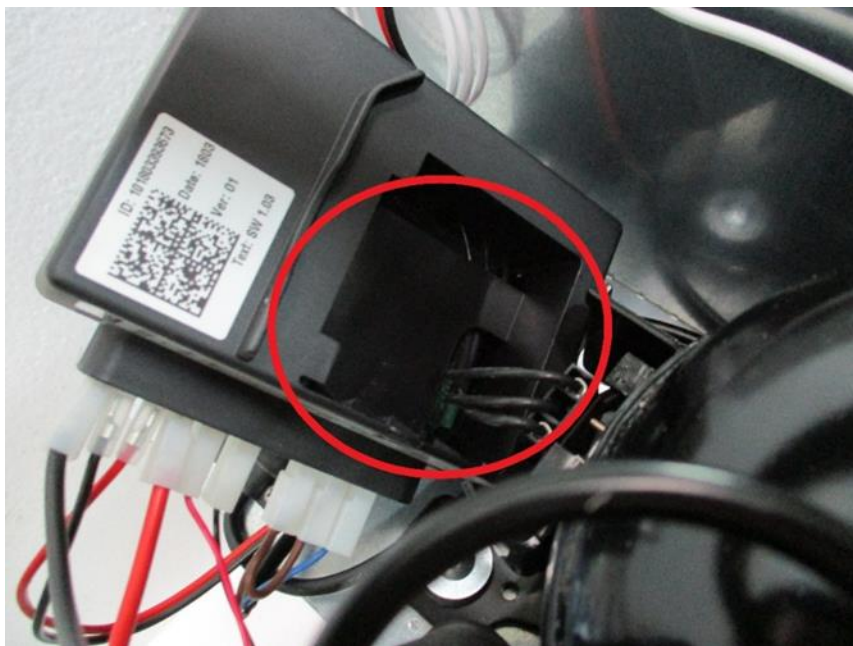
# HOW TO DETECT THE TYPE OF FAULT

## 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:**

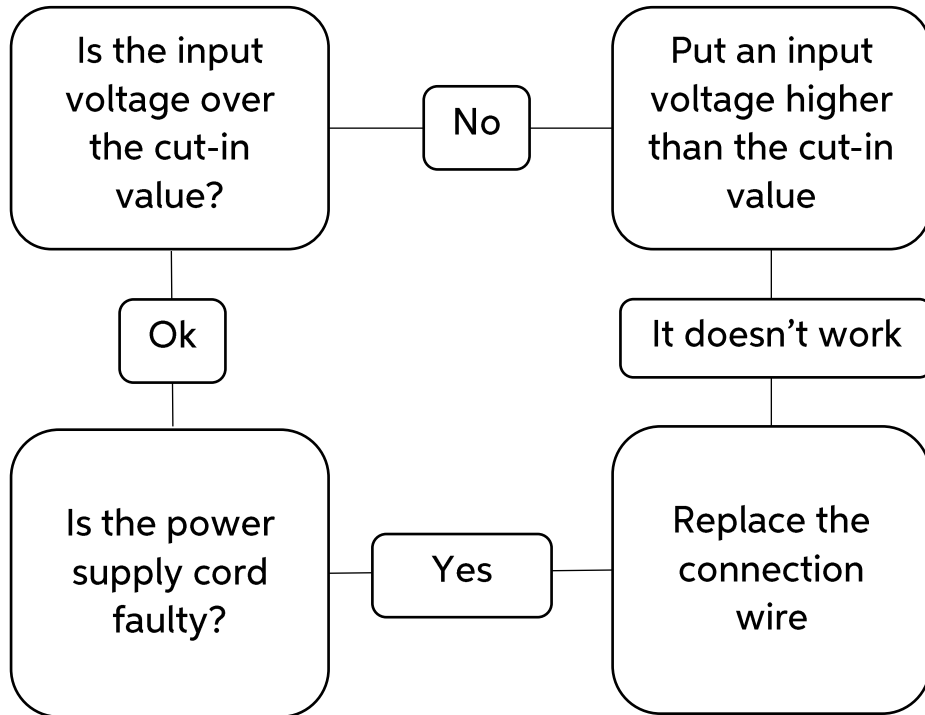
| <b>ERROR CODE</b> | <b>ERROR TYPE</b>  |
|-------------------|--|
| E1                | <b>Battery protection cut-out</b><br>(The voltage is outside the cut-out setting).   |
| E2                | <b>Fan over-current cut-out</b><br>(The fan loads the electronic unit with more than $1A_{peak}$ ).  |
| E3                | <b>Motor start error</b><br>(The rotor is blocked or the differential pressure in the refrigeration system is too high (>5 bar)).  |
| E4                | <b>Minimum motor speed error</b><br>(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><br>(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 3: Motor start error

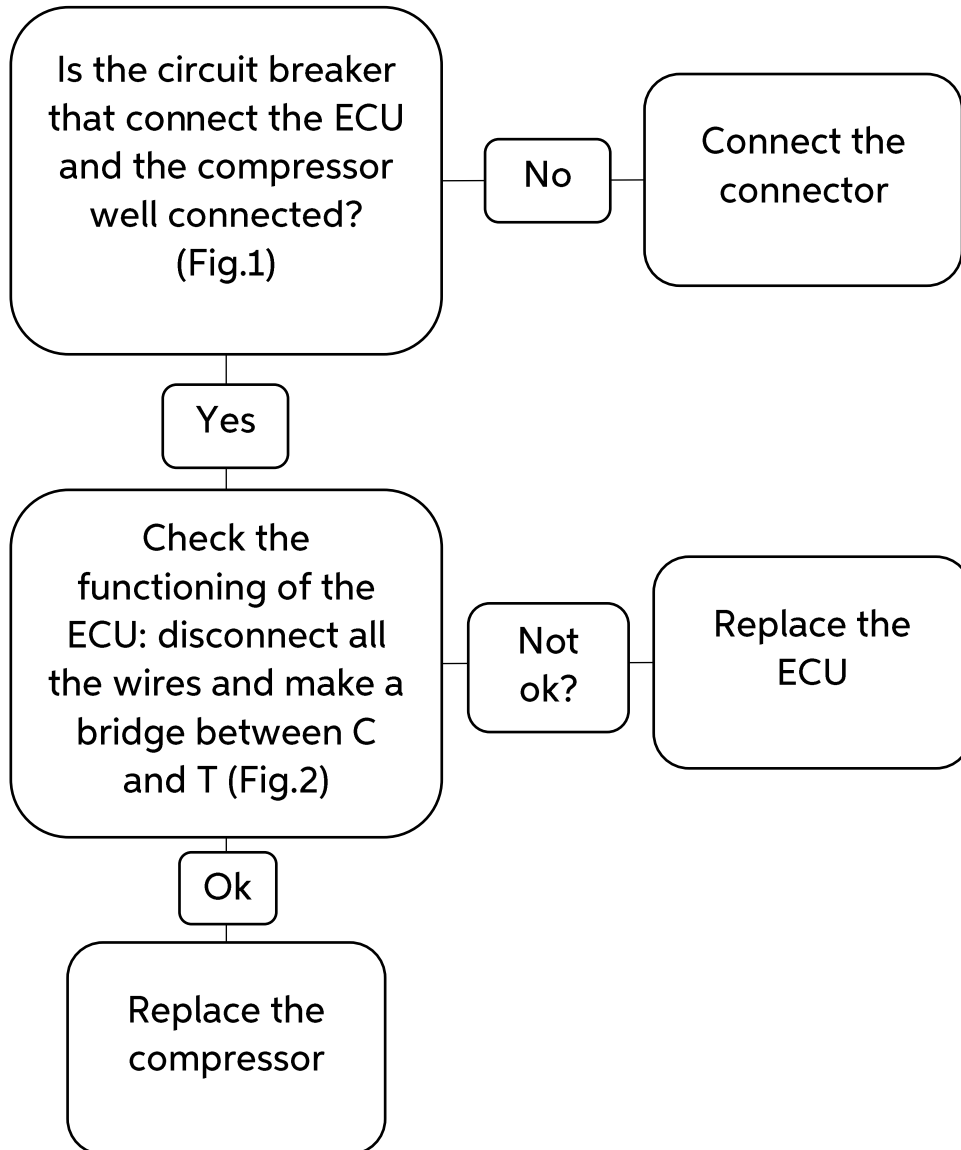
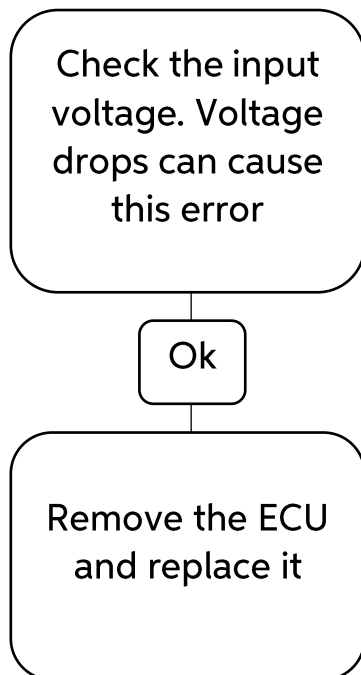


Fig.1



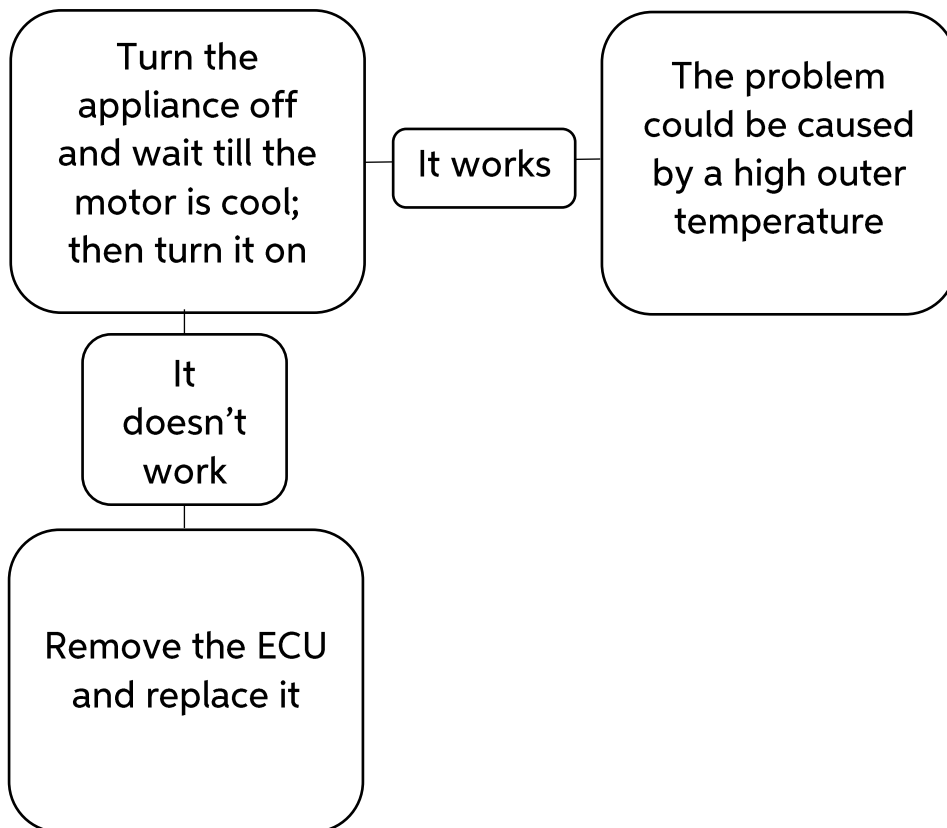
Fig. 2

- ERROR E4: Minimum motor speed error





- ERROR E5: Thermal cut-out of electronic unit



# HOW TO REPLACE THE THERMOSTAT



1. Remove the drip tray



2. Unscrew the thermostat bracket (2 screws)



3. Unscrew the evaporator (4 bolts)



4. Move the freezer



5. Remove the thermostat bulb



6. Unscrew the protection lid (5 screws)



7. Use a screwdriver as a leverage to remove the thermostat's knob



8. Unscrew the lock nut

9. Disconnect the connection wires from the thermostat and pull the thermostat's bulb to remove the thermostat. Reverse the procedure to replace it.

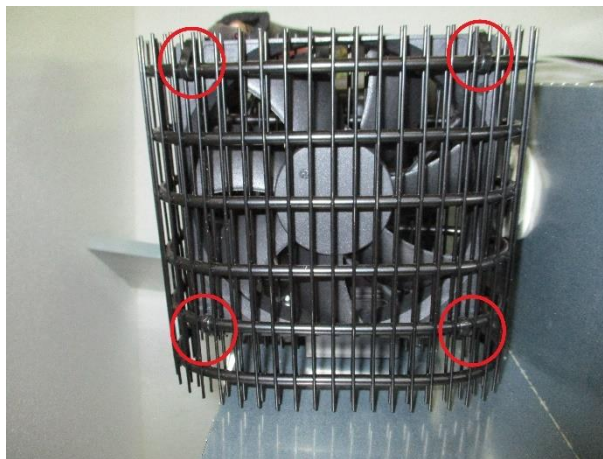
## HOW TO REPLACE THE FAN



1. Unscrew the protection lid (5 screws)



2. Unscrew the metallic carter (4 bolts)



3. Cut the 4 cable ties to remove the fan and reverse the procedure to replace it



## HOW TO REPLACE THE ECU



1. Unscrew the protection lid (5 screws)



2. Unscrew the metallic carter (4 bolts)



3. Unscrew the bolt fixing the ECU, disconnect the wires from it and reverse the procedure to replace it

## HOW TO REPLACE THE DOOR PANEL



1. Use a thin object as a lever to remove the frame



2. Unscrew the handle (3 screws)

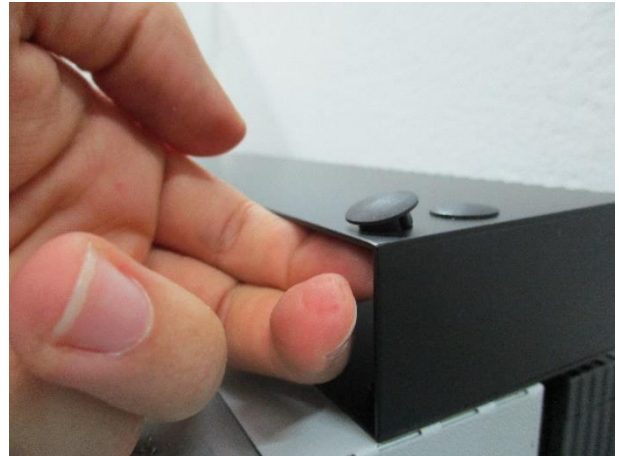


3. Remove the panel and reverse the procedure to replace it

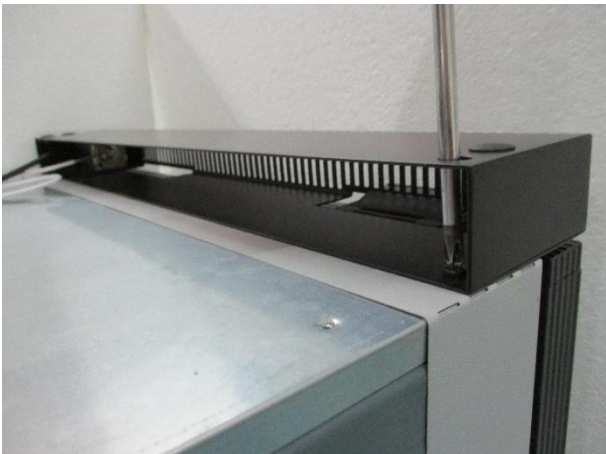
## HOW TO REPLACE THE DOOR



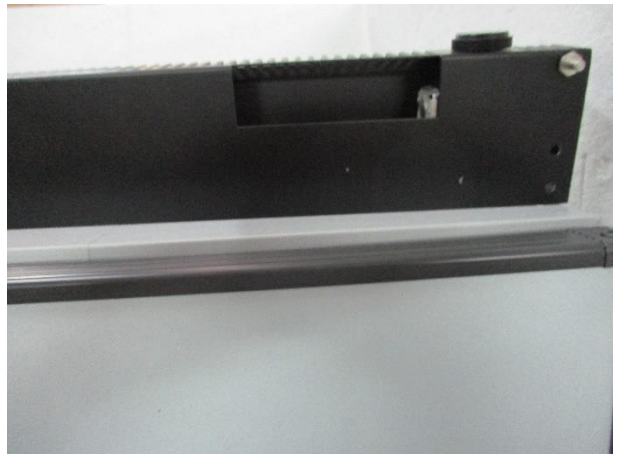
1. Unscrew the 2 hinges (6 bolts)



2. Remove the 4 caps



3. Unscrew the 4 bolts under the caps



4. Lift the bracket fixing the pivot



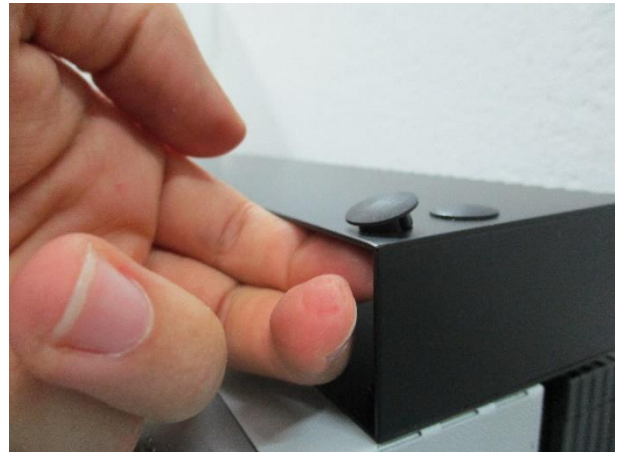
5. Lift the door from the opposite side of the handle to remove it, then reverse the procedure to replace it



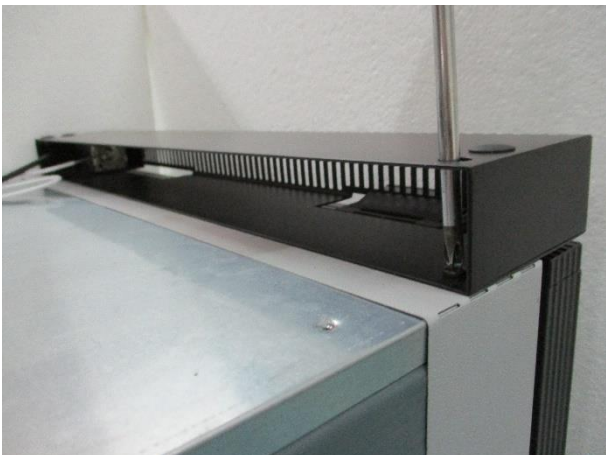
# HOW TO REVERSE THE OPENING DIRECTION



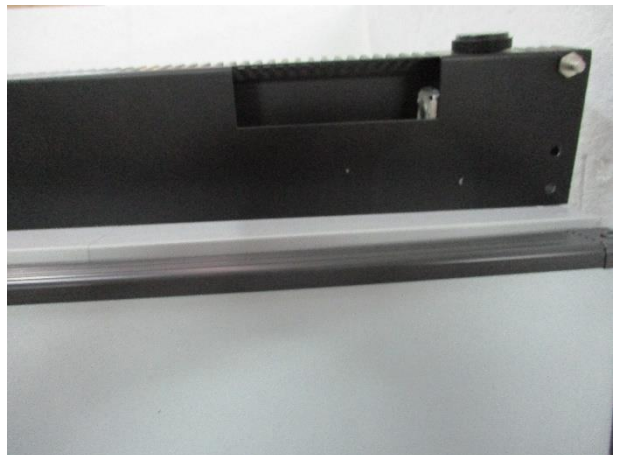
1. Unscrew the 2 hinges (6 bolts)



2. Remove the 4 caps



3. Unscrew the 4 bolts under the caps



4. Lift the bracket fixing the pivot



5. Use a wrench to unscrew the screw nut and remove the pivot



6. Lift the door from the opposite side of the screw nut to remove it, and remove the screw nut





7. Unscrew the handle (3 bolts)

8. Reverse the procedure.

9. Install the hinges in the opposite side as well as the nut and the handle