

# Electrolux

## SERVICE MANUAL

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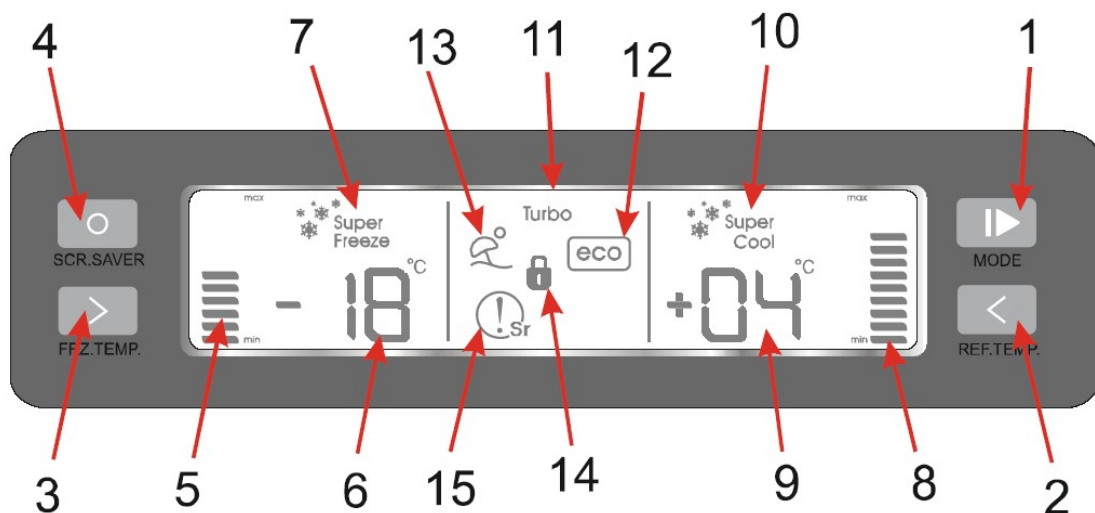
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## Refrigeration

### **CBM380**

© ELECTROLUX HOME PRODUCTS  
Consumer Care - EMEA  
Training and Operations Support  
Technical Support

## Display and control panel



### 1. Mode buttons

Economy, Super freeze, Turbo, Super cool, and Holiday.

### 2. Fridge temperature button

Set the fridge temperature.

### 3. Freezer temperature button

Set the freezer temperature.

### 4. Screen saver button

Press for five seconds to turn off all lights on the screen. Turn on screen lights by pressing any button.

### 5. Freezer temperature bar graphic

Shows the temperature value set for the freezer. Three bars at -16°C, six bars at -18°C, eight bars at -20°C, ten bars at -22°C, twelve bars at -24°C.

### 6. Freezer temperature indicator

Shows the temperature value set for the freezer.

### 7. Super freeze mode

### 8. Fridge temperature bar graphic

Shows the temperature value set for the fridge. Three bars at 8°C, six bars at 6°C, nine bars at 4°C, and twelve bars at 2°C.

### 9. Fridge temperature indicator

Shows the temperature value set for the fridge.

### 10. Super cool mode

### 11. Turbo Mode

### 12. Economy Mode

### 13. Holiday Mode

### 14. Child Lock Function

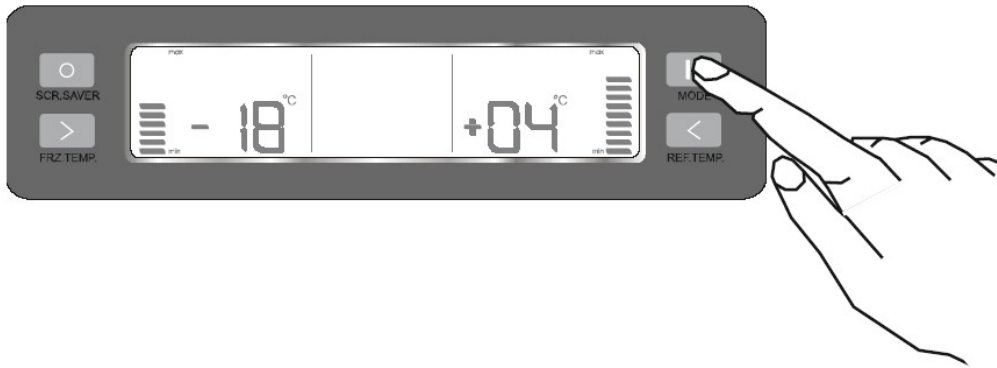
To lock or unlock the control panel, hold down freezer (3) and fridge (2) temperature buttons at the same time.

### 15. Indicates a failure.

Lights up together with the SR sign.

After the appliance is plugged, all symbols appear for two seconds, and the start-up values appear as -18°C on the freezer temperature indicator and +4°C on the fridge temperature indicator. All buttons on the control panel are touch-operated. (Only press to activate the button you want to operate.)

## Mode Button



- Press the Mode button until the desired function starts to blink.
- The function selection sequence is always the same: Super freeze, Holiday, Economy, and Super cool. After the fifth press, no function is selected and no symbols are lit.

Note: When a symbol starts to light, the symbol blinks three times and a beep confirms the selection if no button is pressed within two seconds.

## Super freeze mode

### When to use:

- To freeze lots of food that cannot fit into the Fast freezing shelf.
- To freeze prepared foods
- To freeze faster

### How to use:

- Press Mode button until Super freeze symbol lights up.
- Symbol blinks five times and a beep confirms the selection if no button is pressed within two seconds.

### Freezer temperature indicator shows “SF”.

- Freezer bar graphic lights are off.
- The Super freeze mode is ready after three hours and is confirmed with a beep. Beeps are intermittent for one minute in every five minutes for one hour provided that the doors are not opened. Goods to be frozen must be placed away from already frozen goods. When goods are cool enough, the fridge goes automatically out of the Super freeze mode. After a period of maximum 24 hours after the function is activated, the freezing process is completed.
- Holiday and Economy modes will not work until Super freeze mode finishes.
- Super cool and fridge temperature settings can be adjusted.
- Freezer temperature settings can be made but will not be active until Super freeze finishes.
- Cancel by selecting Super freeze again.

**Note:** Super freeze stops automatically after 24 hour or when the freezer sensor is  $<-32^{\circ}\text{C}$ .



## Super cool mode

### When to use:

- To cool prepared foods.
- To cool lots of food in fridge.
- To cool drinks more quickly

### How to use:

- Press Mode button until Super cool symbol lights up.
- Symbol blinks five times and a beep confirms the selection if no button is pressed within two seconds.
- Fridge temperature indicator shows "SC".
- Fridge bar graphic lights are off.
- Holiday and Economy modes will not work until Super cool mode finishes.
- Super freeze and Freezer temperature settings can be adjusted.
- Fridge temperature settings can be made but will not be active until Super cool finishes.
- Cancel by selecting Super cool again

**Note:** Super cool stops automatically after 8 hours or when the sensor of the fridge reaches -4°C.



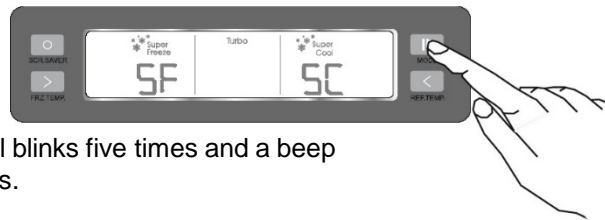
## Turbo Mode

Turbo mode cannot be selected individually.

Turbo mode is activated when both Super cool and Super freeze are selected

### How to use ;

- Press Mode button until Super freeze symbol lights up. Symbol blinks five times and a beep confirms the selection if no button is pressed within two seconds.
- Repeat the same operation to set Super Cool
- After the two functions are selected, you will see the Turbo symbol displayed between Super freeze and Super cool
- When Turbo mode is on, Freezer temperature indicator shows "SF" and Fridge temperature indicator shows "SC".
- Freezer and fridge bar graphic lights are off.
- Holiday and Economy modes will not work until Turbo mode finishes.
- Freezer and fridge temperatures can be adjusted but will not be active until Super freeze and Super cool are deactivated.
- Cancel by selecting Super freeze or Super cool, or when either are cancelled automatically.



## Holiday Mode

### When to use:

You can activate the function if you go to holiday or if you use only the freezer.

### How to use:

- Press Mode button until Holiday symbol lights up.
- Symbol blinks five times and a beep confirms the selection if no button is pressed within two seconds.
- Freezer will go on working with the set value defined on the control circuit during the Holiday mode.
- Freezer temperature indicator shows "H".
- Fridge temperature indicator and bar graphic lights are off.
- Cancel by selecting Holiday again.
- Appliance will go on to work with previous manually adjusted values. If no temperature values have been adjusted manually, it will go on with initial values (Freezer -16°C and Fridge +8°C).



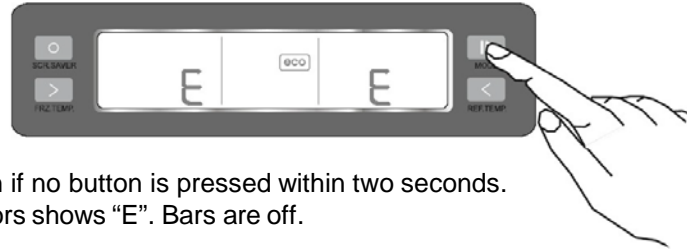
## Economy Mode

### When to use:

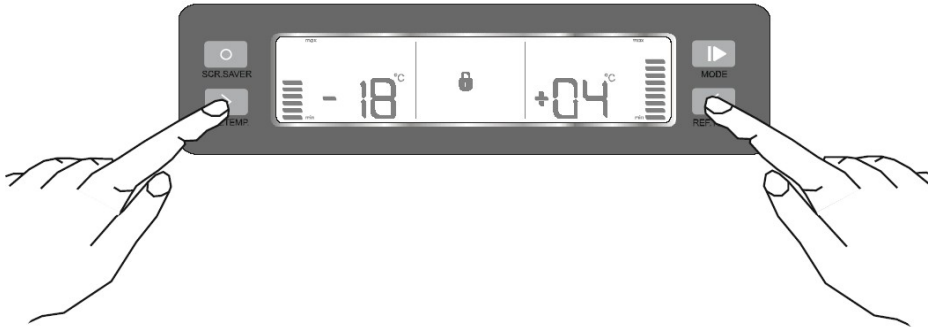
- Use at a set value defined on the control circuit
- Both compartments works with the set values

### How to use:

- Press Mode button until Economy symbol lights up.
- Symbol blinks five times and a beep confirms the selection if no button is pressed within two seconds.
- During Economy mode, freezer/fridge temperature indicators shows "E". Bars are off.
- Freezer and fridge bar graphic lights turns off.
- The other modes will not work until Economy mode finishes.
- Cancel by selecting Economy again.



## Child Lock Function



### Setting the Child lock

Press both Freezer and Fridge temperature buttons at the same time continuously for five seconds. The lock symbol lights up.

### Cancelling the Child lock

Cancel by repeating the procedure.

Note: The Child lock cancels automatically when there is a power failure.

## No Light Mode

### When to use:

Disable lamps in both of compartments

### Setting No light mode:

Press both Fridge and Freezer temperature button at the same time, open and close freezer door three times.

### Cancelling this mode;

Cancel by repeating the procedure or it is automatically cancelled after 24 hours.

## Screen Saver Mode

### When to use:

To turn off the control panel lights.

### How to use:

- Press and hold Screen save button for five seconds.



- Lights goes off if no key is pressed and doors are kept closed for ten seconds.
- Press any button to adjust the settings. If you do not cancel the Screen saver mode or press any key for ten seconds, the control panel dims again.
- Press and hold the Screen saver mode button again for five seconds to cancel.
- The child lock function can be activated during Screen saver mode.
- If you do not touch the keys for ten seconds after activating the child lock function, the control panel's lights goes off. When you press any key following this, you can view the previous settings and cancel the child lock function as described above.

## Demo Mode

Mode to show functions and modes without operating components as a compressor, fan, motor etc.

### Entering Demo mode:

Power on and within one minute, press Screen saver and Freezer temperature button at the same time.

All functions can be adjusted.

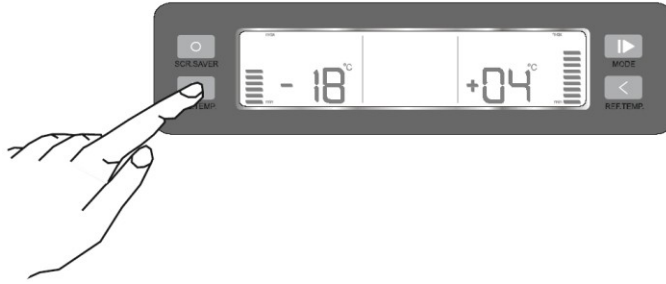
Press the Mode button five times to show the SR alarm symbol.

### Cancelling Demo mode:

Press Screen saver and Freezer temperature button at the same time.

If the plug is removed or if there is an electricity breakdown, Demo mode continues with the current settings after electricity is returned.

## Freezer Temperature Settings

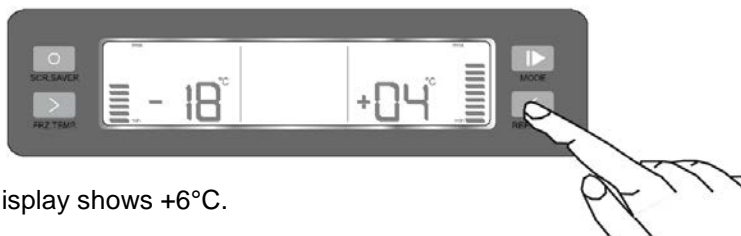


- At first the freezer display shows -16°C.
  - With each press of the Freezer temperature button, the temperature decreases 2 degrees. (-16°C, -18°C, -20°C, -22°C, -24°C)
  - Number indicator and bar blinks five times and a beep confirms the selection.
  - If the appliance was set to Holiday, Super freeze, Super cool or Economy mode before the temperature is adjusted, the appliance will go on to work in previous mode. When previous mode is cancelled / finished manually or automatically appliance starts to work with the adjusted values.
- Note: If the Ambient sensor is > 38°C then user will not be able to adjust freezer temperature to -22°C and -24°C. Then only -16°C, -18°C, -20°C are available.

### Recommended settings for freezer temperature

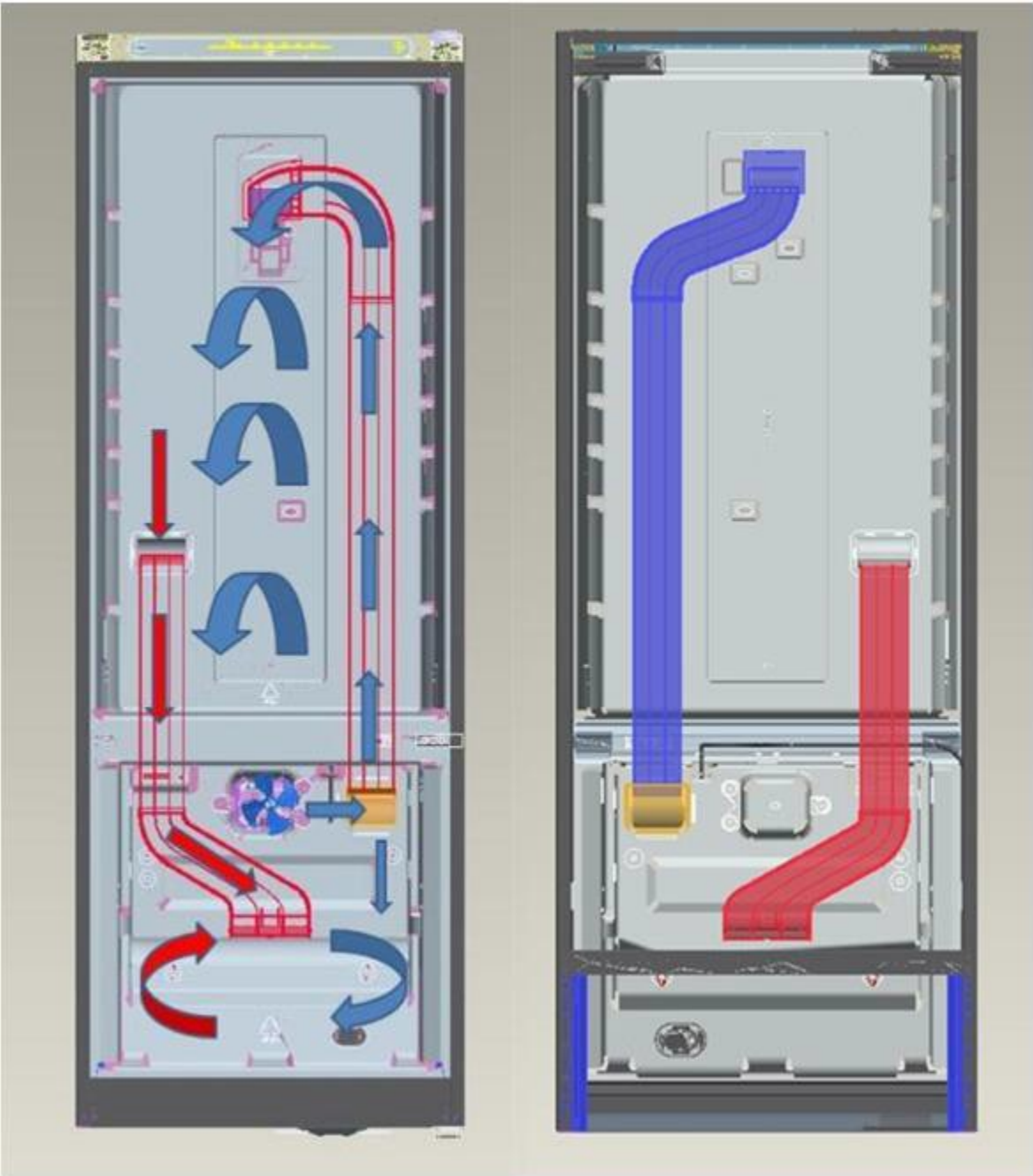
Temperature bars	Freezer cabinet inside temperature	When to use it
3 bars	-16°C	For little amount storing
8 or 12 bars	-18°C or -20°C	Normal storing
16 or 20 bars	-22°C or -24°C	For lots of food storing

## Fridge Temperature Settings



- At first the fridge display shows +6°C.
- With each press of the Fridge temperature button, the temperature decreases 2 degrees. (+8°C, +6°C, +4°C, +2°C)
- If appliance was set to Holiday, Super freeze, Super cool or Economy mode before temperature is adjusted, the appliance will go on to work in previous mode. When previous mode is cancelled / finished manually or automatically appliance will start to work the adjusted values.

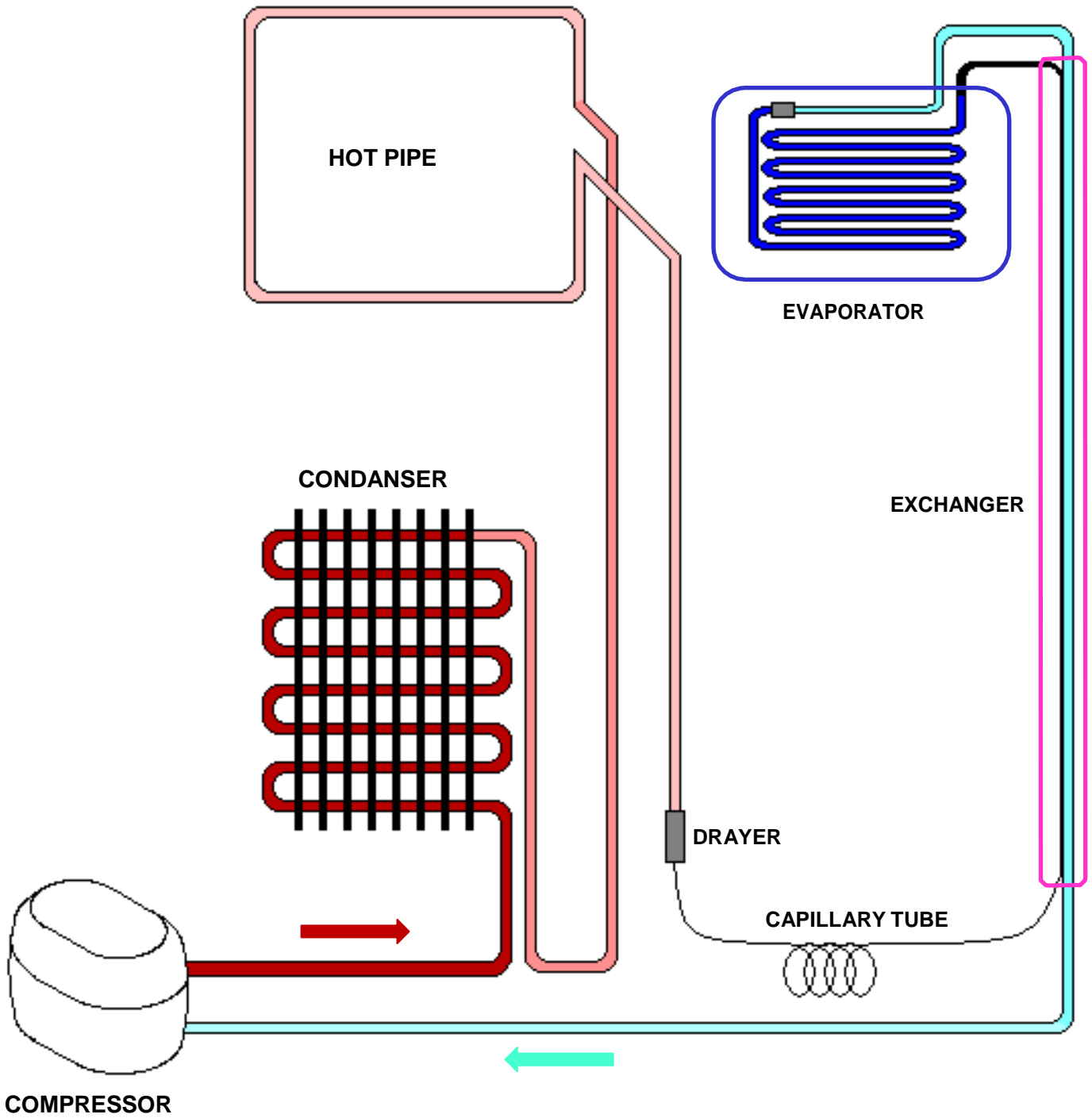
# Air Flow Diagram



 Cold Air  
 Returning warm air



# Refrigerant Cycle Diagram



# Special Programs

## When you first start the appliance

If the freezer and defrost sensors are warmer than  $-5^{\circ}\text{C}$ , then the automatic test starts. The below listed components are tested respectively with five second intervals.

- Middle sheet resistance for five seconds
- Defrost heaters for five seconds (Fin evaporator resistance, defrost pipe resistance and insulation mullion heater)
- Evaporator fan motor for five seconds
- Compressor for five seconds

After five seconds, the appliance starts to run.

## Defrost algorithm

Defrosting activates after 48 hours of total running time of fridge or 18 hours of total compressor running time. Up to below mentioned reasons running times might decrease to 12 hours for fridge or 14 hours for compressor.

- Amount of ice formed,
- Number of times the door is opened and closed,
- Duration the door remained opened,
- Sudden usage change ,
- Sudden Fridge temperature increase,
- Sudden Freeze temperature increase,

## Defrosting time

Under normal conditions, defrosting period ends when the defrost sensor measures  $8^{\circ}\text{C}$ . If the defrosting period exceeds 37 minutes, then the defrosting mode completion temperature is raised to  $12^{\circ}\text{C}$ .

## Delay of the compressor run

Compressor starts after five minutes of defrost mode.

## Delay of fan motor run

Fan motor starts after three minutes of compressor run.

## Low Voltage Program

In case of supply voltage lower than 170 V for more than five seconds, the low voltage program will stop the compressor, evaporator fan motor, condenser fan motor, Super freeze and the Super cool functions. If this situation happens during the defrost mode, then the appliance will stop during defrosting.

When the supply voltage reaches a value greater than 180V, the appliance starts again from the defrost mode. If the appliance was not stopped during the defrost mode, it is stopped for minutes more for compressor secure start-up and is started from the last set program.

## When the electricity is off

- All the parameters and functions are kept in the memory (except the child lock function)
- When the electricity returns, if the defrost sensor temperature is colder than  $-5^{\circ}\text{C}$ , starting test is not activated. If it is warmer than  $-5^{\circ}\text{C}$ , starting test is activated.
- The appliance starts with the latest set program.

# Service Mode

Press Freezer temperature button continuously. During this time, open and close fridge door three times. Appliance will enter Service mode after three seconds.

## During Service mode:

- Buzzer beeps for 0.1 seconds, every fifth second.
- Bars shows error codes (Service mode reaction). Symbols are OFF.  
Only SR symbol blinks during Service Mode. If there is no error, bars shows nothing except SR and if the error is disabled during Service mode, error codes are disabled in bars.
- Press Mode button to choose functions listed below. Bar segments will not show errors as functions are working. Function is set if no buttons are pressed for 1 second.
- Four functions: Press Mode button four times to activate symbols. Cancel mode selection by pressing a fifth time.

### 1. Press Starting program

Economy symbol blinks during mode. Freezer bars lights up as components are checked.

- 5: Middle Bracket heater is ON
- 4: Defrost heater is ON
- 3: Evaporator fan motor is ON
- 2: Compressor is ON
- 1: No relay is closed

As Starting program finishes, first symbol is OFF. Appliance returns to initial Service mode.

### 2. Press Forced defrost and forced cancelling of defrost

Holiday symbol blinks during mode. Defrosting mode will start from Step 3. Mode can be cancelled manually or automatically.

Press Fridge temperature button to cancel manually. Appliance returns to initial Service mode. If not cancelled manually within 30 minutes, Service mode is cancelled automatically. Appliance checks if defrost is finished during these 30 minutes. If the defrost is done, the appliance continues with previous set values. If defrost is not finished, the appliance finishes the defrost and then continues with previous set values.

### 3. Press Forced opening and closing of damper motor

Damper is opened; it will close if it was opened.

If function is not reset, damper returns to initial condition (open or close) after five minutes. Appliance returns to initial Service mode.

Cancel manually by pressing Fridge temperature button. Symbol is OFF as damper motor returns to initial condition. Appliance returns to initial Service mode.

#### **4. Displaying actual temperatures in compartments**

Press Freezer temperature button:

Freezer number indicator shows F and fridge number indicator shows F sensor actual temperature.

Freezer number indicator shows R and fridge number indicator shows R sensor actual temperature.

Press Freezer temperature button again:

Freezer number indicator shows D and fridge number indicator shows D sensor actual temperature.

Mode is canceled if Freezer temperature button is not pressed within five minutes. Appliance returns to initial Service mode.

Press Fridge temperature button again to cancel the function.

Appliance returns to initial Service mode.

**5. Press Empty.** No function is set.

# Control Functions

Control functions are only available in Service mode.

## **CO 01, Freezer sensor > -10 °C (Like -9°C, -8°C, -7°C)**

Freezer is not cold enough, the reason could be:

- When you first switch on the appliance,
- When too much fresh food are placed in the freezer,
- When the inlet cold air duct is covered by foods,
- When the Freezer door is continuously open for a long time,
- When the electricity is off for a long time.

## **CO 02, Fridge sensor > 15 °C (Like 16°C, 17°C, 18°C)**

The temperature in the freezer section is colder than -10°C but the fridge is not cold enough. The reason could be:

- When the duct damper couldn't open,
- When too much fresh food are placed in the fridge,
- When the fridge door is continuously open for a long time
- When you first switch on the appliance,
- When the electricity is off for a long time.

## **CO 03, Fridge sensor < -5 °C (Like -6°C , -7°C)**

Fridge is too cold.( < -5 °C ):

- When the duct damper couldn't close

## **CO 04, Freezer Sensor > -10 °C and Ref. Sensor > 15 °C**

When the appliance is first started up or when the electricity has been off for a long time. It disappears after the compartments reach the temperatures below or to the above mentioned temperatures.

## Sensor Faults; FX

Freezer sensor:1

Fridge Sensor:2

Defrost Sensor:3

Ambient Sensor:4

- FE:01, Freezer sensor is defected,
- FE:02, Fridge sensor is defected,
- FE:03, Defrost sensor is defected,
- FE:04, Ambient sensor is defected,
- E: only 1 sensor is defected, (Ex: FE:01 means sensor1 is defected),
- F: 2 sensors are defected, (Ex: FF:12 means sensors 1&2 are defected),
- H: 3 sensors are defected, (Ex: FH:04 means sensor 4 is ok. The others are defected),
- U: 4 sensors are defected, (FU:00, All sensors are defected).

Note: Two digits following E and F letters indicate the defected sensor numbers, 2 digits following H and U letters indicate the sensor numbers without any fault.

## FO:05 Insufficient cooling in the fridge section (No cooling for 10 minutes)

The reason could be:

- Connector defect
- Wire contact is not good
- Refrigerant leakage
- Compressor defect
- Relay group defect

## FO:06 Defrost Fault

If the defrost sensor still measures below 0°C after 90 minutes of defrosting, the reason could be: .

- Connector defect
- Wire contact is not good
- Defrost Heater defects,
- Too much ice accumulation on the evaporator.

## User and Service Mode Error Messages

DEFECT TYPE	MEANING	CAUSE	ACTIONS TO BE TAKEN
<b>SR</b>	Fault warnings	One or several parts of the fridge fail or a problem occurs on the cooling system.	Contact technical service.
<b>LO - PO</b>	Low voltage	Fridge switches to standby when the voltage supply is lower than 170 Volts.	This feature prevents damage to the compressor due to low voltage. Fridge will start operating automatically when the supply voltage reaches the desired level.

SENSOR	TEMPERATURE	USER MODE REACTION	SERVICE MODE REACTION
(1) Freezer	> +50 °C or <-50 °C (sensor is short or open)	SR blinks in Freezer number indicator,  SR Symbol blinks  And  Set fridge indicator OFF	Display FE 01
(2) Fridge	> +50 °C veya <-50 °C (sensor is short or open)		Display FE 02
(3) Defrost	Short (< 100 Ω) or <-50 °C		Display FE 03
(4) AT sensor	Short or < -30 °C		Display FE 04
Breakdown of (1) and (2)			Display FF 12
Breakdown of (1) and (3)			Display FF 13
Breakdown of (1) and (4)			Display FF 14
Breakdown of (2) and (3)			Display FF 23
Breakdown of (2) and (4)			Display FF 24
Breakdown of (3) and (4)			Display FF 34
Breakdown of (2) and (3) and (4)			Display FH 01
Breakdown of (1) and (3) and (4)			Display FH 02
Breakdown of (1) and (2) and (4)			Display FH 03
Breakdown of (1) and (2) and (3)			Display FH 04
Breakdown of all sensors			Display FU 00

## Component defect on display

DEFECT TYPE	DETAILS	USER MODE REACTION	SERVICE MODE REACTION
Compressor Defect	Defrost sensor temp > -10 <sup>0</sup> C (D sensor temp.unchanges for 10 min.continuous compressor run)	SR& SR blinks in freezer number indicator and set fridge indicator OFF	Display FO 05
Defrost Heater Defect	Defrost sensor < 0 <sup>0</sup> C		Display FO 06

## Low voltage error on display

DEFECT TYPE	DETAILS	USER MODE REACTION	SERVICE MODE REACTION
Low voltage	Power supply < 170	Freezer number indicator shows LO Fridge number indicator PO	Display LO PO

## Cooling error on display

**NOTE:** To prevent the wrong alarms, this alarm status is disabled on the following conditions:

- During the first six hours after the product was first connected.
- During the defrost period
- During the first two hours after a defrost
- During the first two hours that one of the doors was open.

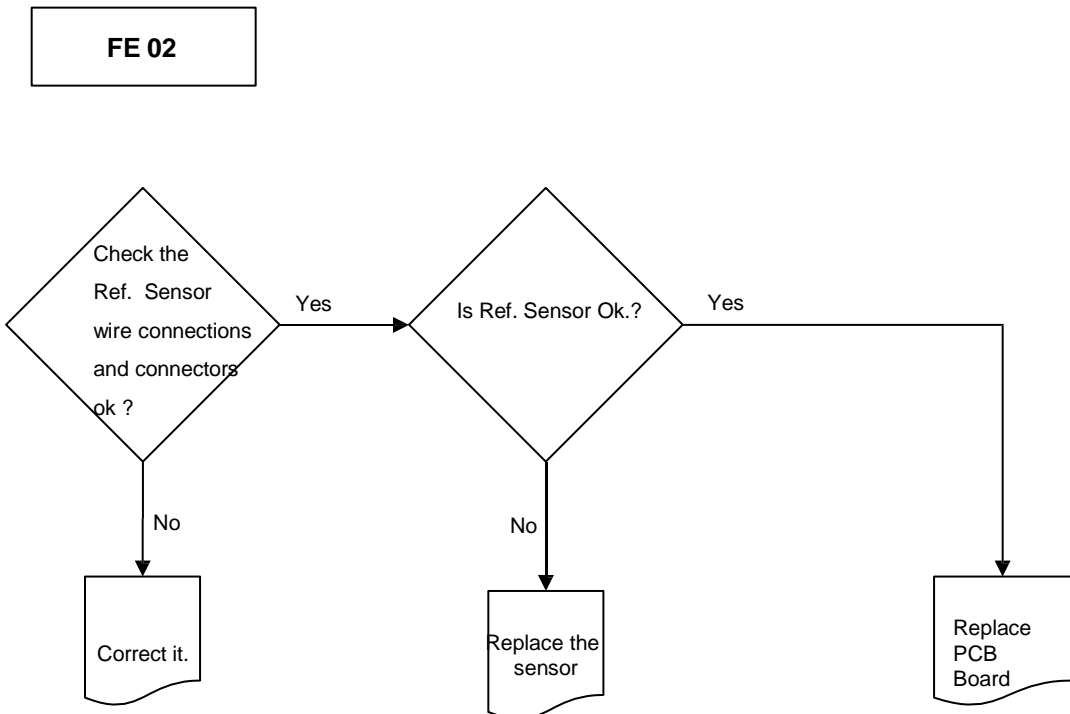
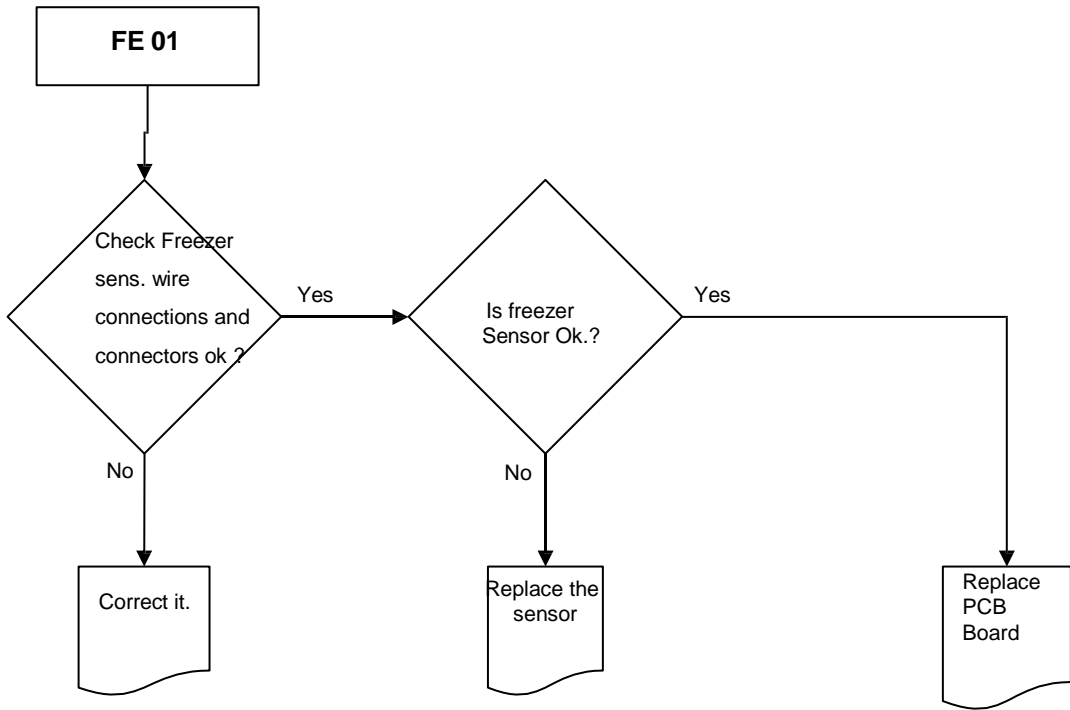
DEFECT TYPE	DETAILS	USER MODE REACTION	SERVICE MODE REACTION
Freezer sensor > -10 <sup>0</sup> C	Freezer is not cool enough	Freezer number indicator LF blinks until error finishes	Display CO 01
Ref. sensor > +10 <sup>0</sup> C and if Holiday mode is not active	Fridge is warm	Fridge number indicator LC blinks until error finishes	Display CO 02
Ref. sensor < -5 <sup>0</sup> C	Fridge is so cool	Fridge number indicator HC blinks until error finishes	Display CO 03
F sensor > -10 <sup>0</sup> C and R sensor >15 <sup>0</sup> C and if Holiday mode is not active	Freezer and Fridge both are not cool enough	Freezer number indicator LF blinks and Ref. number indicator LC blinks	Display CO 04

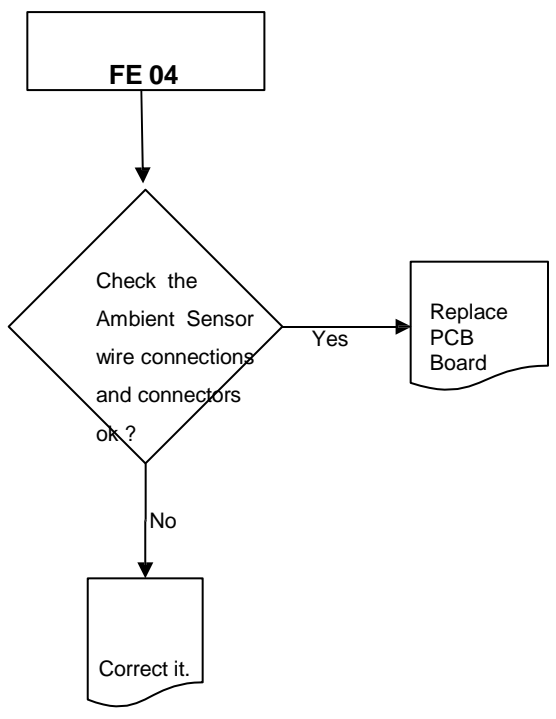
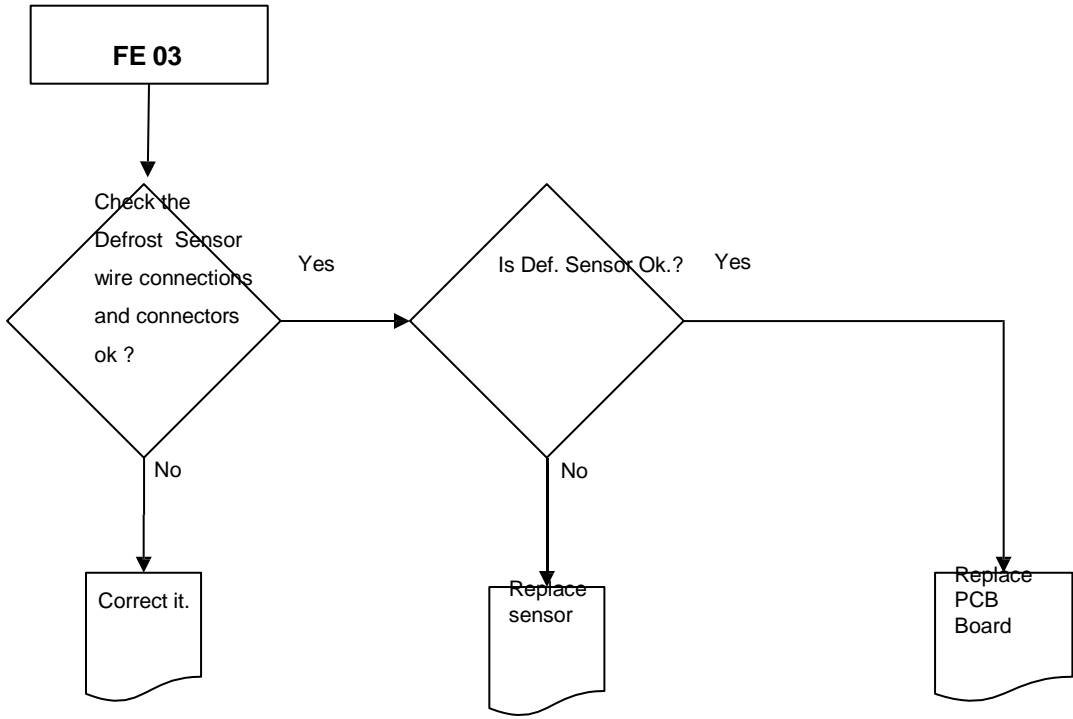


## PRIORITY OF ERROR ON DISPLAY

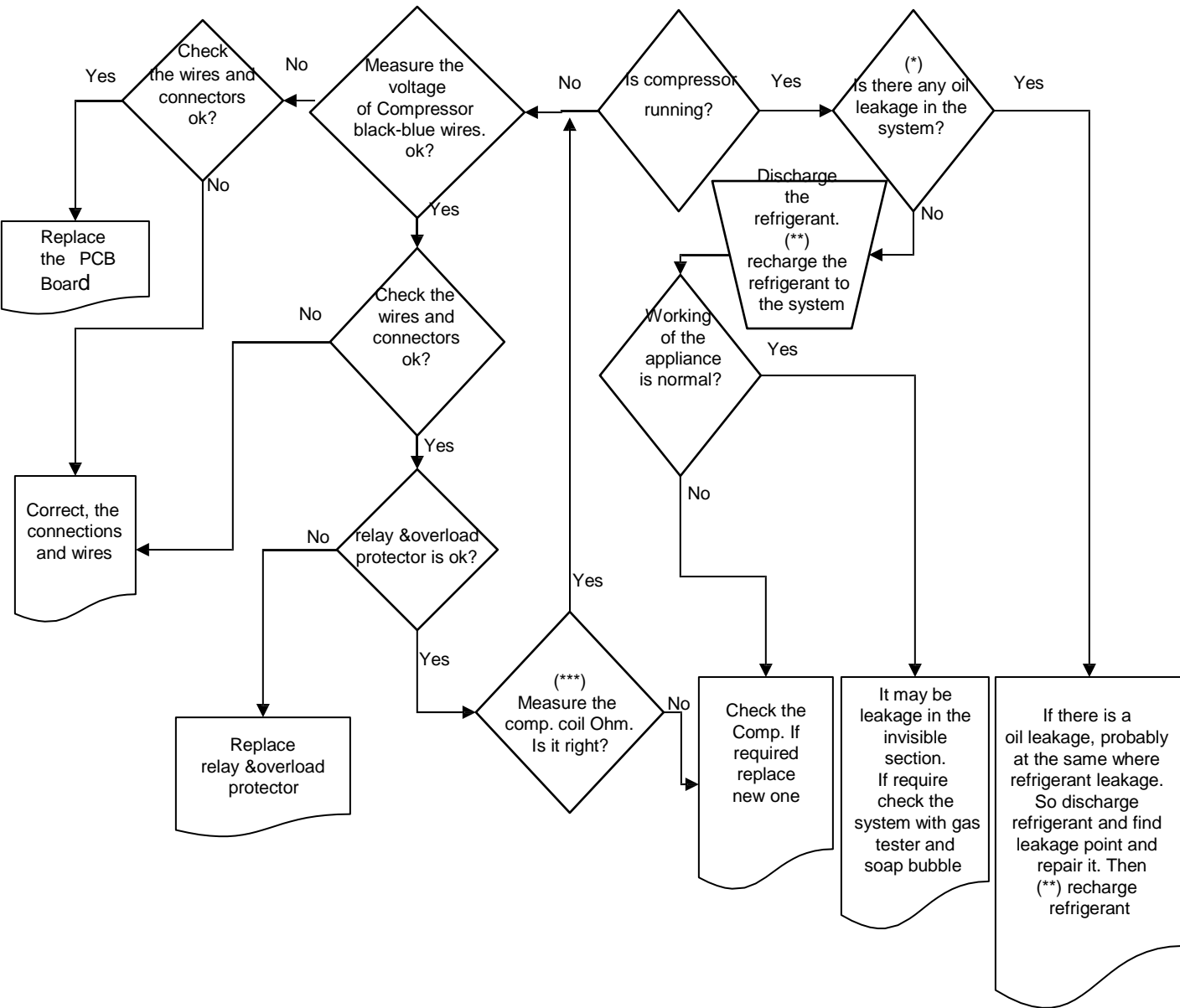
	USER MODE REACTION	SERVICE MODE REACTION
Compressor Defect	SR	FO 05
Defrost Heater Defect	SR	FO 06
Sensor Defect (Short-Open)	SR	F* **
F sensor>-10°C and R sensor>15°C	LF and LC	CO 04
F sensor>-10°C	LF	CO 01
R sensor>15°C	LC	CO 02
R sensor<-5°C	HC	CO 03

# Trouble-Shooting Chart





**FO 05  
Insufficient cooling**



(\*) Check all of the visible pipes and welding points against oil leakage

(\*\*) Before recharging the refrigerant to the system; Dryer must be replaced and at least 30 minutes vacuum must be done

(\*\*\*) Comp. Main coil and auxiliary coil are 10 Ω and 22 Ω respectively (At 25 °C ambient temperature)

## Changing The Doorway Direction

1. Unscrew the screw fixing the top hinge cover and remove it. (Fig-1)



**Figure-1**

2. Disconnect the display connector. Unscrew the two screws fixing the top hinge and remove it. (Fig-2)



**Figure-2**

3. Remove the fridge door. (Fig-3)



**Figure-3**

4. Unscrew the two screws which are fixing the middle hinge. (Fig-4)



**Figure-4**

5. Remove the freezer door. (Fig-5)



**Figure-5**

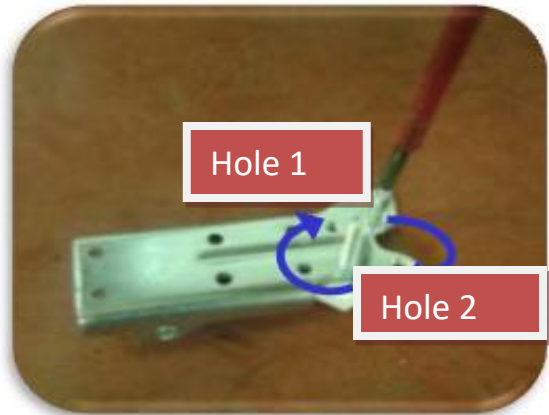
6. Unscrew the bottom hinge fixing screws and remove it. (Fig-6)

7.

Unscrew the stationary foot of bottom hinge and screw to Hole-1. Unscrew the hinge pin and screw to **Hole-2** (Fig-7)



**Figure-6**

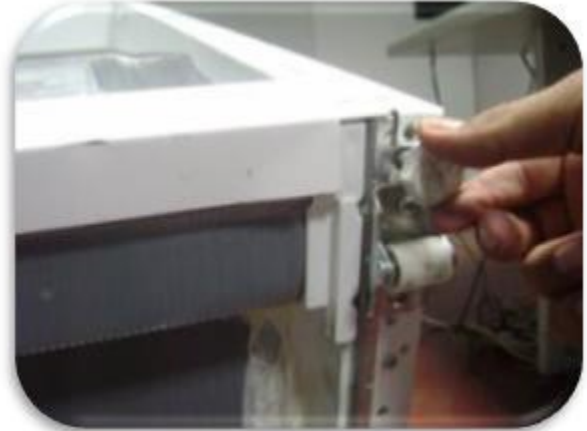


**Figure-7**

8. Unscrew the stationary foot and front wheel (Fig-8.1) and screw to the right side. (Fig-8.2)

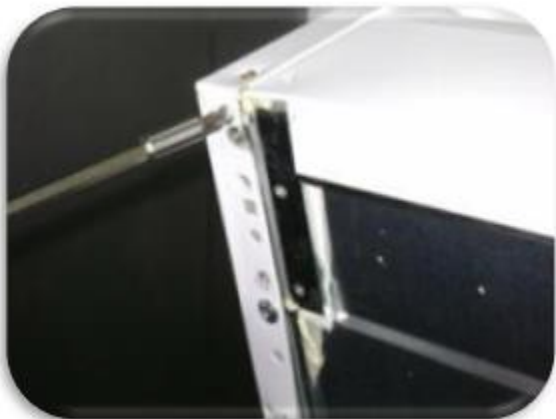


**Figure-8.1**



**Figure-8.2**

9. Unscrew the side panel support screw (Fig-9.1) and screw the bottom hinge to the left side . (Fig-9.2)



**Figure-9.1**



**Figure-9.2**

**10.** Remove the middle hinge cover on the left. (Fig-10.1) and insert the middle hinge cover to the right side. (Fig-10.2)



**Figure-10.1**



**Figure-10.2**

**11.** Replace the freezer door top bushing (Fig-11.1) and top bushing cap. (Fig-11.2)

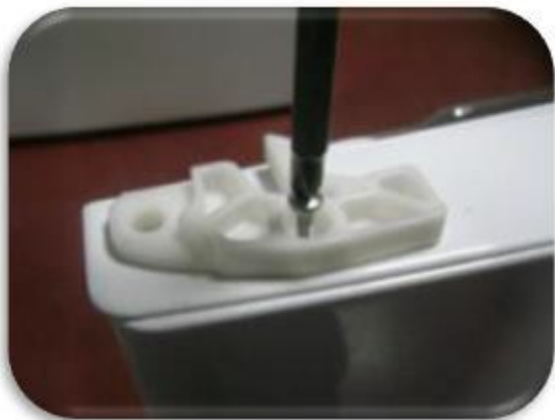


**12.** Remove the freezer door bottom bushing and bottom stopper and then insert them the left side. (Fig-12)



**Figure-12**

**13.** Remove the freezer door right catcher (Fig-13.1) and assemble the left catcher to the left. (Fig-13.2)  
(You can find the left door catcher in the user manual bag)

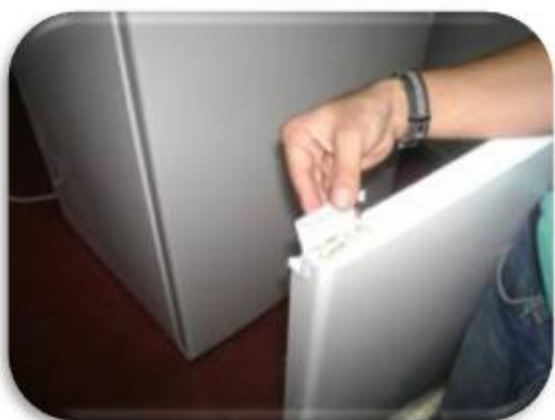


**Figure-13.1**



**Figure-13.2**

**14.** Remove the socket cover-left of the freezer door (Fig-14.1) and assemble the socket cover-right to the right. (Fig-14.2) (You can find the right socket cover in the user manual bag)



**15.** Assemble the freezer door. Turn the middle hinge by 180°. Fix the middle hinge by tightening the screws. (Fig-15.1) Assemble the fridge door. (Fig-15.2)



**Figure-15.1**



**Figure-15.2**



16. Remove the socket tape (Fig-16.1) and stick it on the right side. (Fig-16.2)



**Figure-16.1**



**Figure-16.1**

17- Screw the left top hinge. (Fig-17.1) and screw the hinge cover. (Fig-17.2)



**Figure-17.1**



**Figure-17.1**

## Replacement of Freezer Multiflow Cover

1. Remove the freezer basket. (Fig-1)



Figure-1

2. Remove the freezer shelf. (Fig-2)



Figure-2

3. Remove caps and unscrew the four screws shown at the picture. (Fig-3)



Figure-3

4. Remove the multiflow cover by pulling forward. (Fig-4)



Figure-4

## Replacement of Evaporator assembly

1. Disconnect to evaporator connector.  
(**blue** connector) (Fig-1)

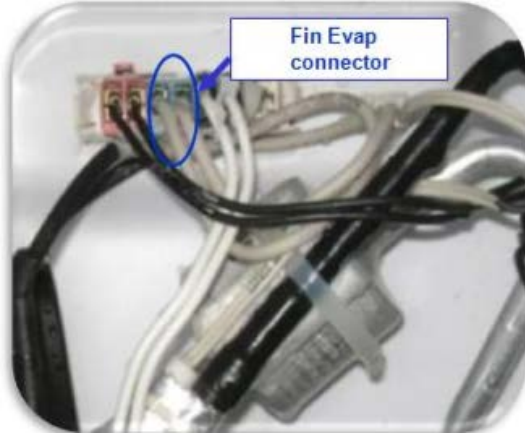


Figure-1

2. Remove the evaporator by pulling forward in a horizontal direction. (Fig-2)



Figure-2

Do not push it up or down. You may broke the fixing plastics.

## Replacement of Thermal Fuse assembly

1. Disconnect to thermal fuse connector.  
(**black** connector) (Fig-1)

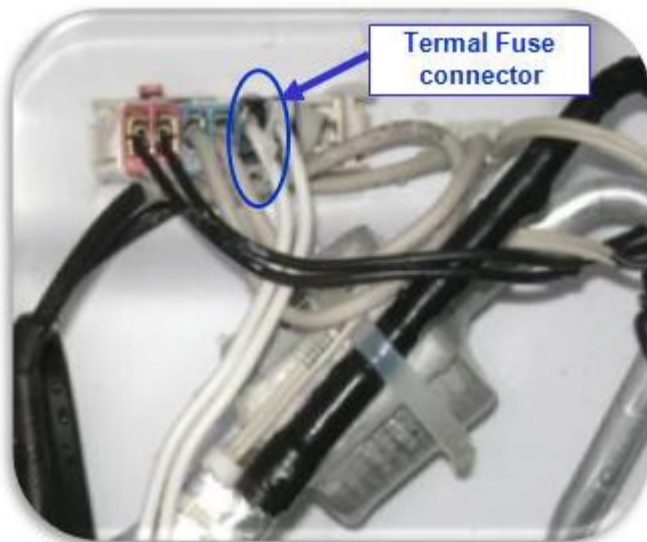


Figure-1

2. Remove the thermal fuse by pulling which mounted on the left side of the evaporator. Take out the thermal fuse. (Fig-2)



Figure-2

## Replacement of Freezer Fan Motor

**Warning: Make sure the unit is unplugged.**

1. Disconnect the fan motor connector.  
(pink connector) (Fig-1)

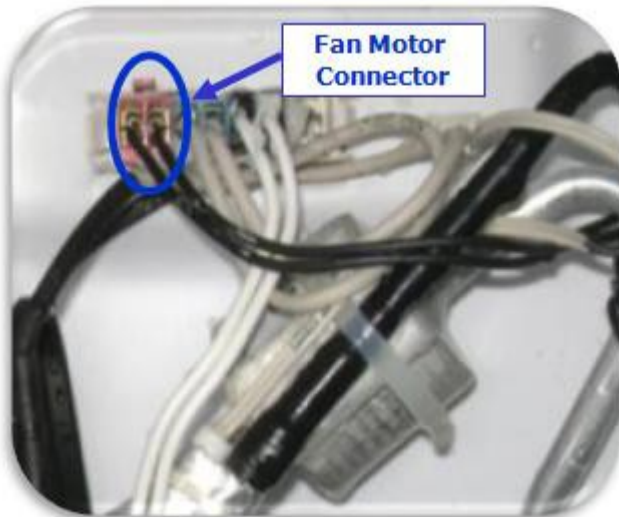


Figure-1

2. Unscrew the screws that are fixing the fan motor box and remove the fan motor box. (Fig-2)

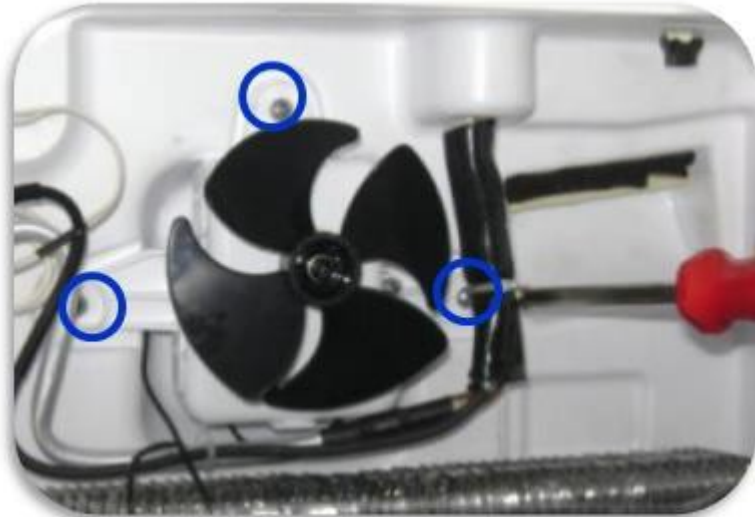


Figure-2

3. Remove the propeller by pulling forward.  
(Fig-3)



Figure-3

4. Release the tabs by using a screwdriver. (Fig-4)



Figure-4

5. Unscrew the fan motor box cover screws.  
(Fig-5)



Figure-5

