



# Electrolux

## SERVICE MANUAL

### Food Preservation

# ZRT53202

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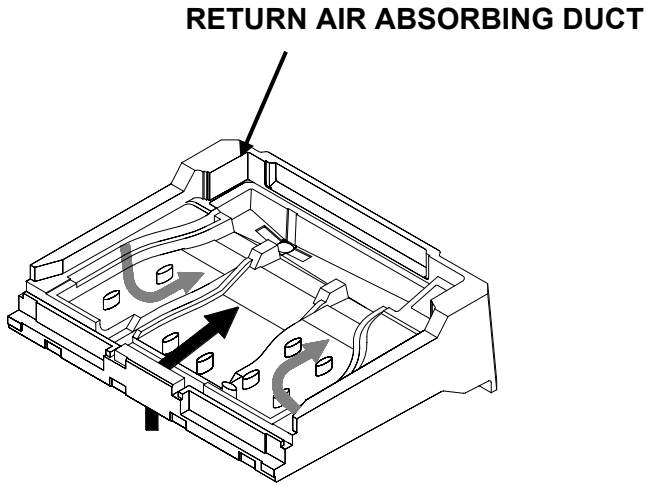
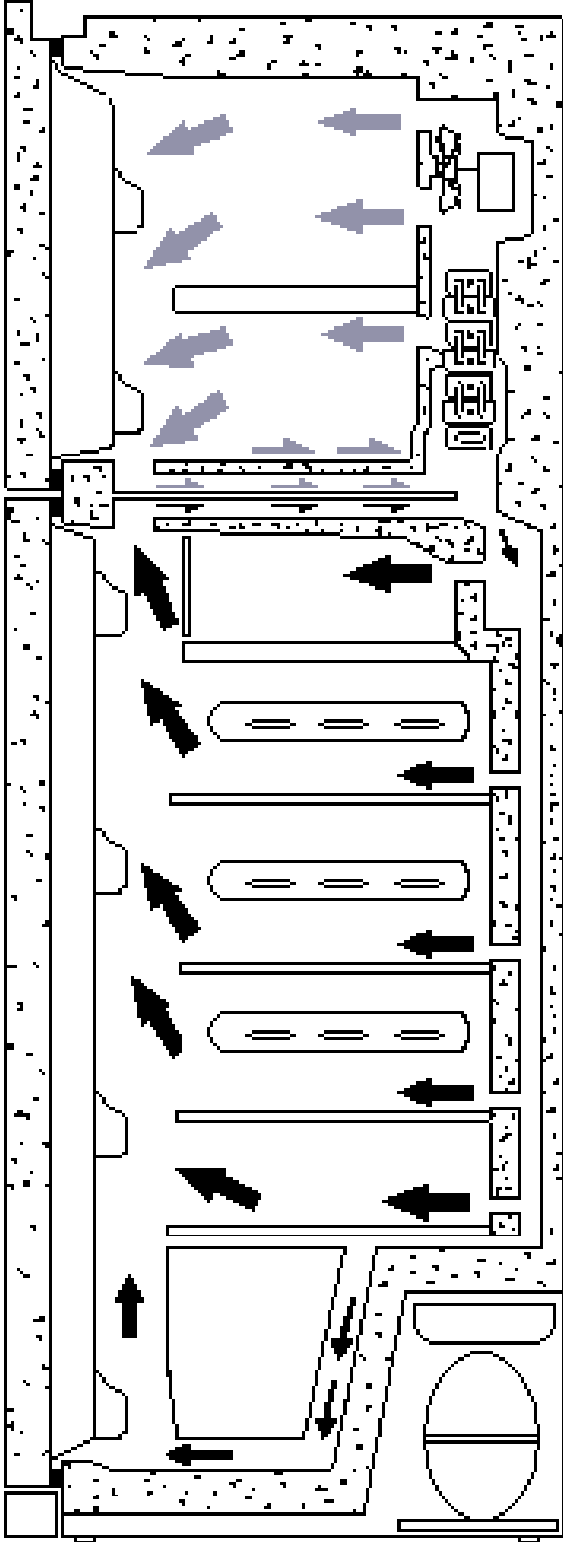
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Consumer Service - EMEA  
Quality & Continuous Improvement - Technical Support

	<b>NO-FROST</b>	
	<b>SAFETY</b>	



- All the work to be performed inside the appliance requires specific skills and knowledge and may only be carried out by qualified and authorised Service Engineers
- Before you access internal components, take the plug out of the socket to disconnect the power supply.
- Some of the components in the mechanical part could cause injuries, so wear suitable protection and proceed with caution.

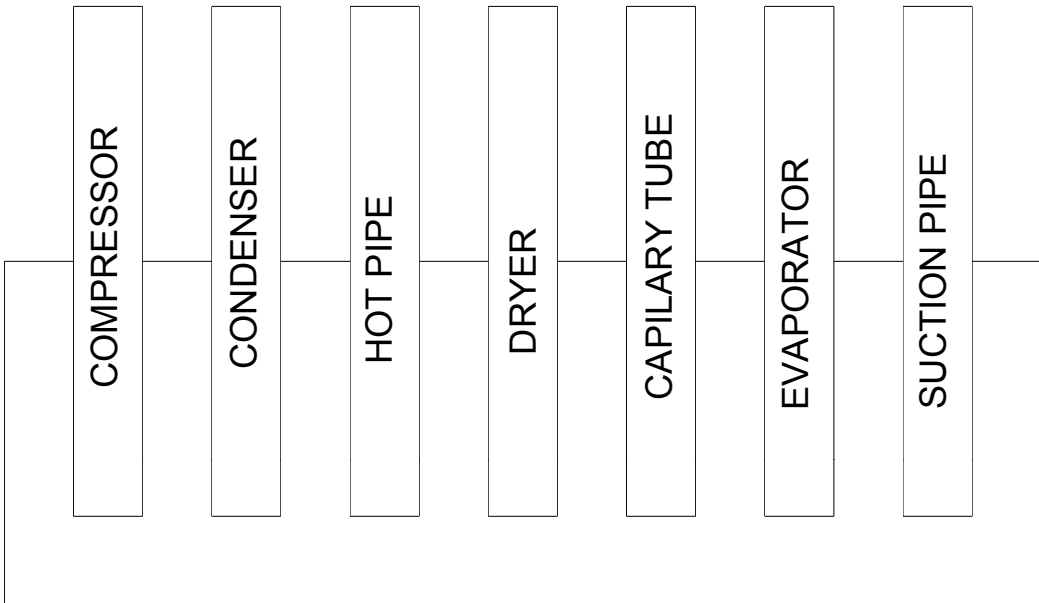
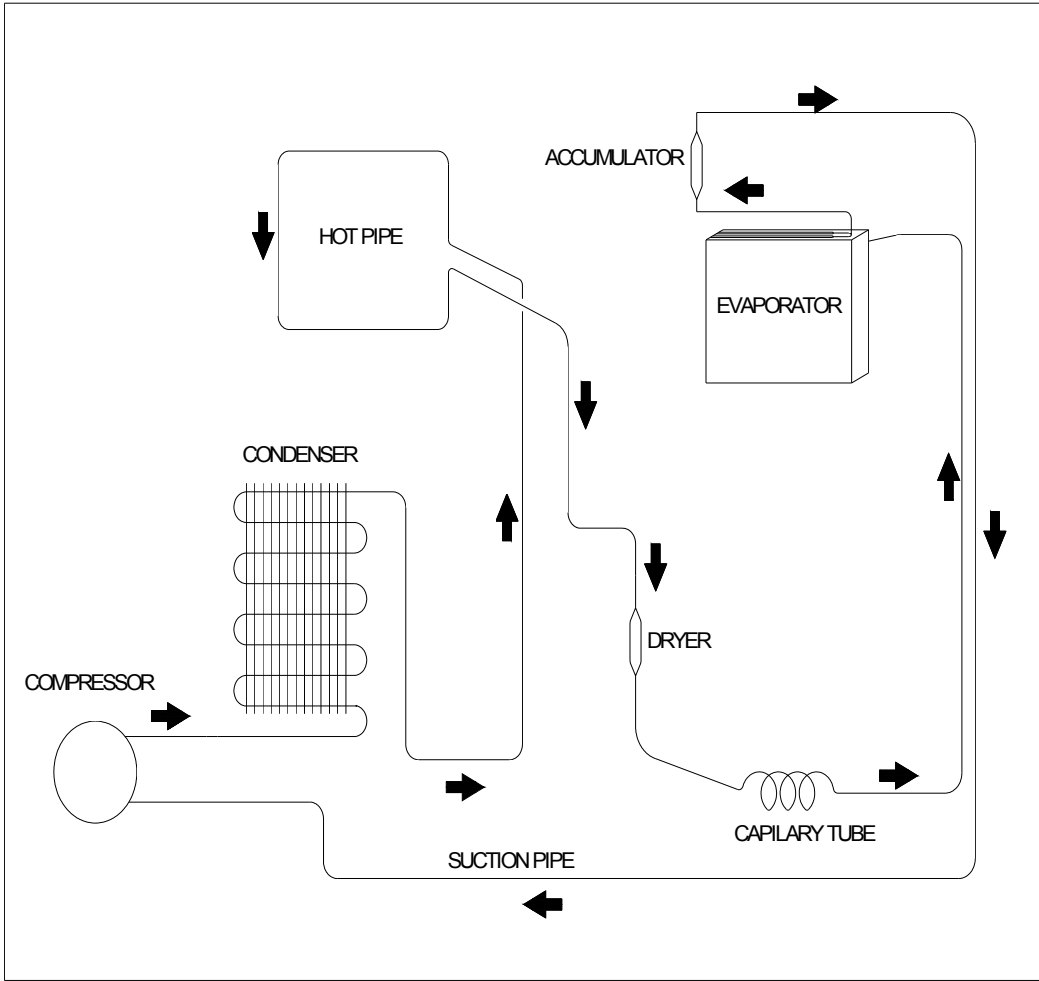
	<b>NO-FROST</b>	
	<b>AIR FLOW DIAGRAM</b>	



- ← **FREEZER SECTION RETURN AIR**
- ← **REFRIGERATOR SECTION RETURN AIR**

**NOTE THAT : RETURN AIRS, WHICH COMES FROM FREEZER AND REFRIGERATOR SECTION DO NOT MIX EACH OTHER**

<b>NO-FROST</b>	
<b>REFRIGERANT CYCLE DIAGRAM</b>	



	<b>NO-FROST</b>	
	<b>MAIN COMPONENTS</b>	

### ELECTRO MECHANICAL THERMOSTAT:

It is located at the left upper side of the freezer compartment.

Main function : To decide when the compressor works according to the temperature of freezer compartment.

To decide when to defros accordng to the ambient temperature.

### REFRIGERATOR (DUMPER) THERMOSTAT:

Main purpose is to regulate the temperature of the refrigerator compartment. If the refrigerator compartment temperature reaches to 5°C then the dumper thermostat will be opened. If the refrigerator compartment temperature reaches to –6°C then the dumper thermostat will be closed.

### HEATERS:

#### 1. FIN EVAP HEATER ( 170W ) :

It is placed in the holes on the fin evaporator.

Function : To melt the ice formed on the fin evaporator.

#### 2. DRAIN HOSE HEATER ( 10W ) :

It is located inside the cabinet at the connection point of drain hose and drain tray.

Function : To prevent the ice accumulation inside the hose during the defrost period.

If the drain heater is broken (Unusual) it is not possible to change it.

#### 3. DRAIN TRAY HEATER ( 67W ) :

It is placed in the drain tray.

Function : To melt the ice formed on the fin evaporator.

### BI-METAL THERMOSTAT ASSY. :

It is located on the accumulator.

Function : Main function is to switch off the defrost heater after the bi-metal temperature reaches to 8 °C on the accumulator during the defrost period.

### THERMAL FUSE :

It is an additional protection. If the bi-metal thermostat does not switch-off the AI tube heater, the thermal fuse will blow off (76°C). In this case, all functions will stop.

	<b>NO-FROST</b>	
	<b>MAIN COMPONENTS</b>	

**WORKING PRINCIPLE OF ELECTRO MECHANICAL THERMOSTAT**

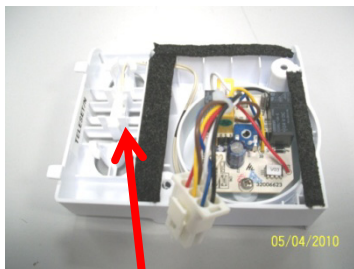
Freezer sensor, placed inside freezer compartment sends temperature information to card. The card (Electromechanic Thermostat) controls compressor’s working and stopping period according to signal coming from freezer sensor. When compressor works, the evaporator fan placed on freezer compartment starts to work, and evaporator starts to get cold. By stopping of compressor, evaporator starts to get warm and the fan placed on freezer compartment stops. By the way, freezer compartment temperature has been adjusted.

Below table shows set values according to knob position.

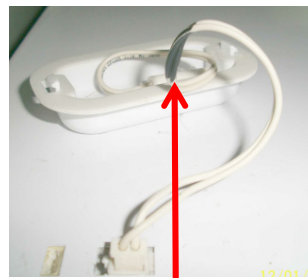
KNOB POSITION	SET VALUES	
	CUT IN	CUT OFF
<b>1</b>	<b>-10,0 °C</b>	<b>-14,0 °C</b>
<b>2</b>	<b>-13,0 °C</b>	<b>-17,0 °C</b>
<b>3</b>	<b>-16,0 °C</b>	<b>-20,0 °C</b>
<b>4</b>	<b>-19,0 °C</b>	<b>-23,0 °C</b>
<b>5</b>	<b>-22,0 °C</b>	<b>-26,0 °C</b>

Refrigerator compartment temperature is controlled by mechanical damper thermostat.

Time period between two defrosts is controlled by the ambient sensor placed on the top panel and card (electromechanic thermostat) placed in freezer compartment. At ambient temperatures lower than 16°C, card takes the information from the ambient temperature sensor and shortens time duration between two defrosts for a better defrosting performance.



FREEZER SENSOR



AMBIENT SENSOR

	<b>NO-FROST</b>	
	MANUAL DEFROST	

SENSOR DEFECTS	
<b>If There is an Ambient Sensor Defect</b>	<b>Set Defrost Cycle Time:</b> 8h of compressor running accumulated time
	<b>Compressor Working :</b> According to normal algorithym => Freezer Sensor
<b>If There is a Freezer Sensor Defect</b>	<b>Set Defrost Cycle Time:</b> According to normal algorithym => Ambient Sensor
	<b>Compressor Working :</b> Run compressor for 35min and stop compressor for 30min
<b>If Both of the Sensors are Defected</b>	<b>Set Defrost Cycle Time:</b> 8h of compressor running accumulated time
	<b>Compressor Working :</b> Run compressor for 35min and stop compressor for 30min

Note that:

If the bi-metal thermostat is get broken or short circuit then the defrost operation will not be stopped although the frezeer temperature reaches to 8 °C. So defrost heaters continue to run. To prevent overheating, thermal fuse will be blow when the temperature reached to 76 °C inside the evaporator section. If the thermal fuse blow off, the refrigerator will stop all the functions(the compressor will not run and the defrost heaters will not heat). In this case, thermal fuse and bi-metal thermostat must be replaced with a new one.

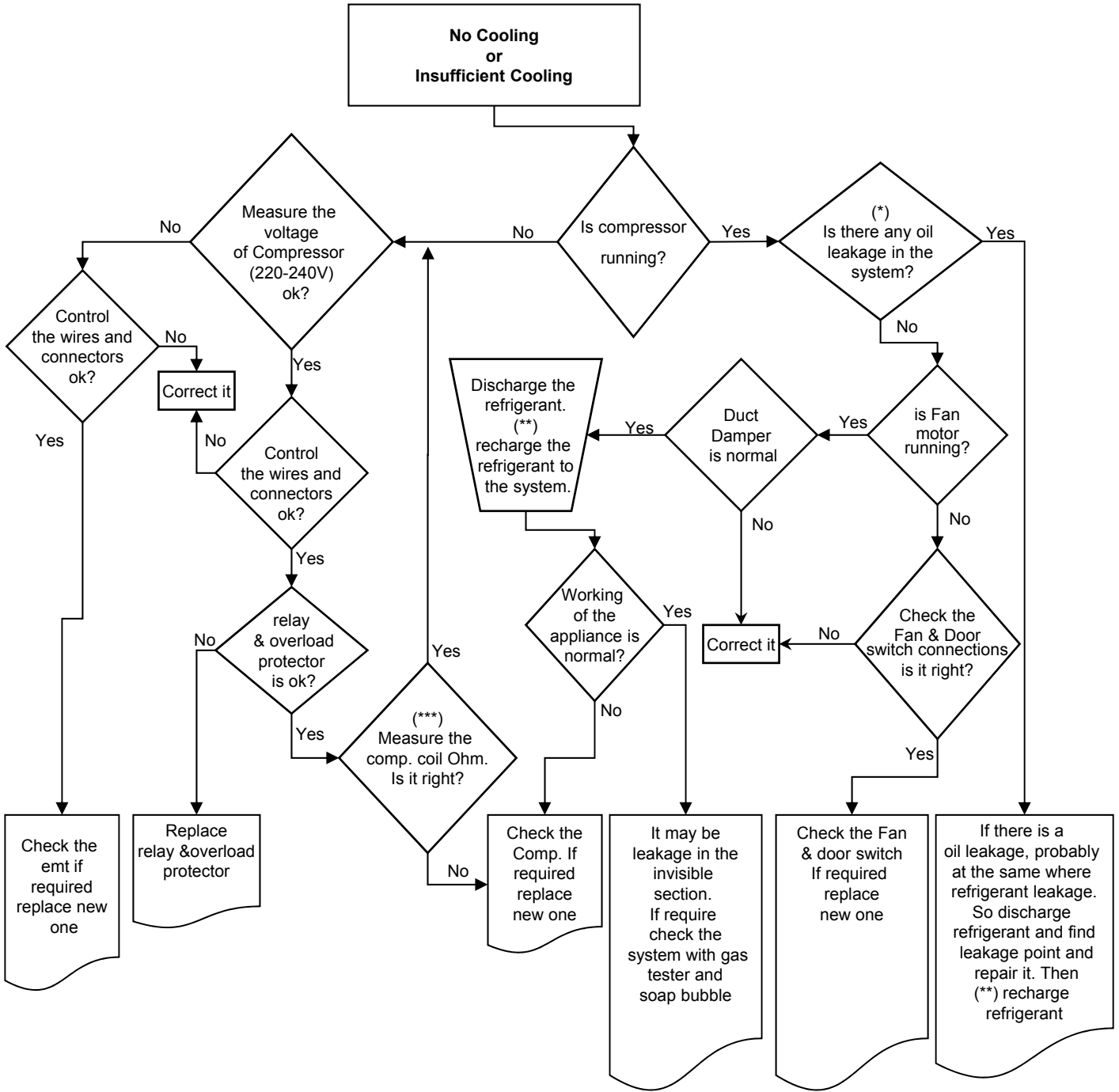
MANUAL DEFROST:

IF THERMOSTAT KNOB IS TURNED TO MAX – MIN -- MAX POSITION 5 SEC.  
 APPLIANCE ENTERS INTO DEFROST MANUALLY .  
 DEFROST CAN BE CANCELLED VIA SAME OPERATION.

MAX – MĪN – MAX (5 SEC)



NO-FROST	
TROUBLE-SHOOTING CHART	



(\*) 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 10Ω and 22Ω respectively (At 25 °C ambient temp.)



	<b>NO-FROST</b>	
	<b>CHANGING THE DOORWAY DIRECTION</b>	

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



Figure-1

**2-** Unscrew the three screws fixing the upper hinge and remove it. (Fig-2)

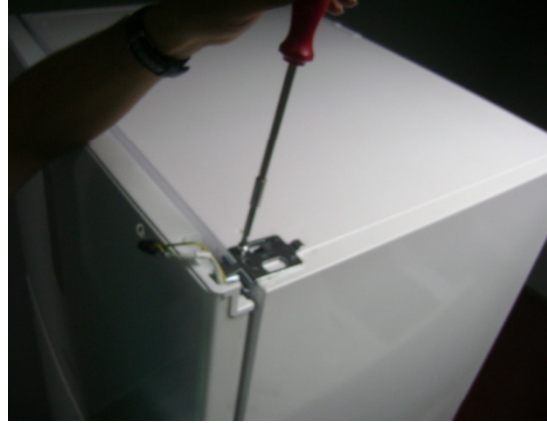


Figure-2

**3-** Remove the freezer door. (Fig-3)



Figure-3

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



Figure-4

**5-** Remove the refrigerator door. (Fig-5)



Figure-5

	<b>NO-FROST</b>	
	<b>CHANGING THE DOORWAY DIRECTION</b>	

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



Figure-6

**7-** Unscrew the stationary foot of bottom hinge and screw to Hole-1. Unscrew the hinge pin and screw the pin to Hole 2. (Fig-9)

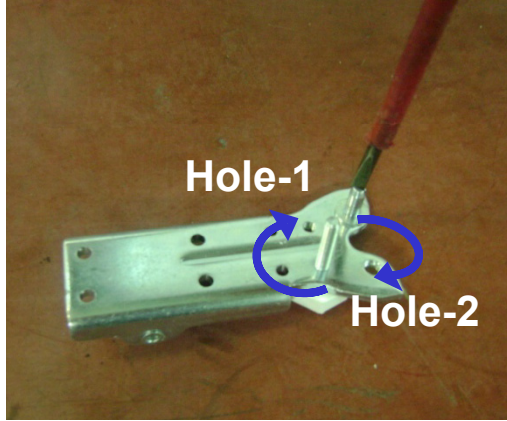


Figure-7

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



Figure-8.1

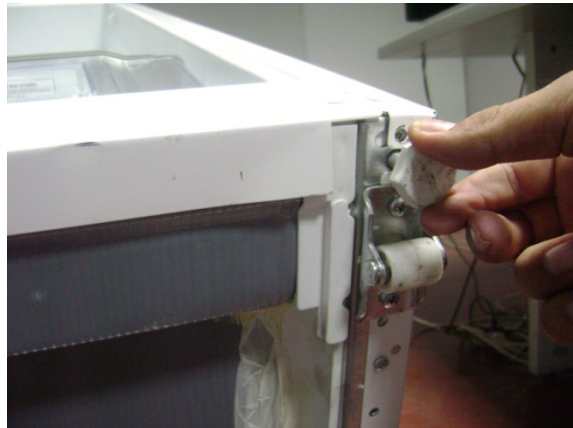


Figure-8.2

**9-** Screw the bottom hinge to the left side. (Fig-9)



Figure-9

	<b>NO-FROST</b>	
	<b>CHANGING THE DOORWAY DIRECTION</b>	

**10-** Remove the middle hinge cover on the left. (Fig-10)

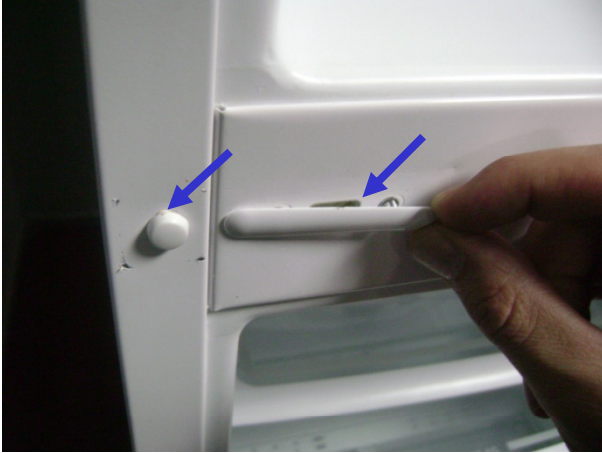


Figure-10

**11-** Insert the middle hinge cover to the right side. (Fig-11)

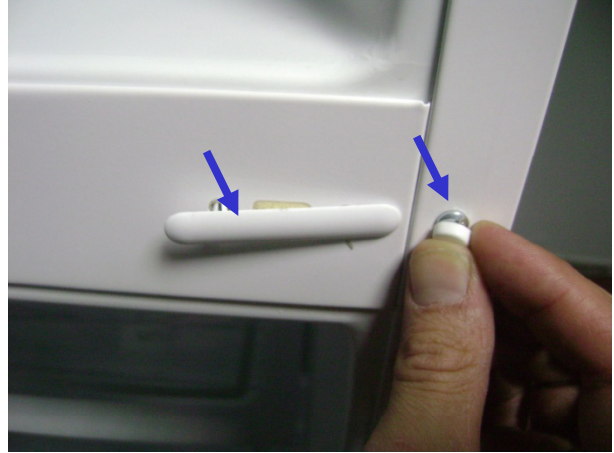


Figure-11

**12-** Replace the refrigerator door top bushing (Fig-12.1) and top bushing cap. (Fig-12.2)



Figure-12.1

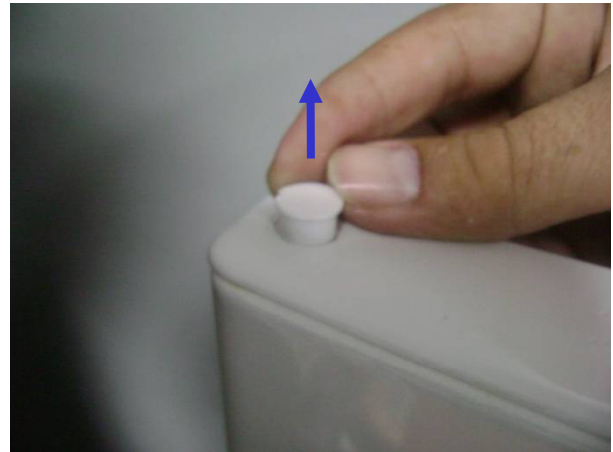


Figure-12.2

**13-** Remove the refrigerator door bottom bushing and bottom stopper and then insert them the left side. (Fig-13)

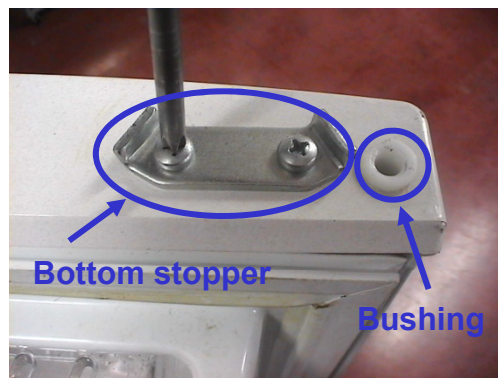


Figure-13

	<b>NO-FROST</b>	
	<b>CHANGING THE DOORWAY DIRECTION</b>	

**14-** Remove the freezer door right catcher (Fig-14.1) and assemble the left catcher to the left. (Fig-14.2)

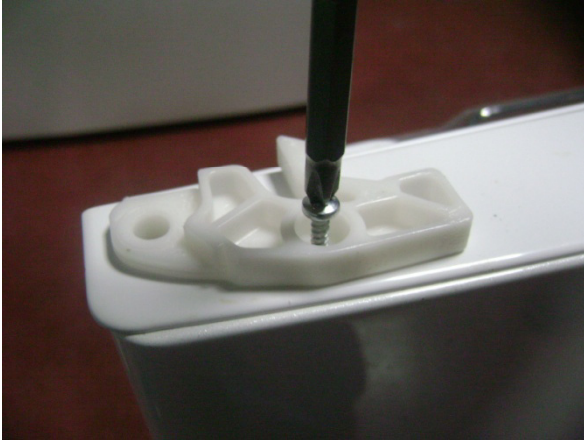


Figure-14.1



Figure-14.2

**15-** Remove the socket cover-left of the freezer door (Fig-15.1) and assemble the socket cover-right to the right. (Fig-15.2)



Figure-15.1



Figure-15.2

**16-** Assemble the refrigerator door. Turn the middle hinge by 180°. Fix the middle hinge by tightening the screws. (Fig-16.1) Assemble the freezer door. (Fig-16.2)



Figure-16.1



Figure-16.2

	<b>NO-FROST</b>	
	<b>CHANGING THE DOORWAY DIRECTION</b>	

Unscrew the screw fixing the top hinge pin. Then fix left top hinge pin to left side of the top hinge. (You can find the left top hinge pin in the user manual bag)



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



Figure-17.1



Figure-17.2

	<b>NO-FROST</b>	
	<b>FREEZER COMPARTMENT</b>	

### Replacement of Freezer Lamp

1)



Remove the refrigerator lamp cover by pulling forward.

2)



Loosen the lamp and replace it.

### Replacement of Freezer Sensor

1)



Remove the ice matic group. Then unscrew the three screws which are fixing the ice Matic holder and remove it.  
**(KA 40\*14 WN 1411(INOX) EJOT)**

2)



Unscrew the two screws which are fixing the thermostat cover and remove it by pulling forward.  
**(PLS KA 40\*13(INOX-S.UÇ) SUS 430)**

3)



Disconnect the housing and take out the Electro mechanical thermostat with its cover.

	<b>NO-FROST</b>	
	<b>FREEZER COMPARTMENT</b>	

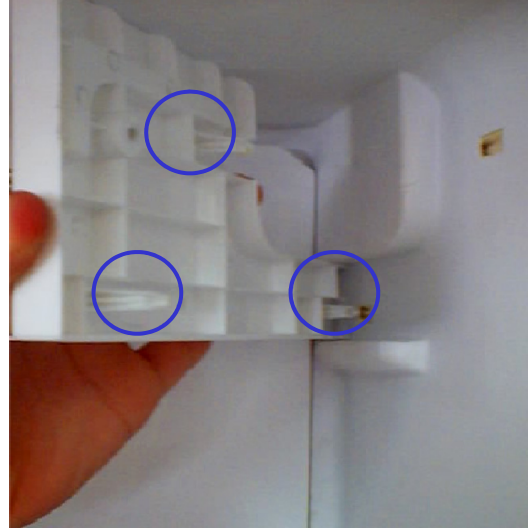
**Dismantle of Freezer Partition**

1)



Unscrew the screw fixing the freezer partition.  
**(KA 40\*14 WN 1411(INOX) EJOT)**

2)

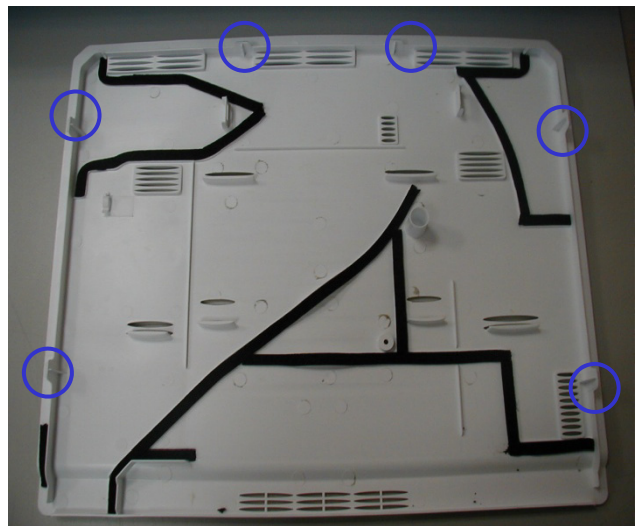


Remove the freezer partition by pulling forward.

**Replacement of Freezer Multiflow Cover**



Remove the drain pan plug.  
Unscrew the screw fixing the freezer multiflow cover. **(KA 40\*14 WN 1411(INOX) EJOT)**



There are 6 catchers and isolation sponges on the back side of the cover. During dismantling of the cover, be careful not to damage them.

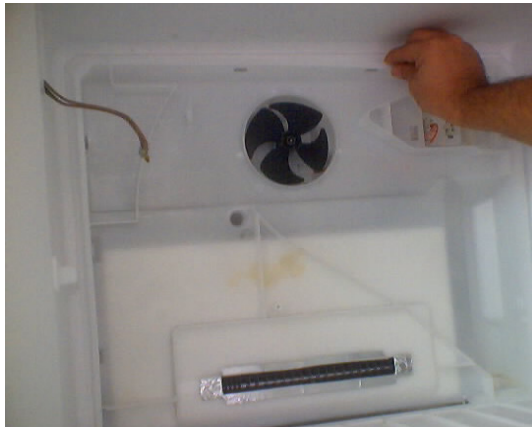
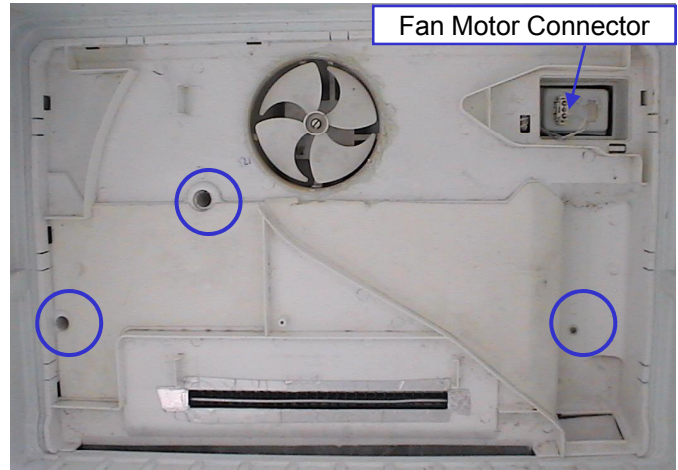
	<b>NO-FROST</b>	
	<b>FREEZER COMPARTMENT</b>	

### Replacement of Freezer MultiFlow Assy

Unscrew the three screws which are fixing the freezer multiflow assembly.  
**(KA 40\*14 WN 1411(INOX) EJOT)**

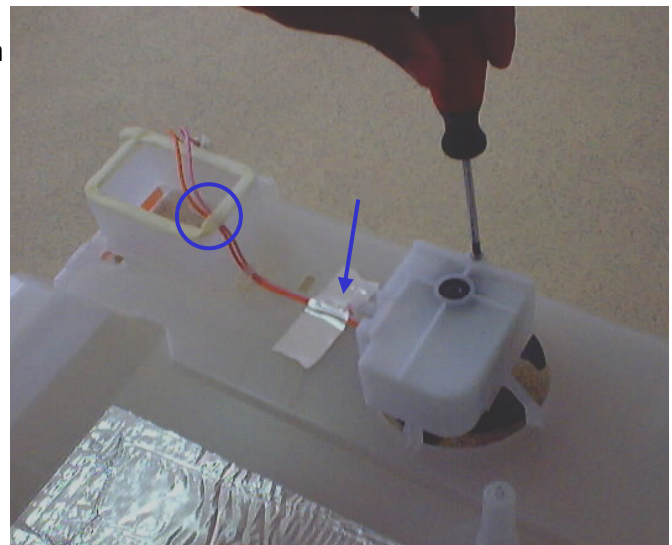
Disconnect the fan motor connector.  
 (pink connector)

Remove the multiflow assy by pulling forward.



Dismantle fan motor cover by removing the screw and detach the fan blower spring, and then take out the fan motor.

**Note That :** Fan motor wires must be pass under the sponge and aluminium tape as shown in picture.

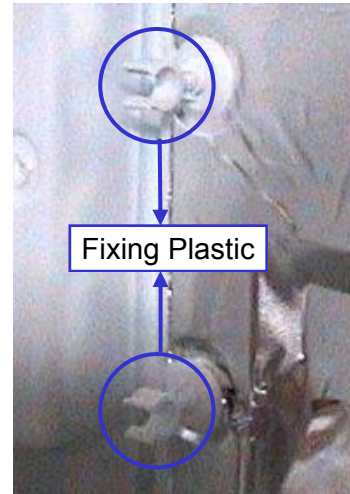




	<b>NO-FROST</b>	
	<b>FREEZER COMPARTMENT</b>	

### Replacement of Evaporator

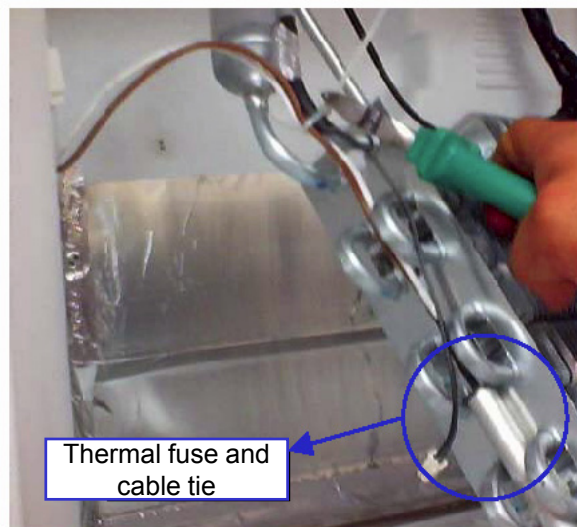
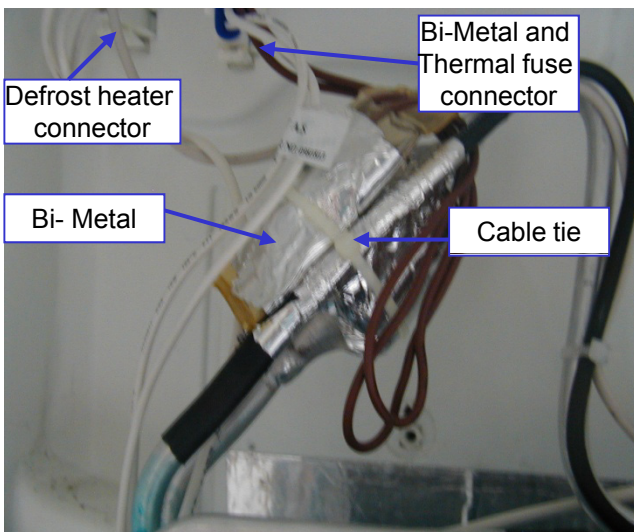
Disconnect to evaporator connector. (blue connector) Remove the evaporator by pulling forward in a horizontal direction. Do not push it up or down. You may broke the fixing plastics.



### Replacement of Bi-Metal & Thermal Fuse Assy.:

Disconnect to bi-metal thermostat and thermal fuse connectors.  
Cut off the cable tie and take out the bi-metal.

Remove the thermal fuse by pulling which mounted on the left side of the evaporator.  
Take out the thermal fuse and bi-metal assy .



	<b>NO-FROST</b>	
	<b>REFRIGERATOR COMPARTMENT</b>	

### Replacement of Refrigerator Lamp

Remove the refrigerator lamp cover using a screwdriver and by pulling forward.



Loosen the lamp and replace it.



### Replacement of Refrigerator Thermostat Knob:

Slightly pull the thermostat knob towards you.



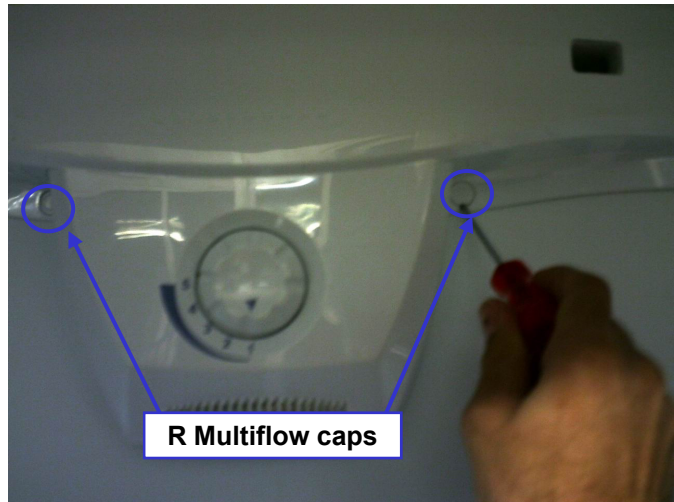
When removing the thermostat knob, be careful not to damage the sponge which is prevent leakage. So if it is damaged, replace with a new one.



	<b>NO-FROST</b>	
	<b>REFRIGERATOR COMPARTMENT</b>	

### Replacement of Refrigerator Multiflow

Remove two refrigerator multiflow caps and unscrew the two screws which are fixing the refrigerator multiflow.  
(KA 40\*13 (INOX-S.UÇ)SUS 430)



Then pull it to the bottom and remove it.



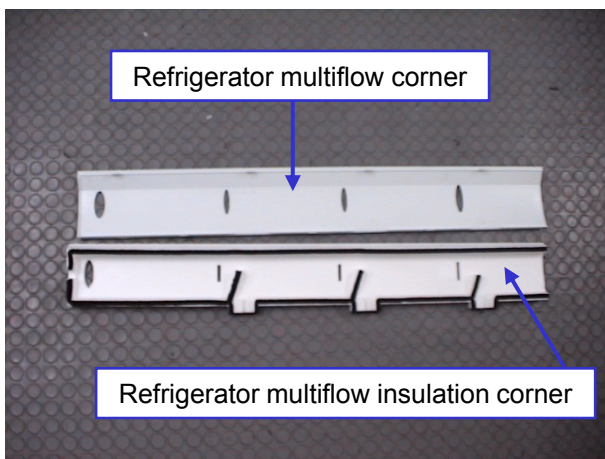
	<b>NO-FROST</b>	
	<b>REFRIGERATOR COMPARTMENT</b>	

### Replacement of Refrigerator Multiflow Corner

There are 2 refrigerator multiflow corner on the right and left back corner of the refrigerator section.



First remove the nail of the refrigerator multiflow corner from the cabinet by your finger. Then pull it to the bottom and remove it.



Be careful not to damage the insulation and the sponges.



Remove the refrigerator multiflow insulation corner.

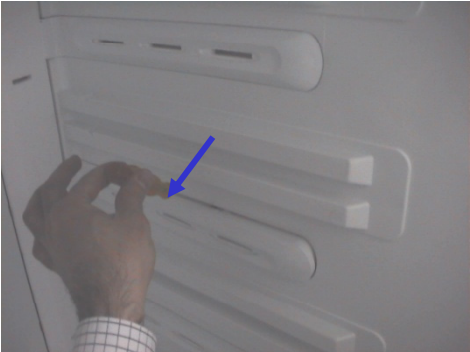
	<b>NO-FROST</b>	
	<b>REFRIGERATOR COMPARTMENT</b>	

**Replacement of Refrigerator Multiflow Side**

There are 6 refrigerator multiflow side parts on the side walls of the refrigerator section.



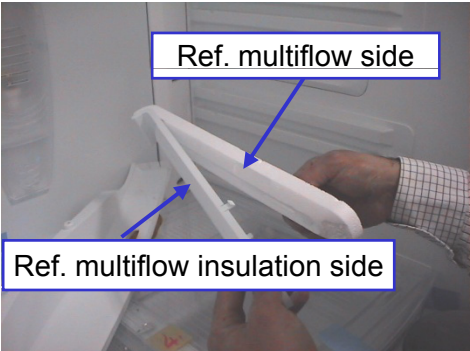
Remove the refrigerator multiflow side part nail from the cabinet by a screwdriver.



Remove the refrigerator multiflow side by pulling it forward.



Be careful not to damage the nails of the refrigerator multiflow side and the refrigerator multiflow insulation side.

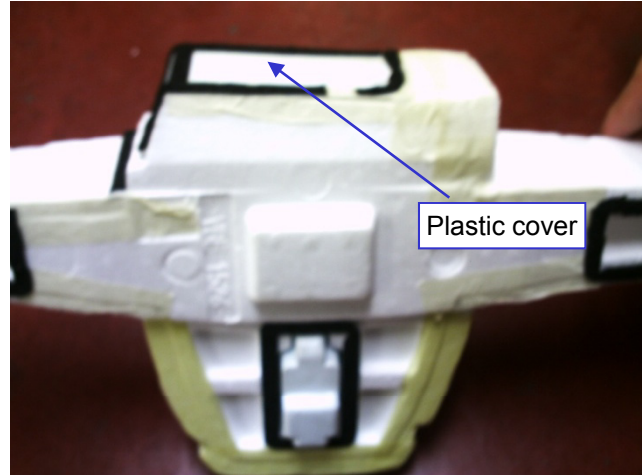
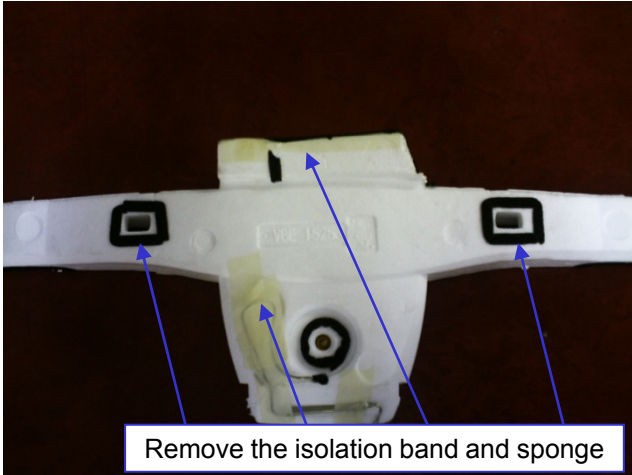


	<b>NO-FROST</b>	
	<b>REFRIGERATOR COMPARTMENT</b>	

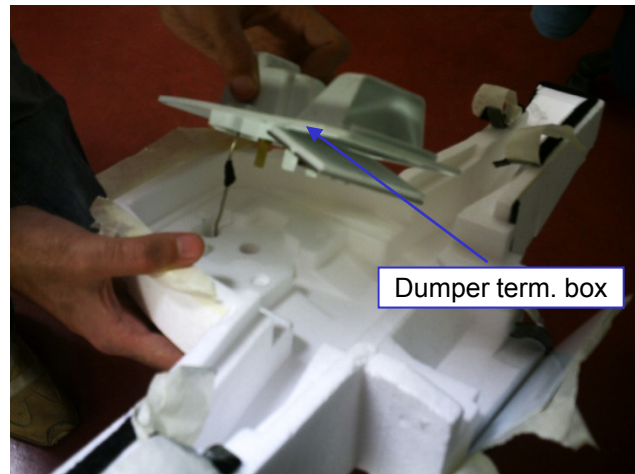
**Replacement of Dumper Thermostat:**

1) Remove the tapes shown in picture

2) Remove the plastic cover

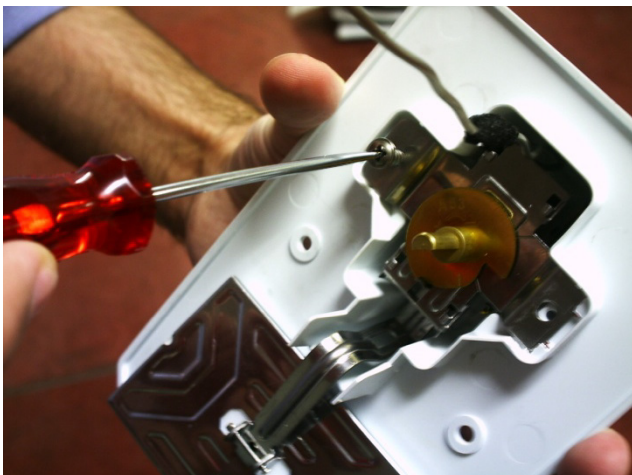


3) Remove the multiflow isolation cover by gently pulling



4) Unscrew the dumper thermostat fixing screws and take out it by pulling forward.

5) After replacing the dumper thermostat with a new one, place it and the EPS part into their place. It is very important to stick all the tapes as in shown in the first item.



	<b>NO-FROST</b>	
	<b>REPLACEMENT OF DOOR SWITCH</b>	

Insert a screwdriver into the gap and gently pull the door switch.



Disconnect the terminals. And remove the door switch.

