

+43°C
+5°C
A

+43°C
+5°C

A

12 RESPONSIBLE
CONSUMPTION
AND PRODUCTION



Vestfrost Solutions is working towards reaching the UN - Global Sustainable Development Goals by 2030.

The Sustainable Development Goals are the blueprint to achieve a better and more sustainable future for all. In order to implement Goal no 12 "Responsible Consumption and Production", this manual has been printed on recycled paper.



Technical manual VLS 096A RF SDD

WARNING

As the appliance contains flammable refrigerant, as stated on nameplate, it is essential to ensure that the refrigerant pipes are not damaged.

The quantity and type of the refrigerant used in your appliance is indicated on the rating plate.

Standard EN378 specifies that the room in which you install your appliance must have a volume of 1m³ per 8 g of hydrocarbon refrigerant used in the appliances. This is to avoid the formation of flammable gas/air mixtures in the room where the appliance is located in the event of a leak in the refrigerant circuit.

WARNING:

Keep ventilation openings in the appliance or in built-in structures must be kept clear.

WARNING:

Do not use other mechanical devices or means to accelerate the defrosting process or to remove rime other than those recommended by the manufacturer.

WARNING:

Do not damage the refrigerant system.

WARNING:

The appliance may not be exposed to rain.

WARNING:

Do not use **electrical appliances** inside the refrigerated storage compartment, unless they are of a type recommended by the manufacturer.

WARNING:

This appliance is not intended for use by persons (including children) with reduced physical, sensory or mental capabilities, or lack experience and knowledge, unless they have been given supervision or instructions concerning use of the appliance by a person responsible for their safety. Children should be supervised to ensure that they do not play with the appliance.

WARNING:

Children must not play with, on, or around the appliance.

WARNING:

Children must not clean the

appliance or carry out general maintenance unless they are at least 8 years old and are being supervised.

WARNING:

Always, keep the keys in a separate place and out of reach of children.

WARNING:

Danger risk of fire or explosion if flammable refrigerant are used. To be repaired only by trained personnel.

**WARNING:**

Before servicing or cleaning the appliance, switch off circuit breaker.

WARNING:

Do not store explosive substances such as aerosol cans with a flammable propellant in this appliance.

WARNING:

When positioning the appliance, ensure the power cord is not trapped or damaged.

WARNING:

Do not locate multiple portable socket-outlets or portable power supplies at the rear of the appliance.

WARNING:

Appliance use flammable insulation blowing gas. For information about safe disposal, please contact your local disposal service. See section for Disposal. See section for Disposal.



Contents

WARNING	2
Periodic preventive maintenance checks ...	5
Complete spare part list VLS096A RF SDD	6
Vital components	8
Health and safety guidance – Warning!.....	9
Required basic tools	10
Motor compartment	11
Wire diagram	12
Thermostat replacement	13
Thermostat programming	16
Starting device replacement.....	18
Thermometer replacement	20
Thermostat sensor replacement for refrigerator.....	22
Thermostat sensor replacement for freezer	24
Fan replacement	26
Fuse replacement.....	27
Keep drain clean.....	28
Compressor replacement	29
Trouble shooting.....	30
Technical support.....	31
Recycling procedures	32

Periodic preventive maintenance checks

Daily Check:

Monitor Temperature
Internal lid is placed properly
Lid fits and lock tight to cabinet
Lid gasket not faulty.
Condensation build up in vaccine compartment.

Weekly maintenance:

Remove any water at the bottom of the refrigerator with a cloth.
Wipe of water droplets on the inside wall.

Monthly maintenance:

Clean grille for compressor compartment.

6 Month:

Clean condenser coils

Yearly maintenance:

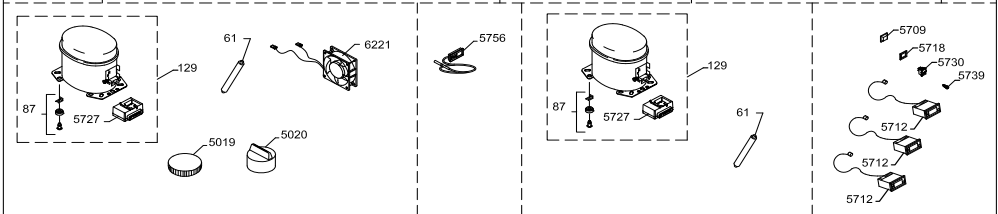
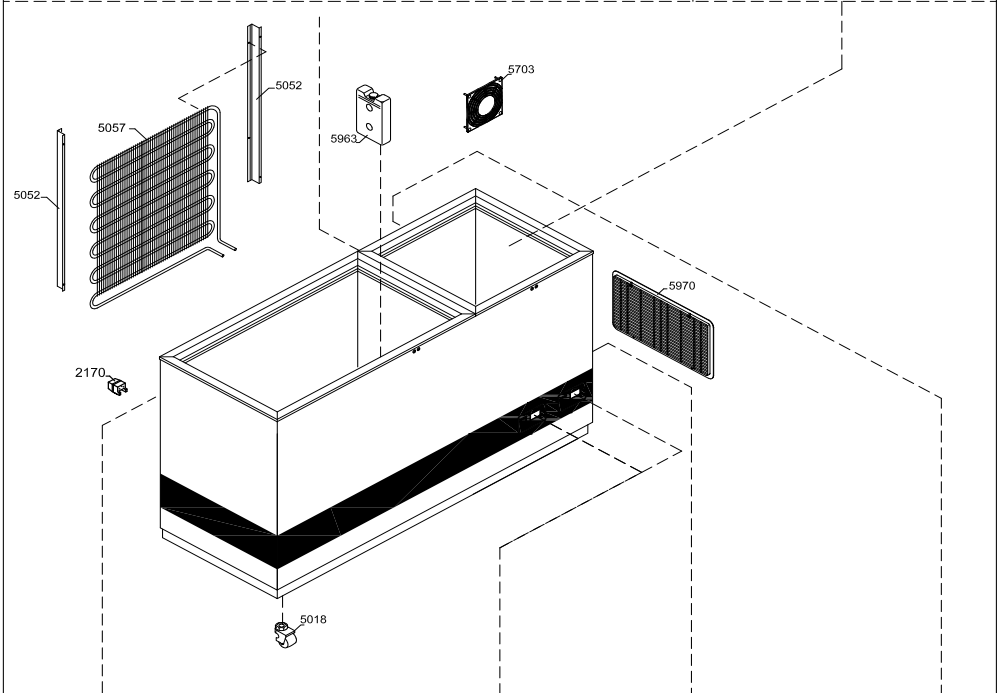
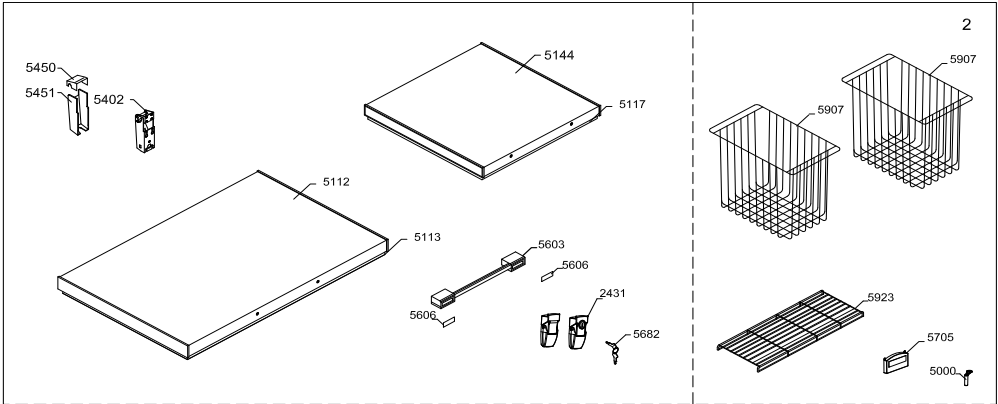
Check electrical connections and components.
Check electrical connections, cables, wirings from PV panel system.

Regularly:

Clean Solar Panels
Check Solar Panels are not shaded at any time of the day

Complete spare part list VLS096A RF SDD

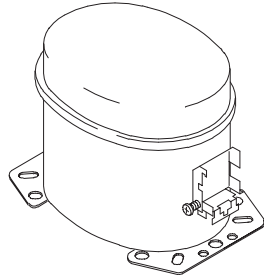
Position	Item number	Item name
0061	0-6538001	Filter drier,
0087	0-6038175	Base plate fittings, complete
0129	8-036510223	Compressor - BD35K 101Z0211 10-45V - ECU 6520845
2170	0-A9301260103	Distance piece
2431	A915010	Lock complete snap locks
5000	3010049	Drain plug
5018	1510158	wheel with feet
5019	3010358	Plastic lid
5020	3010483-01	Duckbill valve DU 225.001-154.01 / Műanyag rögzítő csap
5052	2040504	Fittings for condenser
5057	6010530	WOT condenser
5112	5000901674709	Lid foamed without handle/hinges
5113	3021234-01	Gasket
5117	3021235-01	Gasket
5144	5000901674106	Lid foamed without handle/hinges
5402	1510135	Hinge with spring
5450	3011135-01	Top part for hinge cover
5451	3010032-01	Bottom part for hinge cover
5603	8471782	Handle
5606	8090054	Inlay for handle,
5606	8090342-94	Inlay for handle,
5682	1510255	Nikel-plated Key
5703	3010506-01	Ventilation screen 120x120mm
5705	7020406	Temperature monitoring device Fridge-Tag 2E
5709	7060104	Frame for cover rocker switch bezel
5712	7095714	Refrigerator,Thermostat XR30CH
5712	7095715	Freezer,Thermostat XR10CH
5712	7095716	Safety,Thermostat XR10CH
5718	7060105	Rocker Switch Cover
5727	6520845	Electronics for BD35K compressor
5730	7020245	"on-off" switch
5739	7010139	Status indicator
5756	7020392-03	Thermometer, solar
5907	3510535	Basket VLS096
5923	3510536	Bottom grating
5963	A93010357	ICE-PACK 0,6 L
5970	3010308-01	Motor screen
6221	7030823	Fan



Vital components

Position **Item no** **Description**

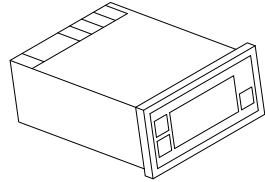
0129 8-036510223 Compressor



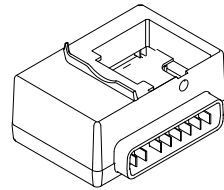
5712 7095714 Thermostat

5712 7095715 Freezer Thermostat

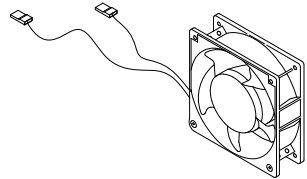
5712 7095716 Safety Thermostat



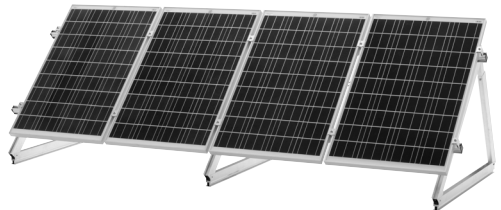
5727 6520845 Starting Device ECU



6221 7030823 Fan



PV Solar Panel Kit 2x180W



Health and safety guidance – Warning!

Before any repair job be aware of following!

WARNING:

Before servicing or cleaning the appliance, disconnect it from power source.



WARNING:

Danger risk of fire or explosion. Flammable refrigerant used. To be repaired only by trained personnel.

(R600a)



Required basic tools

1. Flexible socket wrench - size 7+13mm



2. Nose plier



3. Screwdriver - size 1,0x6,0 + 0,6x3,5



4. Phillips screwdriver



5. Torx screwdriver - size T10 + T20



6. Clamp meter



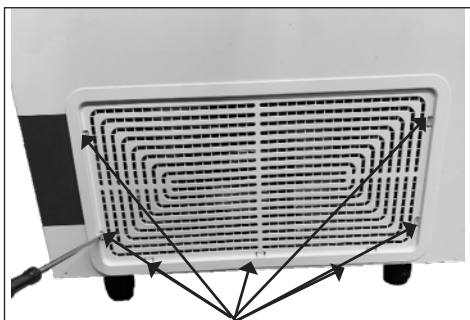
7. Multimeter



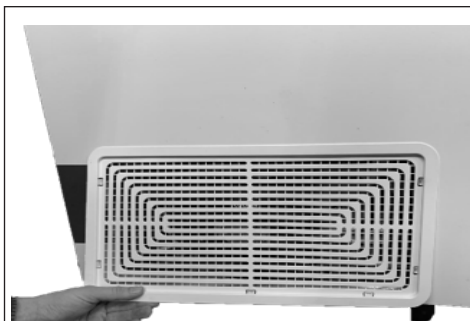
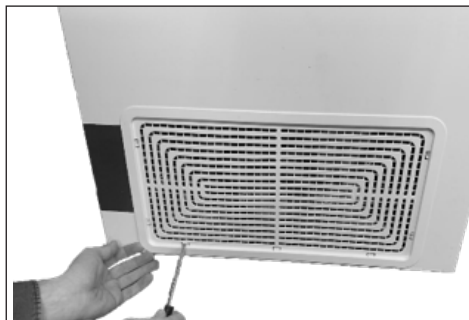
- Proposed additional service kit/items
- Sealing kit
- Tar tape
- Extra self-tapping screws

Motor compartment

How to get access to the motor compartment.



1. Use a screwdriver to unlock all 7 clamps.



2. Unlock all 7 clamps



3. Gently pull the compressor grille.

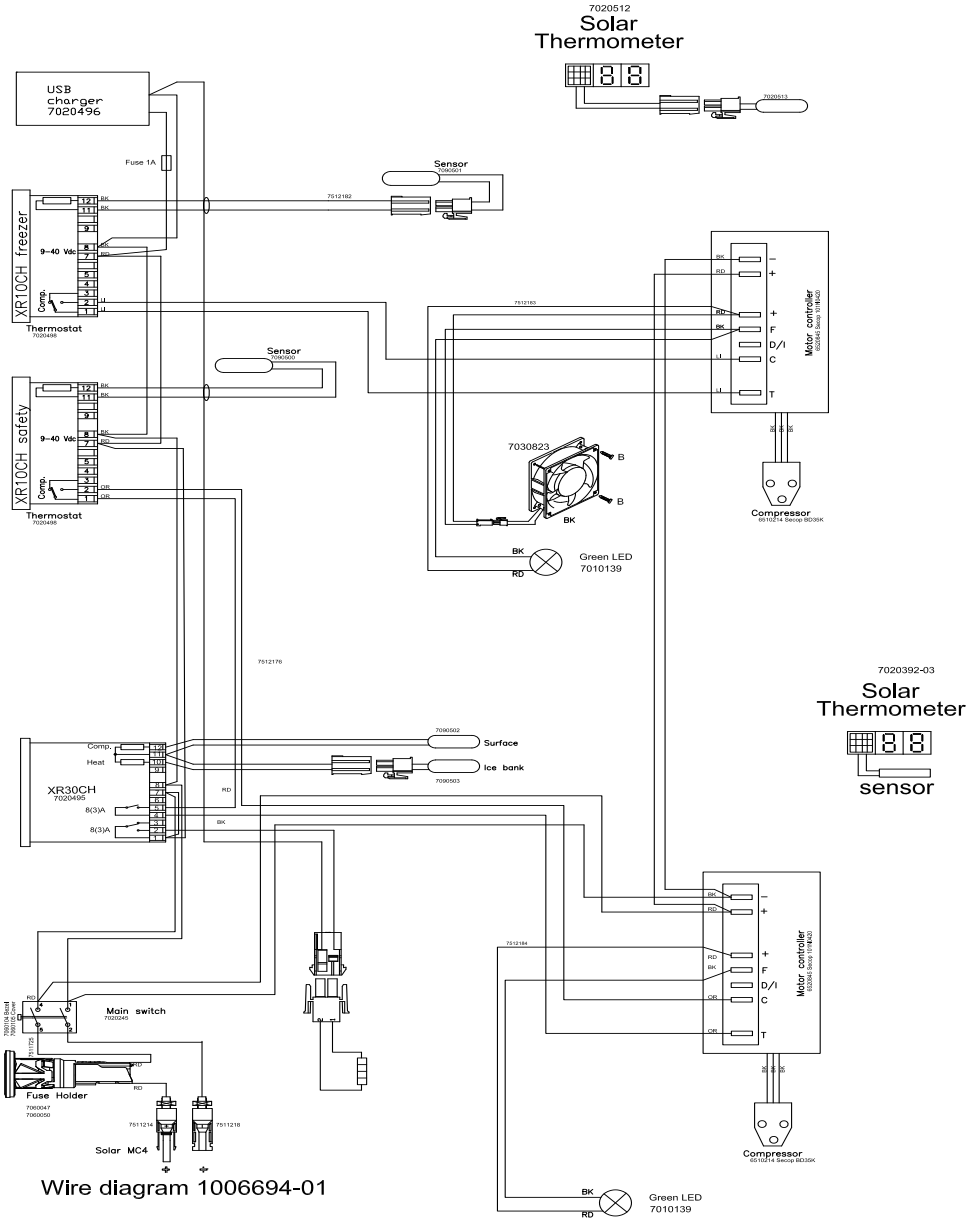
How to get access to the motor compartment on the back



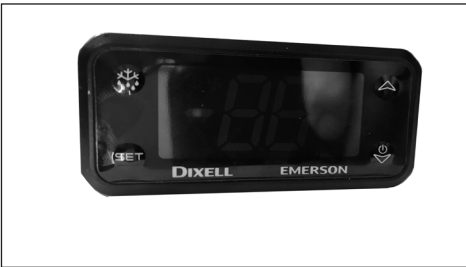
1. Use a screwdriver to loosen all 4 screws.



Wire diagram



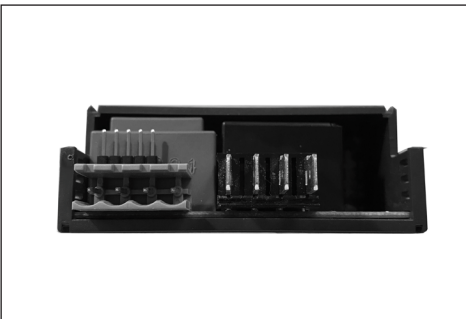
Thermostat replacement



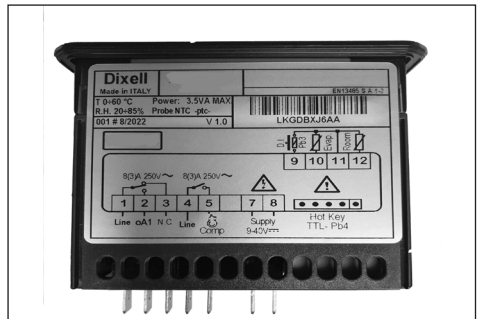
Front with display and adjustments buttons for safety



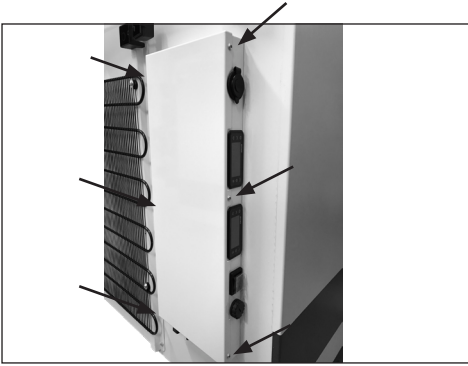
Front with display and adjustments buttons for cooler



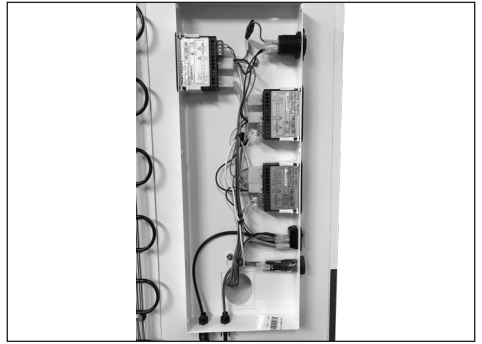
Back with electrical sockets



Top view



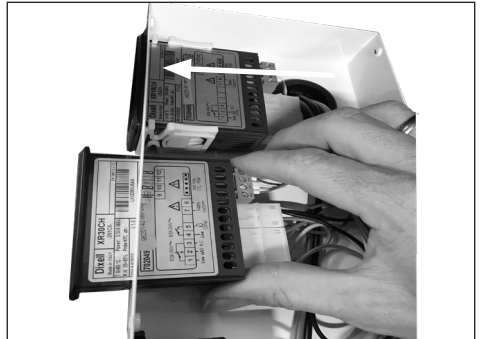
1. Access electrical components Dismount 6 x Torx 20 screws and unmount the junction box lid



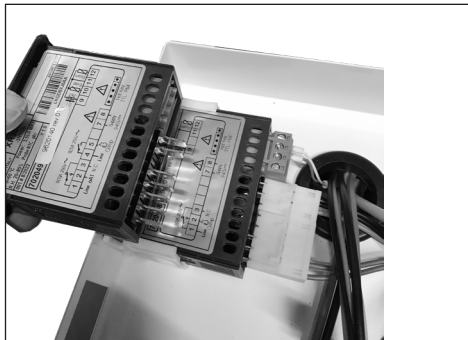
2. Open junction box lid



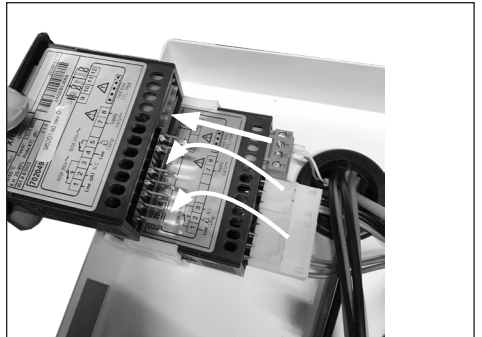
3. Push clip on both sides.



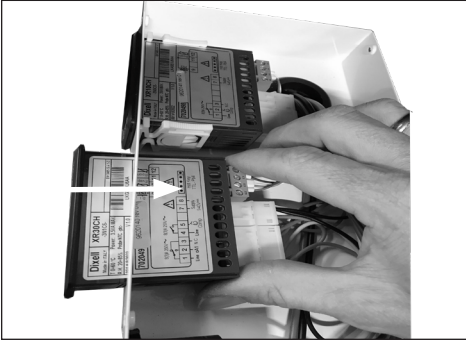
4. Push the thermostat out of the junction box.



5. Get the new thermostat and uncrew wires from socket



6. Switch the wires from old to new thermostat one by one



7. Place the thermostat back in place of the junction box











8. Use your finger to press/slide the back the fixing clamps to fasten the thermostat body

It's the same procedure that needs to be done for all 3 thermostats

Thermostat programming

Front panel commands



SET	To display target set point. In programming mode it selects a parameter or confirm an operation.	
	(DEF) To start a manual defrost	
	(UP) To see the max stored temperature. In programming mode it browses parameters or increases the displayed value.	
	(DOWN) To see the min stored temperature. In programming mode it browses the parameters or decreases the displayed value.	
	To switch the instrument off, if onF = oFF	
	Not enabled	
	To lock and unlock the keyboard	
SET + 	To enter in programming mode	
SET + 	To return to the room temperature display.	

Main functions

How to see the set point

1. Push and immediately release the **SET** button. The display will show the set point value.
2. Push and immediately release the **SET** button or wait for 5 seconds to display the probe value again.

How to change the set point

1. Keep **SET** button pressed more than 2 seconds to change the set point value.
2. The value of the set point will be displayed and the “°C” or “°F” LED starts blinking.
3. To change the set point value push the **UP** or **DOWN** buttons.
4. To memorize the new set point value push the **SET** button again or wait for 10 sec.

How to change a value

To change the parameter's value operate as follows:

1. Enter the programming mode by pushing **SET + DOWN** for 3 sec. The “°C” or “°F” LED start blinking.
2. Select the required parameter. Press the “SET” key to display its value
3. Use **UP** or **DOWN** to change its value.
4. Press **SET** to store the new value and move to the following parameter.

To exit: Press **SET + UP** or wait for 15 sec without pressing a key.



Important!

Incorrect parameter settings can lead to unsatisfactory cooling, risking damage to stored vaccines.

If adjustment is required **ONLY** to be performed by trained technicians .

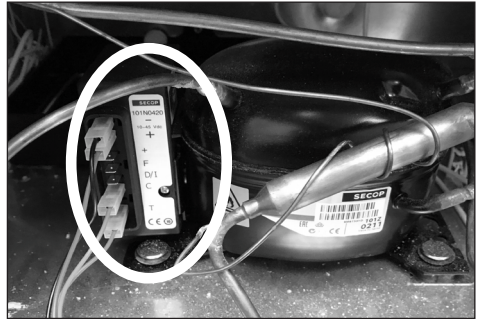
Adjust the controller max. 1°C at a time.

After adjustment monitor appliance carefully for min. 24 hours

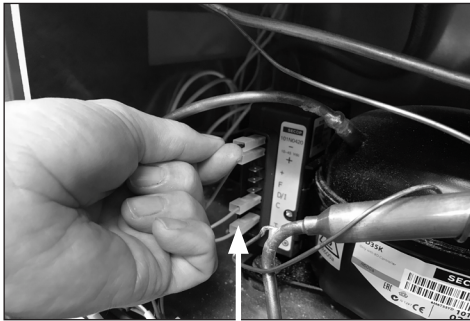
Starting device replacement



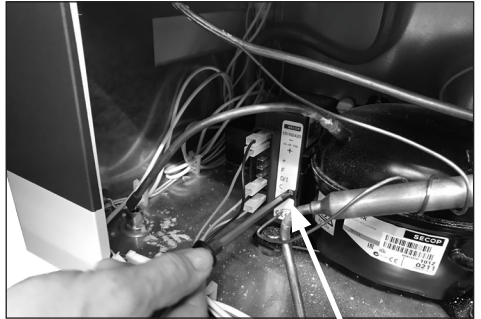
Starting device: Back, Front with terminal board.



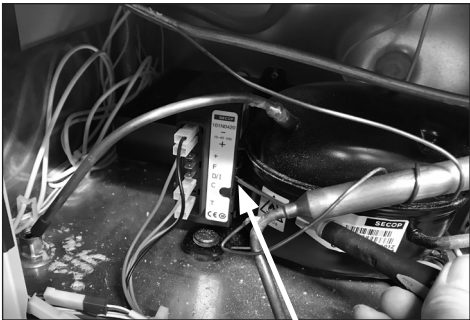
The starting device is mounted to the left side of the compressor.



1. Dismount the 6 wires from ECU. Grab the wire socket and pull gently.



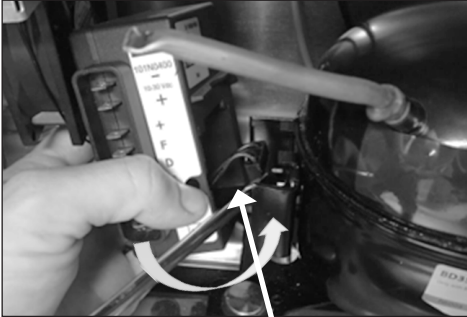
2. Loosen the screw a couple of turns.



3. Place a screwdriver in the small vent in the plastic cover.

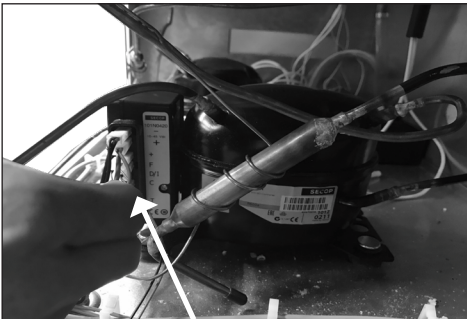


4. Unclick plastic cover/starting device from compressor bracket

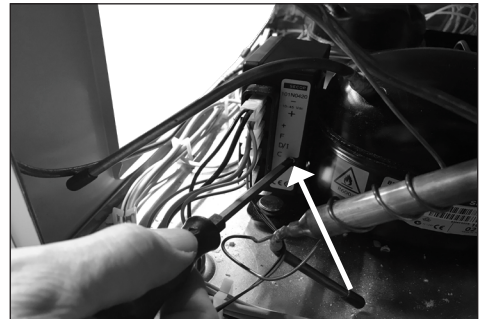


5. Use a screwdriver to disconnect the socket from compressor.

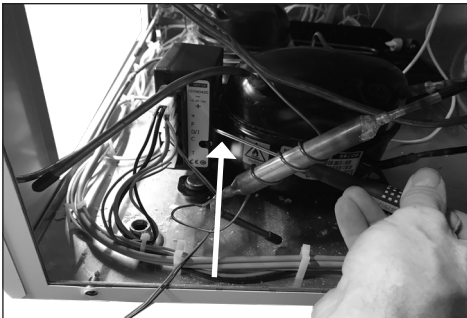
It's the same procedure that needs to be done for both devices.
The next 4 pictures is for the device the is placed on the side



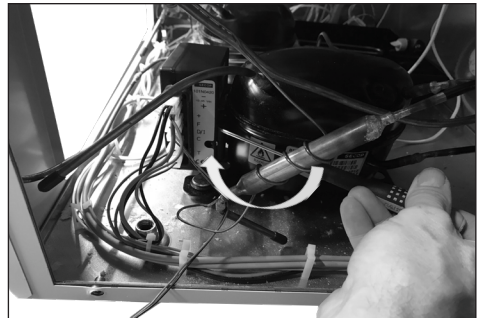
1. Dismount the 6 wires from ECU.
Grab the wire socket and pull gently.



2. Loosen the screw a couple of turns.

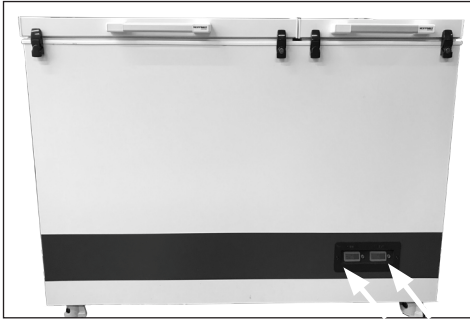


3. Place a screwdriver in the small vent in the plastic cover.

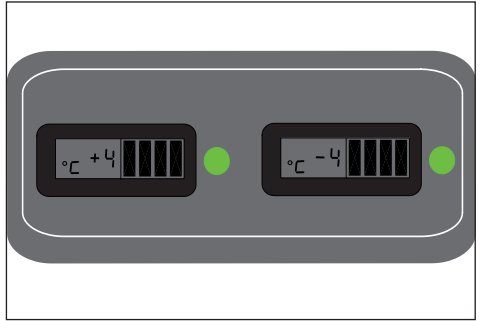


4. Unclick plastic cover/starting device from compressor bracket.

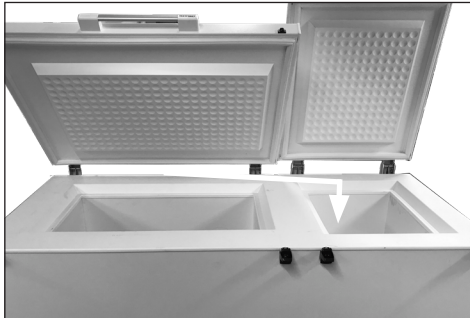
Thermometer replacement



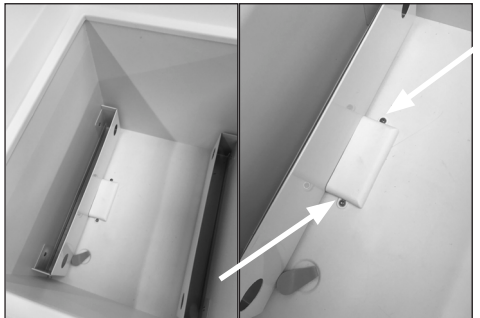
The thermometer is placed in at the front of the appliance.



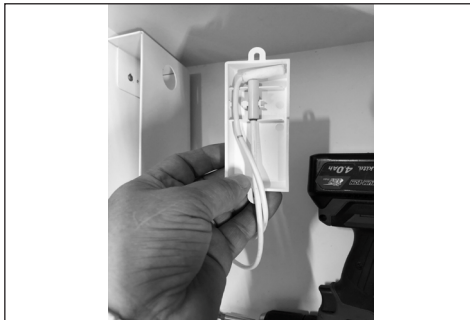
Thermometer display.



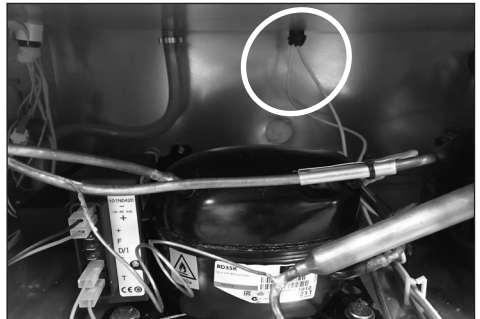
The thermometer sensor is placed inside the compartment of the appliance.



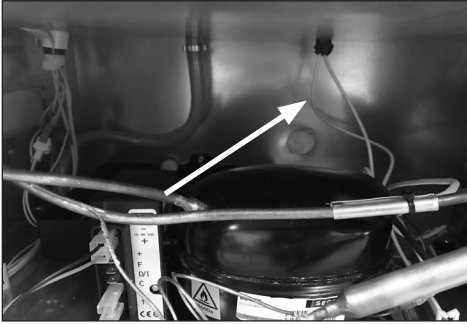
1: Dismount the temperature sensor cover by loosen the 2 x torx screws – size 10.



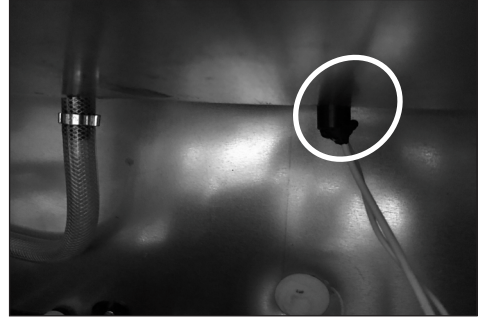
2. Take it out gently, remove the wire and the sensor from the cover.



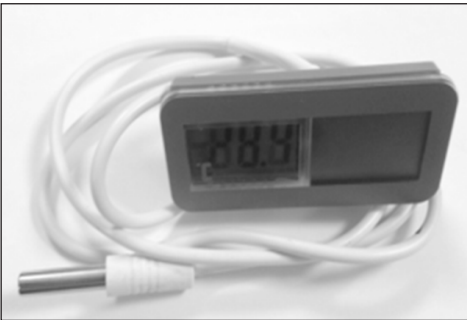
3. In Compressor compartment, gently pull the white wire until the probe is visible.



4. Remove the sensors from the housing



5. Remove black sealing tar-kit and gently pull the black wire until the probe is visible

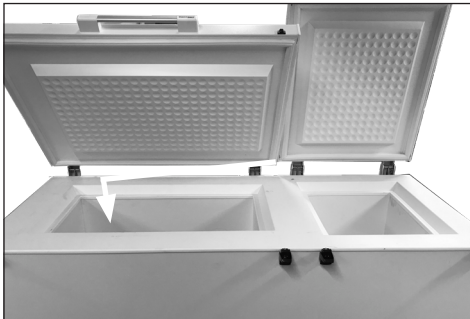


6. Thermometer comes with wire and sensor.

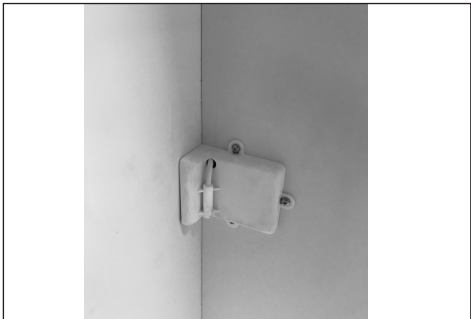


7. **IMPORTANT!**
When re-mounting the new thermometer make sure the wire sealing plug is placed properly

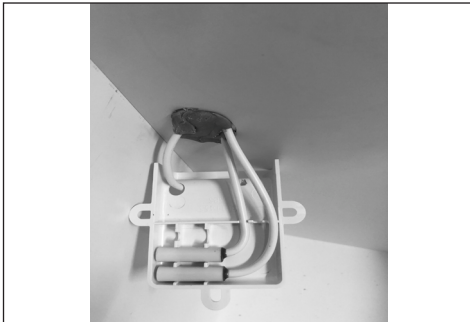
Thermostat sensor replacement for refrigerator



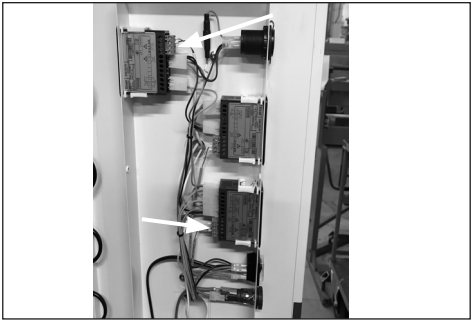
The thermostat sensor is placed inside the compartment of the appliance.



1: Dismount the temperature sensor cover by loosen the 2 x torx screws – size 10.



2. Take it out gently, remove the wire and the sensor from the cover.



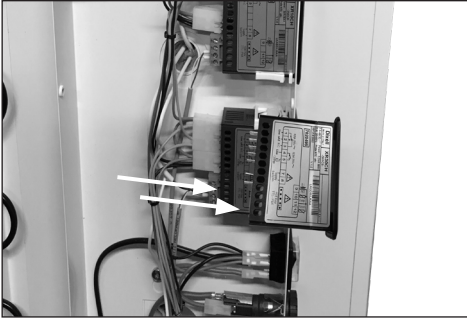
3.



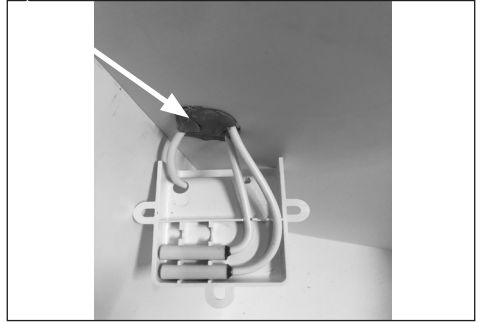
4. Pull gently the wire out from thermostat



5.



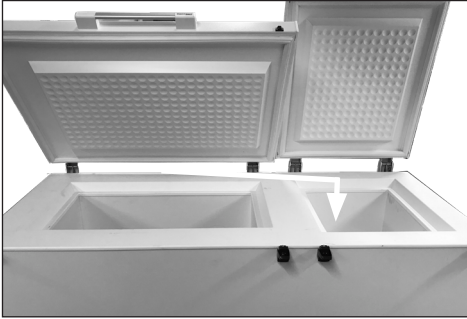
6. Switch the wires from old to new thermostat one by one



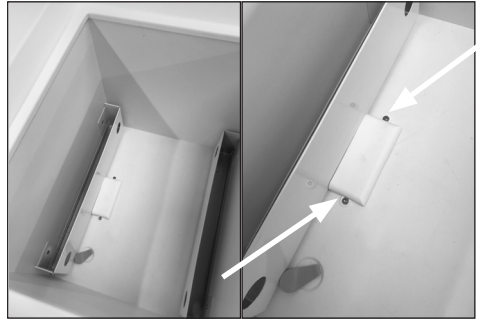
7. **IMPORTANT!**

When re-mounting the new thermometer remember to properly seal the wire feed through

Thermostat sensor replacement for freezer



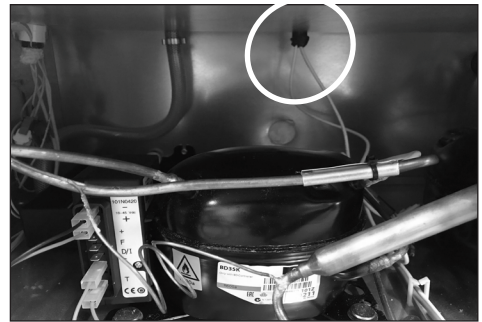
The thermometer sensor is placed inside the compartment of the appliance.



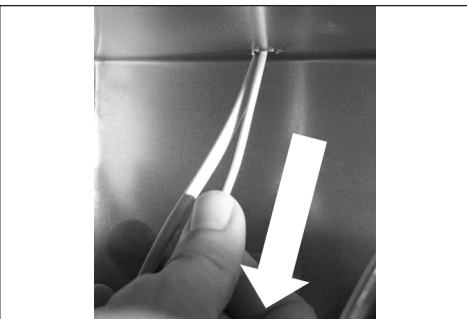
1: Dismount the temperature sensor cover by loosen the 2 x torx screws – size 10.



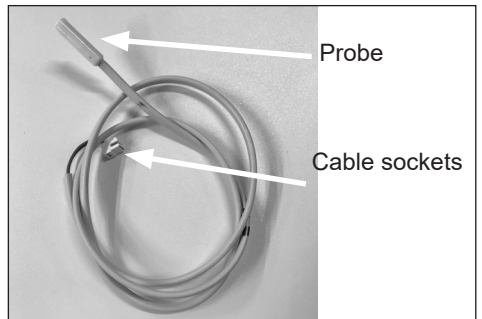
2. Take it out gently, remove the wire and the sensor from the cover.



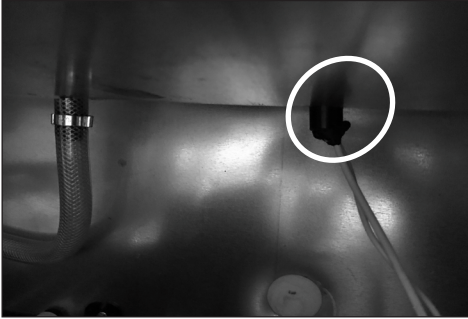
3. In Compressor compartment, gently pull the white wire until the probe is visible.



4. Gently pull the white wire until the probe is visible.

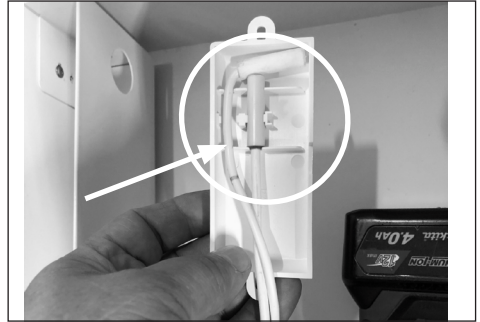


5. The thermostat sensor comes with probe, wire and cable socket.



6. IMPORTANT!

When re-mounting the new thermostat sensor remember to properly seal the wire feed through.



7. IMPORTANT!

When re-mounting the new thermometer make sure the wire sealing plug is placed properly

Fan replacement



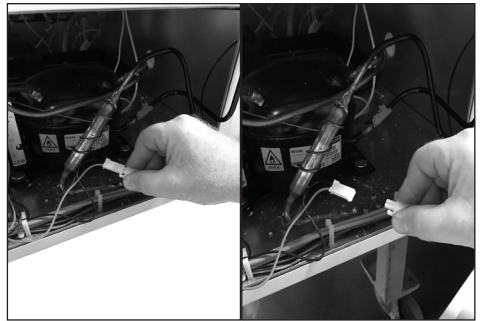
1. Use a screwdriver to loosen all 4 screws.



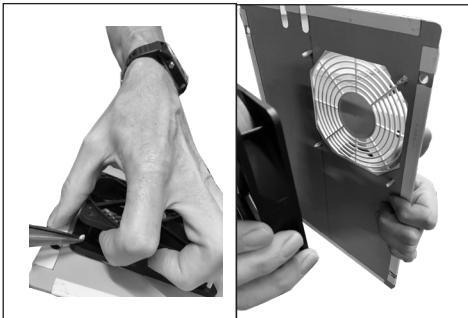
2. Remove the grill



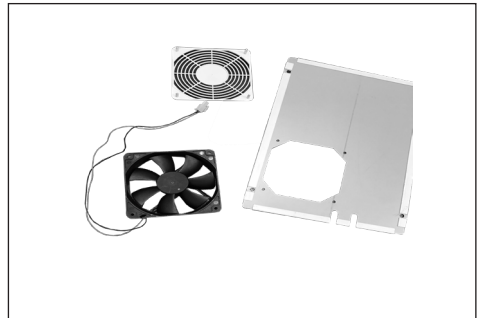
3. Loosen the wires



4. Spilt the plugs



5. Press the splits and the fan will get loos



6. Reassemble all parts.

Fuse replacement



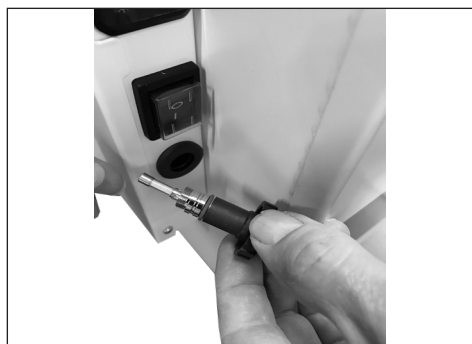
1. The fuse is placed at the bottom on the electrical box.



2. Used a screw driver



3. Pull out the fuse gently



4. Take the fuse out of the holder gently with you fingers



5. Holder and fuse



6. Keep the spare fuses in the small plastic-bag.

Keep drain clean



1. The drain is in the bottom



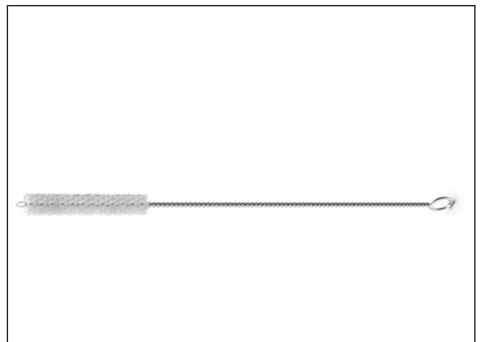
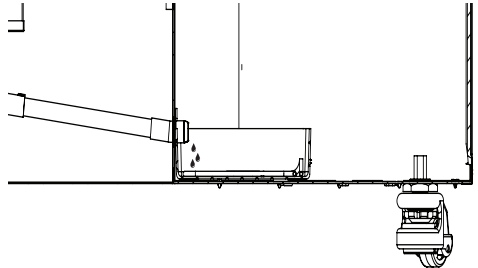
2. Remove the filter if there is getting any problems with the drain.

If the appliance drain becomes blocked by any objects, the water can't drain away as it should from the vaccine compartment, which will result in water accumulating, which further could result in creating issues with the stored vaccine vials, stickers, cardboard boxes, etc.

This is why it is an important SOP procedure, to regularly ensure that the drain filter is clean and free from dirt and waste.

To do the cleaning, use lukewarm water with a mild cleaning agent on a soft cloth, and wipe off the filter along with the surrounding bottom.

Finish off with a dry dishtowel or similar, to ensure all objects are removed and the bottom is dry.



2. Use a very small bottle cleaner, if cleaning becomes necessary in the tube.

Compressor replacement

Procedure of compressor switch.

1: **WARNING!** Drain coolant R600a from refrigeration system by vacuum suction.

2: **IMPORTANT!** Blow refrigeration system with NO/Nitrogen

3: Cut

A: Suction and pressure tube

B: Capillary tube

C: Dry filter

4: Dismount starting device ECU

5: Dismount old compressor

6: Insert new compressor

7: Solder

A. Suction and pressure tube

B. Capillary tube

C. Dry filter

8: Install starting device ECU

IMPORTANT! When solder copper tubes to iron tubes use silver tin

Filling of new refrigerant

9: Drain refrigeration system by vacuum suction

10: Check type sticker for required amount of R600a to fill on refrigerant system

Fill 50g of R600a refrigerant on the system

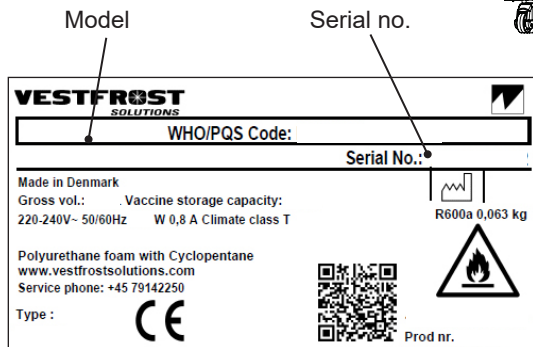
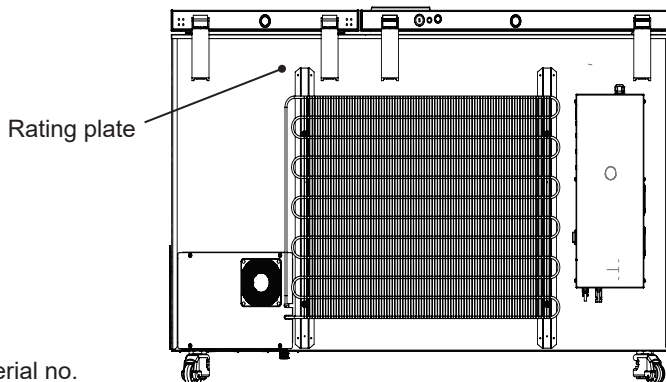
Trouble shooting

Fault	Possible cause	Remedy
Compressor is not running.	Be patient, it is most likely that the compressor will start within a few minutes.	<p>If this is not the case, check the following:</p> <ul style="list-style-type: none"> - Check that power is connected and that the wire from the solar panel to the appliance is intact. - Check the fuse and replace it if necessary. - If the above is OK, call technical supervisor.
Compressor is running, and the temperature is too high.	<p>The ventilation grille is blocked.</p> <p>The lid is not closed properly.</p> <p>The fan in the compressor compartment is blocked or defective.</p> <p>The temperature in the room in which the appliance is installed is too high.</p>	<p>Ensure unhindered air circulation.</p> <p>Ensure that the lid is closed properly.</p> <p>Check that the fan is running, if not it should be replaced.</p> <p>Shield the appliance against direct sun light and ensure more ventilation to the room.</p>
Temperature in VLS SDD is too low.	To low set point on digital controller.	Contact technical supervisor for adjustment.
No temperature is displayed.	There is not enough light for the solar sensor.	Turn on the light.
No light in green diode during day time.	<p>Switch is turned OFF</p> <p>Fuse is burned</p> <p>Diode is defect</p>	<p>Turn on the switch.</p> <p>Replace the fuse.</p> <p>Replace diode.</p>

Technical support

If contacting Vestfrost Solutions technical support please supply below information:

1. Model
2. Serial number
3. What is the issue



Contact:

Vestfrost Solutions

Tel. +45 75142250

cce-service@vestfrostsolutions.com

Or visit our service-center webpage:

<http://www.vestfrostsolutions.com/service-center/>

Recycling procedures

Information for Users on Collection and Disposal Old Equipment and used Batteries



This symbol on the products, packaging, and/or accompanying documents mean that used electrical and electronic products and batteries should not be mixed with general household waste. For proper treatment, recovery and recycling of old products and used batteries, please take them to applicable collection points, in accordance with your national legislation and the Directives 2012/19/EU and 2006/66/EC.

By disposing of these products and batteries correctly, you will help to save valuable resources and prevent any potential negative effects on human health and the environment which could otherwise arise from inappropriate waste handling.

For more information about collection and recycling of old products and batteries, please contact your local municipality, your waste disposal service or the point of sale where you purchased the items.

Penalties may be applicable for incorrect disposal of this waste, in accordance with national legislation.

