



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 MF 114 - MF 214 - MF 314
Internal Voltage Stabilizer

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:

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:

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

**WARNING:**

Danger risk of fire or explosion. Flammable refrigerant used, as stated on nameplate. To be repaired only by trained personnel.

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.



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Periodic preventive maintenance checks

Daily Check:

Monitor Temperature.
Lid fits and lock tight to cabinet
Lid gasket not faulty.

Weekly maintenance:

Check for the ice layer
Defrost equipment if ice > 1 cm
Clean the lid.

Monthly maintenance:

Clean grille for compressor compartment.
Clean the refrigerator with lukewarm water
and mild detergent.

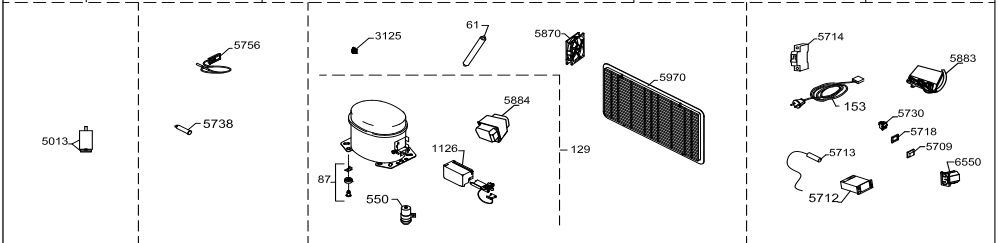
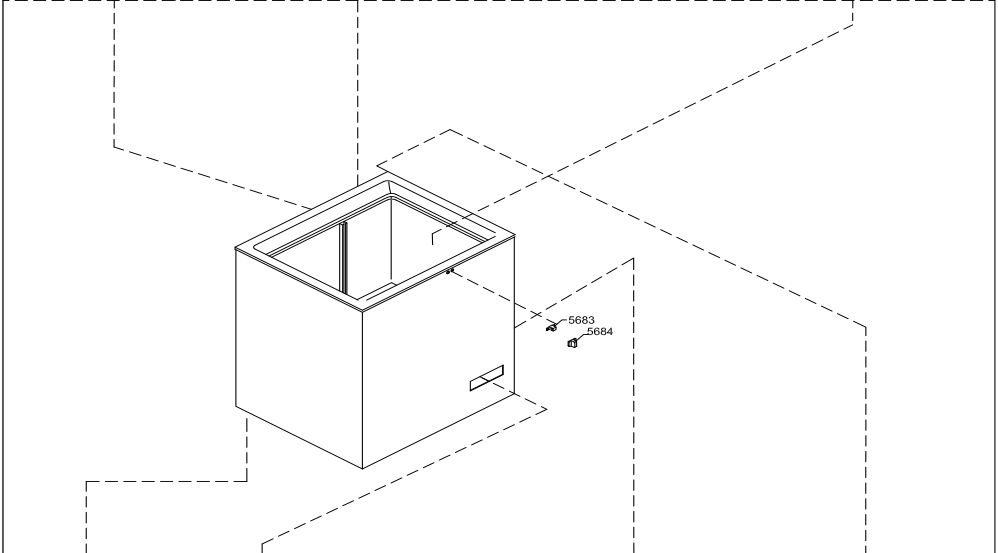
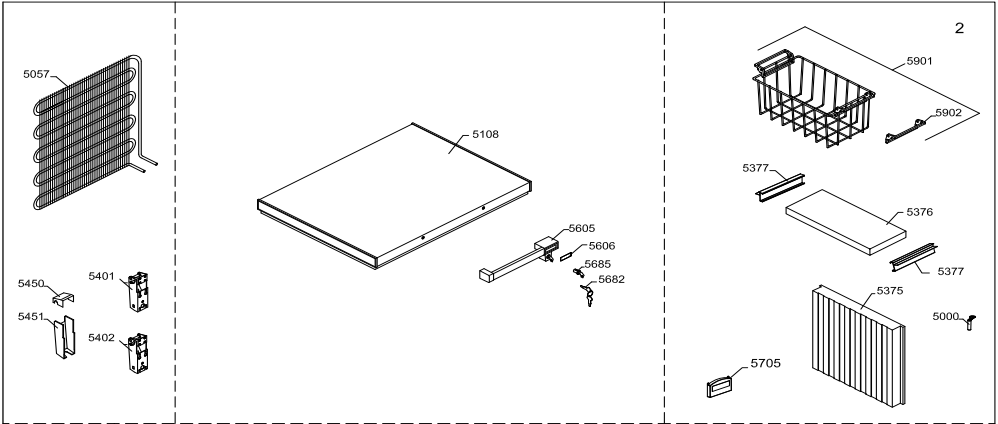
Yearly maintenance:

Check electrical connections and components.

PQS Code	Model	PQS Performance specifications Specification reference:	PQS Independent type-testing protocol Product verification protocol:
E003/024	MF 114	E003/FZ01.2	E003/FZ01-VP.2
E003/025	MF 214	E003/FZ01.2	E003/FZ01-VP.2
E003/023	MF 314	E003/FZ01.2	E003/FZ01-VP.2

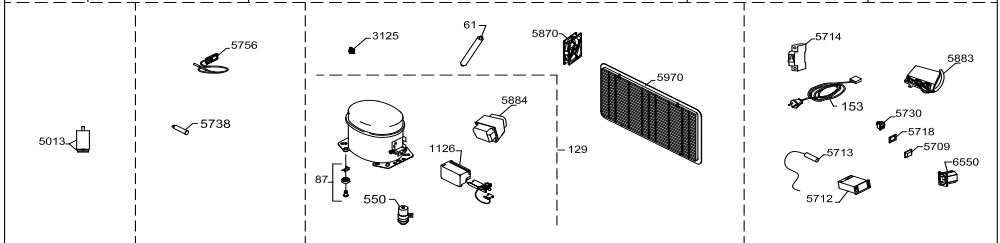
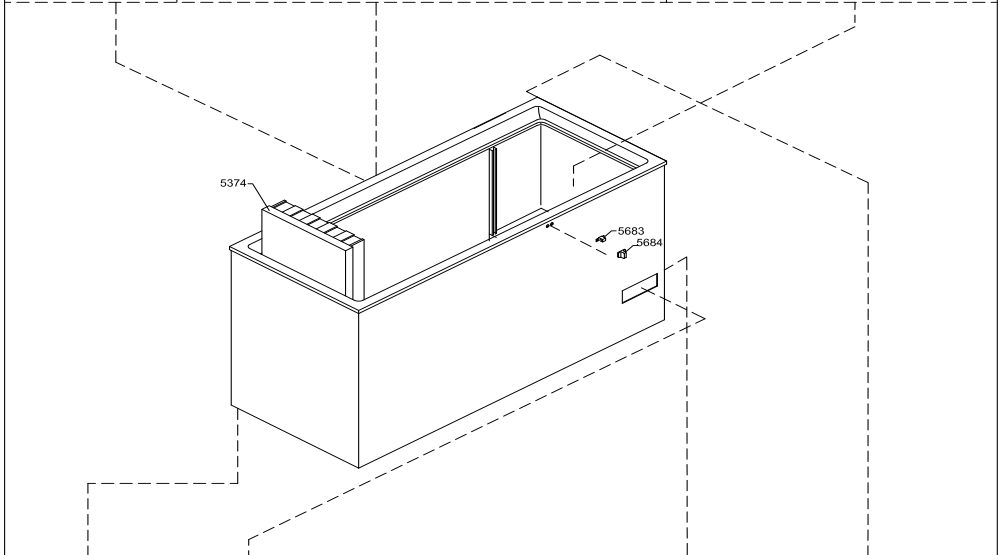
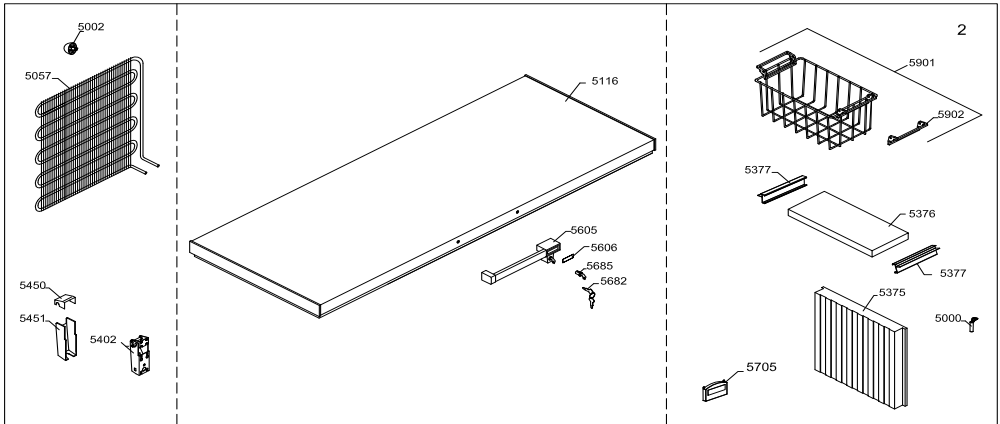
Spare part list MF 114

Position	Item number	Item name
0061	0-6538001	Filter drier,
0087	0-6038175	Base plate fittings, complete
0129	8-036510018	Compressor - HXK80AT , Complete,
0153	7535234	Mains lead/Power cord UK plug with angled C13 connector
0153	7535250	Power cord
0153	7535254	Power cord EU H05VV-F 3G1 C13 jack 90° black 2500mm EU-plug
0550	6520510	Run cap. 4uF/4,8 receptacles
1126	0-A921012	Cover + wiring clamp
3125	3010457	Pipe holder Ø6
5000	3010049	Drain plug
5013	3040400	Adjustable foot
5057	6010084	WOT condenser
5108	5000917670	Lid foamed without handle/hinges
5375	6000965	Partition, complete
5376	5020105	Lid for fast freeze compartment
5377	3020245-23	Handle
5401	1510133	Hinge
5402	1510136	Hinge with spring
5450	3011135-01	Top part for hinge cover
5451	3010032-01	Bottom part for hinge cover
5605	304090501	Handle with lock (push and turn)
5606	8090342-94	Inlay for handle,
5682	1510238	Nikel-plated Key
5683	2040145	Catch for handle
5684	3010265-01	Cover for catch
5685	600098801	Lock with keys.(push and turn)
5705	7020506	Temperature monitoring device Fridge-Tag 2E
5709	7060104	Frame for cover rocker switch bezel
5712	7095610	Electronic controller ERC 111A Reprogrammed
5713	7020961	Sensor NTC S1, 1500 mm
5714	7060247	Overcurrent circuit breaker
5718	7060105	Rocker Switch Cover
5730	7020245	"on-off" switch
5738	7010138	Pilot lamp, green
5756	7020164	Thermometer, solar
5870	7090477	Fan
5883	7020475	Voltage stabiliser controller thyatron MFSL 110-285V 50Hz
5884	7020497	Voltage stabilizer transformer thyatron MFSL 110-285V 50Hz
5901	353090001	Basket with handle, white
5902	3010107-01	Spare handle for basket
5970	3010308-01	Motor screen
6550	7080143	Connector



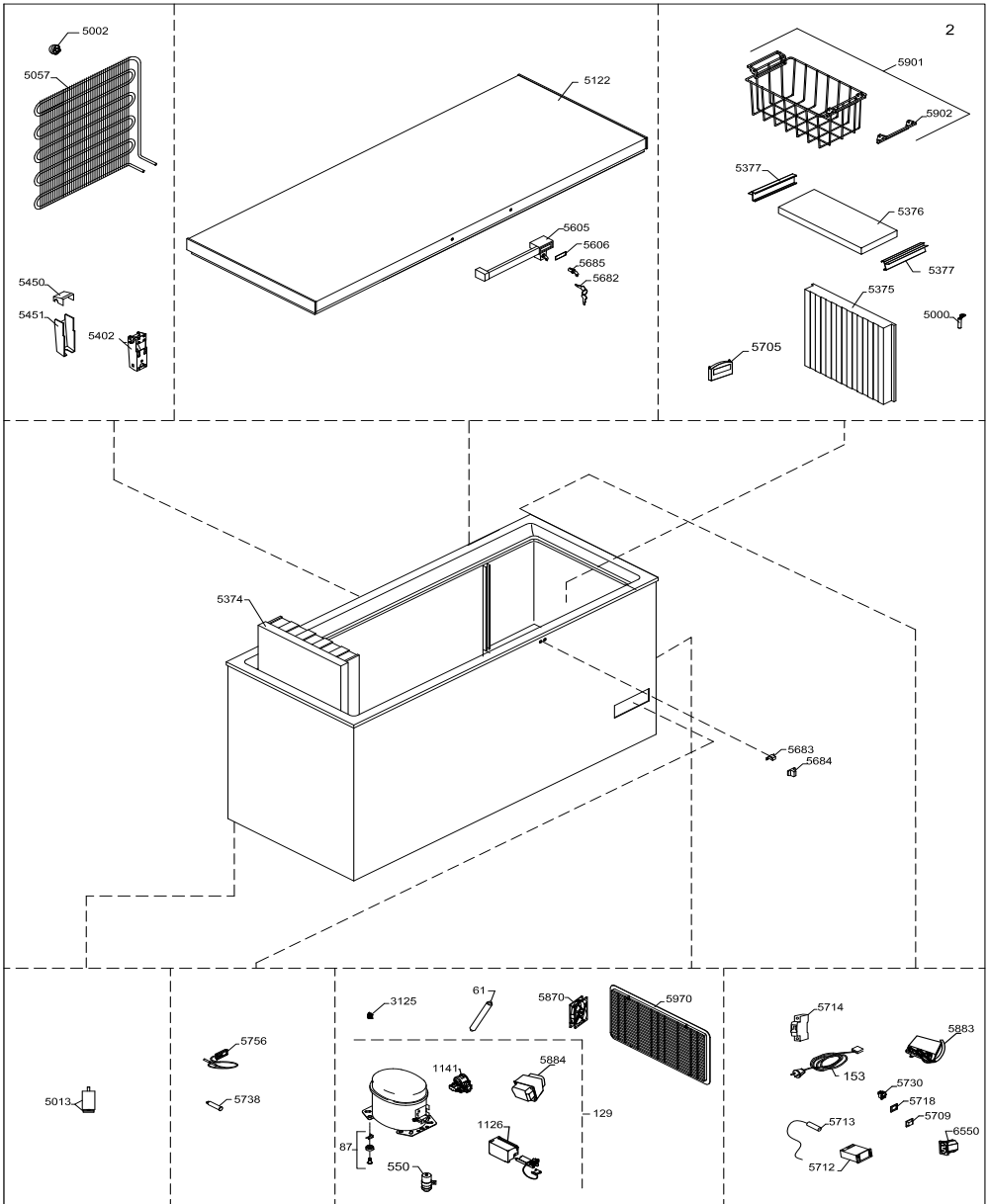
Spare part list MF 214

Position	Item number	Item name
0061	0-6538001	Filter drier,
0087	0-6038175	Base plate fittings, complete
0129	8-036510018	Compressor - HXK80AT , Complete,
0153	7535234	Mains lead/Power cord UK plug with angled C13 connector
0153	7535250	Power cord
0153	7535254	Power cord EU H05VV-F 3G1 C13 jack 90° black 2500mm EU-plug
0550	6520510	Run cap. 4uF/4,8 receptacles
1126	0-A921012	Cover + wiring clamp
3125	3010457	Pipe holder Ø6
5000	3010049	Drain plug
5002	6000959	Foot with pin/distance pieces
5013	3040400	Adjustable foot
5057	6010084	WOT condenser
5116	5000918651	Lid foamed without handle/hinges
5374	3040184	Ice pack tray
5375	6000965	Partition, complete
5376	5020105	Lid for fast freeze compartment
5377	3020245-23	Handle
5402	1510135	Hinge with spring
5450	3011135-01	Top part for hinge cover
5451	3010032-01	Bottom part for hinge cover
5605	304090501	Handle with lock (push and turn)
5606	8090342-94	Inlay for handle,
5682	1510238	Nikel-plated Key
5683	2040145	Catch for handle
5684	3010265-01	Cover for catch
5685	600098801	Lock with keys.(push and turn)
5705	7020506	Temperature monitoring device Fridge-Tag 2E
5709	7060104	Frame for cover rocker switch bezel
5712	7095610	Electronic controller ERC 111A Reprogrammed
5713	7020961	Sensor NTC S1, 1500 mm
5714	7060247	Overcurrent circuit breaker
5718	7060105	Rocker Switch Cover
5730	7020245	"on-off" switch
5738	7010138	Pilot lamp, green
5756	7020164	Thermometer, solar
5870	7090477	Fan
5883	7020475	Voltage stabiliser controller thyatron MFSL 110-285V 50Hz
5884	7020497	Voltage stabilizer transformer thyatron MFSL 110-285V 50Hz
5901	353090001	Basket with handle, white
5902	3010107-01	Spare handle for basket
5970	3010308-01	Motor screen
6550	7080143	Connector



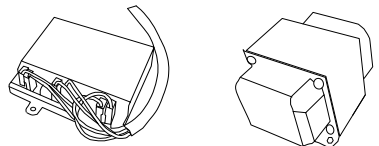
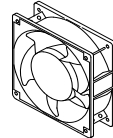
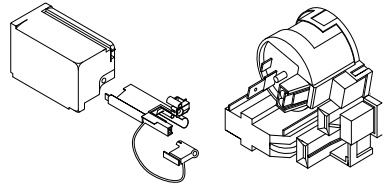
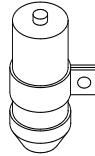
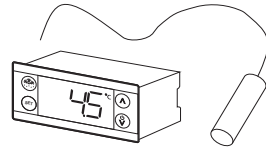
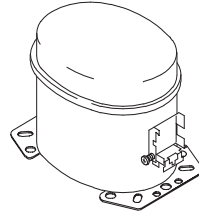
Spare part list MF 314

Position	Item number	Item name
0061	0-6538001	Filter drier,
0087	0-6038175	Base plate fittings, complete
0129	8-03606510309	Compressor - HXK12AT , Complete,
0153	7535234	Mains lead/Power cord UK plug with angled C13 connector
0153	7535250	Power cord
0153	7535254	Power cord EU H05VV-F 3G1 C13 jack 90° black 2500mm EU-plug
0550	6520510	Run cap. 4uF/4,8 receptacles
1126	0-A921012	Cover + wiring clamp
1141	6520511	Starting device PTC
3125	3010457	Pipe holder Ø6
5000	3010049	Drain plug
5002	6000959	Foot with pin/distance pieces
5013	3040400	Adjustable foot
5057	6010084	WOT condenser
5122	5000914651	Lid foamed without handle/hinges
5374	3040184	Ice pack tray
5375	6000965	Partition, complete
5376	5020105	Lid for fast freeze compartment
5377	3020245-23	Handle
5402	1510136	Hinge with spring
5450	3011135-01	Top part for hinge cover
5451	3010032-01	Bottom part for hinge cover
5605	304090501	Handle with lock (push and turn)
5606	8090342-94	Inlay for handle,
5682	1510238	Nikel-plated Key
5683	2040145	Catch for handle
5684	3010265-01	Cover for catch
5685	600098801	Lock with keys,(push and turn)
5705	7020506	Temperature monitoring device Fridge-Tag 2E
5709	7060104	Frame for cover rocker switch bezel
5712	7095610	Electronic controller ERC 111A Reprogrammed
5713	7020961	Sensor NTC S1, 1500 mm
5714	7060247	Overcurrent circuit breaker
5718	7060105	Rocker Switch Cover
5730	7020245	"on-off" switch
5738	7010138	Pilot lamp, green
5756	7020164	Thermometer, solar
5870	7090477	Fan
5883	7020475	Voltage stabiliser controller thyatron MFSL 110-285V 50Hz
5884	7020497	Voltage stabilizer transformer thyatron MFSL 110-285V 50Hz
5901	353090001	Basket with handle, white
5902	3010107-01	Spare handle for basket
5970	3010308-01	Motor screen
6550	7080143	Connector



Vital components

Position	Item no	Description
MF 114 & MF 214 0129	8-036510018	Compressor
MF 314 0129	8-03606510309	Compressor
5712	7095610	Electronic controller
5713	7020961	Sensor
0550	6520510	Run capacitor
1126	0-A921012	Cover & wiring clamp
MF 314 1141	6520511	Starting device
MF 314 5870	7090477	Fan
5883 5884	7020475 7020497	Controller Thyratron Transformer Thyratron



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.

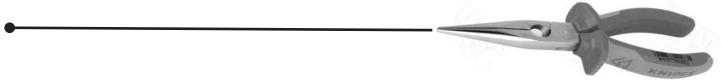


Required basic tools

1. Flexible socket wrench - size 7+13mm



2. Nose plier



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



4. Phillips screwdriver



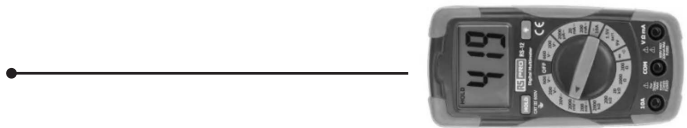
5. Torx screwdriver - size t10+t20



6. Multimeter



7. Clamp meter






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

Thermostat adjustment

The thermostat is default factory set, and as a general rule not supposed to be adjusted.

In the event, it is assessed by a cold chain technician that a thermostat adjustment is required, follow this instruction.

Steps:

1. Press < > "up/down" and hold 5 seconds to access the menu.
2. Press on/off button  x 2 times till you see numbers flashing
3. Push either < for adjusting lower or > for adjusting higher
4. To save press on/off button  x 1 time then freezing symbol  2 time

Warning!

Thermostat tampering can lead to unsatisfactory cooling, risking damage to stored vaccines.

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

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

After adjustment monitor appliance carefully for min 24 hours



Voltage stabilizers

Getting to know your appliance

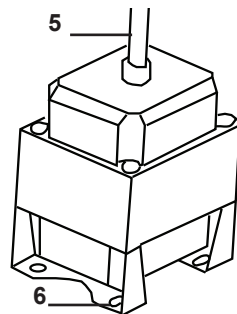
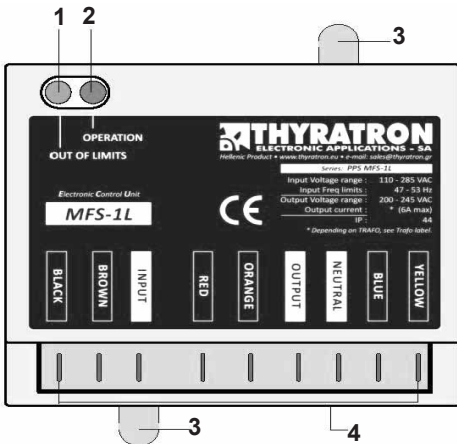


Product features:

- Voltage stabilizer
- Voltage, Frequency and current supervisor
- Intelligent ambient temperature protection
- Intelligent Time delay 3'30"+0"to30" random
- Surge protection
- Reconnecting Voltage Hysteresis
- Zero Crossing
- Soft Start
- Zero current change over

Electronic Control Unit - ECU & Trafo

- (1): "OUT OF LIMITS" led (Red) (3), (6): Mounting points (2): "OPERATION" led (Green)
 (4): Fast on terminals (5):Connection cables - Fast On female terminal



LED - Indication

Event	Red LED	Green LED
Normal operation	Off	On
4 minutes delay	Blink slow	Off
Frequency out of limits	Blink fast	Off
Temperature out of limits	Blink slow	Blink slow
PPS MFS Failure or No Power	Off	Off

Voltage stabilisation

Output Voltage Limits	
PPS MFS-L performs voltage correction and stabilization using Autotransformer, Relays and Triacs. PPS MFS-L makes switching in order to keep the output voltage within limits.	200 - 245 VAC \pm 2%

Voltage & frequency monitoring

Input Voltage limits	
PPS MFS-L monitors voltage and frequency of main power and cuts off the output when the values of main power (voltage or frequency) come out of limits.	60 - 415 VAC

Input frequency limits		
Stage \ Hz	50 Hz	60 Hz
Stage_1: Continuously Operation	47 - 53	57 - 63
Stage_2: 60mins Delay to Cut-Off	46 - 47 & 53 - 54	56 - 57 & 63 - 64
Stage_3: 10mins Delay to Cut-Off	45 - 46 & 54 - 55	55 - 56 & 64 - 65
Stage_4: Instant Cut-Of	< 45 & > 55	< 55 & > 65

Specifications

PPS MFS-Lw Series :		PPS MFS-1Lw				PPS MFS-2Lw			
PPS MFS-xxxLw Series (xxx: 070, 085, 100, 150, 200)		040	060	070	085	100	150	220	
Power Supply	Nominal Voltage	220 - 240 VAC							
	Operation Voltage Bandwidth (@ 25°C)	60 - 415 VAC							
Input	Ambient Temperature	Humidity		-5 to +45 °C				5 - 95 %RH, non-condensin	
	Voltage	Low	High	110 VAC ± 3% with hysteresis				285 VAC ±2% with hysteresis	
	Frequency Lower / Upper	50Hz	60Hz	45 / 55 Hz ±0.2Hz				55 / 65 Hz ±0.2Hz	
Output	Voltage range	200 - 245 VAC ±2%							
	Max. Current (A)						4.3		
	Continuous Operation (45°C) Current (A) @ Low Voltage						3.2		
Start Up Time, Time Delay	<ul style="list-style-type: none"> - 4 minutes (3'30" + 0" to 30" random) - Zero on Production Line for first 30 minutes continuous operation of life cycle 								
Thermal protection	<ul style="list-style-type: none"> - Temperature limits +80 °C - Temperature rise 15°C / 15 minutes 								
Plastic Housing	UL94 V-0 Flame Retardant								
IP Class	IP44								
Lifetime	Relay lifetime cycles: 350,000								
Connections	6.3mm x 0.8mm flat, terminal								
Cable Harness - Lengths	250mm / 550mm / 1000mm versions								
Insulation Class, Transformer Windings	H (180°C)								
	ECU								
Dimension (mm)	Trafo						130x95x110		
							108x140x90		
Total weight (Kg)								4.3	

Safety instructions - Installation

What this chapter contains

This chapter contains the safety instructions which you must follow when installing, operating and servicing the **Power Protector Stabilizer MFS**. If ignored, physical injury or death may follow and/or damage may occur to the **PPS MFS**. Read the safety instructions before you work on the unit. These warnings are intended for all who work on the PPSMFS, or cable.



WARNING! The work described in this chapter may only be carried out by a qualified electrician. Ignoring the safety instructions can cause physical injury, death or/and damage to the equipment. Make sure that the device is disconnected from the mains (input power) during installation.



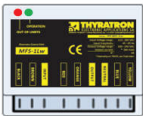
Beware of hot surfaces. Some parts, such as transformer, may remain hot for a while after disconnection of the electrical supply.

- Only qualified personnel are allowed to install and maintain the PPS MFS.
- PPS MFS is intended to be built into commercial refrigeration appliances or other enclosures that provide protection against certain external influences and, in any direction, protection against direct contact and electric shock.
- It shall be installed in an area where it is inaccessible without disassembly of the enclosing area.
- Never work on the PPS MFS or cable when main power is applied. Always ensure by measuring with a multimeter (impedance at least 1 Mohm) that voltage between device input phases INPUT and NEUTRAL is close to 0V. Externally supplied control circuits may cause dangerous voltages inside the device even when the main power on the drive is switched off.
- Do not make any insulation or voltage withstand tests on the device.
- When reconnecting the wiring, always check that the Phase - Neutral order is correct.
- Do not change the electrical installations of the PPS MFS. Changes may affect the safety performance or operation of the device unexpectedly. All customer-made changes are on the customer's responsibility.
- Make sure that dust from borings and grindings does not enter the drive when installing. Electrically conductive dust inside the unit may cause damage or malfunctioning.
- Do not fasten the device by welding.

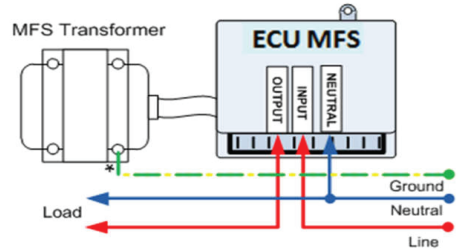
Note: The fast-on terminals on the device are at a dangerously high voltage when the input power is on.

Installation and maintenance work

- The PPS MFS consist of two parts, the Electronic Control Unit (ECU) and the Autotransformer (Trafo). The ECU and the Trafo of the device is delivered in separates cardboard box. The type, size and material of the package depend on the frame size of the Autotransformer.
- The parts of the PPS MFS must be connected by using fast-on terminals taking in care the coloring code of the cables and ECU.
- PPS MFS is intended to be used with the protection of a fuse gG, type B, IEC60269-3-1.
- Confirm compatibility with connection terminals as well as insulation. The connectors are Fast On terminals 6.3x0.8mm
- The device must be installed in an upright position (beside figure) with allowance for adequate cooling.
IP rating is met only when the ECU is installed in a vertical position with the connection tabs at the bottom. This is also important as the ECU also detects ambient temperature as one of its features.



- An earth ground connection must be take place on to the Trafo. Detail of grounding Transformer Enclosure during implementation in the appliance.
(IEC 60417-5019)



Before powering the device:

- Confirm color coding between ECU and Autotransformer
- Confirm the correct fitting of the terminals to ensure IP rating of the connections.

Fuse trouble shooting

How to determine why the thermal magnetic breaker nuisance trips?

The thermal magnetic breaker is installed to protect the build-in voltage stabilizer.

Cause: Circuit breakers trip.

Resolution:

1. First, determine if the breaker trips on startup or if it trips after running for a while.
2. If it trips at start-up but doesn't do it repeatable, it is caused by inrush current to either the voltage stabilizer or the compressor. Resetting the breaker will have no harm on the appliance
3. If it trips at start-up and does it multiple times, there is a short circuit within the appliance and a service technician should be contacted.
4. If it breaks after some time, the appliance is overloaded. Ensure that the condenser and engine room are clean and give the unit some minutes to cool down before resetting the fuse. The start electronic on the compressor can also be faulty causing the compressor to run on the start condenser constantly.

Maintenance, diagnostic and repair procedures

The PPS MFS maintenance-free and is made up of non-repairable / refurbishable parts. In the event of a failure of the PPS MFS, both ECU and Trafo have to be replaced with new unused units. Part replacement is not advisable.

Storage

Should not be stored or and transport in high temperature or high humidity condition. Usage, beyond the specified shelf life could compromise product long term reliability. The suitable condition is +5 to +35°C and less than 95% RH in Relative Humidity indoor.

Applicable Ambient temperature and humidity range during transport and storage: -30 to +70°C, 5 to 95% RH.

End of life resource recovery and recycling procedures.

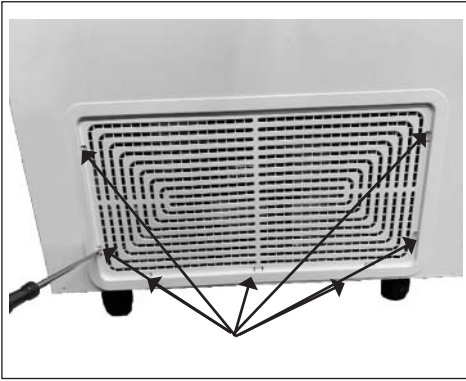
Disposal of Old Electrical & Electronic Equipment (Applicable in the European Union and other European countries with separate collection systems).



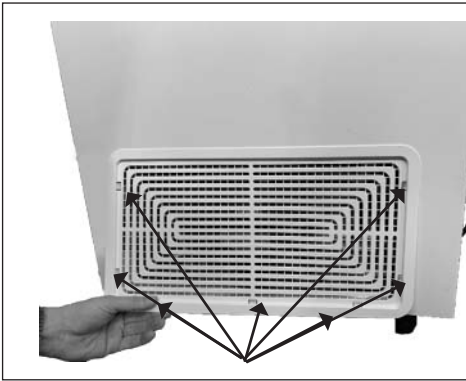
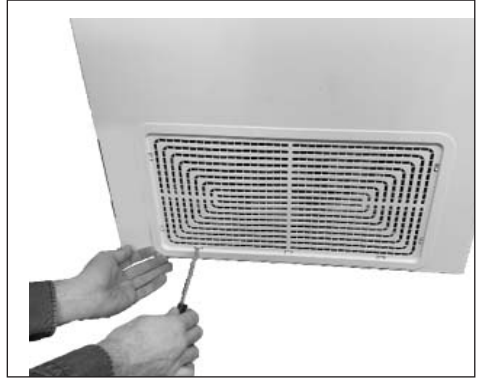
This symbol on the product or on its packaging indicates that this product shall not be treated as household waste. Instead it shall be handed over to the applicable collection point for the recycling of electrical and electronic equipment. By ensuring this product is disposed of correctly, you will help prevent potential negative consequences for the environment and human health, which could otherwise be caused by inappropriate waste handling of this product.

Motor compartment

How to get access to the motor compartment.



1. Use a screwdriver to unlock all 7 clamps.

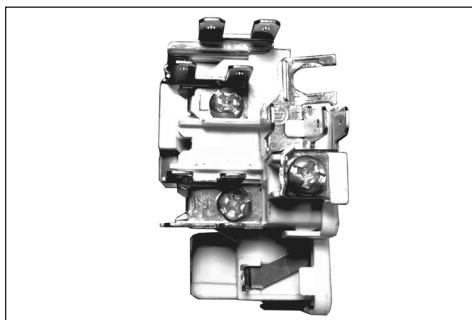


2. Unlock all 7 clamps

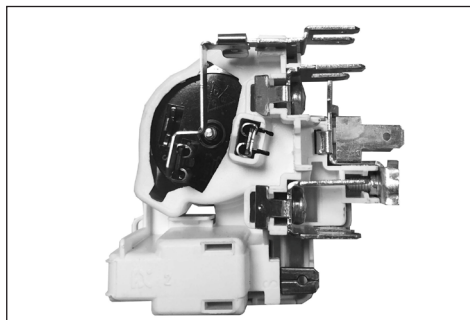


3. Gently pull the compressor grille.

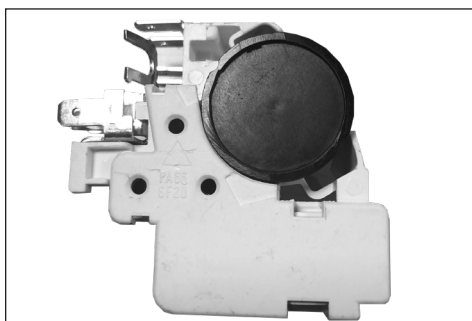
Starting device replacement



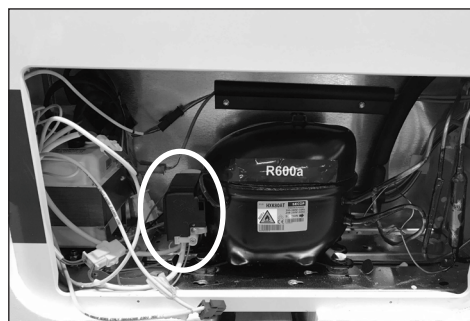
Front with terminals.



Right side view



Left side view.



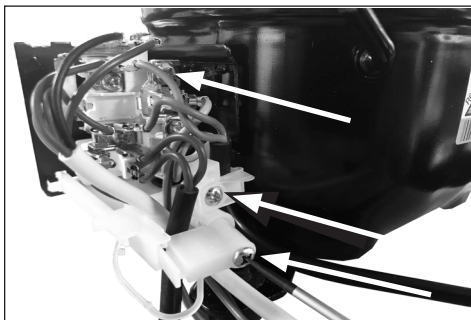
The starting device is mounted on the left side of the compressor.



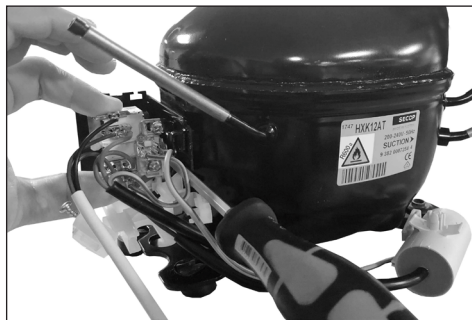
1. Dismount the cover by pushing the cover lock from right to the left with a flat screw driver.



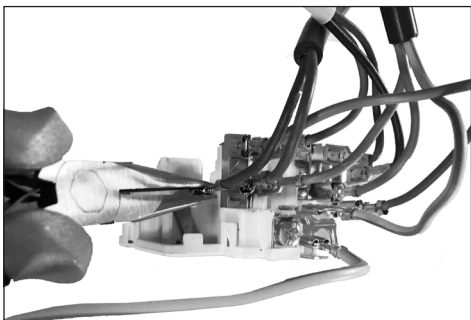
2. Pull out the cover to remove



3. Use a screw driver to loosen 3 x screws.

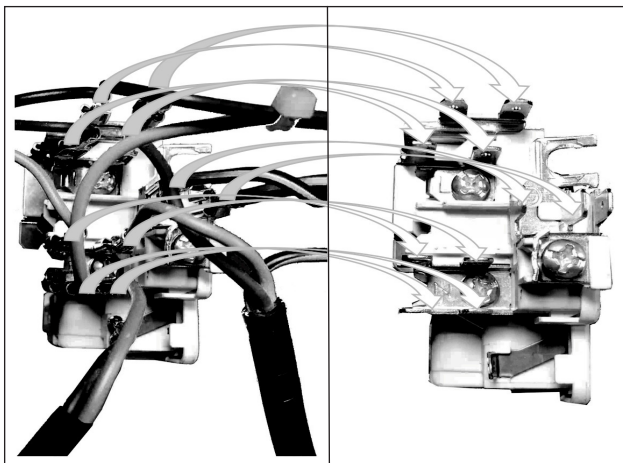


4. Use a screwdriver to loosen the starting device from socket and pull.

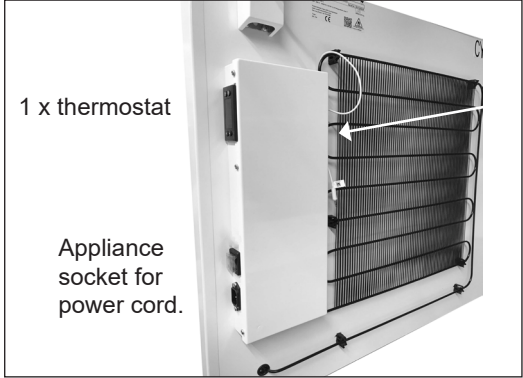


5. Use a nose plier to unmount the wire sockets from starting device.

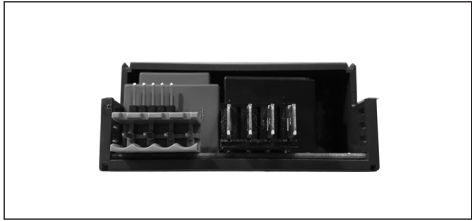
6. Exchange the wires 1/1 from the old starting device to the new one.



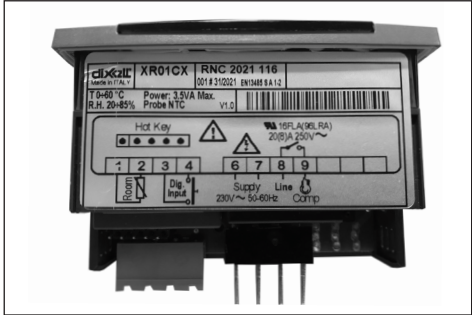
Thermostat replacement



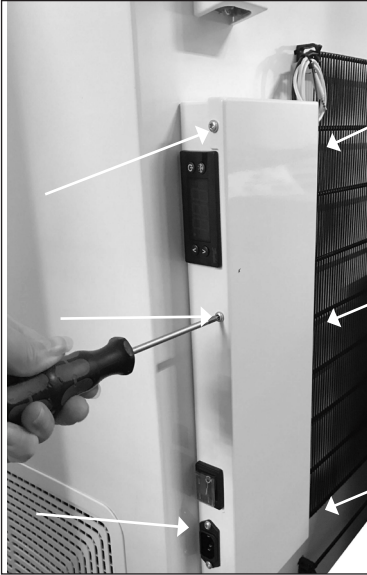
Front with display and adjustments buttons



Back with electrical sockets



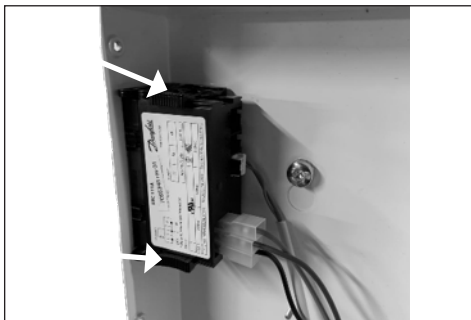
Top view



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



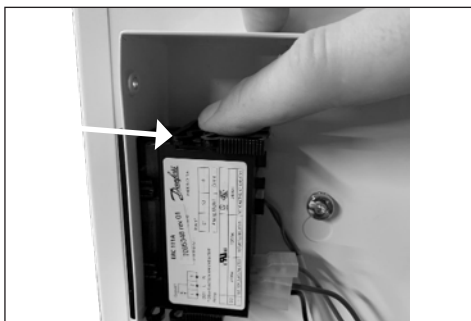
2. Remove grounding cable from junction box by unscrewing bolt with a wrench 6mm.



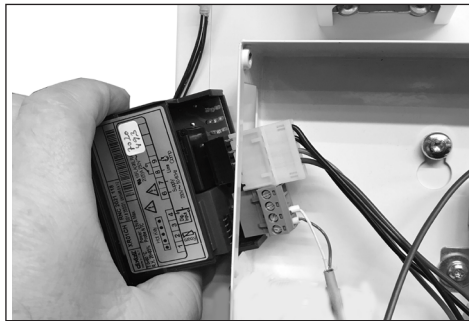
4. Remove 2 fixing clamps from thermostat.
Slide the fixing clamps backwards



Fixing clamp



5. Use your finger to press and slide the lower clamp backward to remove from the thermostat body



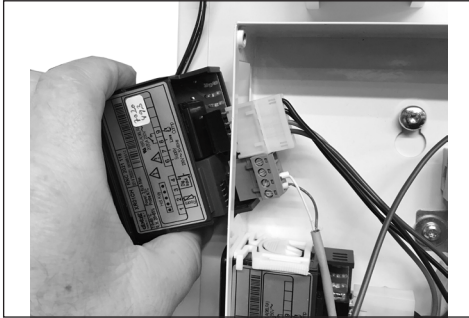
6. Push the thermostat out



7. Switch the sensor wire plug from old socket to the new thermostat socket.



8. Switch the power wire plug from the old to the new thermostat wire socket.



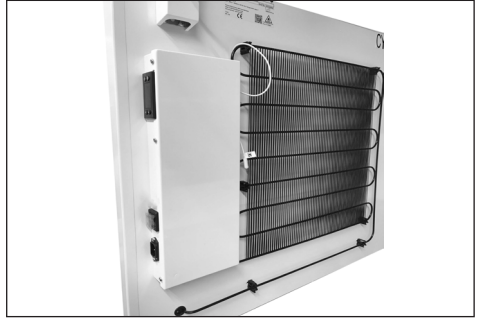
9. Bring the thermostat back in place.



10. Use your finger to press and slide the upper clamp back in place to secure fixture of the thermostat.



11. Remount grounding wire.



12. Remount junction box cover.

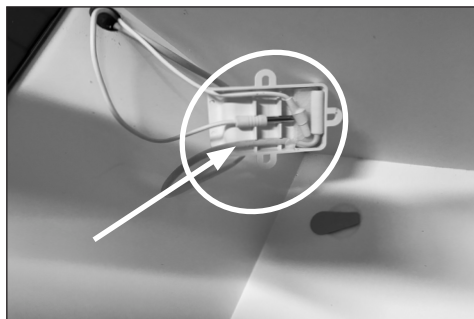
Thermostat sensor replacement



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



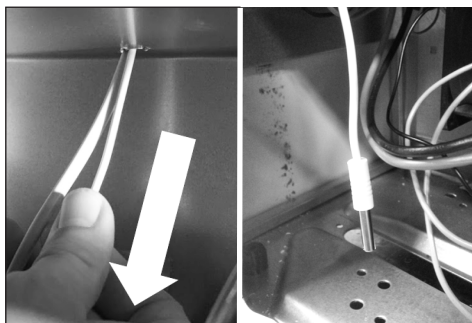
The thermostat sensor is behind the cover.



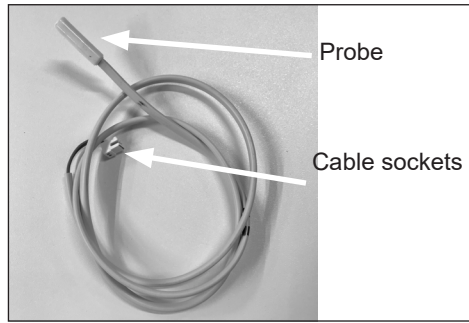
1. Take it out gently, remove the wire and the sensor from the cover.



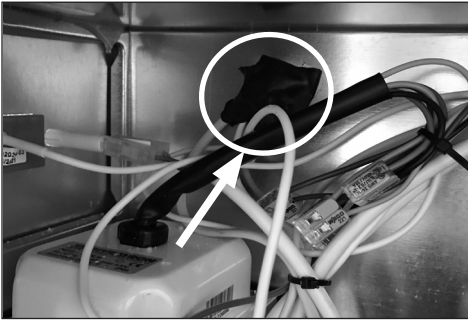
3. In Compressor compartment, remove black sealing, and gently pull the white wire until the probe is visible.



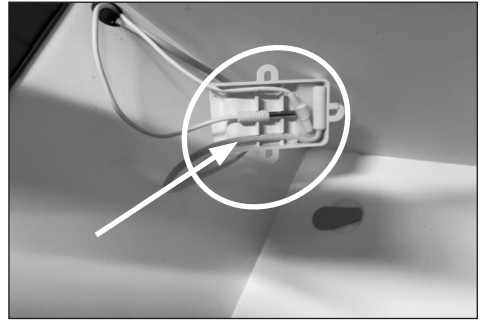
4. Gently pull the white wire until the probe is visible.



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 is placed properly.

Thermometer replacement



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



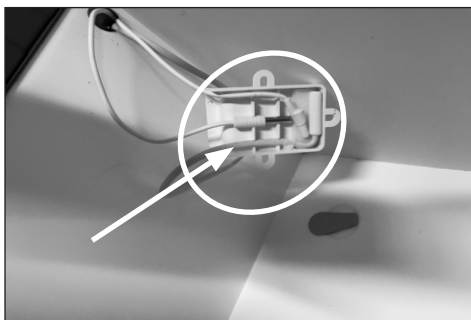
Thermometer display.



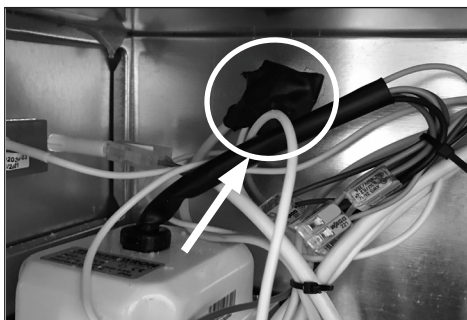
The thermometer sensor is placed inside appliance on the front inner-lining.



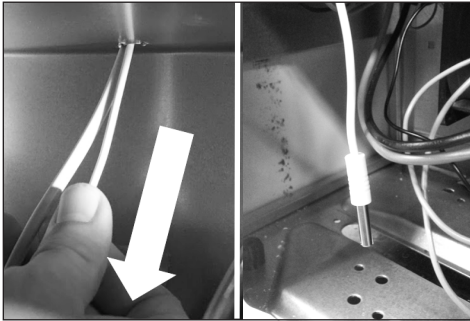
1. Dismount the temperature sensor cover by loosen the 2 x torx size 10.



2. Sensor probe / Grab the wire and pull it out gently



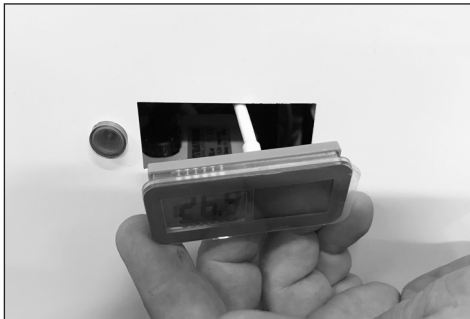
3. In Compressor compartment, remove black sealing, and gently pull the white wire until the probe is visible.



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



5. Use a screw driver to gently push the socket of the thermometer.



6. Click out the thermometer display from the bracket, and pull it out with the wire



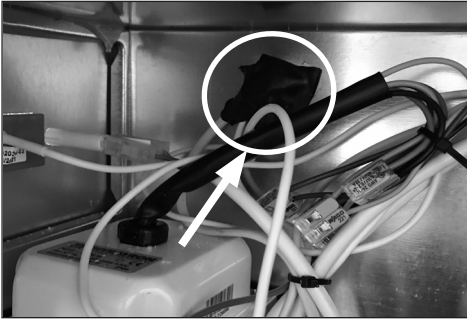
7. Thermometer comes with display, wire and sensor



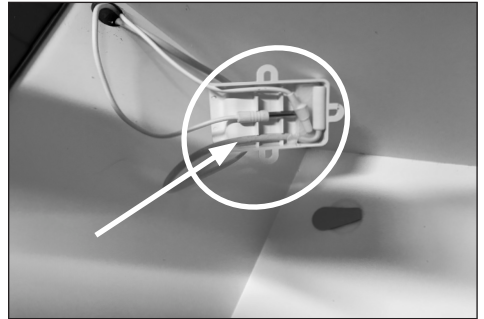
8. Push until display is fixed to cabinet.



Thermometer display is in place



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



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

Run capacitor replacement



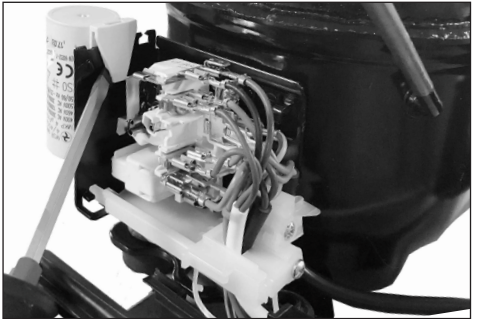
The run capacitor is placed in the left side of the compressor compartment, fixed to the compressor bracket.



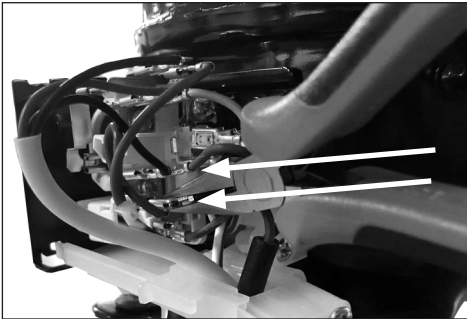
1. Dismount the cover by pushing the cover lock from right to the left with a flat screw driver.



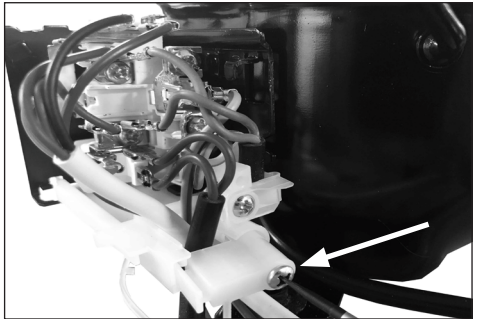
2. Pull out the cover to remove



3. Flip out the clamp to free the capacitor from the bracket.

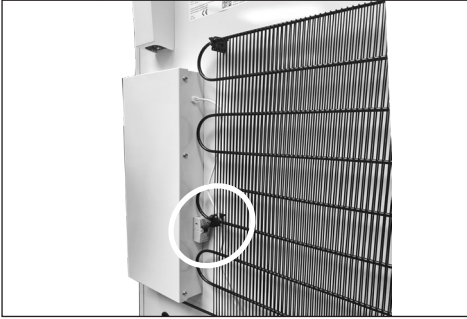


4. Use a nose plier to unmount the wire sockets.

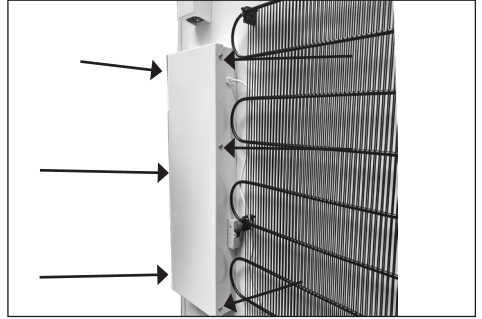


5. Loosen the screw for cord relieve and pulle out the wire. The capacitor can be remounted in reverse order.

Circuit breaker replacement



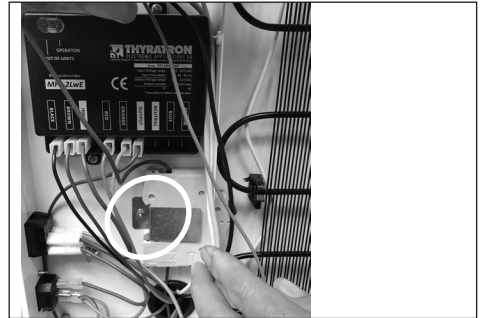
Circuit breaker is placed on the other side of the dixel



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



2. Remove the wires



3. Used Torx 20 to loosen the screw



4. Remove the fitting

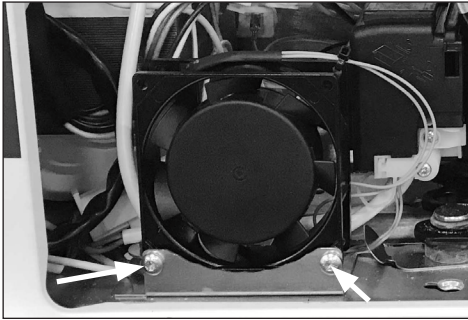


5. Pull the circuit breaker out and replace it.

Fan replacement



The fan is placed at the left side of the compressor.



1. Dismount the fan from the bracket by losen the 2 hexagon bolts with a Socket wrench.



2. Remove strip for free access to the fan. When mounting the fan please remember to secure the wires to the fan again.



3. Use the nose plier to unmount the 2x cable sockets.

Voltage Stabilizer ECU replacement



1.The controller is placed in the bottom



2.Loosen the 2 screws and remove the wires



3.Used a flexible socket wrench

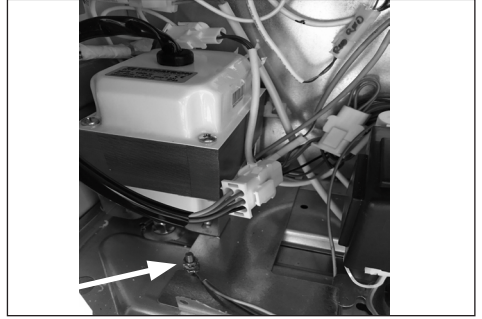


4. Exchange the wires from the old ECU to the new.

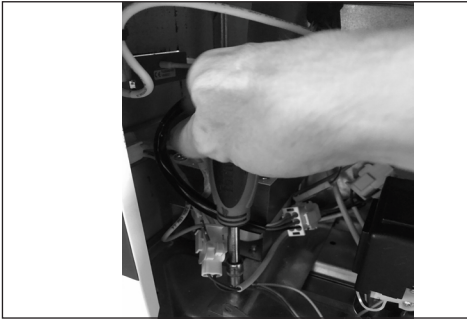
Transformer replacement



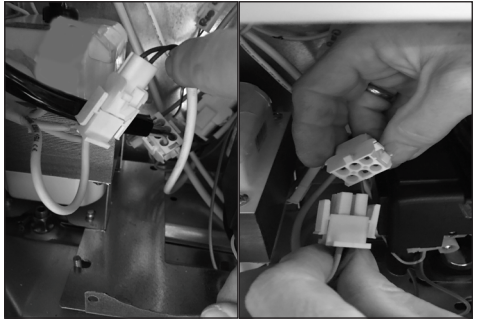
1. The transformer is placed on the left side of the compressor compartment



2. Loosen the screw



3. Used a torx T20

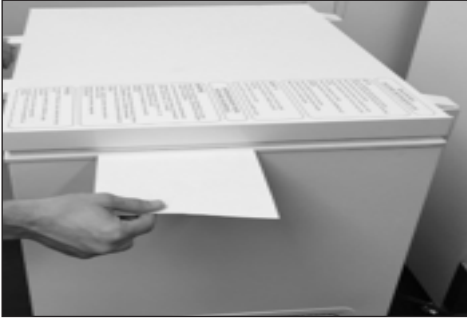


4. Part the transformer power wires, by squeezing on the side of the clamps fixing the wire connection, then pull the plug/socket apart



5. Pull out the voltage stabilizer transformer

Adjustment of lid

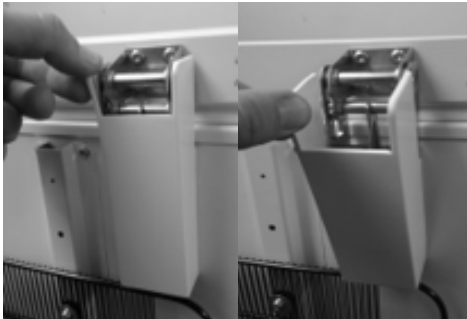


Perform paper test to check that lid gasket fits properly to the cabinet



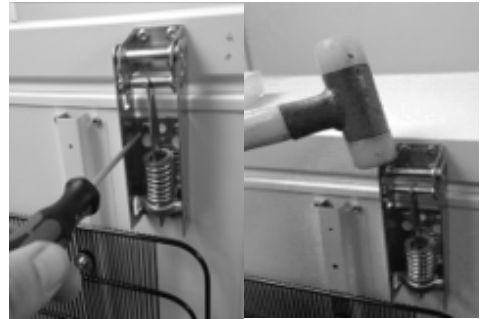
1. Hinge cover

2. Remove upper hinge cover



3. Open side of lower hinge cover to remove

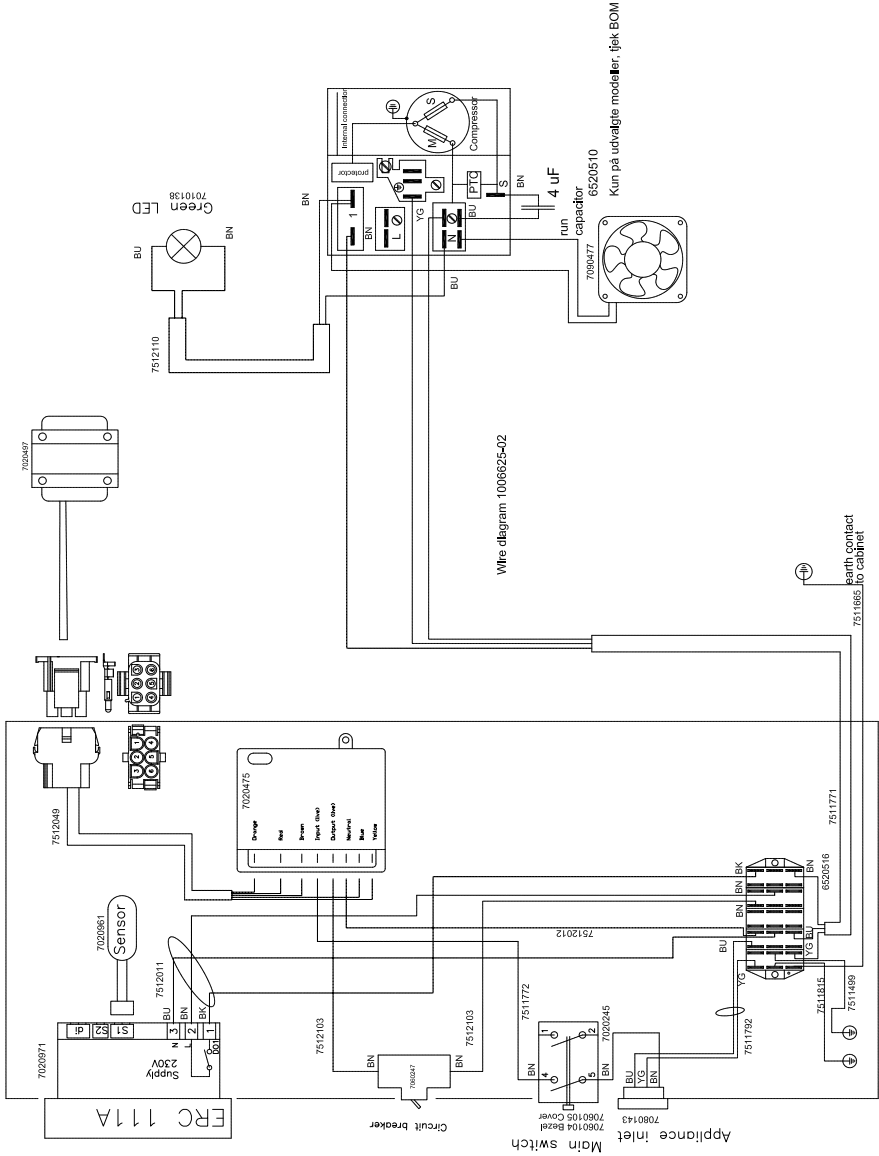
4. Pull lower hinge cover backwards



5. Use T 15 screwdriver then slightly loosen 4 screws

6. Gently tap the hinge up or down using a rubber hammer to adjust position of the lid

Wire diagram



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

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

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

On-site checklist

- Is the control panel on (Power check)
- Temperature records (manual records, FT2 data)
- Is the internal temperature inside the acceptable range of -15° to -20°
- Is the vaccine compartment clean and without ICE BUILD UP more then 0,5 cm on inner lining
- Is the Compressor running
- Is the appliance placed according to instruction in the manual.
- Does the lid close tight to cabinet and is the lid gasket in good condition
- Is the grille for compressor compartment clean
- Is all electrical components working properly
- Over all condition of the cabinet –internal and external: any corrosion, rusting, cracks
- Inspection of the refrigeration line (the condenser, evaporator, the whole refrigeration circuit/line)

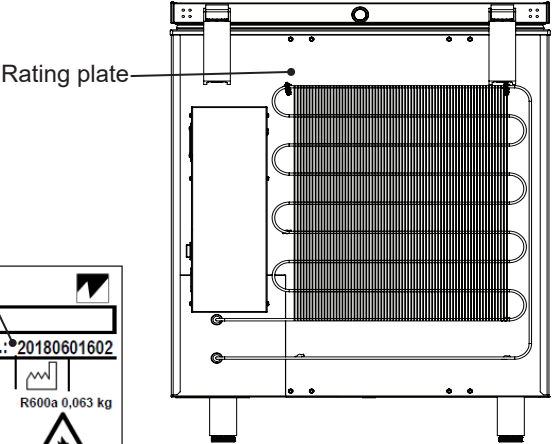
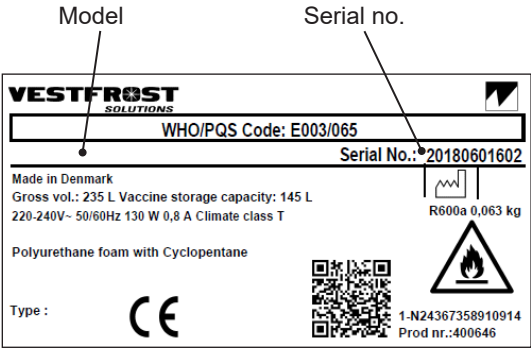
Trouble shooting

Fault	Possible cause	Remedy
Compressor is not running, and the ice packs are not cold	Be patient, it is most likely that the compressor will start within a few minutes.	If this is not the case, check the following: <ul style="list-style-type: none"> - Check that power is connected. - Check the voltage stabilizer is properly connected and turned on. - 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 lid gasket is faulty</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>Shield the appliance against direct sun light and ensure more ventilation to the room.</p>
No temperature is displayed	<p>The thermometer is broken.</p> <p>There is not enough light for the solar sensor.</p>	<p>Change the thermometer.</p> <p>Turn on the light.</p>

Technical support

When contacting Vestfrost Solutions technical support please supply below information:

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



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.

