



Eberspächer



Diavia

Frigo

Refrigeration

User Instructions & Service History

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Introduction

Thank you for purchasing an Eberspächer / Diavia Frigo refrigeration system. To guide you with your purchase we have written some simple explanations and answers to some of the frequently asked questions. We hope you find this useful and if you have any further questions about this or any other Eberspächer supplied products please contact us.

How do I operate my refrigeration system?

1. Before starting to load the vehicle, refrigerate the goods and bring the temperature of the vehicle to the required set temperature, this will prevent interruption of the cold chain.
2. Load the vehicle carefully ensuring that the cold air can fully circulate the product. Ensure there is a gap below and above the product. Do not stack items within 200mm below the fans on the evaporator.
3. Ensure that the product does not in any way block the airflow to the evaporator fans or the outlet from the evaporator. Please be vigilant to ensure that wrappers do not become drawn up by the fans obstructing the airflow.
4. Keep door opening to a minimum, if the door has to be opened frequently it is advised that curtains are fitted.
5. Remember that whilst the vehicle engine is stopped unless the vehicle is run on its standby system that the refrigeration system is not cooling.
6. Do not obstruct the fans fitted to the standby compressor or the electrical power supply box mounted within the passenger compartment (where fitted).
7. Do not set the temperature lower than required, it will not pull down the temperature any quicker, and may damage your product if left on this setting.
8. If your vehicle is fitted with standby do not engage the power lead with the power turned on at the supply, this may cause damage to the plug contacts, with consequential damage to your refrigeration system.

What temperature will my system operate at?

A chiller system supplied by Eberspächer / Diavia is rated to 0 degrees C. A freeze system is rated to -20 degrees C. There is also an intermediate system rated for -10. This unit is fitted with a defrost system. The different systems operate using different refrigerant gases. Both these figures are dependant upon your vehicle being insulated to the correct specification.

Turning the refrigeration system on

There are 4 types of controller fitted to Frigosoft Refrigeration systems. For previous systems please contact EBUK with the system serial number.



Controller Instructions



Start the vehicle engine, if the unit is on the temperature will be displayed, if it is turned off the word 'off' will be displayed. To turn the unit on it is necessary to press the **SET** button.


To display the 'Set Point', press the 'SET' **SET** key and release it immediately and the Set Point is displayed in °C (setting for the desired temperature inside the refrigeration cell).

To modify the 'Set Point' press the 'SET' **SET** key and keep it pressed for 2 seconds. The current setting appears and the compressor LED starts blinking.

Pressing the 'UP'  or 'DOWN'  keys lets you modify this parameter.

To save the new setting, press the 'SET' **SET** key once more or, to exit programming automatically, wait at least 15 seconds before pressing any other key. The display with the new temperature 'Set Point' blinks for a few seconds and then displays the current temperature inside the cell.

Activating the DEFROST cycle (possible if a defrost device is installed)

This procedure is to be performed in case of a system performance problem. Such problems are noted by the excessive accumulation of ice on the refrigeration unit (very damp goods, very low operating temperature). Activate by pressing the 'DEFROST'  key and keeping it pressed for 2 seconds. The defrost LED blinks when the defrost is running. The programmed defrost has a maximum duration of 8 minutes. When this time has elapsed, a drip time is set before the refrigeration system automatically starts up again. If the defrost conditions do not exist (e.g. temperature detected by the probe inside the refrigeration unit is higher than the defrost off setting), the operation is not performed.

USE OF THE REFRIGERATION SYSTEM - DESCRIPTION OF THE CONTROLS



Control device



DISPLAY:

- Displays in °C the temperature detected inside the refrigeration cell as well as the set point



UP KEY:

- Scrolls through the Menu items
- Increases settings

- Pressing this button together with the **SET KEY** lets you exit the programming menu
- Pressing this button together with the **DOWN KEY** locks the keypad



DOWN KEY:

- Scrolls through the Menu items
- Decreases settings

- Pressing this button together with the **SET KEY** lets you enter the programming menu
- Pressing this button together with the **UP KEY** locks the keypad



ON / OFF KEY:

- Activates/deactivates the refrigeration system



DEFROST KEY:

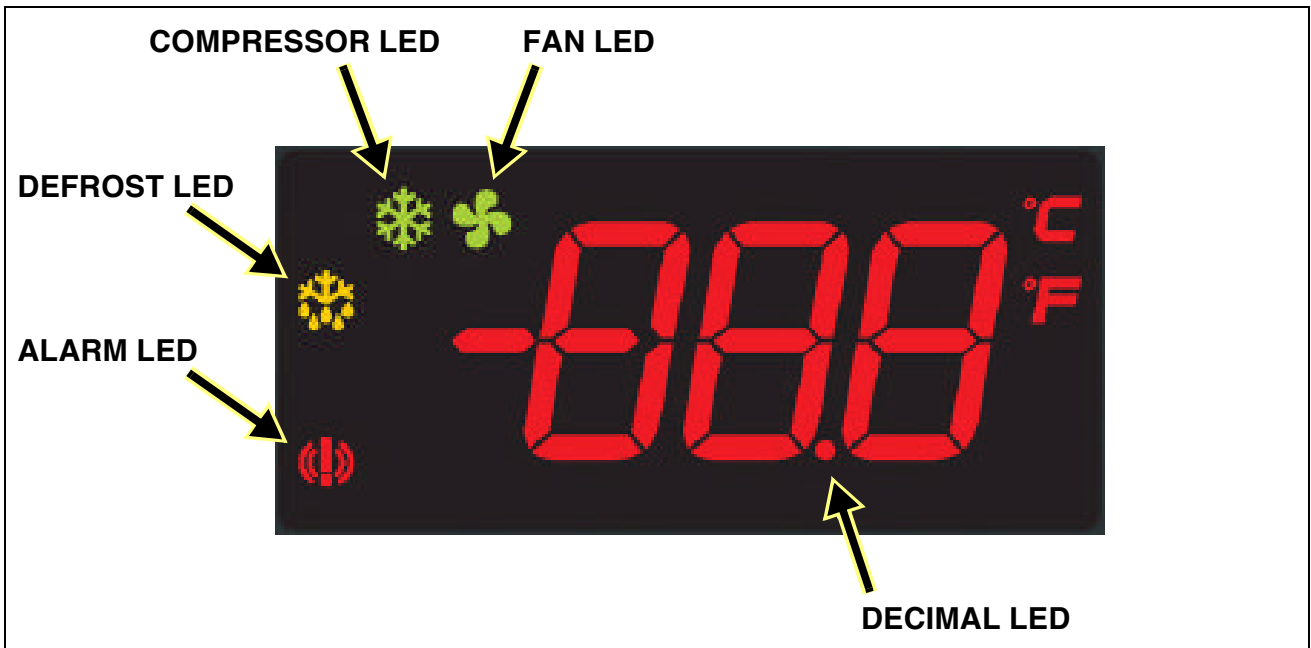
- Activates the manual defrost device



SET KEY:

- Accesses the set point
- Pressing this button together with the **DOWN** or **UP KEYS** lets you access or exit the programming Menu
- Confirms the programming commands

Active Leds



LED		FUNCTION
ON	Flashing	
		Compressor enabled
		Anti-short cycle delay enabled
		Programming Phase
		Heat function enabled (you see paragraph "Neutral Zone Operation")
		Defrost enabled
		Drip time in progress
		Fans enabled
		Fans delay after defrost in progress
		System malfunction

Other Frequently Asked Questions

Is there anything I can do to keep the refrigeration system working?

On vehicles, the best advice is to run the system continuously. Eberspächer systems are efficient and will not add greatly to the fuel consumption. Continuous running ensures that the refrigerant and oil are circulated throughout the system, keeping the seals lubricated and preventing refrigerant leakage. The controller should be set to the required temperature.

Should my system fail to operate what should I do?

Eberspächer have a network of approved service agents throughout the UK and also for Diavia products there is a network of European dealers. To gain warranty assistance please have the following details to hand:

- Vehicle supplier,
- Vehicle type,
- Registration details,
- The part number of the system,
- The serial number of the system,

The serial number should be found on the vehicle as a silver self adhesive label attached under the bonnet of the vehicle, or on the warranty control card and commissioning paperwork in the wallet supplied with the vehicle.

The controller can show an error code in place of the temperature reading. If you wish you may either contact your local Eberspächer Agent direct or contact Eberspächer (UK) Ltd on 01425 480151 who can give you the details of your local agent. The agent will then carry out any repairs as necessary within the warranty terms and conditions.

All warranty repairs are carried out between 8am and 6pm, Monday to Friday, not including Public or Bank holidays.

How long is the warranty period?

The standard warranty is 36 months or 96,000 miles.

Eberspächer (UK) Ltd recommend servicing at 12 months or 32,000 miles. The warranty does not cover fair wear and tear to items such as drive belts, idlers or tensioners, or evaporator fans.

What happens if a system is not regularly serviced?

If a refrigeration system is not serviced, a build-up of moisture in the refrigeration circuit can occur. The built-in filter drier is designed to store any moisture and contamination present in the system. If the filter is not changed then its element will eventually become saturated and cause potentially damaging and expensive failures. Failure to replace the drive belt and the idler/tensioner devices may result in engine damage.

Other Frequently Asked Questions


How often should my vehicle refrigeration system be serviced?

Eberspächer recommend that the refrigeration system be checked annually as part of a vehicle's service routine. This annual check should include a check of refrigerant quantity, refrigerant pressure, system temperatures, refrigerant hoses, wiring harnesses, and operation. Replacement of drive belts and EBUK supplied roller/tensioner pulleys and drier.

Who can service my refrigeration system?

Eberspächer's network of approved Agent's throughout the UK have access to the genuine spare parts and technical information required to maintain your system to its full potential. You may either contact your local Eberspächer Agent direct, or contact Eberspächer on 01425 480151 who can give you the details of your local agent.

A genuine service kit is supplied with an Eberspächer service certificate.

Eberspächer		Number MN00001
Service Certificate		
Vehicle Manufacturer	VAUXHALL VIVARO	
Vehicle Registration	YG07 JCX	
Vehicle Mileage	15749	
Vehicle System Serial Number	s55043067	
Eberspächer Service Kit Part Number	98306	▼
Date of Service	19/6/08	
Eberspächer Service Dealer	The Cold Consortium	
<p>This vehicle has been serviced according to the published service requirements available at www.eberspacher.com and qualifies for full 24 month warranty from date of commissioning as recorded by Eberspächer (UK) Ltd at date of fitment</p> <p><i>This section to be retained by the vehicle operator and produced in the event of a warranty claim</i></p>		

I have a standby system are there any special instructions?

Your system operates in exactly the same way on standby as on truck drive. There are no changes needed to operate the refrigeration system. The power lead should not be plugged in live and the system should be operated from an rcd protected supply. Servicing on standby systems is recommended at 6 months as an inspection.

If you have any further questions regarding the operating or servicing of your Eberspächer refrigeration system please contact the Air Conditioning and Refrigeration Division on 01425 480151.

Approved First Year Service Schedule

Frigo



Vehicle Details	Manufacturer	System Serial Number	
	Registration No.		

TASK	ACTION		
1. Before running fridge.	Calibrate temp. probe Calibrate coil probe		
2. Fit refrigerant gauges.			
3. Replace belt.	Renew belt	Part No.	Size
4. Replace any EBUK supplied idler / tensioner pulley.	Service kit number		
5. Check compressor.	Mount kit Clutch bearing Bolts	Yes / No Yes / No Yes / No	
6. Check hoses.	Fittings Security Chafing	Yes / No Yes / No Yes / No	
7. Check condenser.	Security Clear of debris Fans operating	Yes / No Yes / No Yes / No	
8. Check evaporator.	Security Clear of debris Blower operating	Yes / No Yes / No Yes / No	
9. Defrost.	Off / cycle Hot gas Electric	Yes / No Yes / No Yes / No	
10. Pressure switch.	LP MP HP		bar bar bar
11. Electrics.	Fuses Connections: battery ignition earth		
12. Controller settings.	LSE HSE diF FST Set-point		
13. Check for leaks.	Dye added	Yes / No	
14. Reclaim refrigerant.	Amount recovered		kg
15. Replace filter drier.	Part number		
16. Leak / pressure test system.	20 minutes		bar
17. Evacuate system.			
18. Recharge system.	Refrigerant type Refrigerant charge Oil type Oil added		kg g g
19. Run and test unit.	Pull down to set-point?		
20. Any additional work.			
21. Complete service certificate.	Certificate number		

Frigosoft Service Record

Vehicle Make / Model Vehicle Reg.

Body Builder Body N°:

Date Into Service. Fleet N°:

Date	Job N°	Repair or Service History	Frigosoft 6 mth / 12 mth	Name of Dealer



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