



FRIDGE/FREEZER



40 & 50 Litre

USER MANUAL



WARNING



Read user manual before operating you fridge/freezer

12/24v & 100-240v Fridge Freezer



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Product Details:

- *Danfoss compressor - The most reliable and efficient cooling system in the world*
- *The best electronic technology, high efficiency, low energy consumption*
- *Multi-voltage system (DC 12-24 Volt) and (AC 100-120/220-240 Volt)*
- *Battery protection/low voltage cutout, protect your vehicle battery efficiently*

Safety

Safety Instructions:



WARNING: Do not touch exposed cables with your bare hands, especially when operating the appliance when connected to an AC power supply. It is also dangerous to touch the plug when your hand is wet.

When using the fridge/freezer in a vehicle or boat, please make sure the electricity supply has a fuse if using the main power. The installation of the DC power source in the boat should be handled by the qualified personnel.

Make sure the voltage supply is correct. On the technical data label there is the voltage data.

Do not place any electrical devices inside the fridge/freezer.

The fridge/freezer can be quite awkward to lift and can be quite heavy if full. It is recommended that you only lift the fridge if you are comfortable with the weight, otherwise seek assistance from another person.

PRODUCT USAGE & REQUIRMENTS

General Product Usage and Requirements.

Ventilation:

Your fridge/freezer requires good ventilation, especially around the back of the fridge/freezer to allow the motor to operate correctly; allow a gap of at least 200mm around the back and 100mm around the sides. Failure to do this may damage the fridge and void warranty.

Humidity:

Where possible try to avoid high levels of humidity inside the appliance. Leaving the fridge/freezer open for extended periods of time when operating should be avoided as this can generate humidity which can frost on the fridge walls impairing cooling. Therefore, it is recommended to defrost the fridge before this happens. Never clean the appliance under running water or in dish water.

Heat Sources:

Avoid placing your fridge/freezer near heat sources, and where possible store your fridge/freezer in a shaded area out of the direct sunlight. This will allow the fridge/freezer to operate more efficiently and also consume less power from the power supply.

Vehicles:

When using the fridge/freezer in vehicles the fridge/freezer should always be secured as per your country/state/territory requirements for securing objects in vehicles. The fridge should also be secured sufficiently when it is placed inside the vehicle to prevent the fridge dislodging in the case of an accident/emergency. The fridge can be secured using the fridges handles on each end of the fridge; however do not over tighten the tie down straps as it may cause damage.

The fridge/freezer should also be secured on a flat surface and in a way that minimizes vibration to prevent damage to the fridge/freezer and allow efficient operation.

It is recommended where possible that when being used on a vehicle the fridge be wired to an auxiliary battery as to prevent the main cranking/starting battery from draining.

Note: It is recommended that a Dobinsons fridge/freezer protector bag be utilized in conjunction with your Dobinsons fridge/freezer to maximize efficiency and life span.

Power Supply Cable Length Specification:

The DC cables must have a suitable cross-section for their length, according to this table:

Cable Area		12V Max Cable Length		24V Max Cable Length	
[mm ²]	AWG	[m]	[ft.]	[m]	[ft.]
2.5	12	< 2.5	< 8	< 5	< 16
4	12	< 4	< 13	< 8	< 26
6	10	< 6	< 20	< 12	< 39
10	8	< 10	< 33	< 20	< 66

* The length is from the battery to the fridge/freezer.

AC Max Cable Size : 0.75mm² or 18AWG

OPERATION

Operation

Power Supply:

The 12/24V and AC power can both be present at the same time. The device will always set itself on AC power priority feeding by 100-120V / 220-240V if both power supplies are connected. This electronic device can control the compressor system and have the function of battery protection/Low voltage cutout. When the input voltage drops to the set CUT-OUT voltage as listed below, it can stop the compressor; when the voltage returns to the CUT-IN value, the compressor will re-start automatically.

Battery Protection/Low Voltage Cutout:

Note: This feature does not adjust the compressor output or cooling performance of the fridge/freezer.

Your Dobinsons fridge/freezer is fitted with a battery protection/low voltage cutout feature that will protect the battery/power source from losing too much voltage when the fridge is connected. This is especially important when the fridge is being used in a vehicle or boat as it will protect the battery from losing too much voltage especially when connected to the vehicle starting battery.

The switch for this feature is located at the base of the rear of the fridge. Selecting between the Low, Med and High positions on the switch, you can choose different levels of battery protection. In the table below you can find the battery voltage values when the compressor stops running and the fridge turns our (cut-out) and when the compressor restarts and the fridge/freezer turns on and starts cooling again (cut-in).

Note: It is strongly recommended that if the fridge/freezer is connected to the vehicles main cranking/starting battery that the switch is set to the high position and that the battery voltage is monitored regularly to prevent the cranking/starting draining to far and having insufficient voltage to restart the vehicle.

Battery protection	12V CUT-OUT	12V CUT-IN	24V CUT-OUT	24V CUT-IN
LOW	10.2V	11.2V	21.6V	23.0V
MED	10.7V	11.7V	22.6V	24.0V
HIGH	11.7V	12.7V	24.6V	26.0V

OPERATION



Eco/Max Mode Setting:



Your Dobinsons fridge/freezer is equipped with an ECO and MAX running mode setting that allows the fridge/freezer to operate more efficiently. This mode can be changed by pressing the ECO/MAX button on the control panel. The green light will illuminate for ECO mode and the red light will illuminate for MAX mode.

MAX Setting: This setting will reduce the internal temperature of the fridge/freezer faster than the ECO setting, however this setting will draw more power. This setting is recommended for when the fridge/freezer is first turned on and should be avoided when the fridge/freezer is being used in vehicles or boats.

ECO Setting: This setting will not reduce the internal temperature quite as fast as the MAX setting; however this setting will reduce the power consumption. This setting is recommended for when the fridge/freezer is already at its desired temperature and is recommended when the fridge/freezer is being used in vehicles or boats.

Control Panel Operation:

Press the button  (up) and  (down) to adjust the temperature.

Press the button  to increase and the button  to decrease the temperature.

Press the above two buttons at the same time, to switch the display between °C and °F.

If you change the temperature the LED display panel will flash with the set temperature for 5 seconds and will then display the internal temperature.

Press the ECO button to enter the “economy” running mode, the ECO indicator green light will be turned on.

Press the button again, to change to the MAX running mode, the MAX indicator red light will be turned on.

Plug in the DC or AC power. Press the button ON/OFF to run the machine.

If the power supply is cut off, the fridge/freezer will switch on automatically when the power is on again.



OPERATION

General Operating Tips

- It is recommended that if you are planning on taking the fridge/freezer in your vehicle or boat that first you connect the fridge/freezer at home or to an AC power supply a day or 2 before leaving to cool the fridge/freezer and contents. This will avoid thawing of some contents if placed into a fridge/freezer that has just been turned on and will also reduce the power usage on the vehicle/boat battery.
- The fridge/freezer is fitted with an internal basket and divider. This basket will only fit 1 way into the fridge as the mounting legs slide over the fresh goods compartment. If fitting tall bottles in the fridge/freezer the basket can be removed to allow the bottles to sit in the lower recess. It is recommended however that the basket be used where possible. The internal divider can be used to separate beverages from food.
- It is recommended that you do not over load your fridge and that if possible you keep ventilation room between each product. This will allow the fridge/freezer to operate most efficiently, will allow the lid to seal properly and will help prevent hotspots.
- If you are regularly taking beverages from the fridge/freezer and will be re-filling the fridge/freezer with hot/room temperature beverages, it is recommended that you replace the beverages from the fridge/freezer with your room temperature beverages as often as you remove them or as often as possible, rather than emptying the fridge/freezer and replacing with a large quantities of room temperature beverages. This will allow the fridge/freezer to operate more efficiently, will reduce power consumption, will prevent the room temperature beverages lowering the temperature of the other contents, will help to prevent humidity build up in the fridge and will also ensure a constant supply of cold beverages/contents.
- Your Dobinsons fridge/freezer is equipped with an internal fresh goods compartment at the rear at the top. This compartment generally is a few degrees warmer than the main fridge compartment and is recommended that this compartment be used to store things like fruit and vegetables that may not need to be as cool as the other items in the main compartment. This compartment will also keep these items dry in case of a spillage in the main compartment.
- Where possible stand canned & bottled beverages upright.

CLEANING & MAINTENANCE

Cleaning and maintenance

Clean the appliance inside and out with a damp cloth. If it is dirty, use sodium bicarbonate dissolved in lukewarm water, and then clean it.

Never use abrasive products, detergents or soap. After washing, rinse with clean water and dry carefully. Do not leave the fridge/freezer shut off, warm inside, with food inside or lid closed. When in storage leave the lid ajar slightly to prevent mould build up inside the fridge/freezer.

Never clean the appliance under running water or in dish water. Do not use abrasive cleaning agents or hard objects during cleaning as these can damage the fridge/freezer.

TROUBLE SHOOTING

Troubleshooting

Your Dobinsons Fridge/Freezer has a 5 year conditional warranty on the compressor and a 1 year warranty on all other parts.

Problem	Possible Cause	Solution
The fridge/freezer will not operate/cool	Check the power supply	Test another appliance on the power supply or have a qualified electrician/auto electrician check the power supply.
	Check the power cable and the socket have a good connection	Check that the power cable is connected securely at both ends. You can try the cable in another power socket.
	Check that the power cable is not damaged.	Remove the power cable from both the fridge and power supply first and inspect for damage or have a qualified electrician/auto electrician test the power cable.
	Check the fuse is still functional and has not been burnt out	Hold the fuse to the light to see if the centre fuse metal has been burnt out or have a qualified electrician/auto electrician test the power cable.
	Check the appliance has been turned on	Press the power button to see if the appliance has not been turned on.
	The fridge freezer battery protection/low voltage protection is set to high for the power supply or the power supply is to low	Check the power supply voltage or adjust the switch to allow the fridge/freezer to operate again.
	The contents inside are frozen	The setting temperature is too low
If used in areas where the ambient temperature reaches to 0°C it may cause the fridge/freezer contents to freeze up.		Move the fridge to an area that is warmer or if unable try to move the fridge to a covered area.

TROUBLE SHOOTING

Problem	Possible Cause	Solution
Poor Cooling Performance	Has too much room temperature contents been placed inside the fridge/freezer at once.	See general operating tips for tips on loading the fridge/freezer more efficiently.
	The door is not latched down properly.	Check the door latches down properly and the fridge is not overloaded preventing the door from closing.
	The door seal is broken	Inspect the door seal for damage.
	Insufficient ventilation around the fridge	Check that there is sufficient ventilation around the fridge as per the requirements outlined in Ventilation section of this manual and move the fridge/freezer to suit.
	The fridge/freezer is too close to a heat source	Move the fridge/freezer away from the heat source.
	The fridge/freezer is in direct sunlight	Move the fridge freezer to the shade.
	The temperature setting is inappropriate	Lower the temperature setting.
	The fridge/freezer is being accessed to regularly or the door is being left open for long periods of time	Avoid opening the fridge/freezer as much as possible and close the door as soon as possible.
	The DC power supply voltage is to low and is too close to the voltage cut out point causing the fridge/freezer to cut in and out.	Adjust the switch on the battery protection switch and check the power supply voltage.
	The ambient temperature is extremely high.	
Hear the sound of running water from inside the fridge/freezer	It's normal, due to the flow of the refrigerant	
Noise	The fridge/freezer is not placed on a level surface	Move the fridge/freezer to a flat level surface
	The fridge/freezer is touching a wall or another surface	Move the fridge/freezer
	There are loose items inside the fridge/freezer compartment	Relocate the fridge contents

TROUBLE SHOOTING

Error Codes

Your Dobinsons Fridge/Freezer has an inbuilt feature that will display a number of different error codes on the display panel if there is a problem.

Error Code	Error Details
E1 or LO	This error shows that the DC power supply voltage is too low for the setting of the Battery protection switch. See Battery protection setting above
	The power supply voltage is too low for the fridge to operate.
E2 or R2	Fan fault
E3 or R3	This error shows a fault with the compressor motor starter. This can be caused by motor blockage or cooling system pressure difference
	Ambient temperature may also be too high
E4 or R4	Compressor motor run speed error – overloaded motor cannot maintain minimum speed.
	Ambient temperature may also be too high
E5 or R5	Compressor thermal overload – Compress motor has overloaded or internal temperature of the fridge is to high
	Ambient temperature may also be too high
E6 or R6	Temperature probe/thermostat fault



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

Packing List

Item	Ice Box	Connection Cable AC	Connection Cable DC	DC Fuse	Certificate Of Quality	User's guide	Universal Power Adaptor
FF80-3940	1	1	1	1	1	1	1*
FF80-3950	1	1	1	1	1	1	1*

*Countries outside of Australia.

Technical Data (DC/AC)

FF80-3940 – 40 LITRE	
CLIMATIC CATEGORY	T, ST, N
PROTECTIVE CLASSIFICATION OF ELECTRIC SHOCK RESISTANCE	I
RATED VOLTAGE AC	100V-240V~
RATED FREQUENCY AC	50/60 HZ
AC FUSE	 3A
RATED VOLTAGE DC	12V – 24V
DC FUSE	 15A
TOTAL INPUT POWER	45W
RATED CURRENT FOR AC	0.20A – 0.40A
RATED CURRENT FOR DC	1.9A – 3.8A
ENERGY CONSUMPTION (25° ambient) used as fridge	0.13KW /24H
ENERGY CONSUMPTION (25° ambient) used as freezer	0.40KW / 24H
FREEZING CAPACITY	1.5kg/24h
REFRIGERANT	R134a (40g)
NET WEIGHT	17kg
BLOW AGENT	C – P
PROTECTIVE INSULATED FRIDGE BAG COVER	Part Number: FF80-3940

FF80-3950 – 50 LITRE	
CLIMATIC CATEGORY	T, ST, N
PROTECTIVE CLASSIFICATION OF ELECTRIC SHOCK RESISTANCE	I
RATED VOLTAGE AC	100V-240V~
RATED FREQUENCY AC	50/60 HZ
AC FUSE	 3A
RATED VOLTAGE DC	12V – 24V
DC FUSE	 15A
TOTAL INPUT POWER	45W
RATED CURRENT FOR AC	0.20A – 0.40A
RATED CURRENT FOR DC	1.9A – 3.8A
ENERGY CONSUMPTION (25° ambient) used as fridge	0.13KW /24H
ENERGY CONSUMPTION (25° ambient) used as freezer	0.40KW / 24H
FREEZING CAPACITY	1.5kg/24h
REFRIGERANT	R134a (40g)
NET WEIGHT	18.5kg
BLOW AGENT	C – P
PROTECTIVE INSULATED FRIDGE BAG COVER	Part Number: FF80-3950