

EVAKOOL ELITE - UPRIGHT FRIDGE FREEZERS

OPERATING MANUAL



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Introduction

Thank you for purchasing an Evakool Elite Upright Fridge Freezer. These units utilize a 12/24V compressor, offering low power consumption and great cooling performance. Evakool offers a 2 year warranty, valid from the date of purchase.

Internal Diagram

EL208



Safety Information

Please read and follow all safety instructions

Avoid any moisture or liquids coming into contact with the electronics.

Never store glass bottles or soft drink / beer cans in the freezer as these may shatter or explode.

Whenever the unit is operating please ensure it is upright and level.

Always make sure the correct voltage is being used.

Never obstruct the vents as they supply the necessary cooling airflow to the compressor and fan.

Do not place any electrical devices (e.g. power adaptors) inside the refrigerator as they may be damaged by moisture and humidity generated during use of the fridge.

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Installation Instructions

Select a flat and firm surface to install the fridge onto.

To ensure proper ventilation allow approximately 100-150mm of space around the back.

Leave a space to allow for the door to swing open.

Ensure the fridge is not exposed to direct sunlight or a heat source.

Try to avoid installing your unit in a location where there is high humidity.

When installing the refrigerator on a carpet floor please place something firm and level under the fridge.

Never screw through the external case (i.e. if mounting the refrigerator in a motor home or caravan.)

If you need to permanently mount the refrigerator (in the case of a motor home or caravan) it is best to secure a timber or metal surround to the floor around the base of the refrigerator, and secure the top of the refrigerator so that it does not tilt over.

Packing and Moving

When removing the fridge from its original packaging make sure to take note of how it is packaged in case you need to transport it in the future.

Make sure to keep the fridge upright. If it is necessary to lean the fridge, lean the fridge at an angle no greater than 45 degrees.

Do not hold the fridge by the door when moving as this could cause damage to the hinges or door.

Be sure not to shake the unit whilst moving it.

After moving unit allow at least 1 hour before switching the unit on to allow it to settle.

Operating Instructions

Power : The fridge can be powered by either 12V or 24V DC. The unit comes with a 2 position terminal for hardwiring the fridge to DC Power.

NOTE: The fridge can draw up to 12 Amps on start-up. Please make sure your fused line and cabling is at least 6mm (10AWG).

With an AC Adaptor, the unit can be run off 240V (mains power).

The operating power range for 12 Volt is 10.4V to 16.8V and the 24 Volt range is 22.5V to 30.7V. If the voltage is out of this range the fridge will automatically cut out. Once the voltage returns to the operating range the fridge will start again.

CAUTION ~ DO NOT run the unit directly off a power source where the power output fluctuates as this may cause damage to the electronics. E.g. Generators

Do not power the refrigerator on unless it has been standing upright for at least 1 hour.

When using the unit for the first time, please keep your fridge empty and running until it starts to cycle, this should take somewhere between 4-12 hours.

When storing food inside the fridge, make sure there is enough room around products to enable air circulation. Do not pack product in too tightly.

Please make sure that food and liquids are stored in appropriate containers when placing them inside the refrigerator.

If possible, to reduce energy consumption please cool product before it is placed inside the fridge.

Try not to open either the fridge or freezer doors too frequently as this will increase energy consumption.

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Cable Specification

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

Cable Size (Area)		12V Max Cable Length*	24V Max Cable Length*
mm ²	AWG	Metres	Metres
6	10	3	6
10	8	6	12

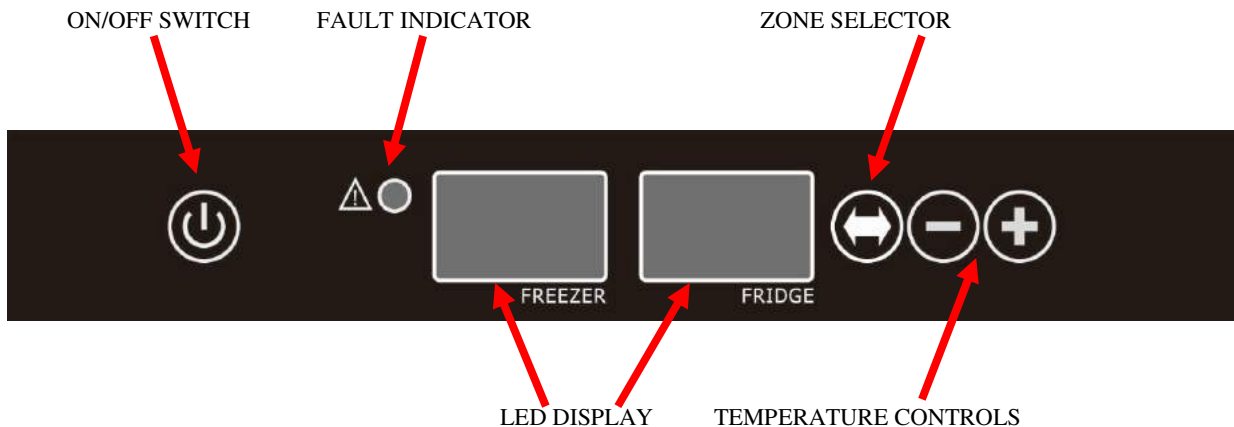
*Note: The length is from the battery to the refrigerator.

Evakool Elite Upright Fridge / Freezer Guide January 2018 Models—81/145/208	
<p><u>Wiring Diagram</u></p> <pre> graph TD SolarPanel[Solar Panel] --> Regulator[Regulator] Regulator --> Battery[Battery] VehicleCharger[Vehicle Charger] --> Battery Battery --> Fuse[Fuse] Fuse --> Fridge[Upright Fridge] BatteryCharger[Battery Charger] --> Battery BatteryCharger --- 240VSource[240 Volt Source] </pre>	<p><u>Battery Sizing</u> Minimum recommendation 12 Volt - 300 AH 24 Volt - 150 AH</p> <p>Sizing recommendation for upright unit ONLY, other devices need to be accounted for separately</p>
<p><u>Cable Sizing</u></p> <p>0-2 Metres = 4mm auto 2-4 Metres = 6mm auto 4-6 Metres = 8mm auto 6+ Metres = 12 Volt not recommended. 24 Volt 10mm auto or thicker</p> <p>Cable length measured from battery terminals to fridge.</p>	<p><u>Solar Sizing</u></p> <p>Minimum recommendation—450 Watt</p> <p>Sizing recommended for upright fridge ONLY, other devices need to be accounted for separately</p>
<p><u>Common Issues / Mistakes</u></p> <ul style="list-style-type: none"> • Under size / over length cabling • Too many connections / joints • Using cigarette / Merit plug or other temporary style connector • Relay or switch in line with upright • Solar regulator or DC/DC charger in line with upright • Running direct from a 240 Volt power source without a battery in line with the fridge • Using pre-existing cabling / connections from previous installation • Adjusting thermostat more than once every 24 Hours • Modifications to or drilling into cabinet 	<p><u>Fusing / Circuit Breaker</u></p> <p>12 Volt - 20 or 25 Amp 24 Volt - 10 or 12.5 Amp</p>
	<p><u>Power Switch</u></p> <p>NOT recommended but if required 25 Amp minimum required.</p>
	<p><u>240 Volt Usage</u></p> <p>Recommended to leave Fridge connected to a battery and to charge the battery via a 240 Volt battery charger.</p> <p>12 Volt - 20 Amp battery charger minimum 24 Volt - 10 Amp battery charger minimum</p>
	<p><u>Drain Hose</u></p> <p>Follow the instructions attached to the Drain Hose Ensure the hose drains away from the fridge</p>
	<p><u>Ventilation Requirements</u></p> <p>Most of the heat generated by a fridge is from the compressor and condenser. It is imperative that the fridge is well ventilated and we recommend a minimum of 100mm clearance out the back of the fridge. To ensure adequate ventilation there should ideally be an intake vent either under the fridge or opposite the compressor and an exhaust vent slightly above the top of the fridge cabinet.</p>

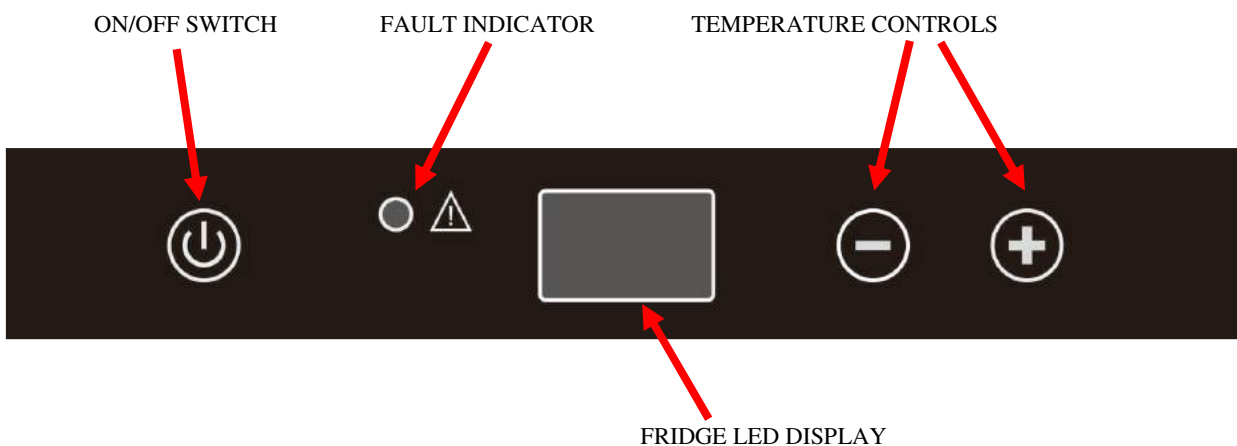
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LED Control Panel



MODEL: EL145 EL208



MODEL: EL81

Temperature setting range on EL145/208 : Freezer: -18°C to -5°C; Fridge: -5°C to 10°C

- ✧ Plug in the DC power cable.
- ✧ Press button to turn on unit. The LED display on the control panel will turn on and the interior temperature is displayed.
- ✧ For model EL145-01 and EL208-01, press the button to select the compartment which you want to adjust the temperature, then press or button to adjust the temperature the unit aims to achieve. Press the button to increase or the button to decrease the temperature.
- ✧ For model EL81, press or button to adjust the temperature the unit aims to achieve. Press the button to increase or the button to decrease the temperature. NOTE THE TEMPERATURE SETTING RANGE IS JUST CONTROLLING THE FRIDGE.
- ✧ If the power supply is cut off or disconnected, the unit will switch off automatically and once the power supply is restored it will automatically switch back on.

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Storing Product in the Fridge

Please ensure that food is only placed in the fridge for short term storage.

Never place food with corrosive attributes into the fridge as this could cause damage if it leaks.

For food that is high in water content please wrap in paper first to absorb any condensation before storing in the fridge.

The shelves inside the cabinet can be adjusted as required for convenient storage of foods of different heights. Where the shelves are made of glass, handle with care when changing their position.

Make sure that when food is stored in the fridge it is not packed in too tight as this will affect the cooling circulation and cause high power usage.

The vegetable and fruit crisper is ideal for storing fruits and vegetables which are easily accessible.

The door shelf is very handy for storing eggs and drinks.

Storing Product in the Freezer

The normal temperature of a freezer should be around -15°C which can preserve food in a fresh state for a long period of time.

Never place food with corrosive attributes into the freezer as this could cause damage if it leaks.

Please ensure that warm or hot food is cooled down before it is placed inside either the refrigerator or freezer.

If freezing food, it is better to reduce food into smaller portions before freezing. This will help the freezer and draw less power.

Do not put any glass, glass bottles, or soft drink / beer cans in the freezer as these may shatter or explode.

Do not add too much product into the freezer at once as this reduces circulation of cold air and could cause food to go off.

Do not open the door too frequently as this will reduce the efficiency of the freezer and lead to higher power consumption.

Generally, take food out as required for thawing, never re-freeze thawed out food as the food may spoil.

Cleaning and Care

Your fridge is for preserving food. Regular cleaning is necessary to keep it sanitary inside. Please unplug the fridge from power before cleaning it.

Use a piece of soft cloth dipped in lukewarm water or neutral dishwashing detergent when wiping the inside clean. If detergent is used, be sure to clean inside with water and dry with cloth.

The door seals can become dirty over time, please clean when necessary. Be sure to regularly check these for damage as well.

Dust can accumulate on the outside of the fridge. This should be wiped away with a soft cloth. If necessary use a damp cloth to remove any stains.

If the bulb blows or is damaged, unplug the unit and remove the light cover. (Use Replacement bulb – contact Evakool).

CAUTION

DO NOT spray / splash your fridge with water directly.

NEVER use washing powder, alkaline detergent, a steel brush, gasoline, thinners, kerosene, acid, or boiling water while cleaning your fridge / freezer, otherwise your fridge may become damaged.

Clear away spills immediately.

Always check the following before use:-

Check the wiring to see if it is cracked or damage.

Check that the plug is well connected at the socket

Check that the plug has no burn or scorching marks

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Defrosting your fridge

Excessive frost coverage may affect the performance of the refrigerator and increase power consumption.

If the frost is more than 1cm thick, it is time to defrost the fridge.

Dry all excess water with a towel or soft cloth.

Please try and defrost the fridge and freezer every 1-2 Months.

Technical Specifications

Model	EL81	EL145	EL208
Climate Class	T+	T+	T+
Total Capacity	81 L	145 L	208 L
Fridge Capacity	59L	105 L	168 L
Freezer Capacity	22 L	40 L	40 L
Voltage Range	12V SYSTEM - (10.5V~ 17.0V) / 24V SYSTEM - (21.0V~ 31.5V)		
Average Power Usage – Over 24 Hour Period **	~ 30 W ~ 2.5Amps	~ 36W ~ 3Amps	~ 37 W ~ 3.3Amps
Weight	36.5Kg	56Kg	62 Kg
Wall Thickness	-Freezer - Fridge	50mm 35mm	75mm 55mm
Dimensions ~ mm (H x W x D)	745 (H) 520 (W) 604 (D)	1080(H) 600(W) 601 (D)	1365 (H) 600 (W) 601 (D)
Compressor	SECOP PBC-2.5 DC Compressor	Freezer: SECOP PBC-2.5 DC Compressor; Fridge: SECOP PBC-2.5 DC Compressor	
Refrigerant	R134a		
Other Features	Metal door retaining clips, Adjustable Temperature Control, Interior fridge light		
Plastic coated metal shelves	2	2	4
Perspex shelves (top of crisper)	1	1	1
Vegetable drawer (crisper)	1	1	1
Ice Tray & Egg container	1	1	1
** Note: The Power Usage figures quoted above are estimates only. Depending upon the ambient (outside) temperature, the temperature the fridge is set to, where and how it is installed, how often the doors are opened etc., the total daily power consumption could vary from as little as 55 Amps to much more. As more detailed information comes to hand these figures will be updated.			

❖ These specifications may change at any time without notice.

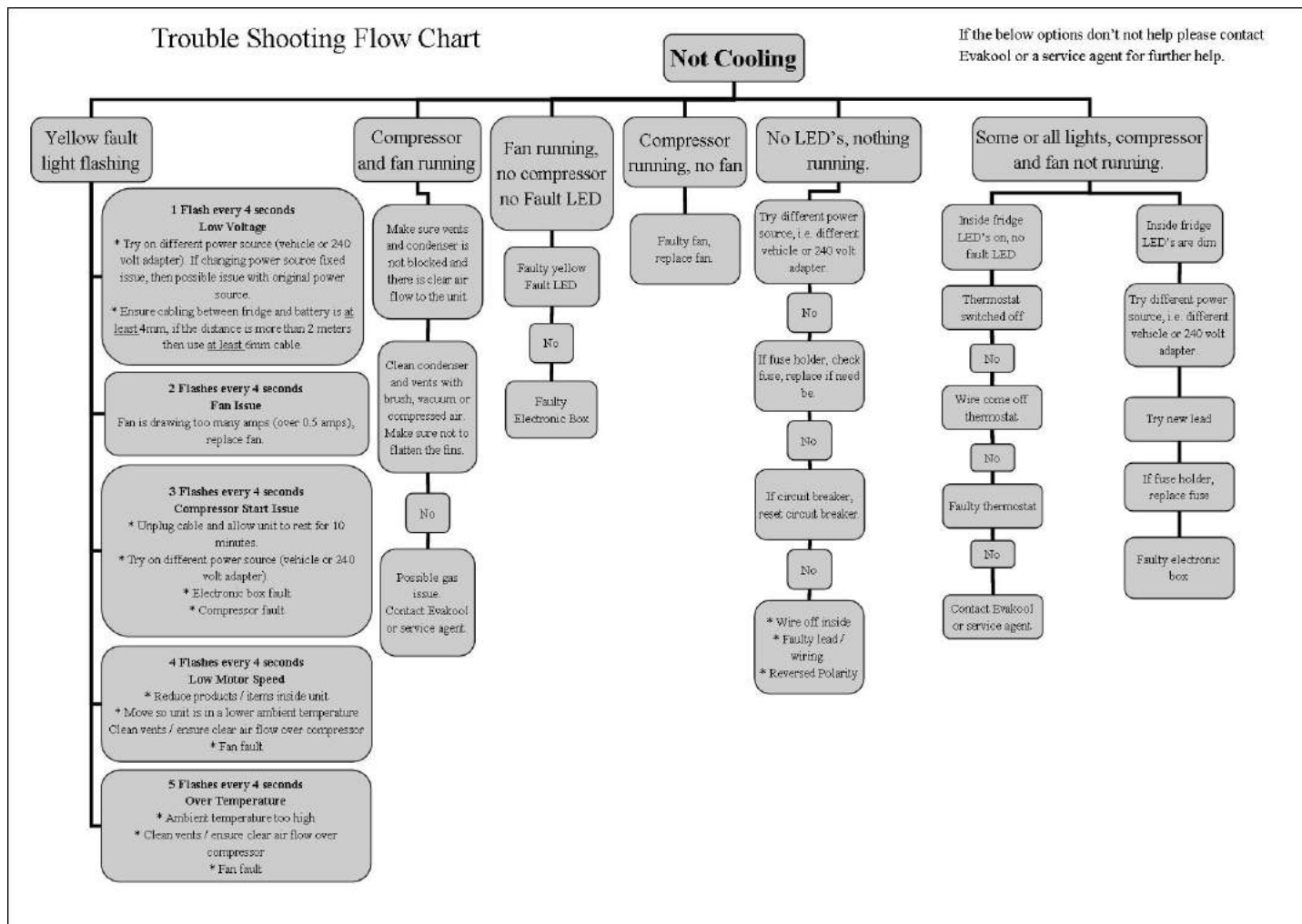
Packing List

- 12V / 24V Upright Compressor Fridge/Freezer
- User Manual
- Items as per Specification table above

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Troubleshooting



If the fridge is not cooling

- Check the DC cable is connected to power?
- Check if the power cord is damaged?
- Check is the power source is on / charged (Battery)?
- Check whether the voltage is in the correct range?

If low refrigeration performance

- Too much product has been placed inside the unit.
- There is too much warm product inside the unit.
- The door is unclipped / or open.
- The door seal is broken.
- Problems arising from poor ventilation (ensure at least 150mm of space around the back of the unit)
- The ambient (outside) temperature is very hot (above 43° C)

If the fridge is very noisy

- Check if the floor is level or unstable?

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Is anything touching your refrigerator?

If the fridge does not cycle off

- Is the ambient (outside) temperature very high? – Try to improve ventilation.
- Is the door being opened too frequently?
- Is the door tightly closed?
- Is the temperature setting set to very cold ~ on 5+? Try to set to 3 or 4 as recommended.

If there is a bad smell coming from the fridge

- Is there any spoilt food in the fridge?
- Does your fridge need cleaning?

If there is water underneath the fridge coming from the back

- Is the water outlet of the refrigerator blocked – Defrost and clean the fridge.

Is there is large frost built up on the inside of the fridge

- Is the ambient humidity high?
- Does your fridge need to be defrosted?

The following are NOT problems

If you can hear the sound of running water from inside the fridge

- This is normal, due to the flow of refrigerant around the cooling pipes.

If there is an unusual noise when refrigerator is working

- This may be caused by your refrigerator not running on a level surface.

If none of the above solves your issue please contact Evakool on (07) 5492 7777 or your local Evakool service centre.

*This manual is for reference purpose only. The product you have purchased may differ slightly from the one shown in this manual.