

# EVAKOOL

## INFINITY RANGE

# INSTRUCTION MANUAL

FOR MODELS  
EVAKOOL RF & ED



AUSTRALIAN OWNED



AUSTRALIAN MADE  
FROM IMPORTED &  
LOCAL COMPONENTS

# CHILLED FOR GOOD TIMES



**Please read operating manual carefully before using your unit.**

**Please keep manual in a safe place.**

**If lost you can find a digital copy at [Evakool.com.au](http://Evakool.com.au) or contact Evakool on 1300 865 665.**

Thank you for purchasing an EvaKool fridge freezer.

The unit you have chosen has been proudly designed and manufactured in Australia by Australians combining EvaKool’s legendary insulated fibreglass cabinet with internationally proven compressor technology to produce Australia’s most ingenious, versatile and user friendly 12V/24V fridge freezer combination.

We strongly recommend that you carefully read this manual prior to operating your EvaKool as it contains important information regarding your unit’s operation, maintenance, care and terms of warranty.

This unit is designed to operate from either a 12V or 24V power source or from a 240V mains supply via an EvaKool approved 12V/24V/240V adaptor. It can also be operated in remote areas from solar and generator power sources. Please refer to page 4 for instructions.

All EvaKool products are specifically designed to withstand Australia’s harsh operating conditions and if treated with care will provide you with many years of trouble free service.

## **Contents**

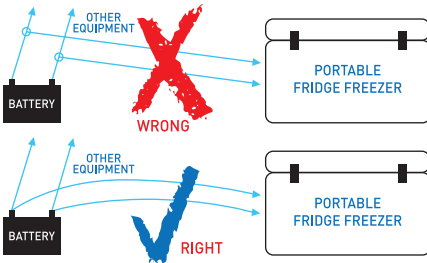
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## 1. Installation

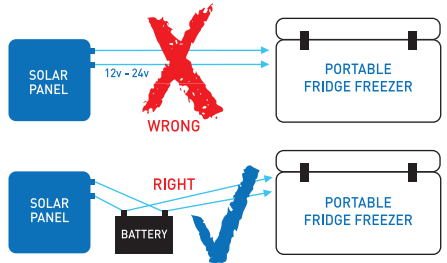
- Your EvaKool Fridge/Freezer is designed to operate from either a 12V or 24V DC power source. It can also operate from a 240V (AC) main supply with the use of a 12V/24V adaptor.
- When using solar power or power generators ensure that the fridge is connected through a 12V or 24V battery. We recommend the use of anti-surge devices when there is a possibility of 'spikes' from the power source.
- The recommended manner to connect your fridge is illustrated below.
- **Please note:** The fridge is set to cut off immediately when the voltage drops below the sustainable level so as to protect your battery, compressor and internal circuitry. It will start automatically when adequate power is restored.
- For maximum efficiency we recommend the fridge is installed on a level surface, although, if necessary it will operate on surfaces up to an angle of 30°.
- **IMPORTANT** - DO NOT block air flow to your fridge. Ventilation is very important to ensure efficiency and reliability. Poor ventilation will cause the compressor to overheat and hence reduce its life span and efficiency.

### Electrical Connection - 12 Volt or 24 Volt DC

#### Battery



#### Solar Power




#### Mains Connection



## 2. Operating Instructions

### 12 Volt Operation

- Connect the military plug end of the fridge lead to the fridge.
- Push cigarette lighter plug into 12V or 24V power outlet.  
**Note:** If using a plug other than the cigarette lighter plug, ensure that the polarity is correct ie: positive to positive and negative to negative.
- If required, press  button on the control panel to turn fridge on. The control panel will light up indicating the previous temperature setting.
- The compressor will start and about 2 seconds later the fan motor will start. The display will be illuminated and the compressor speed indicator light will come on indicating the fridge is running and the evaporator plate inside the fridge will start to cool.
- Set the temperature control to its desired setting by pressing either ▲ or ▼ button on the control panel.
- In order to save power, you may turn down the temperature setting or even switch the fridge off when it is not to be opened for lengthy periods, eg, overnight.

### 12 Volt Operation

- The unit can also operate from a 240V mains power source via an EvaKool approved 12V/24V adaptor.
- Connect the military plug end of the adaptor to the fridge and plug the 3 pin plug into the mains.

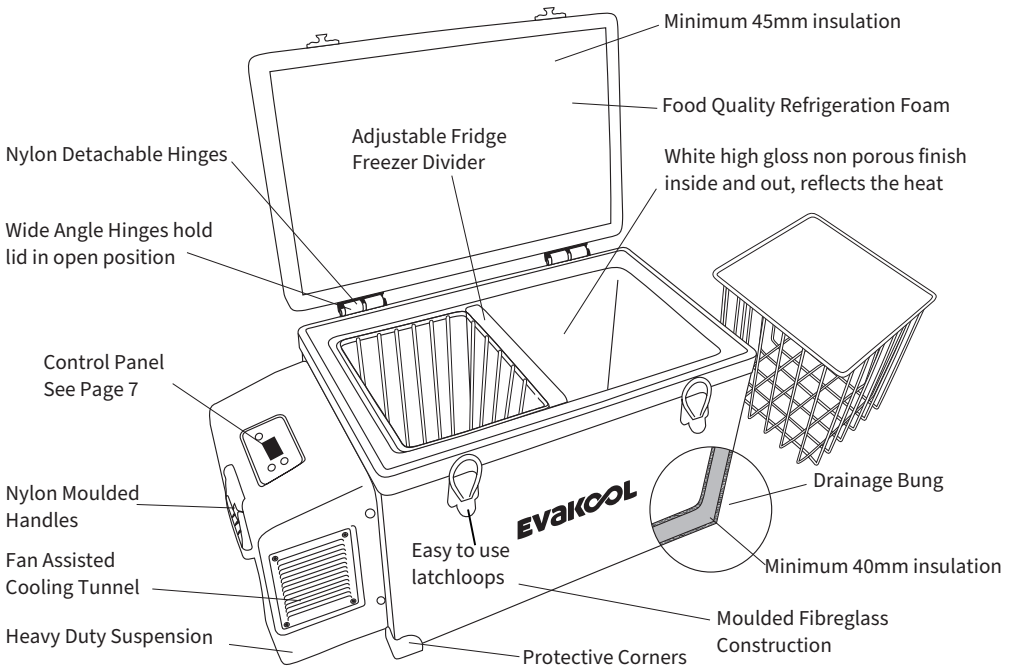
### IMPORTANT NOTES

- DO NOT run your fridge near flames or sources of heat. Preferably keep it in a cool position away from direct sunlight.
- When travelling on rough roads, place about 50mm of high density foam under the fridge and secure the unit using tie-down straps through the handles.
- To assist in preventing the unit from reaching the low voltage threshold and automatically turning itself off the following should be remembered:
- DO NOT leave the fridge running from the car battery (with engine not running) for extended periods.
- Without the engine running all batteries will eventually discharge enough for the unit to switch itself off.
- Take care with vehicles with older batteries or smaller vehicles with lower rated batteries.

### 3. Selection of Fridge/Freezer Options

Your EvaKool fridge/freezer is uniquely designed to operate as a fridge or freezer or fridge/freezer combo.

- When you first start the fridge, remove the insulated internal divider which will allow the air to circulate and hence bring down the temperature in the cabinet quicker
- Once the desired temperature has been reached refit the divider between the baskets.
- To operate the entire unit as a fridge or as a freezer, remove the divider, slide the basket towards the freezer plates and insert the divider at the far end of the cabinet. Set the required temperature.
- To operate as a fridge/freezer combo the divider can remain between the baskets or by removing the fridge section basket it can be moved within the cabinet thereby altering the size of both the freezer and fridge compartments.



### Temperature Setting Recommendations:

To run your Infinity Fridge as a dual temperature fridge/freezer, set at -16°C (freezer) and put the divider in place. The divider will permeate the cold air from the freezer and maintain a good temperature in your fridge compartment.

To run your Infinity Fridge as a fridge ONLY, set the fridge at 2°C and remove the divider.

*Helpful Hint: When running your fridge as a dual temperature unit, if you require the fridge side to be colder, raise the divider up 10 to 20mm to allow more cold air from the freezer section to cool the fridge section.*

## 4. Operation

Your EvaKool fridge is designed to operate at 3 speeds:






- **High:** 3500 RPM - High product load, quick pull down.
- **Medium:** 3000 RPM - Normal running.
- **Low:** 2000 RPM - Only suitable for ambient temperatures 24°C and lower.

The higher the speed, the faster the compressor is operating which will enable the unit to cool/freeze quicker.

The lower the speed the more economical the unit's operation and hence a lower power draw.

## 5. Control Panel



-  ON/OFF Switch
-  Operation Settings High, Medium, Low
-  Temperature Adjustment - Warmer
-  Temperature Adjustment - Cooler
-  Fault light (See fault finding guide)

### Power Inlet

The military plug (power inlet socket) is notched so that it can only be connected in the correct way. The threaded ring locks the plug into place.

### Circuit Breaker

- Your EvaKool is fitted with a 15 amp circuit breaker.
- The purpose of the circuit breaker is to protect the compressor should there be:
  - a direct short to earth;
  - a power surge or faulty power supply.
- If either of the above occur the circuit breaker will ‘trip’ thereby cutting off all power to the unit.
- As a result all the lights on the control panel will go out.
- To reset simply push down the black button on the circuit breaker.
- If after re-setting, the circuit breaker continues to ‘trip’, please contact Evakool or your service agent. (See list of service agents supplied).



## 6. Helpful Hints

- Pre-chill the fridge before use.
- On particularly hot days raise the insulated divider by +/-20mm to allow the cold air quicker access to the fridge section of the cabinet.

### For maximum efficiency:

- Regularly rotate contents of fridge particularly when operating as a freezer.
- Keep fridge as full as possible, ideally the freezer section should be at least 50% full.
- Use the baskets provided to ensure air circulates freely in the cabinet (the baskets also protect the cooling plate from potential damage).
- Keep the cover on the freezer section.
- Refrain from unnecessary opening of the fridge.
- Ensure the air vents are not obstructed so as to allow maximum air flow.
- Avoid placing hot or warm goods in the freezer.

## 7. Care & Storage

### Defrosting

- Switch off freezer and open lid.
- Open drainage bung on RF models to drain waste as fridge defrosts.
- A jug of warm water may be poured over the evaporator plates and inside of the cabinet to assist cleaning. (DO NOT FLOOD OR FILL THE CABINET WITH WATER.)
- **DO NOT** use sharp objects when cleaning and defrosting your EvaKool. Keep your EvaKool clean by wiping both the interior and exterior with a damp cloth using a mild non-abrasive household detergent and dry thoroughly.
- Ensure fridge is completely defrosted and dry before turning back on.
- Always clean the fridge after use and before storage.

### Storage

- When storing your EvaKool for any lengthy period prop the lid open a few millimetres and remove the bung cap to prevent the build-up of mould or odours. Spray interior, if necessary, with a food grade anti-mould/odour product.
- We recommend that your fridge is operated at regular intervals, ie. for 24 hours once a month, if it is being stored for any length of time. Remember your EvaKool can be used in the home as an additional fridge or freezer by using your EvaPower AC adaptor. (see page 4).
- Store out of direct weather for a long lasting product.
- **WARNING:** *Do not place your AC adaptor or any electrical equipment inside your fridge as condensation and moisture will cause the electronics to fuse or burn out, voiding the warranty.*

## 8. Preventative Maintenance

- As your EvaKool is a portable unit it is likely to be subjected to a variety of different operating conditions.
- Accordingly in order to ensure maximum operating efficiency we recommend that the unit is regularly inspected by an approved EvaKool service agent. See warranty statement.
- Prior to commencing any maintenance ensure the unit is not operating and is disconnected from a power source.
- The unit is designed so preventative maintenance is easy to undertake.
- In the case of RF models, simply remove the 6 screws holding the compressor cover in place, drop the cover forward and using a small brush, vacuum or compressed air, clean any dust or dirt from the condenser coils.
- **DO NOT USE WATER TO CLEAN THE CONDENSER COILS. FAILURE TO REGULARLY CLEAN THE COILS MAY VOID THE WARRANTY.**
- If the unit is exposed to rain or water, remove the cover and dry as necessary.

*The condensing coil in your refrigerator is like a radiator in your car. If the fan that is cooling it stops, or the fins in the coil get blocked with dirt and fluff, the compressor will overheat and cut out on its thermal protection.*

## Simple Tests

- **Fridge does not operate in your vehicle:**

Run the fridge from a 240 volt power source via an AC adaptor. If the fridge starts and runs then the problem is with your vehicle, either the battery or the wiring.

See section on voltage drop (AC adaptor, minimum of 10 amps at 12 volts or 5 amps at 24 volts).

- **Fridge does not operate from a 240 volt power source when using an AC adaptor:**

Run the fridge from your vehicle or other fully charged 12 volt battery source. If the fridge starts and runs, then the problem is with either the AC adaptor or fridge lead. Check the fridge lead by connecting the fridge to a 12V battery, if it operates the AC adaptor is faulty.

- **NOTE:** It is important to ensure in all cases that the voltage at the end of lead connecting to the fridge is adequate. ie: above 11.0 volts.

## Voltage Drop & Wiring Requirements

### Voltage Drop

The majority of our customer inquiries are related to voltage drop, which means the power to run the fridge is lost between the power supply (the battery) and the fridge compressor.

The fridge's compressor requires over 10.9 volts (12 volt) and 22.7 volts (24 volt) to operate. If the voltage drops to these points or below, the fridge will default, you will hear the compressor trying to start every minute or so and the yellow fault LED light will be blinking once every 4 seconds.

### When Voltage Drops Occur:

- The cigarette lighter socket in your car or 4WD will have on average 2mm core wiring. This wiring is too thin and will drop voltage from one end to the other. EvaKool recommend a minimum of 6mm core cable and if the distance from the power source is over 6 metres, 10mm core wiring is required. Consult an auto electrician should you need to upgrade.
- Check for dirty or loose connections at the battery and outlet.
- Are there any relays or after market voltage protection devices in the line to your fridge. These also have voltage drops through them.
- Check that your battery doesn't drop voltage under load.

## 9. Trouble Shooting Chart

This chart details the order in which the various procedures/tests need to be followed in order to diagnose the reason for the fridge's malfunction.

If the below options do not help, you are unable to follow them or unable to complete the steps please contact EvaKool or a service agent for further help.

Valid for EvaKool RD, ED and GFM Models fitted with digital controls from 2015.

NOT COOLING	
PROBLEM	SOLUTION
Yellow Fault Light flashing	<p><b>1 Flash every 4 seconds - Low Voltage</b></p> <ul style="list-style-type: none"> <li>• Try on different power source (vehicle or 240 volt adapter). If changing power source fixed issue, then possible issue with original power source.</li> <li>• New cigarette lead.</li> </ul> <p><b>2 Flashes every 4 seconds - Fan Issue</b></p> <ul style="list-style-type: none"> <li>• Fan is drawing too many amps (over 0.5amps), replace fan.</li> </ul> <p><b>3 Flashes every 4 seconds - Compressor Start Issue</b></p> <ul style="list-style-type: none"> <li>• Unplug cigarette cable and allow unit to rest for 15 minutes.</li> <li>• Set to Low Speed.</li> <li>• Try on different power source (vehicle or 240 volt adapter)</li> <li>• Electronic box fault.</li> <li>• Compressor fault.</li> </ul> <p><b>4 Flashes every 4 seconds - Low Motor Speed</b></p> <ul style="list-style-type: none"> <li>• Set to Low Speed.</li> <li>• Reduce products/items inside unit.</li> <li>• Move so unit is in a lower ambient temperature. Clean vents/ensure clean air flow over compressor.</li> <li>• Fan fault.</li> </ul> <p><b>5 Flashes every 4 seconds - Over Temperature</b></p> <ul style="list-style-type: none"> <li>• Ambient temperature too high.</li> <li>• Clean vents/ensure clean air flow over compressor.</li> <li>• Fan fault.</li> </ul>
Compressor and fan running	<ul style="list-style-type: none"> <li>• Make sure vents and condenser are not blocked and there is clear air flow through the unit.</li> <li>• Clean condenser and vents with brush, vacuum or compressed air. Make sure not to flatten the fins.</li> <li>• Possible gas issue. Contact EvaKool or service agent.</li> </ul>
Fan running, no compressor no Fault LED	<ul style="list-style-type: none"> <li>• Faulty yellow Fault LED.</li> <li>• Electronic Box.</li> </ul>
Compressor running, no fan	<ul style="list-style-type: none"> <li>• Faulty fan. Replace fan.</li> <li>• Electronic Box.</li> </ul>
Partial display missing	<ul style="list-style-type: none"> <li>• Faulty display circuit board.</li> </ul>
Display not lit/on	<ul style="list-style-type: none"> <li>• Try on different power source (vehicle of 240 volt adapter). If changing power source fixed issue, then possible issue with original power source.</li> <li>• Loose wires on top display circuit board or bottom circuit board.</li> </ul>

## 10. Warranty Statement/Terms & Conditions

Nexberg Pty. Ltd. trading as EvaKool undertakes to the original purchaser that this product is sold free of defect in materials and/or workmanship under normal use for a period of 4 years. The Secop compressor in this unit comes with a 5 year warranty. Subject to the following:

- As this is a portable unit subject to a variety of different operating conditions we strongly recommend that the unit is regularly inspected by an EvaKool service agent. Regular maintenance will ensure that your EvaKool operates to its maximum efficiency.
- As your EvaKool is a handcrafted product there may be slight differences between units. These differences do not constitute a claim under the terms of this warranty.
- The warranty period commences from the date of purchase by the original purchaser from an authorised EvaKool dealer.
- Any claim under this warranty must be made within four (4) years of the date of purchase of the product.
- EvaKool will honour this warranty on presentation of proof of purchase of the unit to EvaKool or its approved service agent. The service agent may be requested to provide EvaKool with a photocopy of the proof of purchase to obtain approval to proceed prior to warranty being honoured.
- Please telephone 1300 865 665 for the name of an authorised service agent or refer to list provided. It is the purchaser's responsibility to freight the unit to and from the service agent, EvaKool or place of original purchase.
- EvaKool will not be held responsible for any damage or loss suffered or cost incurred whilst fridge is in transit.
- Warranty repairs may only be carried out by an authorised service agent. EvaKool will not reimburse repair claims carried out by unauthorised service agents. Any tampering with any part of the unit by an unauthorised service agent will automatically void the warranty.
- If a repair needs to be undertaken and is covered in terms of this warranty, a warranty authorisation number must be obtained prior to commencement of any work.
- Service agents may charge a fee for viewing or testing the unit. This is not covered by EvaKool or this warranty and is payable at the service point unless authorised by EvaKool.
- This warranty is provided in addition to any other rights and/or remedies you have under law: Our goods come with guarantees that cannot be excluded under the Australian Consumer Law. You are entitled to replacement or refund for a major failure and for compensation for any other reasonably foreseeable loss or damage. You are also entitled to have the goods repaired or replaced if the goods fail to be of acceptable quality and the failure does not amount to a major failure.
- EvaKool will not accept a warranty claim if:
  1. Modifications have been carried out to the unit without EvaKool's written authority.
  2. Damage to or failure of the unit has been caused in EvaKool's opinion by incorrect, extreme or unreasonable use.
  3. Damage to or failure of the unit has been caused in EvaKool's opinion by misuse, neglect, accident, impact or similar cause. Refer the preventative maintenance guidelines.
- Failure to follow the guidelines / recommendations in the owner's manual may void the warranty.
- EvaKool has total discretion on the variation of the warranty terms.
- This warranty cannot be varied by others.

***Please retain your receipt or proof of purchase for warranty purposes.***