ADVENTURE KINGS

# USER MANUAL


# UPRIGHT 110L FRIDGE/FREEZER

SKU: **AKFR-UPRFR110L_01**

# CONTENTS



**PLEASE READ AND UNDERSTAND THIS MANUAL COMPLETELY BEFORE USING THIS PRODUCT.**

# 1. SAFETY

This manual covers the safety information, specifications, installation, operation, maintenance and troubleshooting instructions for the Adventure Kings Upright 110 Litre Fridge/Freezer. For any questions or warranty claims please call 1800 883 964.

**CAUTION:** Read this instruction manual and safety warnings carefully before using the refrigerator.

This appliance contains fluorinated greenhouse gas R134a within a hermetically sealed system and its operations depends on the presence of this gas.

This appliance should only be used by adults that have read and understood this manual.

## 1.1 SAFETY INFORMATION

- By ignoring the safety instructions 4WD Supacentre cannot be held responsible for any damages or losses.
- The use of accessories that are not recommended by 4WD Supacentre can cause injuries and may invalidate any warranty that you may have.
- The appliance shall not be exposed to rain. Place the refrigerator on a dry, protected surface, away from edges.
- Do not use the fridge in uncovered areas exposed to the elements.
- Do not use this fridge near heat sources for example, oven, BBQ or exposing it to direct sunlight.
- Do not place ice or liquids which are not sealed in containers within the fridge.
- Do not place hot products or hot food in the fridge.
- Place products so that they do not knock against each other, break when the appliance is in motion or damage the internal parts of the fridge.
- The power cable must only be replaced by a suitable spare part from 4WD Supacentre.
- All fridge cabling and circuits require appropriately sized fusing.
- Before carrying out any maintenance operations on the fridge, physically disconnect the power cable from the fridge.
- This fridge is suitable for internal vehicle or recreational camping use.

## 1.2 WARNINGS

- Ensure good airflow around the fridge. At least 50mm on all sides and an additional 100mm around any vents.
- Do not use mechanical devices, metallic, sharp objects, or other means to accelerate the defrosting process.
- Do not use electrical appliances inside the food storage compartments of the fridge, unless they are of the type recommended by 4WD Supacentre.
- Do not store explosive substances or dangerous goods such as aerosol cans with a flammable propellant in the fridge
- Do not store flammable gas or liquid in the fridge.
- Do not put flammable products or items that are wet with flammable products in, near or on the fridge.
- Do not use an extension cord.
- Do not touch internal components of the fridge
- The Upright 110L Fridge/Freezer is suitable for cooling and freezing foods.
- Use the Upright 110L Fridge/Freezer exclusively for cooling and storing closed beverages and snacks.
- Food may only be stored in its original packaging or in suitable containers.
- The Upright 110L Fridge/Freezer is not intended to be brought into direct contact with food.
- The Upright 110L Fridge/Freezer is not intended for the storage of medicines.

## 1.3 SAFE DISPOSAL

Dispose of appliance at a suitable resource and recovery centre.

## 1.4 DANGER

- Risk of child entrapment.
- Before you throw away your old refrigerator or freezer:
  - » Take off the door.
  - » Remove any loose items from inside the fridge.

# 2. DESCRIPTION

The Adventure Kings Upright 110L Fridge/Freezer are high-quality fridges which can be permanently fitted inside a vehicle without taking up too much space. Powered by a 12/24V DC Compressor, which can be powered directly via the Anderson style power connector, the Upright 110L Fridge/Freezer is designed to cool or freeze food and drinks.

# 3. SPECIFICATIONS

| NO. | ITEM | DATA |
|---|---|---|
| 1 | Product dimensions (L × W × H) | 545 x 525 x 803 mm |
| 2 | NW (KG) | 31.0kg |
| 3 | Capacity | 110L |
| 4 | CMP/ECU | SECOP BD35F |
| 5 | Voltage | DC12/24V |
| 6 | Average power consumption | 1.5AH @ +5ºC* |
| 7 | Temperature range | Freezer -15 to -5ºC \| Fridge 0 to 10ºC |
| 8 | Gas | R134a (65g) |
| 9 | Door/Cabinet material | Plastic/Metal |

*OVER A 24H PERIOD, STARTING AT 32°C INTERNAL & AMBIENT TEMPERATURE

# 4. IMPORTANT INFORMATION

Ensure the angle of the Upright Fridge/Freezer does not exceed 30º. If this angle is exceeded during delivery or installation, do not turn the Upright Fridge/Freezer on for at least 6 hours once returned to upright position.

This Upright Fridge/Freezer is specifically designed for 12/24 Volt DC power, do not connect other power sources to the Upright Fridge/Freezer or damage will occur.

# 5. POWER SOURCE

12/24 Volt DC only. There is an Anderson style power connector at the rear of the Upright Fridge/Freezer. This heavy-duty connector is designed for long term and high-power applications.

# 6. WIRING

The Adventure Kings Upright Fridge/Freezer is supplied with an Anderson style power connector, the power supply to this connector must come directly from the vehicle battery. The following cables with suitable sections and lengths must be used (see table below).

All direct connections to the battery must be adequately fused via a 15 Amp fuse. The fuse shall be located as close as reasonably possible to the battery or power source.

| Cable Selection | Max Length Cable (Metres) | |
|---|---|---|
| **Minimum Size** | **12V** | **24V** |
| 2.5mm2 (AWG 13) | 2 (7FT) | 5 (16FT) |
| 4mm2 (AWG 11) | 4 (13 FT) | 8 (26 FT) |
| 6mm2 (AWG 9) | 6 (20 FT) | 12 (40 FT) |

# 7. INSTALLATION

The included mounting brackets come with suitable screws to allow easy installation.

1. Place the refrigerator on a dry, flat, protected surface, away from corners. Do not use the refrigerator in uncovered areas, outdoor areas or areas exposed to the elements.
2. The refrigerator requires good ventilation. Leave a space of at least 5 cm across all its sides.
3. Avoid placing the refrigerator near to a heat source, for example a cooker, radiator, or exposing it to direct sunlight.
4. Do not place ice or liquids which are not sealed in containers within the refrigerator.
5. Do not place hot products within the refrigerator.

# 8. EFFICIENT OPERATION

If installed in a caravan or similar environment, large vents should be installed to allow air to vent to the outside environment. A lower vent to intake cool air and a higher vent for exhaust of warm air. The vents should be at least 200cm$^2$ in size.

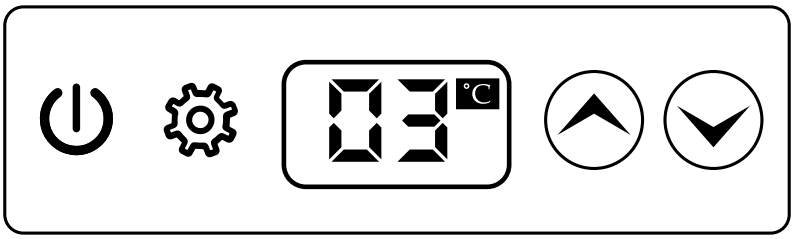
# 9. OPERATION

The thermostat in the top of the fridge section sets the temperature inside the Upright Fridge/Freezer. Each unit will have some variation, so no one setting will work for every unit. Generally, settings 1 - 4°C are suitable for daily use.

**Power Button** - Press and hold to turn on or off.

**Settings Button** - Press to turn Dim mode on or off.

**Up and Down Buttons** - Press to increase or decrease the set temperature.




# 10. EQUALISING

Each time the Upright Fridge/Freezer is turned on it should be allowed to run for at least 12 hours, before it is used. A good tip is to turn on the Upright the day before a trip.

# 11. DEFROSTING

Defrosting needs to be completed when ice inside the Upright Fridge/Freezer is around 5mm thick. Ice on the inside walls will affect the normal operation of the device.

Use the Power button to turn the fridge off and remove items from inside the Upright Fridge/Freezer.

Do not use mechanical devices, metallic, sharp objects, or other means to accelerate the defrosting process.

Do not attempt to manually remove the ice, allow air flow to naturally melt the ice.

# 12. COOLING TIPS

How full should your fridge be? It comes down to energy; pull energy out of something and it gets cooler, put energy in and it gets warmer. Think of a kettle, put energy by turning it on, the water gets hotter, turn the kettle off and energy is released from the water and the water gets cooler. Water vs Air, water takes around 4 times more energy to cool down compared to air.

Therefore, filling a fridge with liquid instead of leaving empty will take noticeably longer to cool down and use more power. This is one big reason why pre-cooling your fridge is strongly recommended.

Every time you open your fridge, cool air will be pulled out and replaced with warm and moist air. So initially your empty fridge will get cooler quicker, but anytime you open the door to place or remove items the fridge will take time to get back down to temperature.

The optimum point ends up being around ½ to ¾ full of product. This fills most of the fridge and reduces air lost each time the door is opened but also leaves enough room for air flow around the product inside the fridge.

Air flow around products is also important for keeping all the product inside the unit at similar temperatures and makes for a more efficient fridge.

If you tightly pack product, it could take days for the product at the center to correctly come down to temperature. This will also have a negative effect on power usage.

# 13. GENERAL TIPS

1. Pre-chill before trips.
2. If the fridge will be accessed frequently (drinks fridge for example) aim to have around ¾ loaded.
3. If you need more items to fill up space, you can use empty reusable containers. (e.g. take-away containers) They are easy to stack and help with air-flow around products.
4. Keep the fridge out of direct sunlight.
5. Keep the vents of the fridge at least 150mm clear from any obstructions.

# 14. DIFFERENTIAL

A differential is the measurement between the hottest and coldest part of a cooling cycle. Common differentials can be 2 – 5ºC, meaning the difference between the warmest and coldest part of a cooling cycle could be up to 5ºC. This is not a product fault, the same measurement exists for your fridge at home. For example, if your fridge is set to 4°C. It runs and cools to 1ºC, when it turns off it may warm up to 3 – 5ºC before the unit switches back on and cools back down to 1ºC. This is normal operation for any compressor fridge.

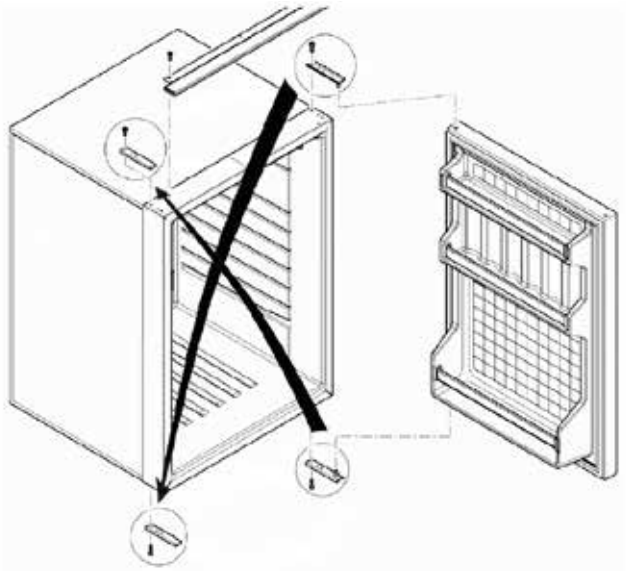
Good fridge/freezer temperature is not reliant on the warmest or coldest part of the cycle but the average temperature this keeps the unit at.

You can easily measure the average temperature of your fridge by placing a large glass of water inside an otherwise empty fridge. Set the fridge thermostat to 4°C and let the fridge run overnight. Measure the temperature of the water the following day. You will be able to see the temperature differential and adjust your fridges thermostat to suit your needs.

- **E.g.** Thermostat is set to 4°C but the fridge average temperature is 1°C. You could increase your thermostat to 5°C
- **E.g.** Thermostat is set to 4°C but the fridge average temperature is 6°C. You could decrease your thermostat to 4°C

# 15. MOVING THE DOOR HINGE

Remove the screws securing the top and the fastening pins, remove the door, reverse the fastening hinges as illustrated as below image and re-insert the door and re-tighten all parts.



# 16. RUBBER SEALS

1. There are magnets inside the rubber seal to help pull the seal towards the cabinet when the door is closed.
2. Periodically and after any changes to the hinges or door latch, check the door seal is making positive contact on all 4 sides of the door.
3. If gaps are found, a small amount of heat from a hair dryer will soften the rubber seal and assist in making the rubber better contact the cabinet.

# 17. TROUBLESHOOTING

## 17.1 TROUBLESHOOTING FLOW CHART


**Fridge concern is not cooling or running for only a short period etc.** The above concerns can have several causes. The following helps confirm where the issue lies.


**Rest the fridge.** If the fridge has turned on and off too quickly, a number of errors can occur. Disconnect the fridge from all power sources for 15 minutes. This acts as a reset for the fridge's electrical and refrigeration system.


**Power source issue.** One of the most common issues stem from power source issues. Connect the fridge for at least 30 minutes to a battery that has it's output boosted. ie. battery charger or sunny day with solar panel input to the battery.

If this corrects the issue with the fridge, the source of the concern is outside the fridge. If the power to the fridge is in the correct range and consistent, the fridge will operate.

Typical issues are related to wiring issues, under-charged batteries and connection problems.


For testing the unit should be empty, as a warm/large product load in the fridge can take more than 24 hours to completely come down to temperature.


If the **fridge is not operating correctly after the above tests**, or the fault is outside those listed and is a manufacturing defect (fridge still not cooling, broken fan etc.) then please follow warranty claim procedure on the last page of this manual.

# 18. WARRANTY

## 60 MONTH LIMITED
# WARRANTY

WARRANTY PERIOD:

Full 60 month warranty from date of purchase against all manufacturing defects.

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WHAT DOES THE WARRANTY COVER?

Under normal usage conditions, this warranty covers:

a. Any defect in design or manufacture which results in the product failing to perform substantially as described in authorised advertising or literature.

b. We will either repair or replace the product at our discretion providing that the fault is found to have been caused by a design or manufacturing defect and not misuse or tampering.

Our goods come with guarantees that cannot be excluded under the Australian Consumer Law. You are entitled to a 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. The benefits provided to you as the consumer by this warranty are in addition to other rights and remedies available to you under the law.

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THE WARRANTY DOES NOT COVER:

a. Any damage resulting from improper use

b. Faulty installation or modification made during installation

c. The cost of removing and reinstalling the product

d. Travel and /or other expenses due to customer's remote location

e. Transport charges and damage in transit. It is your responsibility to deliver and pick up your product, including any costs associated with the postage of your repair or replacement product. If you do freight your product we recommend that you insure against loss or damage.

f. Any loss directly or indirectly associated with the product failing to operate.

g. Damage caused by mould, insects, animals, misuse, incorrect operation, adverse weather, accidents and fair wear and tear

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TO MAKE A CLAIM, PLEASE ENSURE YOU RETAIN YOUR SALES RECEIPT OF PURCHASE

1800 88 39 64

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