



*Note: Colours and appearances may vary*

# 12V/24V Portable Fridge/Freezer

## User Manual

[Revision 1.0 September 2019]

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READ THIS MANUAL CAREFULLY BEFORE USE – FAILURE TO DO SO MAY RESULT IN INJURY, PROPERTY DAMAGE AND MAY VOID WARRANTY. • KEEP THIS MANUAL FOR FUTURE REFERENCE. • Products covered by this manual may vary in appearance, assembly, inclusions, specifications, description and packaging.

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# Safety

Safety messages are designed to alert you to possible dangers or hazards that could cause death, injury or equipment or property damage if not understood or followed. Safety messages have the following symbols:



You **WILL** be KILLED or SERIOUSLY INJURED if you do not follow instructions.

It is vital that you read and understand this user manual before using the product, including safety warnings, and any assembly and operating instructions. Keep the manual for future reference.

Safety precautions and recommendations detailed here must be fully understood and followed to reduce the risk of injury, fire, explosion, electrical hazard, and/or property damage.

Safety information presented here is generic in nature – some advice may not be applicable to every product. The term "equipment" refers to the product, be it electrical mains powered, battery powered or combustion engine powered.

- **Before Use** - If you are not familiar with the safe operation/handling of the equipment or are in any way unsure of any aspect of suitability or correct use for your application, you should complete training conducted by a person or organization qualified in safe use and operation of this equipment, including fuel/electrical handling and safety.
- Do NOT operate the equipment in flammable or explosive environments, such as in the presence of flammable liquids, gases or dust. The equipment may create sparks or heat that may ignite flammable substances.
- Keep clear of moving parts.
- Equipment may be a potential source of electric shock or injury if misused.
- Do NOT operate the equipment if it is damaged, malfunctioning or is in an excessively worn state.
- Do NOT allow others to use the equipment unless they have read this manual and are adequately trained.
- Keep packaging away from children - risk of suffocation! Operators must use the equipment correctly. When using the equipment, consider conditions and pay due care to persons and property.

## General Work Area Safety

- Work areas should be clean and well lit.
- Do not operate the equipment if bystanders, animals etc are within operating range of the equipment or the general work area.
- If devices are provided for connecting dust extraction / collection facilities, ensure these are connected and used properly. Dust collection can reduce dust-related hazards.



You **CAN** be KILLED or SERIOUSLY INJURED if you do not follow instructions.

## General Personal Safety

- Wear appropriate protective equipment when operating, servicing, or when in the operating area of the equipment to help protect from eye and ear injury, poisoning, burns, cutting and crush injuries. Protective equipment such as safety goggles, respirators, non-slip safety footwear, hard hat, hearing protection etc should be used for appropriate equipment / conditions. Other people nearby should also wear appropriate personal protective equipment. Do not wear loose clothing or jewellery, which can be caught in moving parts. Keep hair and clothing away from the equipment.
- Stay alert and use common sense when operating the equipment. Do not over-reach. Always maintain secure footing and balance.
- Do not use the equipment if tired or under the influence of drugs, alcohol or medication.
- This equipment is not intended for use by persons with reduced physical, sensory or mental capabilities.

## General Fuel Safety

- Petrol/fuel/gasoline is extremely flammable – keep clear of naked flames or other ignition sources.
- Do not spill fuel. If you spill fuel, wipe it off the equipment immediately – if fuel gets on your clothing, change clothing.
- Do NOT smoke near fuel or when refuelling.
- Always shut off the engine before refuelling.
- Do NOT refuel a hot engine.
- Open the fuel cap carefully to allow any pressure build-up in the tank to release slowly.
- Always refuel in well ventilated areas.
- Always check for fuel leakage. If fuel leakage is found, do not start or run the engine until all leaks are fixed.

## General Carbon-Monoxide Safety

- Using a combustion engine indoors **CAN KILL IN MINUTES**. Engine exhaust contains carbon-monoxide – a poison you cannot smell or see.
- Use combustion engines OUTSIDE only, and far away from windows, doors and vents.



You **CAN** be INJURED if you do not follow instructions or equipment damage may occur.

## General Equipment Use and Care

- The equipment is designed for domestic use only.
- Handle the equipment safely and carefully.
- Before use, inspect the equipment for misalignment or binding of moving parts, loose components, damage or any other condition that may affect its operation. If damaged, have the equipment repaired by an authorised service centre or technician before use.
- Prevent unintentional starting of the equipment - ensure equipment and power switches are in the OFF position before connecting or moving equipment. Do not carry equipment with hands or fingers touching any controls. Remove any tools or other items that are not a part of the equipment from it before starting or switching on.
- Do not force the equipment. Use the correct equipment for your application. Equipment will perform better and be safer when used within its design and usage parameters.
- Use the equipment and accessories etc. in accordance with these instructions, considering working conditions and the work to be performed. Using the equipment for operations different from those intended could result in hazardous situations.
- Always keep equipment components (engines, hoses, handles, controls, frames, housings, guards etc) and accessories (cutting tools, nozzles, bits etc) properly maintained. Keep the equipment clean and, where applicable, properly lubricated.
- Store the equipment out of reach of children or untrained persons. To avoid burns or fire hazards, let the equipment cool completely before transporting or storing. Never place or store the equipment near flammable materials, combustible gases or liquids etc.
- The equipment is not weather-proof, and should not be stored in direct sunlight, at high ambient temperatures or locations that are damp or humid.
- Do not clean equipment with solvents, flammable liquids or harsh abrasives.
- For specific equipment safety use and care, see Equipment Safety.





















General Electrical Safety	General Electrical Safety	General Service Information
<ul style="list-style-type: none"> <li>Inspect electrical equipment, extension cords, power bars, and electrical fittings for damage or wear before each use. Repair or replace damaged equipment immediately.</li> <li>Ensure all power sources conform to equipment voltage requirements and are disconnected before connecting or disconnecting equipment.</li> <li>When wiring electrically powered equipment, follow all electrical and safety codes.</li> <li>Wherever possible, use a residual current device (RCD).</li> <li>High voltage / high current power lines may be present. Use extreme caution to avoid contact or interference with power lines. Electrical shock can be fatal.</li> </ul>	<ul style="list-style-type: none"> <li>Electrically grounded equipment must have an approved cord and plug and be connected to a grounded electrical outlet.</li> <li>Do NOT bypass the ON/OFF switch and operate equipment by connecting and disconnecting the electrical cord.</li> <li>Do NOT use equipment that has exposed wiring, damaged switches, covers or guards.</li> <li>Do NOT use electrical equipment in wet conditions or in damp locations.</li> <li>Do NOT use electrical cords to lift, move or carry equipment.</li> <li>Do NOT coil or knot electrical cords, and ensure electrical cords are not trip hazards.</li> </ul>	<ul style="list-style-type: none"> <li>The equipment must be serviced or repaired at authorised service centres by qualified personnel only.</li> <li>Replacement parts must be original equipment manufacturer (OEM) to ensure equipment safety is maintained.</li> <li>Do NOT attempt any maintenance or repair work not described in this manual.</li> <li>After use, the equipment and components may still be hot – allow the equipment to cool and disconnect spark plugs and/or electrical power sources and/or batteries from it before adjusting, changing accessories or performing repair or maintenance.</li> <li>Do NOT adjust while the equipment is running.</li> <li>Perform service related activities in suitable conditions, such as a workshop.</li> <li>Replace worn, damaged or missing warning/safety labels immediately.</li> </ul>













#### Portable Fridge/Freezer Safety

- Warning:** Do not touch exposed cables with your bare hands when operating the appliance.
- Warning:** It is dangerous to touch the plug when your hands are wet.
- When using the refrigerator in a vehicle or boat, please make sure the electricity has a fuse if using the mains power.
- The installation of the DC power source in a boat should be handled by a qualified technician.
- Make sure the voltage is right. On the technical data label, there is the voltage data.
- Do not place any electrical devices inside the refrigerator.
- The appliance should not be exposed to rain. Keep the appliance away from water.
- Please keep the appliance away from substances that can cause sparks/fires.**
- The appliance is not intended for use by young children or infirm persons unless they have been adequately supervised by a responsible person to ensure that they can use the unit safely.
- Young children should be supervised to ensure that they do not play with the appliance.
- Your refrigerator requires good ventilation, especially around the back of the refrigerator. Allow a gap of at least 200mm around the back and 100mm around the right.
- Avoid humidity: Humidity inside the appliance can form frost and impair cooling. Defrost it before this happens. Never clean the appliance under running water or in dish water.
- Avoid placing your refrigerator near a heat source. This helps the refrigerator to work more efficiently and keep the contents cool.
- Place the refrigerator on a flat surface and away from any edges. When placing the refrigerator into the car, please use a belt to fasten it.
- Never place hot food or drink in the refrigerator.**
- Please remove the door before you dispose your refrigerator.

## Safety Symbols

The product may have safety warning labels attached to it, explained below. Understand the symbols on your product and their meanings. If any stickers become unreadable, unattached etc., replace them.

 <p><b>Flammable Material Hazard</b> Flammable liquids, gases or substances etc may present. Avoid ignition sources and open flames. Danger of fire.</p>	 <p><b>Read User Manual</b> Read and fully understand product safety warnings, operation, procedures etc before using the product.</p>	 <p><b>Use Hand Protection</b> Wear appropriate hand protection and take due care as the product or use of the product may present hand hazards.</p>	 <p><b>Carbon-Monoxide Hazard</b> Do not use the product in confined areas or without adequate ventilation. Carbon-monoxide poisoning can be fatal.</p>
 <p><b>Electrocution / Electrical Shock Hazard</b> High voltage or high current electricity may be present or required by the product. Take due care when handling electrical products, cables, plugs and leads. Electrical shock can be fatal.</p>	 <p><b>Toxic Fumes / Dust Hazard</b> Using the product or by-products from use may produce fumes, smoke or particles that could be harmful if inhaled. Wear appropriate breathing protection and have adequate ventilation.</p>	 <p><b>Explosive Material Hazard</b> Combustible liquids, gases or substances etc may be present. Avoid ignition sources and open flames. Danger of explosion.</p>	 <p><b>Cutting / Amputation Hazard</b> The product may have blades, edges or mechanical devices that can cause severe cut injury to fingers, limbs etc. Take due care when handling and using the product.</p>
 <p><b>Crush Hazard</b> The product may have blades, edges or mechanical devices that can cause severe crush injury to fingers, limbs etc. Take due care when handling and using the product.</p>	 <p><b>Single Operator Only</b> The product must be operated by a single person only. More than one person operating the product may introduce additional hazards.</p>	 <p><b>Use Face Protection</b> Wear appropriate full-face protection and take due care as the product or use of the product may present face and eye hazards.</p>	 <p><b>Use Foot Protection</b> Wear appropriate foot protection and take due care as the product or use of the product may present foot hazards.</p>
 <p><b>Use Eye / Ear / Head Protection</b> Wear appropriate eye and / or ear and / or head protection and take due care as the product or use of the product may present eye, hearing and head hazards.</p>	 <p><b>Running Hazard</b> Do not run on or near the product as doing so may present a fall hazard.</p>	 <p><b>Diving Hazard</b> Do not dive into the product as doing so may present a neck / head injury hazard.</p>	 <p><b>Adult Supervision Required</b> Always supervise children and other users of a product to prevent drowning or injury.</p>
 <p><b>Skin Penetration / Puncture Hazard</b> The product may produce pressure, emit liquids or objects that can cause severe injury to fingers, limbs, blood etc. Take due care when handling and using the product.</p>	 <p><b>Hot Surface Hazard</b> Be aware that the product may produce high temperatures and hot surfaces that can cause burn injuries.</p>	 <p><b>Flying Debris Hazard</b> Be aware that the product or use of the product may present hazards produced by flying debris. Wear appropriate clothing and protective devices.</p>	 <p><b>Moving Parts Hazard</b> Be aware that the product contains or uses mechanical devices that move or rotate. Always wait for moving parts to stop fully before handling the product, adjusting, maintenance etc.</p>

 <p><b>Carbon-Monoxide Hazard</b> Do not use the product in confined areas or without adequate ventilation. Carbon-monoxide poisoning can be fatal.</p>	 <p><b>Pull Hazard</b> Be aware that the product contains or uses mechanical devices that can pull in objects and can cause severe injury to fingers, limbs etc. Take due care when handling and using the product.</p>	 <p><b>Slope / Fall Injury Hazard</b> Be aware that using the product on sloping surfaces or in slippery conditions may present additional dangers from falls and contact with blades, moving parts, hot surfaces etc.</p>	 <p><b>"Slam Dunk" Warning</b> Do NOT attempt "slam dunk" manoeuvres as this may result in severe injury due to falling, product breakage or collapse etc.</p>
 <p><b>Electrocution / Electrical Shock Hazard - Outdoor</b> High voltage or high current electricity may be present or required by the product. Do NOT use in rain, damp or wet conditions. Electrical shock can be fatal.</p>	 <p><b>Electrocution / Electrical Shock Hazard - Disconnect</b> High voltage or high current electricity may be present or required by the product. Always disconnect the product from the electrical supply before handling the product, adjusting, maintenance etc.</p>	 <p><b>Power Line Electrocution Hazard</b> High voltage / high current power lines may be present. Use extreme caution to avoid contact or interference with power lines. Electrical shock can be fatal.</p>	 <p><b>"Kick-Back" Hazard</b> High level of "kick-back" hazard that can cause the machine to suddenly rotate towards operator. Kick-back injury can be fatal.</p>
 <p><b>Winch Operator Position Hazard</b> Do NOT stand between winch and load. Do NOT use winch to move people.</p>	 <p><b>Winch Lift Hazard</b> Do NOT LIFT load vertically. Use machine to PULL only.</p>	 <p><b>Cable Hazard</b> Ensure that load bearing cable is not kinked or knotted.</p>	 <p><b>Winch Cable Hazard</b> Ensure that there is a minimum number of cable coils on winching mechanism.</p>
 <p><b>Winch Hook Hazard</b> Carry hook to load – do NOT throw or run.</p>	 <p><b>Flash / Blinding Hazard</b> Wear appropriate eye protection for welding. Direct exposure to weld arcs may cause permanent eye injury.</p>	 <p><b>Laser Hazard</b> Laser may be in use – do NOT look directly at laser or allow others to.</p>	

# Table of Contents

<b>Safety .....</b>	<b>2</b>
Safety Symbols .....	4
<b>Operation .....</b>	<b>7</b>
Power .....	7
Battery Protection .....	7
Battery Electric Power Display .....	7
Buzzing .....	7
Cable Length Specifications .....	8
Control Panel Features .....	8
<b>Maintenance .....</b>	<b>9</b>
<b>Troubleshooting .....</b>	<b>10</b>
Troubleshooting Table .....	10
Error Codes .....	10
<b>Specifications .....</b>	<b>11</b>
GEK-70G .....	11
GEK-70K .....	11
GEK-85G .....	12
GEK-85K .....	12
GEK-105G .....	13
GEK-105K .....	13

# Operation



On first time use of the portable fridge/freezer, it is recommended that you let it sit for at least 12 hours first before connecting it to a power source, the same as with a normal fridge. This is to stabilise the compressor after delivery.

## Power







The electronic device can control the compressor system and can also function as a battery protector. When the input voltage reaches the minimum, it can stop the compressor; when the voltage comes back to the normal value, the compressor will automatically restart.

## Battery Protection

By selecting the Low, Med or High switch position, you can choose different levels for battery protection. From the table below, you can find the battery tension values when the compressor stops running (cut-out) and when the compressor restarts working (cut-in).

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

## Battery Electric Power Display

Sections	LCD Display	Battery level
1		10.7V
2		11.2V
3		11.7V
4		12.2V
5		12.7V
6		13.2V

## Buzzing

1. If you press any button, the refrigerator will have a buzzer alarm sound.
2. When the battery gauge displays the gear to 1, a buzzer alarm will sound off.



## Cable Length Specifications

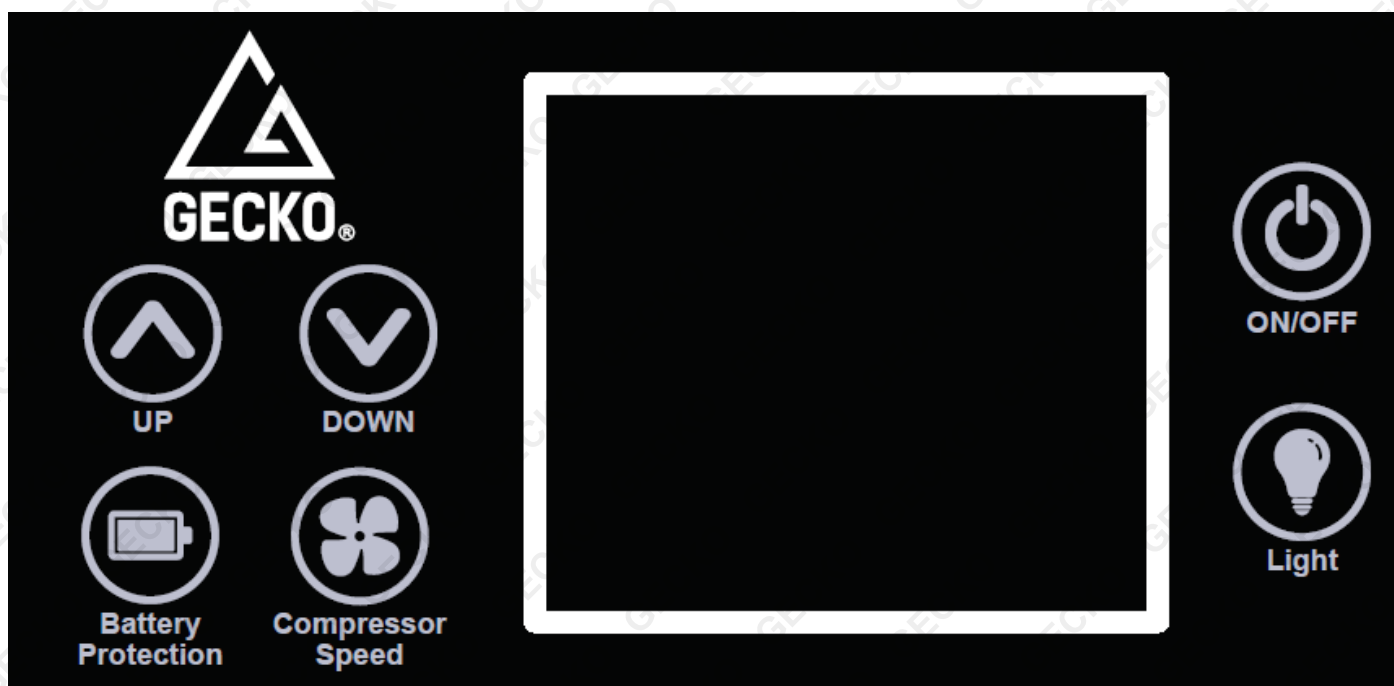
The DC cables must have a suitable cross-section for their length, according to this table:

Cable Area		12V Max Cable Length		24V Max Cable Length	
(mm <sup>2</sup> )	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 refrigerator.

- AC Max Cable Length: 0.75mm<sup>2</sup> or 18AWG
- Temperature setting range: -18 – 10°C
- LCD Display range: -20 – 40°C

## Control Panel Features



- Press the **UP or DOWN button** to adjust the temperature the unit aims to achieve. Press the **UP button** to increase or the **DOWN button** to decrease the temperature.
- **ON/OFF power button:** Hold the **ON/OFF button** for 3 seconds to turn the unit off, hold the **ON/OFF button** for 3 seconds to turn unit on.  
If the power source is cut off or disconnected, the unit will switch off automatically. Once the power is restored, it will automatically switch back ON with the same settings.
- Press the **Compressor Speed Button** to set the speed of the compressor.  
MAX (3000 RPM), ECO (2500 RPM); the LCD light will show which speed is selected.
- Press the **Battery Protection Button** to set the voltage. The fridge cuts out at LOW, MED or HIGH. The LCD light will show which voltage is selected.



- Press the **Light Button**, then the light of the left and right cabinet will turn on and the LCD will light-up. Press the **Light Button** again to turn the light off. If you forgot to turn off the right cabinet, the light will turn off automatically in three minutes or later.
- If the power supply is cut off, the refrigerator will switch on automatically when the power supply has returned.
- If you press any button, the refrigerator will sound a buzzer alarm.

## Maintenance

- Be sure to disconnect the fridge/freezer from the power source first before performing and cleaning/maintenance on it.
- Clean the appliance inside and out with a damp cloth every week. If it is dirty, use a mixture of 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 refrigerator shut off, warn inside, with food inside or lid closed.
- 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 refrigerator.



# Troubleshooting

## Troubleshooting Table

The following information may assist in identifying a problem and rectifying it.

Note: Some procedures listed here may need to be performed by a qualified service technician.

Problems	Possible Reasons and Actions
The Fridge/Freezer isn't working	Check the power supply <ul style="list-style-type: none"> <li>Whether the plug and the socket have a good connection</li> <li>Whether the fuse has been burned out</li> <li>Whether the appliance has been turned on</li> </ul>
The food inside is frozen	The temperature setting is too low
Bad performance in refrigeration	<ul style="list-style-type: none"> <li>Too much food inside the refrigerator</li> <li>The door is unlocked</li> <li>The door seal is broken</li> <li>Problems arising from poor ventilation</li> <li>There is too much heated food inside</li> <li>There is no room around the appliance</li> <li>There is a hot source around the appliance</li> <li>The temperature setting is inappropriate</li> </ul>
Hearing the sound of water inside the refrigerator	This is normal due to the flow of refrigerant
Hearing loud noises	<ul style="list-style-type: none"> <li>The refrigerator is not placed on a level surface</li> <li>The refrigerator is touching a wall or surface</li> <li>The parts fall off the interior of the refrigerator</li> </ul>

## Error Codes

Code	Error instruction
E5	Compressor controller overheat protection. Cooling system over loaded or ambient temperature too high, causing the compressor mould to overheat.
E4	Compressor motor turning speed error
E3	Compressor motor start error. The motor block or cooling system pressure is too high (greater than 5bar).
E2	Fan over current (control module fan over 1Amp).
E1	Battery protection (pressure over cutting setting).

# Specifications

## GEK-70G

Type	Fridge/Freezer
Colour	Silver
Volume	70L
Inner Tank	Polypropylene
Refrigerant	R134a, 85g
Voltage	DC 12V/24V, AC 240V
Rated Power	60W
Battery Protection	Yes
Noise Level	≤42dB
Max Operation Incline	30°
Current	5.4A/2.7A
Temperature Range	-19°C to +10°C
Power Plug	Australian Standard

## GEK-70K

Type	Fridge/Freezer
Colour	Black
Volume	70L
Inner Tank	Polypropylene
Refrigerant	R134a, 85g
Voltage	DC 12V/24V, AC 240V
Rated Power	60W
Battery Protection	Yes
Noise Level	≤42dB
Max Operation Incline	30°
Current	5.4A/2.7A
Temperature Range	-19°C to +10°C
Power Plug	Australian Standard

## GEK-85G

Type	Fridge/Freezer
Colour	Silver
Volume	85L
Inner Tank	Polypropylene
Refrigerant	R134a, 90g
Voltage	DC 12V/24V, AC 240V
Rated Power	70W
Battery Protection	Yes
Noise Level	≤42dB
Max Operation Incline	30°
Current	5.4A/2.7A
Temperature Range	-19°C to +10°C
Power Plug	Australian Standard

## GEK-85K

Type	Fridge/Freezer
Colour	Black
Volume	85L
Inner Tank	Polypropylene
Refrigerant	R134a, 90g
Voltage	DC 12V/24V, AC 240V
Rated Power	70W
Battery Protection	Yes
Noise Level	≤42dB
Max Operation Incline	30°
Current	5.4A/2.7A
Temperature Range	-19°C to +10°C
Power Plug	Australian Standard

## GEK-105G

Type	Fridge/Freezer
Colour	Silver
Volume	105L
Inner Tank	Polypropylene
Refrigerant	R134a, 90g
Voltage	DC 12V/24V, AC 240V
Rated Power	80W
Battery Protection	Yes
Noise Level	≤42dB
Max Operation Incline	30°
Current	5.4A/2.7A
Temperature Range	-19°C to +10°C
Power Plug	Australian Standard

## GEK-105K

Type	Fridge/Freezer
Colour	Black
Volume	105L
Inner Tank	Polypropylene
Refrigerant	R134a, 90g
Voltage	DC 12V/24V, AC 240V
Rated Power	80W
Battery Protection	Yes
Noise Level	≤42dB
Max Operation Incline	30°
Current	5.4A/2.7A
Temperature Range	-19°C to +10°C
Power Plug	Australian Standard



**Some experts believe that the incorrect or prolonged use of almost any product may cause serious injury or death. To help reduce your risk of serious injury or death, refer to the information below. For more information, see [www.datastreamserver.com/safety](http://www.datastreamserver.com/safety)**

- Consult all documentation, packaging and product labelling before use. Note that some products feature documentation available online. It is recommended to print and retain the documentation.
- Before each use, check the product for loose/broken/damaged/missing parts, wear or leaks (if applicable). Never use a product with loose/broken/damaged/missing parts, wear or leaks.
- Products must be inspected and serviced (if applicable) by a qualified technician every 6 months. This is based on average residential use by persons of average size and strength, and on a property of average metropolitan size. Use beyond these recommendations may require more frequent inspections/servicing.
- Ensure that all users of the product have completed a suitable industry recognised training course before being allowed access to the product.
- The product has been supplied by a general merchandise retailer that may not be familiar with your specific application or description of application. Be sure to attain third-party approval from a qualified specialist for your application before use, regardless of any assurances from the retailer or its representatives.
- This product is not intended for use where fail-safe operation is required. As with any product (for example, automobile, computer, toaster), there is the possibility of technical issues that may require the repair or replacement of parts, or the product itself. If the possibility of such failure and the associated time it may take to rectify could in any way inconvenience the user, business or employee, or financially affect the user, business or employee, then the product is not suitable for your requirements. This product is not intended for use where incorrect operation or a failure of any kind, including but not limited to, a condition requiring product return, replacement, parts replacement or service by a technician may cause financial loss, loss of employee time or an inconvenience requiring compensation.
- If this product has been purchased in error when considering the information presented here, contact the retailer directly for details of their returns policy, if required.

