

# Evakool Indel B 31 40 50 AC/DC Compressor Portable Fridge / Freezer – Operation Manual

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

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## **Key Product Features:**

- The most reliable portable cooling system in the world – Powered by Danfoss.
- Danfoss electronics, high efficiency, low energy consumption.
- Multi-voltage system DC (12 and 24 Volt ) and AC (100-120/220-240 Volt)
- Adjustable battery protection helps protect your battery (DC only).

## **1. Safety Instructions**

- **Warning:** Do not use your unit if any cabling is damaged, frayed or there is exposed wiring.
- **Warning:** Do not attempt or continue to operate your unit if it is wet.
- When using the unit ensure the circuit being used has a fuse or circuit breaker, recommended size for DC 12 Volt is 15 Amp, DC 24 Volt is 7.5 Amp and AC is 4 Amp.
- Make sure the voltage is within the correct range for socket and cable being used. The technical data label on the side of the unit shows the voltage ranges.
- Do not place any electrical devices inside the refrigerator as they may be damaged.

## **2. Notes on using the product**

- Your unit requires good ventilation, especially around the back of the refrigerator; allow a gap of at least 100mm around all sides.
- Do not allow a large amount of frost to build up on the inside walls as this may impair cooling. Defrost by turning the unit off, allowing the frost to melt and wiping out the water.
- The lower the ambient temperature, the lower the power usage, in order to maximize efficiency keep the unit in a cool location out of direct sunlight.
- It is recommended to operate the unit on a flat surface, but it will operate at angles up to 30°.

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## 3. Operation

- **Power** Both DC (12 and 24 Volt) and AC (100-120/220-240 Volt) can be connected to your unit at the same time. In this case, AC will be the preferred power supply source. If the AC power supply is disconnected or becomes outside the correct voltage range, after a 1 minute delay your unit will start to operate on DC power. Once AC power is re-established or returned to the correct voltage range the unit will start to operate on AC power without delay.
  
- **Battery Protection:** Selecting the Low, Med, High positions of the switch (next to the DC power socket), you can choose different levels for battery protection. In the below table you can find the voltages 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

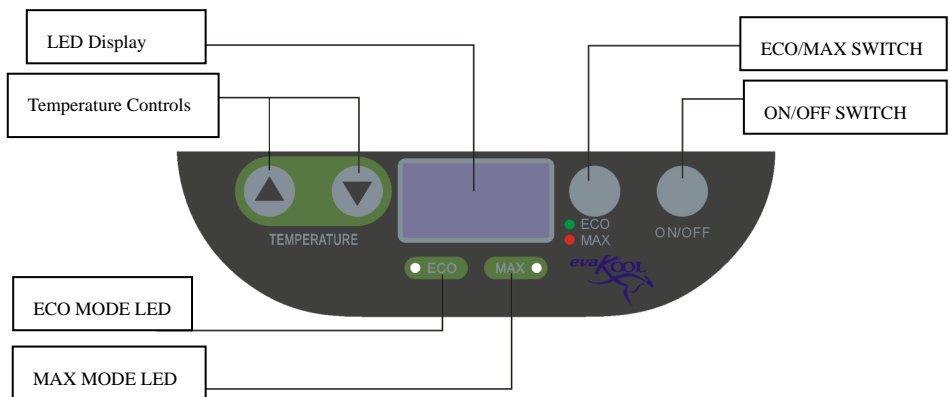
- **Cable Length Specification**

The DC cables must have a suitable cross-section for their length (measured from the battery to the unit), according to this table:

Cable Area		12V Max Cable Length		24V Max Cable Length	
[mm2]	AWG	[m]	[ft.]	[m]	[ft.]
2.5	14	2.5	8	5	16
4	12	4	13	8	26
6	10	6	20	12	39
10	8	10	33	20	66

AC minimum wire dimension 0.75mm<sup>2</sup> or 18AWG

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Temperature setting range -30C° to 40C°

The LED Display range -40C° to 45C°

- Press the button UP or DOWN button to adjust the temperature the unit aims to achieve. Press the button to increase or the button to decrease the temperature.
- When you press the UP and DOWN buttons at the same time, it switches the display between C° and ° F.
- Press the button “ECO” to enter the economy running mode, the ECO indicator green LED light will be on. Press the button again; the unit will enter the maximum running mode, the MAX indicator red LED light will be on.
- The economy mode runs the compressor at a lower speed to save power; the maximum mode runs the compressor at a higher speed increasing power usage. Maximum mode is useful if the ambient temperature is over 30 C° or fast cooling is required.
- Plug in the DC or AC power. Press the button ON/OFF to turn the unit on. The LED display on the control panel will turn on and the interior temperature is displayed.
- 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.

#### 4. Cleaning and maintenance

- Clean the appliance inside and out with a clean damp cloth every week. If it is dirty, use

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sodium bicarbonate dissolved in lukewarm water to clean the unit.

- Never use abrasive products, detergents or soap. After cleaning, wipe out with a clean damp cloth and dry carefully.
- Do not store product inside unit if the unit is not on
- Do not store the unit if it is wet inside or without leaving the lid open.
- Never clean the unit under running water or in dish water. Do not use abrasive cleaning agents or hard objects during cleaning as these can damage the unit.



## 5. Troubleshooting

### • The unit is not turning on

- Check whether the unit has been turned on
- Check the power supply (try a different power source, i.e. different vehicle or power socket)
- Check whether the plug and the socket have a good connection.
- Check whether the fuse has been burned out or blown

### • Low refrigeration performance

- Too much product been placed inside the unit
- There is too much warm product inside the unit
- The lid is unlatched / or open
- The lid seal is broken
- Problems arising from poor ventilation (ensure at least 100mm of space around all sides)

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- The ambient is too high
- The temperature setting is too high
  
- **Can hear the sound of running water from inside the unit**
- This is normal, due to the flow of refrigerant in the unit.
- **Unusual noise when refrigerator is working**
- The refrigerator is not placed on a level surface

If none of the above solves your issue please contact Evakool or your local Evakool service centre.





## 6. Security Certificate







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## 7. Technical Data (DC/AC )

 <b>MODEL IB31</b>	
CLIMATIC CATEGORY	T , ST , N , SN
PROTECTIVE CLASSIFICATION OF ELECTRIC SHOCK RESISTANCE	
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°C ambient temp.) (used as refrigerator)	0. 13 - 0. 28 kW· h / 24h
ENERGY CONSUMPTION (25°C ambient temp.) (used as freezer **)	0. 40kW· h / 24h
FREEZING CAPACITY	1. 5kg / 24h
REFRIGERANT	R134a (40g)
NET WEIGHT	16. 0 kg
BLOW AGENT	C - P




 <b>MODEL IB40</b>	
CLIMATIC CATEGORY	T , ST , N , SN
PROTECTIVE CLASSIFICATION OF ELECTRIC SHOCK RESISTANCE	
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°C ambient temp.) (used as refrigerator)	0. 13 - 0. 28 kW· h / 24h
ENERGY CONSUMPTION (25°C ambient temp.) (used as freezer **)	0. 40kW· h / 24h
FREEZING CAPACITY	1. 5kg / 24h
REFRIGERANT	R134a (40g)
NET WEIGHT	17. 0 kg
BLOW AGENT	C - P

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**MODEL IB50**

CLIMATIC CATEGORY	T , ST , N , SN
PROTECTIVE CLASSIFICATION OF ELECTRIC SHOCK RESISTANCE	
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
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ENERGY CONSUMPTION (25°C ambient temp.) (used as freezer **)	0. 40kW· h / 24h
FREEZING CAPACITY	1. 5kg / 24h
REFRIGERANT	R134a (40g)
NET WEIGHT	18. 5 kg
BLOW AGENT	C - P