



Low Temperature Chest Freezer Manual

Thank you for your purchase.

This manual contains: set-up instructions, unit specs, safety information, controller operation and maintenance steps.

K20345-C, K20745-C, K21145-C



IMPORTANT:

Your unit is preprogrammed

Place your unit in the desired location. Plug the unit in and allow it to cool and become stable for a minimum of 24 hours before logging temperature or stocking products.

Be careful when setting or changing temperatures

WARNING: Changing some controller parameters can damage your unit and/or result in a loss of product. K2 will not be held responsible for losses due to unauthorized parameter changes.



Changing advanced parameters may damage the unit or void your warranty. Please contact K2 before attempting to change advanced parameters.

Unfamiliar with the operation of a K2 controller?

Use the video tutorials on our website resources page or call us for assistance with special parameters.

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1 Installation and Start-up

Placement

- For safe and operational reasons, the freezer must not be installed outdoors.
- The freezer should be placed on a stable, level surface in a dry, well-ventilated room (max. 75% relative air humidity).
- Never place the freezer close to heat sources such as cookers or radiators, and avoid placing it in direct sunlight.
- Standard EN378 specifies that the room in which you install your freezer must have a volume of 1m³ per 8 g of hydrocarbon refrigerant used in the products, so as to avoid the formation of inflammable gas/air mixtures in the room where the freezer is located in the event of a leakage in the refrigeration circuit.

Room Temperature

- The freezer is designed to operate at limited ambient temperatures according to the climatic category specified below.

Climate Class Optimum Room Temperature

- N : +16 °C to +32 °C

Ventilation

- It is important that the freezer is installed at a ventilated place and fresh air can circulate unhindered above, below and around it. The freezer requires at least 20cm free space all around it.

2 Electrical Connection

- Data regarding voltage, power and current are given on the nameplate which is at the back of the freezer.
- Electrical connection must be made in accordance with the local regulations.

WARNING!

- This Freezer must be earthed.
- If the socket and the plug are not the same type, please have the plug or socket replaced by a qualified electrician.
- Do under no circumstances use extension lead or adaptor.
- If the power cord is damaged, it must be replaced by the manufacture, or service provider, or a qualified electrician in order to avoid a hazard.

3 Operation and Function

This freezer is equipped with the electronic controller.



For operation of the electronic controller, a separate instruction manual is enclosed and packed as accessory in the freezer.

4 Defrosting

Items stored in the freezer and humidity of the surrounding air might gradually form frost and ice inside the freezer. A thin layer of the frost or ice will not affect the freezer performance, but if the frost and ice are getting more and more, the energy consumption will get higher. Small amount of loose frost or ice can be removed by a plastic shovel.

Never use electrical or sharp tools as these damage the inside chamber or shelves of the freezer.

When the frost or ice is accumulated too much, the freezer should be completely defrosted. It is recommended that defrosting is carried out after all stored items are moved out of the freezer.

Defrosting process as follows:

1. Power off the freezer, and leave all the freezer doors open to let the ice melt
2. Use a soft dry cloth to wipe off the water inside of the freezer
3. Ensure the freezer inside clean and dry before powering on again.
4. Move items back to the freezer when the set temperature has been reached.

5 Cleaning and Maintenance

Cleaning

- Before cleaning, cut off the power supply and remove all the stored items out of the freezer.
- The freezer is best cleaned by a clean, soft, and dry cloth using mild water, if needed, neutral detergent can be used to clean the freezer. After cleaning, make sure the freezer get dried before powering on again. Please be careful to prevent water entering the control panel.
- The sealing gaskets are recommended to clean regularly to prevent degradation and extend its life span. The sealing gaskets shall be cleaned by soft cloth with clean water.
- If possible, it is also recommended that the tubular condenser in the refrigeration cabin to be cleaned in a regular basis to prevent too much dust and dirt affecting the refrigeration performance.
- The ventilation grill also needs to be away from dust and dirt, and it is recommended to be cleaned with a vacuum cleaner in a regular basis.
- If the freezer is not used for a long time, please switch off, and clean the unit before storage.

Energy Saving

- Keep the inner doors closed as always.
- Make sure the inner doors and outer door closed properly after opening the freezer.
- Position the freezer in a cooler (min. 5 °C), well-ventilated room.
- Defrost the freezer at a regular time to prevent ice accumulating too much.

6 Fault Finding

Fault	Possible Causes	Remedy
No control lamps are lit.	<ul style="list-style-type: none"> • The freezer is switched off. • Power failure; the fuse is burned; the freezer is not plugged correctly. 	<ul style="list-style-type: none"> • Check the plug and socket. • Check the power is connected correctly. • Reset the fuse.
Temperatures in freezer too high.	<ul style="list-style-type: none"> • The ventilation grill is blocked by dust and dirt. • The inner doors and outer door are not closed properly. • Too much items are placed into the freezer at a time. • Too much frost and ice. • The thermostat 	<ul style="list-style-type: none"> • Clean the grill to ensure unhindered air circulation. • Close the inner doors and outer door properly and wait for a few hours. • Wait a few hours to see if the temperature can reach the set point. • Defrost the freezer. • Set the thermostat.
Temperature in freezer too low.	<ul style="list-style-type: none"> • The thermostat is set as a low point. • The inner doors are prevented from closing tightly by items stored in the freezer. 	<ul style="list-style-type: none"> • Set the thermostat to a higher point. • Reposition items inside the freezer and make sure the inner doors are closed tightly.
The doors cannot be open.	<ul style="list-style-type: none"> • Vacuum pressure in the freezer. 	<ul style="list-style-type: none"> • Wait 2-3 minutes until the vacuum pressure has been equalized and try again.
Vibration and unusual noise.	<ul style="list-style-type: none"> • The freezer is not placed on a stable and level surface. • The freezer is placed too close to other equipments. • Fan is not run in a proper way. 	<ul style="list-style-type: none"> • Position the freezer on a flat, level, and stable surface. • Move other equipments away from the freezer. • Open the cabin and check if the fan is lack of lubricating oil.

7 Spare Parts

When ordering spare parts, please clarify the type and serial number of your freezer (see fig. 1 and fig. 2). This information is given on the nameplate at the back of the unit.

NOTE: Always select qualified service technicians when your freezer needs to be repaired or replaced.

Important!

Please note that unauthorized changes on the configuration of the freezer or changes to the components of the freezer will invalidate the warranty and product liability. Please **DO NOT** disassemble the refrigeration system randomly unless authorized by the manufacturer or carried out by a qualified service provider.

8 Safeguarding on the Environment


Packing Product

The packing material is entirely recyclable, and marked with recycling symbol. Please follow local regulations for scrapping.

Product

The freezer is made of recyclable material, while the refrigeration system is charged by flammable gases. Disposal of the entire freezer should be in accordance with the local environmental regulations and relative standards. Make sure the product is disposed by a qualified authority for recycling both freezer bodies and refrigerants.

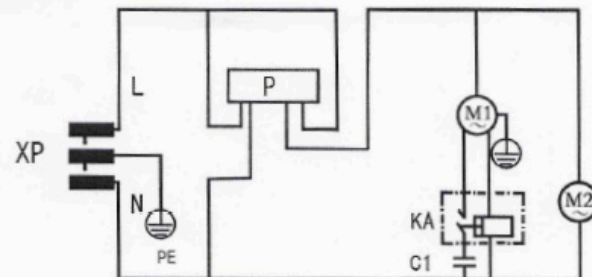
Disposal

- Disposal of the freezer must comply with the local environmental regulations. Please contact your local authorities who shall guide you how to dispose or scrap it.
- This product is marked in accordance with EU Directive 2002/96/EC on waste electrical and electronic equipment (WEEE).
- Ensuring the product is disposed in a correct way helps prevent potential negative impacts on the environment and human health.
- The  symbol on the product or its accompanying documents means the product must not be disposed together with household refuse. Instead, it must be disposed at a proper recycling station.
- The product must be disposed in accordance with the current environmental regulations of the disposal of waste.
- For further information on the handling, recycling and reuse of this product, please contact your local authorities, qualified service providers, or the dealer from whom you bought the product.

9 Technical Parameters/Acessories/Circuit Diagram

Model	DW-40W100	DW-40W200	DW-40W300	DW-40W400	DW-40W500
Inner Temp (° C)	-10~-40	-10~-40	-10~-40	-10~-40	-10~-40
Anti-electric Shock	I	I	I	I	I
Capacity (L)	200	200	300	400	500
Rated Power (V)	115	115	115	115	115
Rated Frequency (Hz)	60	60	60	60	60
Input Power (W)	150	350	400	400	400
Refrigerant	R404a/105g	R404a/200g	R404a/210g	R404a/245g	R404a/275g

Items	Operation Manual	Temperature Controller Specification	Defrost Shovel	Key	Basket
Qty	1	1	1	2	1



P: Temperature controller M1: Compressor
M2: Fan XP: Power Plug KA:Start relay C1: Starting capacitor

Fig.4

Service

K2 Scientific want to make sure you are happy with your purchase. There are several ways for you to contact us with questions or service needs. Be sure to include your four digit order number or at least your model number handy to speed up the process.

- 1; Contact us via our chat feature at www.k2sci.com
- 2: Email support@k2sci.com
- 3: Call 800-218-7613