

Cold Chain Transport Cooler User Manual

Certificate of Quality

checker:



Manufacturer:
Qingdao Carebios Biological Technology Co.,Ltd
Address: No.433-5 Sancheng Road, Lancun Town,
Jimo District, Qingdao P.R. China
Wed:www.carebios.com



- Please read this Manual carefully before use.
- The Company reserves the right to interpret this Manual.
- Please keep the Manual with invoice properly after reading.
- Product technology or software may subject to upgrade without prior notice.
- The appearance of material object shall prevail.


Safety precautions

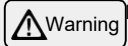
Dear Clients:

Hello! Thank you for choosing our Cold Chain Transport Cooler. For better read of this Manual and use of the product and preventing personal injury and goods damages, please carefully read and follow the contents marked with following symbols in this Manual. In order to facilitate your reading, in the following contents, the Cold Chain Transport Cooler is referred to as the Transit Case.

Safety warnings



In all cases marked with  it is necessary to refer to the document in order to make sure the nature of the potential hazard and any countermeasures that must be taken.



Warning Failure to comply with the warning signs may result in serious casualties.
















Attention Failure to comply with the attention signs may result in casualties or damage to the transit case and related property losses.



Actions or operations that must be prohibited



Actions or operations that must be observed

-  When using this product, please operate the product according to the methods specified in this Manual, otherwise the protection provided for the product may be damaged;
-  The transit case can only be operated by trained and authorized personnel;
-  Do not inhale drugs or suspended substances inside and around the transit case during maintenance, otherwise it may endanger your health;
-  If the transit case is idle for a long time, please ensure that children do not approach the transit case and that the door is not completely closed;
-  The scrapping disposal of the transit case shall be carried out by appropriate personnel;
-  Wear gloves during maintenance to avoid personal injury due to sharp edges or corners;
-  During handling of the transit case, there should be no obstacles around, and be careful not to be tripped over by it to prevent damage to the transit case or personal injury;
-  Do not place the transit case in humid places or places where it is likely to be splashed by water;
-  Do not pour water directly on the transit case;
-  Do not place containers with water or heavy objects on the transit case;
-  Users are not allowed to disassemble, repair or modify the transit case by themselves, otherwise fire or personal injury may be caused due to improper operation;
-  Do not store inflammable or explosive dangerous goods or volatile goods in the transit case, or use flammable sprays near the transit case, otherwise, it may cause explosion or fire;
-  Do not insert sharp objects such as nails or iron wire into the gap of the transit case, otherwise it may cause failure of heat insulation;

Precautions for use

- Structure and composition: the product is composed of PP outer case, PU insulation layer and coolant storage box (ice packs).
- When using, the correct coolant should be selected, and the appropriate ice packs should be selected according to the temperature range of the stored articles.
- The ice packs should be pre-treated according to the actual demand (cold or warm), and the temperature and time for pre-treatment should be guaranteed during pre-treatment.
- Clean the transit case with diluted neutral detergent. Do not use brush, acid, gasoline, soap powder, polishing powder or hot water to clean the surface of the transit case. Be careful not to wipe the parts of the transit case with volatile solvents such as gasoline.

Specification

Product model	KPR-6	KPR-7	KPR-13	KPR-28	KPR-36
Temperature zone	2°C~8°C				
Coolant	PCM				
Duration	48h / * / *	72h / * / *	48h / * / *	48h / * / *	48h / * / *
Volume	6L	7L	13L	28L	36L
Payload size	198*140*175	240*145*186	331*176*226	415*245*295	465*265*250
Exterior dimensions	245*182*218	329*254*275	416*279*304	490*355*360	515*315*310
Temperature monitor	Optional				

Note: We focus on technological innovation, and product parameters are subject to change without notice.



•Health hazards!

The surface of the transit case may be contaminated. Contact with contaminated cleaning fluid may cause infection. Disinfectants may contain harmful substances. During cleaning and disinfecting, be sure to observe the safety instructions and sanitary regulations!

- a) Wear safety gloves;
- b) Wear goggles;
- c) Wear a mask and other cavity and respiratory system protection devices to protect your mucosa from irritation;
- d) Observe the safety instructions of the disinfectant manufacturer and health regulatory authorities;

Regular maintenance

Please follow the following regular maintenance suggestions during the intended uses of this series of transit cases:

- It is recommended to conduct routine inspection on the transit case once a year to ensure the operation accuracy and safety during operation of the transit case. Each transit case should undergo rigorous test and performance verification. If you also need verification services for the transit case, please contact our engineer;
- During routine maintenance, only carebios or agencies designated by carebios are allowed to inspect or provide the parts for maintenance of the transit case;
- Before informing the maintenance engineer, please clean and disinfect the transit case first;
- Carebios reserves the right to update and improve the transit case;

Q&A

Any questions during use? Suspect abnormality of transfer box? Please check here first. This chapter provides answers to various possible faults and solutions.

If the problem is still not solved after operation, please call for Carebios after-sales service. Do not repair and disassemble the transit case by yourself.

Fault	Troubleshooting
Heat insulation failure of the transit case	Check the air tightness of the case and cover of the transit case
	Check if the ice packs are used correctly
Temperature instability	Check whether the pre-treatment of ice packs meets the requirements
	Check if the ice packs are placed correctly

Product features

Intended use

•This product is mainly composed of PP outer case, PU insulation layer and ice packs. The temperature in the case is controlled within a certain range through cold and heat insulation performance. It is mainly used for transfer and transportation of temperature sensitive substances such as blood, drugs, vaccines, specimens, reagents, biological products, etc.

•There is no absolute contraindication.



The transit case must not be used for any purpose beyond the intended use.

Temperature control

•Product temperature control range 2°C~8°C.

Humanized design

•Excellent heat and cold insulation capacity can ensure long-term insulation to cope with the changing transportation environment;

Usage of transit case

Preparation before use

•Operation for cold insulation of the transit case

Temperature zone of the transit case	Ice pack pre-cooling	Ice pack cool discharging	Casing
2°C~8°C	Freeze at -18°C±0.5°C or below for more than 24 hours, and check whether the ice packs are completely frozen	Place the frozen ice packs at room temperature for 10 minutes for cool discharging	Insert the ice packs after cool discharging into the transit case, then put the items to be transferred, place the thermometer, close the cover of the transit case and seal the case.

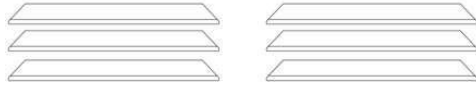


1. Pre-treatment of transit case: in case of transporting blood and vaccines, the transit case can be put into the cold room for pre-treatment in advance;

2. In the transportation across temperature zones, special treatment can be carried out to the ice packs according to the actual situation. For example, if the transit case is transported from the South (with the temperature of about 20°C) to the Northeast (with the temperature of about -20°C) in winter, 1-2 pieces of unfrozen ice packs can be placed in the transit case according to the transportation time to prevent the goods in the case from freezing at low temperature.

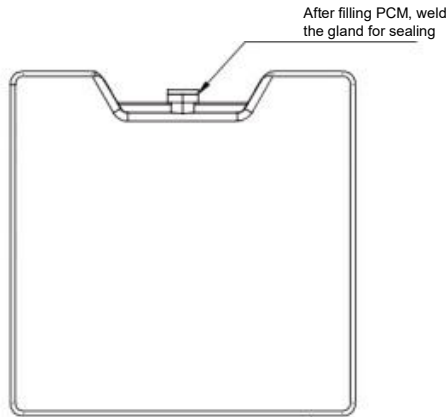
Cleaning and sterilization

Ice pack pre-cooling

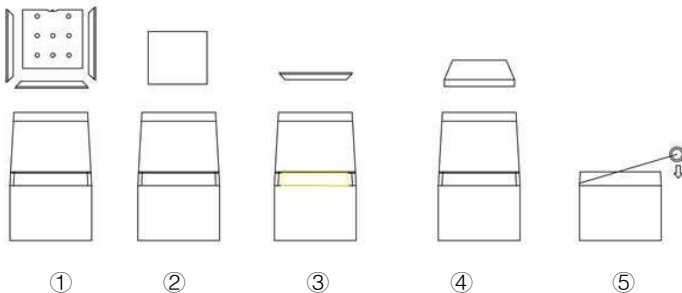


When pre-cooling ice packs, make sure that the ice packs are laid horizontally, as shown in the figure: ensure that PCM is evenly spread in ice pack after freezing;

Schematic diagram of ice packs



Casing diagram



- ① Insert the ice packs after cool discharge into the transit case;
- ② Put the load in the transit case with ice packs;
- ③ Place the ice packs on the top cover;
- ④ Close the lid of the cooler;
- ⑤ Fasten the hook and close the lid tightly;

Cleaning

- Some parts of the transit case are made of plastic. And solvents can dissolve plastics. Strong acids or corrosive solutions can make plastics brittle.
- Do not clean plastic parts and surfaces with solvents containing hydrocarbons, solvents with alcohol content of more than 10%, strong acids, and corrosive solutions.
- Do not spray liquid such as cleaning agent to the touch screen and the top of the transit case. During wiping, be sure to ensure that moisture does not enter the transit case.
- If you have any doubt about the compatibility of disinfectant or cleaning agent with equipment parts or materials contained in the equipment, please consult Carebios or our designated agency.
- Cleaning of external surfaces
 - a) Thoroughly remove dirt residues and sediments with warm water and detergent solution;
 - b) Wipe the surface with clean cloth and water;
 - c) Dry the surface thoroughly with a clean cloth;

Disinfection and sterilization

During the use of transit case, the user is required to formulate the corresponding contamination control process compatible with the transit case according to the following requirements:

Wiping/spray disinfection: standard manual disinfection control process of transit case and transit case accessories.

Manual wiping/spray disinfection is divided into three stages:

- a) Pre-disinfection
 - Wipe/spray disinfectant on the internal surface of the workroom;
 - Disinfect the interior of the workroom and the shelf surface thoroughly with disinfectant as specified by the disinfectant manufacturer.
- b) Cleaning
 - Thoroughly remove dirt residues and sediments with warm water and detergent solution;
 - Wipe the surface with clean cloth and water;
 - Dry the workroom and shelf surface thoroughly with a clean cloth;
- c) Final disinfection
 - Take out the ice packs for wiping and spray disinfectant of the external surface to fully disinfect as specified by the disinfectant manufacturer;
 - Dry the external surfaces of the ice packs with a clean cloth;
 - Re-install the ice packs transit case;



•Alcohol disinfection!

- a) Disinfectants with alcohol content of more than 10% may form a flammable and explosive gas mixture if they combine with air;
- b) When using such disinfectants, open flames or high temperature should be avoided during disinfection;
- c) Use such disinfectants in well ventilated rooms;
- d) After disinfectant reaction, wipe the disinfected parts cleanly;
- e) Observe safety rules to avoid fire and explosion hazards caused by alcohol disinfectants;