

# UPRIGHT DISPLAY COOLER

## INSTRUCTION MANUAL



## **1、 Preface**

It is a great honor that you choose our drink cabinet product. This manual is provided specifically for your anytime needs of installation, operation and maintenance as an important technical material.

Before you start to use the product, please read the manual carefully to fully prove the product's features. Within the warranty period, the produce should be repaired, if necessary, by experienced professionals in the field of refrigeration or electrics, who provide the after-service authorized by our specific service stations. See the warranty card for more about maintenance.

To continually improve the product performance, we retain the right to modify it at any time without further notice.

## **2、 Purposes and features**

This product is a type of chilling cabinet, which is our new development of refrigeration combining the advanced technologies from both home and abroad on the basis of food cabinet standards and corporate criteria. Its main kits and key components are all good brands, either domestically or overseas, with stable quality and reliable performance. Featuring Western-style and streamlined design, the product integrates the actual market demand in structural design, which better cater to the ergonomics requirements of consumers. This series applies mainly to displaying and selling of drinks, dairy products, vegetables and fruits.

## **3、 Transporting, loading and offloading and accepting**

3.1 As some delicate articles such as glass and mirror are contained in the product and its package, please handle it gently and properly during transporting, conveying and transferring.

3.2 In accepting the goods, please carefully check everything according to the attached packing list to figure out damages, if any. In case of any damage detected, please contact us through phone or fax immediately, and we will respond to the situation as soon as possible.

3.3 In case of any damage or loss, please identify the situation in the packing list and have the consigner acknowledge it with signature before returning it to us.

## **4、 Installation**

4.1 The product should be place on a solid and flat floor with no gradient.

4.2 The product is recommended to work with under 28°C ambient temperature and less than 55% relative humidity, where direct sunshine and draught can be avoided. Additionally, disturbing air devices such as fan or air conditioner vent should be appear from its top or nearby.

4.3 Unobstructed ventilation should be ensured for condensing unit with ample room for repairing.

4.4 The melting water can be directed into the sewer near the product, if any, or otherwise evaporated through electric heating.

## 5、 Normal operation

5.1 Full-automation. Fully consider the local seasonal conditions within a year and the surrounding environment are sufficiently considered during the setting of control modules, to ensure the optimal operation of the whole full-automatic product.

5.2 Normal cooling. Set the temperature controller properly according to customers' needs to achieve both energy-saving and normal cooling. See the Appendix: Instruction of CAREL Temperature Controller for details.

5.3 Normal melting. Set the timer properly for melting time and interval according to the ambient temperature and humidity, with over two melting periods for verification. See the Appendix: Instruction of CAREL Temperature Controller for details.

5.4 Have the customer sign Debugging Record and Installation Acceptance Report before finishing the consignment.

5.5 During normal operation, the storage should not be placed beyond the shelf or block the return air from the air curtain.

## 6、 Maintenance and notes

6.1 Cabinet cleaning. The product should be cleaned once a week with power supply disconnected. In cleaning, please use mild rinsing water or non-corrosive cleanser essence. Do not wash it directly with water faucet.

6.2 De-dusting for condenser. The condenser should be cleaned every three months with power supply disconnected. To clean the condenser, remove the left panel, and remove the dust on the cooling fin of the condenser with wire brush or high pressure air gun.

6.3 Leaking check. Observe all connectors and welding joints for oil stain, which indicates a must for patching measures or call for professionals.

6.4 Ensure the smoothness of drainpipes.

6.5 Frequently observe the operation of the product. In case of any abnormal noise, smell or smog, cut off the power supply immediately and call for professionals for help. Do not restart the product before trouble is cleared.

6.6 We will not be responsible for any accident incurred by failures of following the notices.

## 7. Frequent troubleshooting

Number	Troubles	Causes	Solutions
1	Strange noise under the bottom shelf	Fan blade broken.	Power off and fix the blade.
2	Non-refrigerating in spite of normal operation	1. Unit off. 2. Melting process. 3. Refrigerant leaking 4. Unit failure.	1. Power on. 2. Stop melting. 3. Patch the leak and refill refrigerant. 4. Call for professionals.

3	Weak air from air curtain, and higher cabinet temperature	<ol style="list-style-type: none"> <li>1. Evaporator blocked by frost.</li> <li>2. Inside fan damaged.</li> <li>3. Too low set point of temperature controller.</li> <li>4. Vent blocked by storage</li> </ol>	<ol style="list-style-type: none"> <li>1. Increase melting frequency.</li> <li>2. Replace the fan.</li> <li>3. Adjust the set point.</li> <li>4. Remove the storage.</li> </ol>
4	Normal air curtain, but higher cabinet temperature	<ol style="list-style-type: none"> <li>1. Insufficient refrigerant.</li> <li>2. Too high set point of temperature controllers.</li> <li>3. Expansion valve fails.</li> <li>4. The wind curtain disturbed by strong air flow.</li> <li>5. Ambient temperature or humidity beyond standards.</li> </ol>	<ol style="list-style-type: none"> <li>1. Refill the refrigerant.</li> <li>2. Adjust the set point for the temperature controller.</li> <li>3. Repair or replace the expansion valve.</li> <li>4. Removing the disturbing factors.</li> <li>5. Improve the conditions.</li> </ol>
5	Melting water overflown	<ol style="list-style-type: none"> <li>1. Heating pipe for melting water damaged</li> <li>2. Water-level controller failure.</li> <li>3. Ambient temperature or humidity beyond standards.</li> </ol>	<ol style="list-style-type: none"> <li>1. Replace the heating pipe.</li> <li>2. Replace the water-level controller.</li> <li>3. Improve the conditions.</li> </ol>
6	Normal air curtain, but periodical fluctuation of cabinet temperature	<ol style="list-style-type: none"> <li>1. Condenser contaminated.</li> <li>2. Poor venting of the unit.</li> <li>3. Heat protection of compressor failure.</li> <li>4. Expansion valve blocked by ice</li> <li>5. Expansion valve failure.</li> <li>6. Temperature controller failure.</li> </ol>	<ol style="list-style-type: none"> <li>1. Clean the condenser.</li> <li>2. Improve the venting conditions.</li> <li>3. Replace the heat protection.</li> <li>4. Replace the drying filter.</li> <li>5. Replace the expansion valve.</li> <li>6. Replace the temperature controller.</li> </ol>

## 8.Warning

a) DANGER – RISK OF FIRE OR EXPLOSION. FLAMMABLE REFRIGERANT USED. DO NOT USE MECHANICAL DEVICES TO DEFROST REFRIGERATOR. DO NOT PUNCTURE REFRIGERANT TUBING.

and

DANGER – RISQUE DE FEU OU D'EXPLOSION. LE FRIGORIGÈNE EST INFLAMMABLE. NE PAS UTILISER D'APPAREILS MÉCANIQUES POUR DÉGIVRER LE RÉFRIGÉRATEUR. NE PAS PERFORER LA TUBULURE CONTENANT LE FRIGORIGÈNE.

b) DANGER – RISK OF FIRE OR EXPLOSION. FLAMMABLE REFRIGERANT USED. TO BE REPAIRED ONLY BY TRAINED SERVICE PERSONNEL. DO NOT PUNCTURE REFRIGERANT TUBING.

and

DANGER – RISQUE DE FEU OU D'EXPLOSION. LE FRIGORIGÈNE EST INFLAMMABLE. CONFIER LES RÉPARATIONS À UN TECHNICIEN SPÉCIALISÉ. NE PAS PERFORER LA TUBULURE CONTENANT LE FRIGORIGÈNE.

c) CAUTION – RISK OF FIRE OR EXPLOSION. FLAMMABLE REFRIGERANT USED. CONSULT REPAIRMANUAL/OWNER'S GUIDE BEFORE ATTEMPTING TO SERVICE THIS PRODUCT. ALL SAFETY PRECAUTIONS MUST BE FOLLOWED.

and

ATTENTION – RISQUE DE FEU OU D'EXPLOSION. LE FRIGORIGÈNE EST INFLAMMABLE. CONSULTER LE MANUEL DU PROPRIÉTAIRE/GUIDE DE RÉPARATION AVANT DE TENTER UNE RÉPARATION. TOUTES LES MESURES DE SÉCURITÉ DOIVENT ÊTRE RESPECTÉES.

d) CAUTION – RISK OF FIRE OR EXPLOSION. DISPOSE OF PROPERLY IN ACCORDANCE WITH FEDERAL OR LOCAL REGULATIONS. FLAMMABLE REFRIGERANT USED.

and

ATTENTION – RISQUE DE FEU OU D'EXPLOSION. ÉLIMINER CONFORMÉMENT AUX RÈGLEMENTS FÉDÉRAUX OU LOCAUX. LE FRIGORIGÈNE EST INFLAMMABLE.

e) CAUTION – RISK OF FIRE OR EXPLOSION DUE TO PUNCTURE OF REFRIGERANT TUBING; FOLLOW HANDLING INSTRUCTIONS CAREFULLY. FLAMMABLE REFRIGERANT USED.

and

ATTENTION – RISQUE DE FEU OU D'EXPLOSION SI LA TUBULURE CONTENANT LE FRIGORIGÈNE EST PERFORÉE ; SUIVRE LES INSTRUCTIONS DE MANUTENTION AVEC SOIN. LE FRIGORIGÈNE EST INFLAMMABLE.

2. Component parts shall be replaced with like components and that servicing shall be done by factory authorized service personnel, so as to minimize the risk of possible ignition due to incorrect parts or improper service.

3. Do not use mechanical devices or other means to accelerate the defrosting process, other than those recommended by the manufacturer.

4. Do not use electrical appliances inside the food storage compartments of the appliance, unless they are of the type recommended by the manufacturer

5. Keep ventilation openings, in the appliance enclosure or in the built-in structure, clear of obstruction.

## **9. Carel Digital Temperature Controller:**

9.1 Press "set" button:

9.1.1 1s display/sets the set point

9.1.2 more than 3s access the parameter setting menu (enter password 22)

9.1.3 mutes the audible alarm (buzzer)

9.2 rapid selection of probe displayed for 1s displays firmware version

Display "rd" set point differential "8"

Display "co" the compressor starts over time "5"

Display "di" interval between six defrosts "4"

Display "C2" the Min. compressor off time "5"

Display "/5", °C/°F (0=°C; 1=°F) "1"

9.3 Press "set" button, more than 3s, LED screen setting 2 times.