



**STORER REFRIGERATION & CATERING  
MANUFACTURERS LTD**

WALK-IN FREEZERS, CHILLERS  
AND DRY GOODS STORES

USER MANUAL

Revised MARCH 2023

[www.storersltd.com](http://www.storersltd.com)

## OPERATING INSTRUCTION FOR WALK-IN COLD ROOMS

### WALK-IN COLD ROOMS

1. The cold rooms are pre-set to operate between 0°C to 5°C (chillers) and between -18°C to -22°C (freezers). This setting is controlled automatically by a LEA micro-processor controller mounted on the control panel, which is normally fitted to the front of the cold room. (May be mounted remotely in rare cases). This controller also controls the automatic defrost mechanism which will operate approximately every 4 hours. Defrost typically ranges from 10-30 minutes in duration. During defrost the air temperature in the room will inevitably rise, this is normal and is not a problem, product temperature will not be affected.
2. Large temperature fluctuations will be observed if the door to the cold room is left open excessively, this is quite normal, and the temperature should stabilise after the door is closed. It is advisable to avoid frequent door opening and to ensure that the door is kept closed as much as possible.
3. It is very important that the cold room is not overstocked and that the stock is only stored on the shelving provided and not on the floor or in such a way as to block off or restrict the airflow from the evaporator. Care should also be taken when loading or unloading the cold room not to damage or disturb the temperature-sensing probe mounted at ceiling level near the door.

If the above precautions are not strictly adhered to serious temperature fluctuations may occur and failure of the refrigeration system may follow. Care should also be exercised when handling stock directly below the evaporator so as not to dislodge the condensate drainage pipework.

Failure to observe the above precautions may breach the terms of our guarantee and subsequent repair costs will be the responsibility of the user.

4. The cold room doors are fitted with safety release handles, which, when pushed, will override the door locks allowing the doors to be opened from the inside. To close the doors a degree of force may be required to overcome the restriction afforded by the spring catch.
5. Lighting for the cold room is operated by a manual on/off switch on the front of the cold room#. Cold room control panels have on/off switches that isolate the electrical services to the cold room.

#Please note on integral units the light is operated by the M button

### COLD STORE MAINTENANCE AND CLEANING

Our cold rooms are clad with plastic coated steel which should be cleaned with a non-abrasive detergent and a damp cloth to remove food stains and other marks.

Storer cold room refrigeration systems are hermetically sealed, and the operating temperature is electronically controlled and pre-set during testing at our works.

### **IMPORTANT MAINTENANCE PLEASE READ!**

The most important piece of maintenance on your cold room/freezer is cleaning the condenser, on the majority of cold rooms this will be situated remotely away from the room, either in a plant room or outdoors. However, it is possible that the unit is built into the front insulated wall of the room. It is important for you to find out where your unit is situated, if you are not able to find the unit, please contact STORER REFRIGERATION and we will be able to let you know where it is located. On a built in (integral) room the condenser is behind a vented grille at low level on the outside of the cold room, this area should be brushed down and then hoovered out, this should be done every few weeks. On an outdoor unit the condenser should be brushed down and checked for blockages (such as leaves, polythene bags and paper etc.) on a regular basis\*, the condenser is normally facing the wall of the building on an outdoor unit. Failure to clean the condenser on your room may invalidate the warranty and may cost you the price of a call out and parts if required if any breakdown is deemed to be caused by a blocked condenser.

In the event of a fault developing causing an increase or decrease in operating temperature within the cold room please contact Storer Refrigeration on 0115 9200329 as soon as the fault is discovered and quote the WE number which is on the silver sticker on the front of the cold room.

Do not attempt to adjust the temperature set buttons unless instructed by our engineering department.

#### Please note:

DO NOT ATTEMPT TO REMOVE ICE BUILD UP AROUND THE FAN UNIT COOLER IN THE COLD ROOM. CONTACT STORER REFRIGERATION AND SEEK ADVICE FROM OUR SERVICE DEPARTMENT STAFF.

## CLEANING INSTRUCTIONS

FREQUENCY - Using a proprietary cleaner, clean chillers weekly and freezers at defrost.

\*FREQUENCY- CONDENSORS – Every 2-3 weeks ensure the condenser is cleaned out to promote optimal running and avoid damage to the unit.

### METHOD

#### Chillers: -

1. Remove all food from the chiller storing it in a cool/cold place.
2. Make up a sanitising solution using hand hot water.
3. Remove all shelves and soak in solution.
4. Replace drip tray (if applicable).
5. Wash interior walls with a cloth wrung out in solution and scrub floors.
6. Scrub all shelves, rinse and dry.
7. Replace all shelves.
8. Replace food items.

#### Freezers: -

- 1 Clean freezers when defrosting, cleaning all interior surfaces as described above.

### **REMEMBER!**

- Only replace food items after checking for freshness and date coding.
  - Clean as quickly as possible.
  - Check fans and covers are clean.
  - Check door seals, report any damage.

### SPECIFICATION FOR COLD ROOM

Our cold rooms are constructed from modular panels and are skinned with 200 microns of food-safe plastic with 0.4mm galvanised dipped steel. This is the highest standard available from British Steel.

All joints on the cold rooms are sealed with silicon that is mould resistant and affords a total seal between panels to stop moisture or bacteria penetration. The locking door systems are by Kason. This allows for an operator to get out from inside the cold room even if the doors have been locked. This is by use of a push release mechanism operated from inside.

The lighting of the cold rooms are in a L.E.D bulkhead fitting which is waterproof and double insulated to stop any electrical short circuit if sprayed by water.

### REFRIGERATION SPECIFICATION

Refrigeration equipment is designed to give quick pull down of temperatures on all rooms. This is essential as many of the rooms are in constant use daily and the extra power will afford constant temperatures below -18°C on freezer units.

The rooms are controlled by a micro-processor which gives automatic defrost complete with fan delay to stop any increase in temperature after defrosting. The thermostat control has digital read out which is continually shown. It is factory set so it can only be adjusted within its design parameters.

### COLD ROOM SPECIFICATION

#### CHILLER APPLICATION

0°C to +15°C maximum temperature range. 80mm Modular panels are fastened together with camlocks which apply 250lbs per square inch pressure and lock the panels together.

The outer construction of the modular panels is 0.4mm galvanised steel with 200 microns of food safe white plastic bonded onto outer panels. The polyurethane is then foam injected into the panel giving a fully bonded panel.

With our method of construction, we are able to build panels to suit every shape and size required.

The door is also constructed from modular panels using Kason door catches with easily replaceable door gaskets. The doors have an internal release and locking device that can be over-ridden from inside the cold room. All doors are fully rebated and have a self-closing door catch.

#### DEEP FREEZE APPLICATION

-22°C to -18°C maximum temperature range.

Same specification as chillers with 80mm modular panels.

#### TECHNICAL SPECIFICATION

Insulated CFC free fire-resistant polyurethane injected modular panels giving a total wall thickness of not greater than 80mm and U value not worse than 0.22 W/M 2K.

#### COLD ROOM STRUCTURAL STRENGTH

Roof loading = 3m span 8.64 KN/M<sup>2</sup>.

## WALL CONSTRUCTION

Suitable for outside weather conditions. The white steel walls are of similar design to steel deck roofing as used for modular roofing in the construction industry.

Chiller design temp  $-0^{\circ}\text{C}$  to  $+5^{\circ}\text{C}$ .

Freezer design temp  $-22^{\circ}\text{C}$  to  $-18^{\circ}\text{C}$ .

Auto defrost.

Lighting LED bulkhead standard or as specified.

Remote condensing units in weatherproof galvanised houses.

Digital read out of temperature.

On/off switch house is white food safe control panel.

All joints are silicon sealed.

The floor is non-slip, aluminium Checker Plate.

Fire rated to BS476 Part 7 Class 1 surface spread of flame classification.

## EQUIPMENT SPECIFICATION

### CHILLER APPLICATION

Refrigeration equipment based on R449a refrigerant gas. A Embraco mounted multi fan louvre evaporator is used complete with electric defrost and fan delay. A Embraco hermetic condenser is used complete with sight glass drier, metal unit house, low pressure switch and local isolator switch.

### DEEP FREEZE APPLICATION

Refrigeration equipment based on R449A refrigerant gas. A ceiling mounted multi fan evaporator is used complete with electric defrost and fan delay. A L' unite hermetic condenser is used complete with sight glass drier, solenoid valve for gas pump down, low pressure switch, local isolator switch and metal unit house.

### CONTROL PANEL

Electronic control panel complete with digital read out of temperature, auto time defrost, fan delay unit, defrost auto termination, on off isolation and electrical contractors for refrigeration equipment.

### COLD ROOM ROOF SPECIFICATION FOR OUTSIDE USE

All our outside cold rooms have a PVC tailored roof cover, purpose made to seal the entire area in one continuous sheet.

#### Specification Details

Base fabric 1100 D/TEX High Tenacity Polyester.

Coating - flexible plasticised PVC to both sides.

Tensile strength - warp 2000, weft 1500 BS3424/5A.

Tear strength - BS3224/7B.

Coating adhesion - BS3424/9B.

Cold crack - BS3424/10 -25°C.

Colour -Grey, Green Brown or White.

The roof cover system requires no maintenance and is designed to last the lifetime of the cold room. If any damage is caused to the roof a new sheet can simply be fitted without any disturbance to the cold room. Please ensure if damage occurs to the roof sheet then a replacement is ordered as the room will no longer be waterproof and could damage the integrity of the room.

### CONDENSER SPECIFICATION

All our condensers work on R449A refrigerant. We use hermetically sealed units designed to work at 43°C maximum ambient. We use Embraco condensing units. A purpose-built unit house made from galvanised steel is provided for units that are sited outside together with local electrical isolation.

### EVAPORATOR SPECIFICATION

All our evaporators generally have stainless steel bodies with copper and aluminium finning, and are 30% more efficient due to the coil design. Electric defrost is standard on all our evaporator applications.

### CONTROL PANEL SPECIFICATION

They have digital read out of temperature and an on/off isolation switch. The panels have the appropriate electrical controls to operate the condenser, evaporator and lighting to the cold rooms all in accordance with 18<sup>th</sup> Edition Electrical Regulations.

### **Please Note:**

DEF- on the control panel simply means the unit is on a defrost cycle, which is completely normal and will run for approximately 20 minutes.