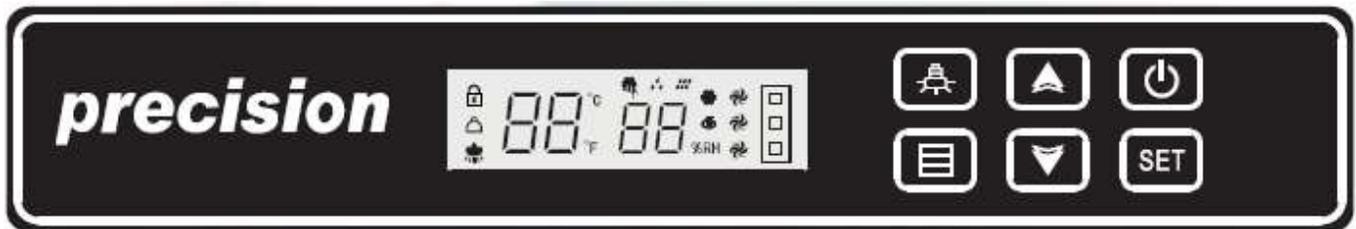


OPERATING INSTRUCTIONS:

Duck Drier Cabinet



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1. General Information

1.1 Please read before using this equipment

This manual is part of the product and should be kept near the instrument for easy and quick reference.

The instrument shall not be used for purposes different from those described hereunder. It cannot be used as a safety device.

Check the application limits before proceeding.

1.2 Safety Precautions

Check the supply voltage is correct before connecting the instrument. Do not expose to water or moisture: use the controller only within the operating limits, avoiding sudden temperature changes with high atmospheric humidity to prevent formation of condensation.

Warning: disconnect all electrical connections before any kind of maintenance. Fit the probe where it is not accessible by the End User. The instrument must not be opened. If failure or faulty operation, send the instrument back to our company with detailed description of the fault.

Consider the maximum current which can be applied to each relay (see Technical Data). Ensure that the wires for probes, loads and power supply are separated and far enough from each other, without crossing or intertwining.

In case of application in industrial environments, the use for mains filters (our mod. Ft1) in parallel with inductive loads could be useful.

Probe should be mounted upward with lamp, to avoid danger from liquid leakage. Probe should be put far away from air hole.

1.3 How to use the product

Typically, ducks have always been dried using ambient cabinets with fans, or simply by hanging them in the shop front to dry. The problem is that the ducks are raw meat and should therefore be refrigerated to prevent bacteria growth, and the potential for food poisoning. Precision Refrigeration single and double door duck drying cabinets therefore provide a safe temperature environment whilst simultaneously drying the ducks.

The duck dryer's refrigeration system is used to remove the humidity from the air within the cabinet. Unlike our latest energy efficient refrigerators where the refrigeration system runs for only around 10% of the time, we purposely make it work for around 90% of the time on our duck drying cabinets. This is achieved by adding heaters to gently warm the air forcing the refrigeration system to work harder. When the refrigeration system is running, moisture in the air forms ice on the extremely cold evaporator. This process, along with the additional internal fans, increases the airflow, and removes the humidity from the air and the ducks within the cabinet. Inversely, the humidity will rise when the desired temperature is reached, and the refrigeration system cuts out.

The actual level of humidity will depend on the moisture in the cabinet and the number of ducks loaded, the number and length of door openings, the length of time the ducks are left in the cabinet,

and the internal temperature. For this reason, it's not possible to adjust the humidity which comes pre-set from the factory. All you need to do is load your ducks for a minimum of 12-24 hours to achieve your desired results.

It is possible to adjust the temperature between +1°C and +6°C but this will also change the humidity levels within the cabinet. Warmer air holds more moisture than colder air so the colder the temperature, the lower the humidity in the cabinet. Our suggestion is to simply leave it at the factory pre-set of 4°C, and the duck dryer will take care of the rest.

1.3.1 General Hazards

All moving parts of the refrigerator are suitably guarded, and the moving parts can only be accessed by using tools which should only be attempted by a qualified person.



1.3.2 Electrical Connection

This product is supplied with a moulded plug which needs a suitable socket. This cabinet should not be used outside and should be used in a dry environment. The plug needs to be accessible once the equipment is placed in its final position. Should the plug need changing, this must be done by a qualified person.

1.3.3 Unpacking

Leave all packaging in place until refrigerator is in its final position to avoid damage. When the cabinet is in its final position, carefully remove all packaging and check for damage. Any damage should be reported immediately to your dealer. All packaging should be carefully disposed of and recycled where possible.

1.3.4 Installation

The cabinet is very easy to move around as most Precision products are supplied on castors. If for any reason the cabinet has to be laid down, it should always be laid on its back and not its side or front to avoid damage. When lowering or raising the cabinet extreme care should be taken as the castors can run away whilst lifting or lowering. A person should always be standing at the base of the cabinet whilst it is being lowered or raised. The cabinet should not be plugged in for at least 4 hours if it has been laid down or tipped during installation.

This product must be placed on a level floor to ensure the automatic door closing and correct draining of condensate. This is especially important with freezers.

1.3.5 Ventilation

Refrigeration equipment generates a lot of heat. A 2-door freezer cabinet for example gives off the same heat as a 1kW electric heater. Therefore, it is very important that the cabinet must be installed with sufficient space around it for ventilation and for maintenance access. Ventilation grills must not be blocked, or even partially blocked as this could affect the cabinet's performance and life span.

1.3.6 Initial Start Up

Plug the moulded plug into a suitable socket. If necessary, push the button on the controller to start the unit. The cabinet air temperature will be displayed once the unit is running. To standby the unit when running, press and hold the button.

1.3.7 Checks

After initial startup, after 3-minute time delay the cabinet should start to pull down to the preset temperature, check that the temperature is reducing and listen inside and outside the cabinet to make sure the fans are turning freely to check there has been no movement in shipping. If time permits, stay with the cabinet until the preset temperature is reached and the condensing unit cuts out.

2. Product Description

2.1 Main Features

Temperature display / Humidity display / Temperature control / Defrost by stop / Lamp / Fan / Door signal detect / Detection on condenser temperature over limit / Testing self

3. The Interface

3.1 Display



LED	Display status	Details	LED	Display status	Details
	ON	Compressor enabled		ON	The control fault
	ON	Defrost enabled		ON	Humidity monitoring
	ON	Fan enabled	°C	ON	Temperature unit
	ON	Lamp enabled	°F	ON	Temperature unit
	ON	Keyboard locked	%RH	ON	Humidity unit

3.2 Keyboard

- Display: The screen display temperature and humidity.
- Turn ON the controller: Once the controller is ON, push  key and hold for 3 seconds, the controller is turned OFF. When the controller is OFF, push  key and release at once, the controller is turned ON, the screen will display temperature and humidity detected.
- Keyboard unlock: Keyboard will be locked if no action in 60 seconds. Push  and  keys at the same time and hold for 3 seconds to unlock the keyboard.
- Check evaporator/condenser probe temperature: Push  key and hold for 6 seconds, the display will show evaporator probe temperature, push  key again, the display will show the condenser probe temperature.
- To adjust set temperature: Push and immediately release the  key, the display will show the set point value. Push  or  keys to change set value.

3.3 Defrosting

Precision refrigerated cabinets are fitted with a fully automated defrost system that ensures the cooling system remains free from ice under normal conditions. If a manual defrost is required, this can be activated by simultaneously pressing   for 6 seconds which will terminate automatically once the pre-programmed temperature has been reached.

3.4 Maintenance

The cabinet is fully automatic and apart from cleaning needs very little maintenance. Interior and exterior should be cleaned with soap and water and no abrasives should be used as they will scratch and spoil the stainless-steel finish. Interior shelving and racking can be removed on most models for easy cleaning.

3.5 Maintenance and Cleaning

Before cleaning and maintenance, the cabinet should be unplugged from the power supply.

Door Gaskets should be cleaned with warm soapy water and inspected on a regular basis and if damaged they should be replaced. Cooking oils and harsh cleaning detergents will shorten the life of the gaskets and contact should be avoided.

3.6 Condenser Cleaning

All the heat removed from the cabinet is discharged into the room via the condenser which is similar to a car radiator. This must be kept clean so that the air can pass through it to remove the heat, if it becomes choked with dust the unit will over heat and this can lead to poor cooling performance, increased energy consumption and premature mechanical failure. The condenser should be brushed with a soft brush to remove any dust deposited on the alloy fins. The frequency of this cleaning is determined by the amount of dust in the surrounding area but should be cleaned at least 2 times a year.

3.7 Gasket Replacement

Damaged gaskets can easily be replaced. Remove the old gasket by gently pulling it out of the gasket retainer and simply push in the new gasket leaving the corners until last.



3.8 End of Life Disposable Requirements

Refrigerated cabinets have components that could be harmful to the environment. All end of life equipment must be disposed of in accordance with national laws and regulations.

4. Fault Codes

Code	Details	Status
Er	Room sensor fault	Alarm, refrigeration stops
Eh	Humidity sensor fault	Alarm, dehumidifier
EE	Evap. sensor fault	Alarm
EC	Cond. sensor fault	Alarm
ES	Storage fault	Display 5s in first 10s after power on
do	Door open	Alarm, fan stops
H1	Alarm cabinet temperature too high	Alarm
H2	Alarm cabinet temperature too low	Alarm, refrigeration stops
H4	Alarm at condenser temp. too high	Alarm, refrigeration stops
CF	Communication fault	All outputs stop

