

OPERATING INSTRUCTIONS: CCB / CCT/F 550 Merchandiser

V3/2019



PRECISION REFRIGERATION LTD
Stephenson Way
Thetford, Norfolk, IP24 3RU, UK
+91 914 707 7546
www.precision-refrigeration.in



**CAUTION: RISK OF FIRE
FLAMMABLE REFRIGERANT R290**



Introduction

For your safety please read this manual carefully before installing the product. Please keep the manual for future reference.

Safety Precautions

It is hazardous for anyone other than an Authorised Service Person to service this appliance. In Queensland – the authorised Service Person MUST hold a Gas Work Authorisation for hydrocarbon refrigerants, to carry out Servicing or repairs which involve the removal of covers.

When no longer required, this appliance must be recycled/disposed of in accordance with local regulations.

Warning

- Keep clear of obstructing ventilation openings in the appliance enclosure or in the structure when building-in.
- Do not use mechanical devices or other means to accelerate the defrosting process, other than those recommended by the manufacturer.
- Do not damage the refrigerating circuit.
- Do not use electrical appliances inside the food/ice storage compartments unless they are of the type recommended by the manufacturer.
- Do not store explosive substances such as aerosol cans with a flammable propellant in this appliance
- This appliance is not to be used by persons (including children) with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instruction
- Children should be supervised to ensure that they do not play with this appliance.

Contents

General Hazards	4
Electrical Connection	4
Unpacking	4
Installation	4
Ventilation	4
Shelves / Pans / Slides	5
Fitting the Shelves	5
Gasket Replacement	5
Replacing the LED Tube	5
Removing Cassette Bottom Mount	6
Removing Cassette Top Mount	7
Initial Start Up	8
Checks	8
Using your new refrigerator	9
Commissioning instructions	10
Troubleshooting	11
Alarms	12
LAE Controller Wiring Diagram	13
Notes	14

All information is subject to change without prior notice

General Hazards

All moving parts of the refrigerator are suitably guarded. Any repairs and maintenance should only be carried out by a qualified professional.

Electrical Connection

This cabinet is supplied with a flexible power cable that has a molded 3 pin plug on the end. The plug needs to be accessible once the equipment is placed in its final position. Do not overload the power supply (see rating label inside cabinet for power supply and current draw). Should the plug require replacement please contact a qualified electrician. Power supply: 220-240V/50Hz



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.

Installation

The cabinet is very easy to move around as it is supplied on castors. If for any reason the cabinet needs 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 cause the cabinet to slip away whilst lifting or lowering. A person should always be standing at the base of the cabinet whilst it is being lowered or raised. Cabinet should not be plugged in for at least 1 hour 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. Once in final position lock the two front castors by pushing down on the extended tab (See image).

Ventilation

For efficient operation of the cabinet, it is essential that adequate ventilation be provided around the refrigeration unit. The maximum recommended ambient temperature (at place of installation) is 43°C, although the cabinet will generally use less power when installed in a cooler location. Refrigeration equipment generates a lot of heat. Therefore, it is very important that the cabinet must be installed with enough space around it for ventilation and for maintenance access. Ventilation grills must not be blocked, or even partially blocked as this could affect the performance and lifespan of the cabinet.

Shelves

The shelves may be positioned at different heights to suit various products. Each shelf is held in place by 4 shelf clips which engage in the shelf support strips.

To Fit the shelves

1. Unpack the wire shelves and shelf clips from inside the cabinet.
2. Establish the desired position for the shelves and securely engage a shelf clip in each of the shelf support strips (See images).
3. Sit the shelves on the shelf support clips.



Note: Remove some product if the shelves are flexing or bending.

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.

Replacing LED Light Tube

The cabinet has interior side LED light strip. The side light houses 1 x 18 Watt LED strip, which may be replaced without removing shelves or product from the cabinet.

1. Disconnect the cabinet from the mains power supply.
2. Slide a thin flat head screwdriver between the diffuser and the edge its clipped into. Remove the side light diffuser, by sliding the screwdriver down the full length of the cabinet until it disengages from the plastic retainer and then lift out the diffuser.
3. The LED strip can now be removed. Revolve the strip until the pin position allows withdrawal.
4. When refitting the new LED strip ensure the printing on the strip is at the bottom, as the strip orientation is important.
5. When refitting the diffuser, engage the back section into the housing, and then compress and snap the front section of diffuser back into place working down the full length of the light.



Removing Cassette – Bottom Mount

Should maintenance be required on the cassette the following steps are to be followed:

1. Disconnect the cabinet from the mains power supply.
2. Using a flat head screwdriver undo the 2 screws at the top of the kick panel. (fig.1)
3. Pull bottom of kick panel to unclip it from the cabinet. Lower the kick panel to remove and set aside (fig.2)
4. Unplug the 4 electrical plugs leading into the electrical compartment (fig.3)
5. Ensure power supply is switched off and cable is removed. (fig.4)
6. Using Phillips head screwdriver undo the screws at each lifting handle (fig.5)
7. Lower the handles to drop the cassette down to slide cassette out to perform work (fig.6)

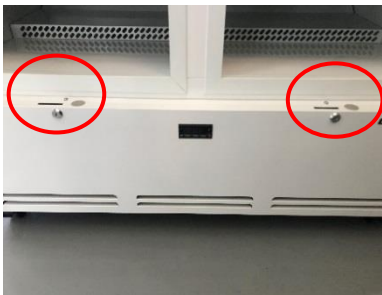


Fig 1



Fig 2

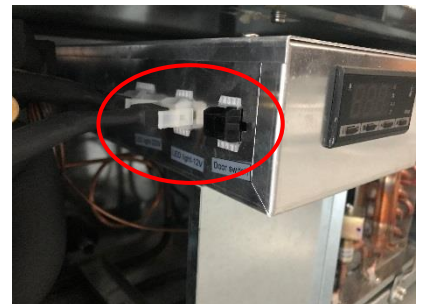


Fig 3



Fig 4



Fig 5



Fig 6

Removing Cassette – Top Mount

Should maintenance be required on the cassette follow the steps below:

1. Disconnect the cabinet from the mains power supply.
2. Using a flat head screwdriver undo the 2 screws at the bottom of the top panel. (fig.2)
3. Pull on the top panel to unclip it from the cabinet (fig.1)
4. Lift the panel to remove and set aside, this is recommended to avoid causing damage (fig.2)
5. Unplug the 4 electrical plugs into the electrical compartment (fig.3)
6. Undo the 2 bolts holding the cassette onto the cabinet with a number 13 spanner (fig.4)
7. The cassette can now be lifted off the cabinet
8. Should works only be required on the evaporator housing proceed with steps 1, 2, 3, 4 and then 9.
9. Undo the 4 bolts holding the insulated lid, set aside and proceed with required works (fig.5)

NB: The cassette weight is approx. 40kg



Fig 1



Fig 2

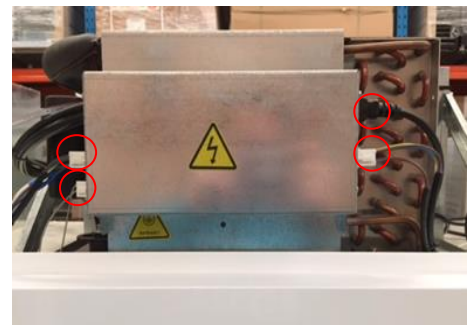


Fig 3





Fig 4

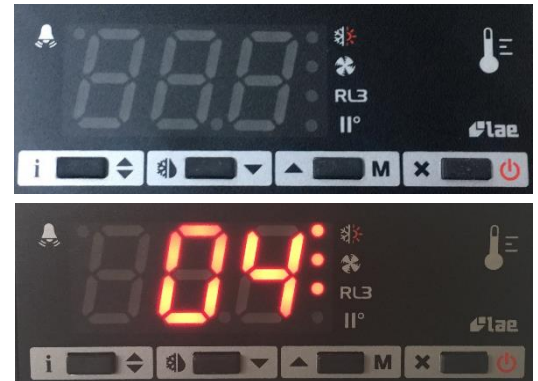


Fig 5








Initial Start Up

Plug the molded 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 for 3 seconds.

Note: The cabinet temperature parameters have been set at the factory.



Display Legend

-  Thermostat output
-  Fan output
- RL3** Auxiliary output
- II°** Activation of 2nd parameter set
-  Alarm
-  Info / Setpoint button.
-  Increase / manual activation button. (Lights)
-  Manual defrost / Decrease button.
-  Exit / Stand-by button.

Operations

DISPLAY

During normal operation, the display shows either the temperature measured or one of the following indications:

DEF	Defrost in progress	HI	Room high temperature alarm
REC	Recovery after defrost	LO	Room low temperature alarm
OFF	Controller in stand-by	E1	Probe T1 failure
CL	Condenser clean warning	E2	Probe T2 failure
DO	Door open alarm		

INFO MENU

The information available in this menu is:

T1	Instant probe 1 temperature	TLO	Minimum probe 1 temperature recorded
T2	Instant probe 2 temperature	CND	Compressor working weeks
THI	Maximum probe 1 temperature recorded	LOC	Keypad state lock

Checks

After initial start-up, the cabinet should start to pull down to the pre-set 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 pre-set temperature is reached and the condensing unit cuts out.

Using Your New Refrigeration Equipment

The cabinet must reach its preset operating temperature before loading any produce. Ensure stored products are evenly distributed on shelves ensuring that no more than 40kg are placed on each shelf. Cover all foods ensuring that cooked and raw foods are kept separate to avoid cross contamination. To ensure even product temperature, it is recommended that no food product is stored below the lowest shelf support.

Warm or hot food should never be stored inside the cabinet.



Foods containing acetic acids or yeast should be covered or ideally stored in airtight containers otherwise premature failure of the refrigeration system may occur.




Commissioning Instructions




Refrigerators +1°C to +4°C (Freezer -18°C to -22°C)


Temperature Setting


Refrigerators are designed to operate between +1°C and +4°C* (-18°C to -22°C*) depending on the model. **The control is preset at the factory for this temperature and should require no readjustment.**

The temperature setting can be checked by unlocking the controller by pressing the + for 5 seconds.


With button  or  select the parameters to be modified. Press button  to display the value.

By keeping the  button pressed, use button  or  to set the desired value.

When button  is released, the newly programmed value is stored. See parameter settings on following page.

To exit from the setup, press button  or wait 30 seconds.

Defrosting


All 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 pressing  for 2 seconds which will terminate automatically once the pre-programmed temperature has been reached.

The cooler is designed to operate within a specific climatic class environment. See the cabinet rating label inside the cooler for climate class number.

Climate Class:	5
Ambient Temperature:	40°C
Relative humidity:	40%

Trouble Shooting

In the event of cabinet fault/failure, please check the following:


1. Plug is in socket and power to the socket can be proven by plugging another appliance into the same socket or swapping the problem cabinet to a socket that is known to work.
2. The condenser is clean and free from dust or debris.
3. Door gasket is sealing and free from damage.
4. Check if the evaporator is iced up, if found to iced up push and hold  to start manual defrost.

If this doesn't solve the problem, please call a qualified technician.

When requesting a service call, please find the manufacturers data plate and provide the model, serial number and details of any fault codes that are displayed.

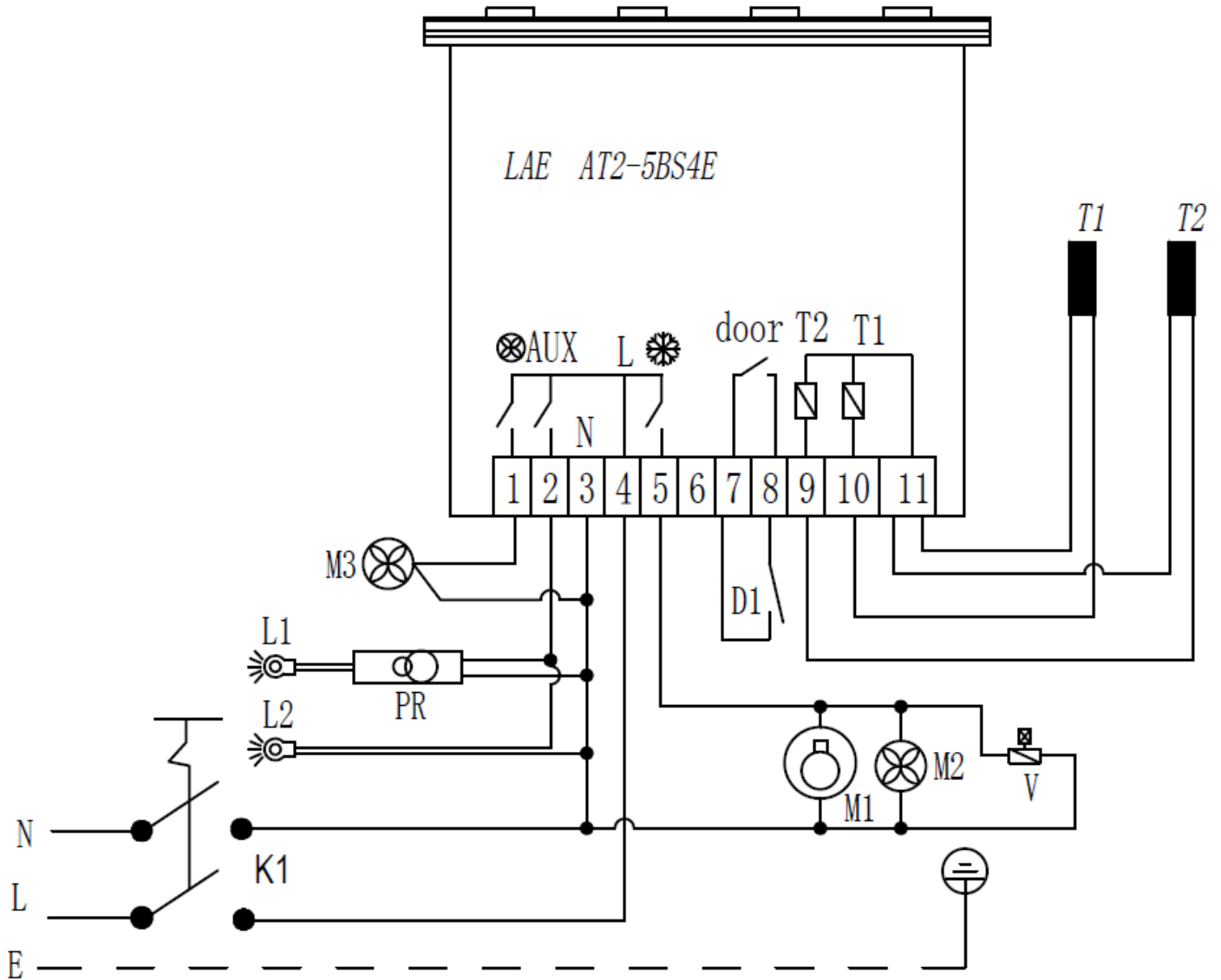
Alarms

The controller is equipped with visual and audio alarms:

Alarm Displayed	Description	Action Required
DO	Door Open Alarm	Close door
CL	Condenser High Temperature Alarm	Check for blockage / clean
HI	High Temperature Alarm	Press a button to cancel / check
LO	Low Temperature Alarm	Press a button to cancel / check
E1	Probe T1 Failure	Call Engineer
E2	Probe T2 Failure	Call Engineer
OFF	Cabinet in Standby	Press  for 3 seconds
REC	Recovery after Defrost	None
DEF	Defrost in progress	None

Press any button on the controller to silence an alarm.

Controller Wiring Diagram



M1	Compressor	LAE	Electronic Thermostat
M2	Condenser Fan	L1	12V LED Light
M3	Evaporator Fan	L2	220V LED Light
D1	Door Controlled Switch	V	Magnetic Valve
T1	Cabinet Probe	PR	Transformer 12V/22V
T2	Defrost Probe	K1	Switch

Model:

Serial Number:

GWP Values for Refrigerants:

R1234ze – <1

R290 – < 3

R134a – 1430

R404a – 3922

These units contain fluorinated greenhouse gases covered by the F Gas directive

Declaration of Conformity References:

Low Voltage Directive 2006/95/EC

EC Machinery Directive 2006/42/EC

Electromagnetic Compatibility Directive 2004/108/EC

Pressure Equipment Directive 97/23/EC

RoHS / WEE Directive 2002/95 EC

