FPG

PRODUCT MANUAL

Refrigerated Cabinets

INSTALLATION - OPERATION - MAINTENANCE

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Warnings

Operational Safety	This appliance is not intended for use by young children or infirm persons, unless they have been adequately supervised by a responsible person, to ensure that they can use the appliance safely. Young children should be supervised, to ensure that they do not play with the appliance.
Water	THIS UNIT IS NOT WATERPROOF. DO NOT USE A WATER JET SPRAY TO CLEAN THE INTERIOR OR EXTERIOR OF THIS CABINET.
Caution	Do not store explosive substances, such as aerosol cans with flammable propellant, in this appliance.
Mains Supply Cord	If the supply cord is damaged, it must be replaced by the manufacturer, its service agent or similarly qualified persons, in order to avoid a hazard.
Specialist Disposal	Specialist disposal procedures are required for the safe removal of refrigerant gasses and potentially flammable foam materials. Pentane, Dimethyl Ether, Isobutene, Butane and Propane may be present.
Hazardous Substances	The cabinet does not contain any of the following, in its construction: Asbestos PCBs (Oils containing polychlorinated biphenyl) Mercury

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INTRODUCTION

Welcome

REFRIGERATED CABINETS - INTRODUCTION

Future Products Group (FPG)

Welcome to the world of FPG! Our products are designed and engineered to give you the optimal performance that you deserve with innovative visual merchandising appeal.
We are confident that you will be delighted with your state of the art inline food service cabinet, and that it will become a valued appliance in your store.

Guidance and Help

Any new appliance can seem very complex and confusing at first glance. To ensure you receive the utmost benefit from your new inline cabinet, there are two things you can do.

- Before operating the cabinet, please read the instruction book carefully and follow its recommendations. The time taken will be well spent. These instructions both general and technical tell you how to operate and look after your inline food service cabinet so that you can receive the full benefits that this cabinet has to offer.
- These instructions cannot, however, cover all eventualities. If you are unsure of any aspect of the installation, instructions or performance of your cabinet, contact your dealer promptly or contact us via email to support@fpgworld.com.

Warranty

REFRIGERATED CABINETS - INTRODUCTION

Warranty Period

Future Products Group Limited warrants, to the original purchaser of an FPG manufactured food service cabinet that for ONE YEAR (12 months), from the date of purchase, any defect in workmanship or material resulting in the product malfunctioning while under correct use will be rectified.

The warranty is extended to THREE YEARS (36 months), for refrigeration condenser units. Conditions apply, see Liability Exceptions.

Liability under this warranty is limited to replacing or repairing a part, without charge.

Continued on next page

Warranty cont.

REFRIGERATED CABINETS - INTRODUCTION

Liability Exceptions

Liability under this warranty does not include:

- Any loss, or damage or expenses directly or indirectly arising from use or inability to use the product or from any other cause.
- Any part of the cabinet which has been subject to misuse, neglect, alteration, incorrect installation, accident, or damage caused by transportation, use of abrasive or caustic chemicals, flooding, fire or acts of God.
- Damage, resulting from failure to have the cabinet regularly serviced every three months by a refrigeration engineer. NB: You will be required to provide copies of service records in the event of compressor failure.
- Damage resulting from maladjustment of the electronic refrigeration controller, by an unqualified person.
- Any damage or malfunction resulting from the use of non-FPG supplied spare parts.

Specific Exclusions

The following are specifically excluded from warranty:

- Breakage of glass or plastic components or the replacement of LED lighting strips or gaskets.
- Failure to re-assemble the cabinet correctly after cleaning.
- Fair wear and tear.

Assessment

The liability under this warranty is dependent on an assessment by FPG, to determine the defect in workmanship or materials.

Time Limit

FPG does not guarantee that any service to be performed under this warranty will be carried out within any particular time limit.

Caution

No warranty claim will be accepted unless authorised by FPG prior to commencement of service.

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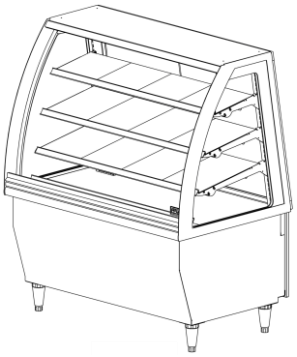
OPERATION

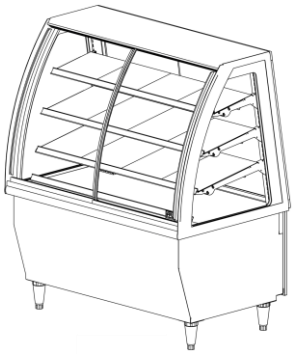
Cabinet Layout

REFRIGERATED CABINETS - OPERATION

Tilt or Sliding Front Doors

The tilt door cabinet has a single front door and two sliding rear doors, (four on the 2400 cabinet).





The front door is hinged along the bottom edge, and is opened by pulling the top edge forward.

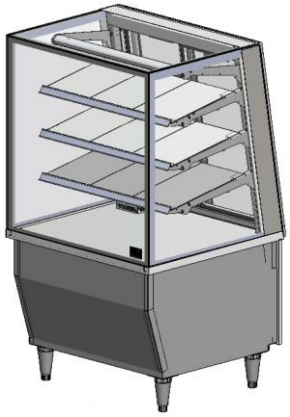
When opened, the door is restrained from falling by wire cables, which retract into “pull boxes” when the door is closed.

The sliding door cabinet has two sliding doors on both the front and rear of the cabinet, (four on the 2400 cabinet).

All the refrigeration and control equipment is housed in the base of the cabinet.

Square Glass Cabinets

The square glass cabinet does not have front opening doors. It has rear sliding doors, similar to the tilt and sliding door models.



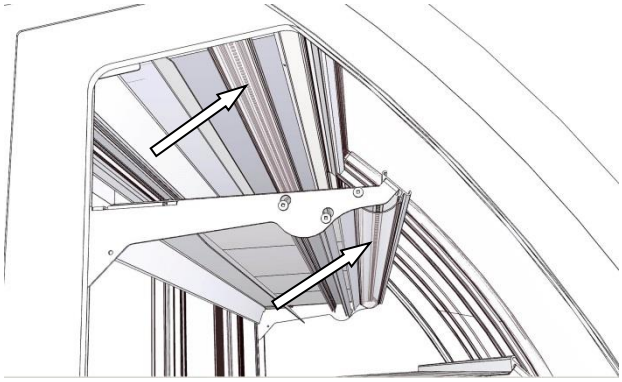
The front of the cabinet is formed entirely from fixed glass panels, which are square and cemented together.

The shelf lights are the same as those used on the tilt and sliding door models, but the top light is mounted on brackets, similar to the shelf brackets.

The control equipment is housed in the base of the cabinet, which may have either integral or remote refrigeration equipment.

Lighting

As standard, all cabinets are fitted with high efficiency LED lighting strips in the ceiling of the cabinet, and below each shelf.



Controls

REFRIGERATED CABINETS - OPERATION

Control Panel

The control panel is mounted on the back of the cabinet, and houses:

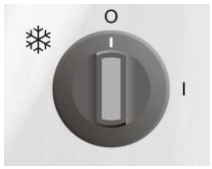
- The main power switch
- The refrigeration switch
- The Light switch
- The refrigeration controller

Power Switch

To turn the power on, rotate the switch in a clockwise direction.

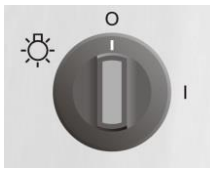
Note that the cabinet and condenser fans will operate as soon as the power is turned on.

Refrigeration



To start refrigeration, rotate the refrigeration switch in a clockwise direction.

Lights



To turn the lights on, rotate the light switch in a clockwise direction.

Thermometer

The refrigeration controller, indicates the internal air temperature of the cabinet. The sensor, located in the base of the cabinet, measures the temperature of the returned air, before it passes through the evaporator fins.

Continued on next page

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Controls cont.

REFRIGERATED CABINETS - OPERATION

Temperature Controller

The controller regulates the cabinet temperature and controls the automatic defrost cycles.

The display indicates the temperature of the returned air, before it enters the cooling coil.

On integral condenser cabinets, the refrigeration gas pressure is also monitored, to protect the compressor from damage resulting from a blocked radiator or loss of gas.

Temperature Controller Adjustment

Caution:
This controller should only be adjusted by a qualified service technician.

The controller is set up during manufacture of the cabinet, and should not require further adjustment.

The indicated temperature is sensed by a probe in the return air, entering the cooling coil. This is used to control the refrigeration condenser operation, and will be marginally higher than the internal cabinet temperature.

Incorrect adjustment can cause the fins to ice up, resulting in reduced airflow and poor performance.

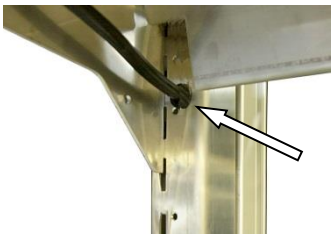
The controller also governs the de-frost cycles, and incorrect adjustment can again lead to poor temperature control or possible overflow of condensate.

If you think an adjustment may be needed, call the service technician.

Preparation

REFRIGERATED CABINETS - OPERATION

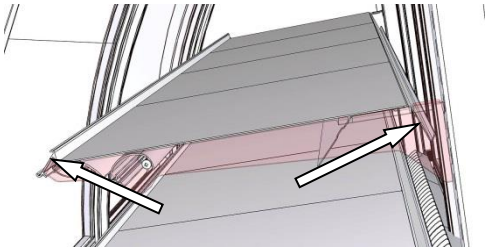
Shelf Location and Ticketing



All shelves are adjustable in height and can easily be moved up or down, to match product size.

The movement is restricted to 50mm, because of the electric cables to the lights. For greater movement contact the manufacturer or supplier for advice, as electrical modifications may be required.

The front and rear edges of the shelves are profiled to carry ticketing/labels.



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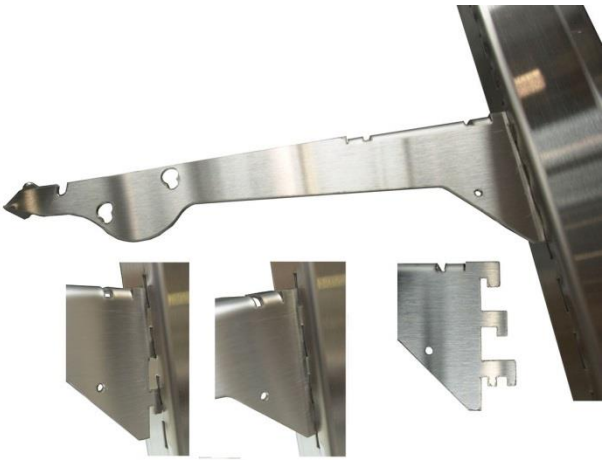
Preparation cont.

REFRIGERATED CABINETS - OPERATION

Shelf Adjustment

To move the shelf support brackets, remove all the shelves and then remove the rear sliding doors. Using two people, one on each bracket, slide the bracket upwards and disengage it from the support pillar. Insert the bracket in the new position and push it down firmly. Replace all shelf trays and doors.

The brackets can be inserted in two positions, allowing the shelves to be either horizontal or sloping downwards.



Caution

Make sure shelf brackets are pushed down as far as they can go. Failure to do this may result in shelf collapse, when loaded with product.

Power Supply

Ensure that power is connected to the cabinet.
Turn on the main power switch, as shown above. The compressor and cabinet fans will run.

Turn on Refrigeration

Turn on refrigeration switch, as shown above. The compressor will run, and the cabinet temperature will begin to fall.

The temperature controller is pre-set to maintain the cabinet temperature to 2° - 4° C, and should not need adjustment.

(Cabinets can also be supplied to operate at 15° - 17°C)

Defrost Cycle

Note that the defrost times are set from when the cabinet is first turned on.

If they are required at a particular time, you must turn on the cabinet four hours before the first defrost required.

The cycles will then occur every four hours, provided that the cabinet remains on.

Load Cabinet

Load the cabinet with pre-chilled product, from the rear doors.

The cabinet is designed to maintain the temperature of pre-chilled product at between 2° and 4°C. **It is not a refrigerator, and consequently, if warm product is introduced, there could be some delay before the operating temperature falls to the normal operating level.**

Continued on next page

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Preparation cont.

REFRIGERATED CABINETS - OPERATION

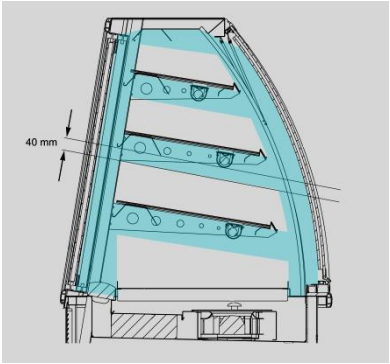
Loading Restrictions

It is important to leave adequate free space for the refrigerated air to circulate within the cabinet.

Product should be kept clear of the shaded areas, shown in the picture.

A minimum clearance of 40 mm should be maintained below the light fittings and air deflectors.

The air grills at the front and rear of the cabinet must not be covered at all.



Close all Doors

It is important to keep all cabinet doors closed. If doors are not fully closed, an even temperature will not be maintained within the cabinet.

Turn on Lights

When ready for service, turn on the cabinet lights.

Routines

REFRIGERATED CABINETS - OPERATION

After Hours

Ideally, cabinets should not be turned off after hours or at night. Products can either be left in the cabinet or placed in night storage. Shut the cabinet doors and turn off the lights. The cabinet will then operate on minimum load, and stay cold, ready for instant operation when next required.

If the cabinet is turned off, allow it to run for about half an hour before replacing the pre-chilled products.

Cleaning

It is recommended that cabinets be cleaned at the end of the working day, since they need to be shut down for this. See “Cleaning”.

Once the cleaning is finished, turn the cabinet on again, turn off the lights and shut the doors. The cabinet will cool down under minimum load and be ready for the next day’s use.

De-frost Cycle

The cabinet will de-frost automatically six times per day. The cabinet should NOT be temperature tested within ½ hour of a de-frost programme being completed.

The first defrost cycle will occur four hours after the cabinet is first switched on.

Door Opening

The cabinet is designed to maintain food at a temperature of 2° to 4°C. The refrigeration system is designed to maintain this temperature with the doors being opened and closed up to sixty times per hour.

If the doors are left open for an extended period the temperature will rise. Once the doors are shut the temperature will take some time to fall to the normal operating level. The longer the doors are open the longer the time to restore normal operating temperature.

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TROUBLE SHOOTING

FAULT	POSSIBLE CAUSE	REMEDY
Cabinet does not operate/start	The mains isolating switch on the wall, circuit breaker or fuses are off at the power board	Turn isolating switch circuit breaker or fuses on
	High pressure switch tripped	Clean condenser and radiator
	Low pressure switch tripped	Switch cabinet off and on ***Check gas pressure***
	The power switch on the cabinet is OFF	Turn the power switch ON
	The power switch on the unit is faulty	***Have the switch replaced***
Cabinet does not reach temperature	One or more doors is open	Close doors and re-test temperature after 30 minutes
	Ventilation grills are blocked	Vacuum or remove blockage
	Product blocking air grill	Place product on shelves
	Evaporator coil fins blocked	Clean coil fins of food etc.
	Trays obstructing air flow	Re-position trays on shelves
	Thermostat needs adjustment	***Adjust controller***
	Ambient temperature > 25°C	Adjust store air conditioning
	Damaged or missing door seal	***Replace door seal***
	Evaporator coil iced up	***De-ice coil***
	Condenser radiator blocked	***Remove dust and debris***
	Thermostat faulty	***Replace controller***
	Temperature probe damaged	***Replace temperature probe***
	Defrost cycle not suitable	***Adjust to match environment***
	Fans not operating	***Have fans checked/replaced***
Cabinet lights not working	The light switch is OFF	Turn light switch ON
	A failed LED power supply	***Replace the power supply***
	A failed LED Driver	***Replace the LED driver***
	An LED strip has failed	***Replace the LED assembly***
	Internal breaker tripped/failed	***Have wiring checked and reset or replace breaker***
Doors are not sliding smoothly	Door not in track	Install door correctly in track
	Debris in track	Clean door tracks (see cleaning)
	Door glider damaged/missing	***Have glider replaced***
	Lack of lubricant	Apply food grade lubricant to door track
Aluminium parts corroded	Caustic detergent damage	Order replacement parts

Service Personnel Only The table entries in ***italics*** indicate actions to be taken only by qualified Service Personnel.

CLEANING

Cautions

REFRIGERATED CABINETS - CLEANING

Power	**ALWAYS TURN THE POWER SUPPLY OFF BEFORE CLEANING.**
Water	THIS UNIT IS NOT WATERPROOF. DO NOT USE A WATER JET SPRAY TO CLEAN THE INTERIOR OR EXTERIOR OF THIS CABINET.

Exterior

REFRIGERATED CABINETS - CLEANING

Louvers	Use a vacuum cleaner to remove dust and fluff from all of the ventilation louvers. This will maintain the refrigeration efficiency, and prevent overheating.
Painted and Metal Surfaces	Painted, stainless steel or aluminium surfaces should be cleaned with hot soapy water or a good quality metal cleaning compound. DO NOT clean surfaces with abrasive pads or cleaners (e.g. Scotchbrite pads or Jif), as paint, stainless steel and aluminium surfaces will be damaged.
Glass	All glass should be cleaned using a good quality glass cleaner and a clean cloth. DO NOT clean glass with abrasive pads or cleaners (e.g. Scotchbrite pads or Jif), as the glass will be damaged.

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Exterior cont.

REFRIGERATED CABINETS - CLEANING

Sliding Doors

Sliding glass doors can be removed for cleaning by sliding the door to central position, placing hands either side of the door, lifting up and then swinging out at the bottom.

When replacing doors, make sure that the top is located in the correct slot, and the gliders are properly located on the correct bottom track.

Sliding door tracks should be vacuumed out regularly to keep doors sliding freely. Failure to do so will damage the gliders and track.

Tilt Doors

Tilt doors are not readily removable, so the outer glass should be cleaned with the door closed.

Interior

REFRIGERATED CABINETS - CLEANING

Tilt Door Glass

Gently pull the top of the door forward, until it is restrained in the open position.

The inside of the glass can now be carefully cleaned, using a cloth and glass cleaner. Dry the glass off with paper towels or a cloth.

DO NOT use abrasive pads or cleaners, because they will damage the surface of the glass.

Continued on next page

Interior cont.

REFRIGERATED CABINETS - CLEANING

End Glass

The insides of the end glass panels can normally be cleaned after the shelf trays have been removed.

Only remove the shelf lights and brackets etc. when carrying out longer term maintenance/cleaning.

Trays, Shelves & Air Grills

Stainless steel trays, shelves, grills etc. should be cleaned with hot soapy water. Do not use abrasive pads or cleaners (e.g. Scotchbrite pads or Jif), as these may damage surfaces.

Warning: Dishwasher detergents will damage any anodised aluminium parts.

Access to the Cabinet Base Cavity

Remove the front ticketing rail from the deck trays, if fitted.

Lift out the deck trays and sweep out, or use a vacuum cleaner, to remove any loose debris.

Unscrew the two knobs, which secure the base plates.

Lift up the fan deck.

Lift the cover plate off the evaporator coil, raising it to the vertical position, to disengage it from the chassis.

Lift the air louvers out.

The whole of the cabinet interior is now accessible for cleaning.

Caution

To avoid possible damage when replacing fan decks, be sure that cables are not trapped by metal parts.

Continued on next page

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Interior cont.

REFRIGERATED CABINETS - CLEANING

Cleaning the Base Cavity

Sweep out, or use a vacuum cleaner, to remove any debris from the cabinet base cavity.

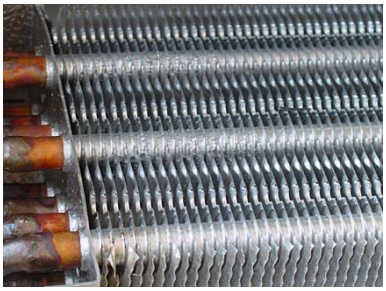
A Wet-and-Dry vacuum cleaner should be used, since there is likely to be some water in the bottom. Finally, wipe out the bottom with a damp sanitized cloth.

Do not pour water into the base, or the condensate tray will overflow.

Cooling Fins

If there is food wedged in the cooling fins, it is best to use a wet and dry vacuum cleaner to suck out the food. DO NOT attempt to hose food parts from fins.

Caution: The fins are very sharp. Take extra care when cleaning this area. Do not bend the fins over, as this would restrict the air flow and degrade cabinet performance.



Temperature Probes

Take care not to damage or move the temperature probes, when cleaning the cooling fins.

One probe is inserted between the fins of the cooling coil, on the air-off side.

A second probe is located in the return air flow, on the other side of the cooling coil.

Do NOT move the probes.

Condensate Tray

The condensate boil off heater is only designed to handle cooling-coil defrosting liquid that drains from the well.

DO NOT fill the well with liquid, or attempt to hose out as condensate tray will overflow and leak onto floor.

Routine

REFRIGERATED CABINETS - CLEANING

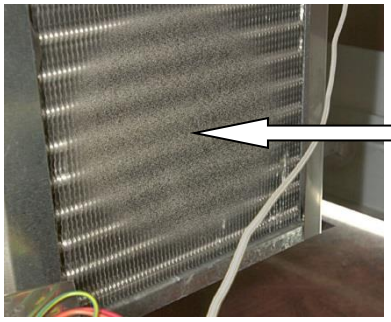
Schedules

To maintain optimum performance, cleaning schedules must be regular and thorough.

Warning

Failure to carry out routine cleaning/servicing schedules will void the warranty on the refrigeration equipment.

Condenser Radiator



For efficient refrigeration performance, the condenser radiator must be kept clean, (see Servicing, Condenser Radiator).

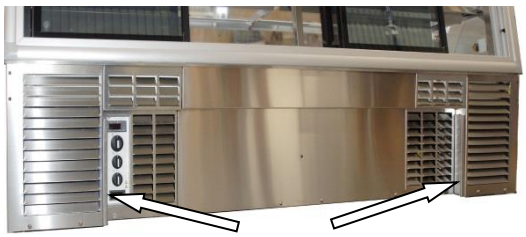
Accumulated dust and fluff.

Regular vacuuming will prevent a build-up of dust and fluff, but periodic cleaning of the fins, by a refrigeration engineer, is mandatory.

Removable Filters
(where fitted)

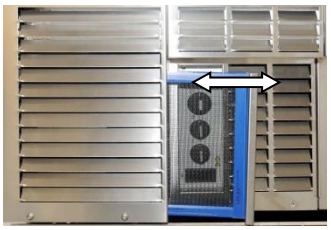
These air filters must be kept clean, to maintain efficient refrigeration performance.

Slide the filters out, and use a vacuum cleaner to remove dust and fluff.



Additional periodic cleaning of the actual radiator fins, by a refrigeration engineer, is mandatory. (see Servicing section)

IN 5C24



Inspection

As part of the cleaning routine, the controls, mechanical parts and electrical wiring should be inspected for damage, deterioration or need of adjustment.

Correction

If any small faults are found, have them attended to promptly by a competent serviceman. Don't wait until they cause a complete breakdown.

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INSTALLATION

Regulations

REFRIGERATED CABINETS - INSTALLATION

Compliance with Local Requirements

It is very important that your inline food cabinet is installed correctly and that the operation is correct before use. Installation must comply with local electrical, health & safety and hygiene requirements.

Setting Up

REFRIGERATED CABINETS - INSTALLATION

Unpacking

Unpack and check unit for damage and report any damage to the carrier and supplier. Report any deficiencies to your supplier.

The cabinet is supplied fully assembled, but the shelf trays are packed separately.

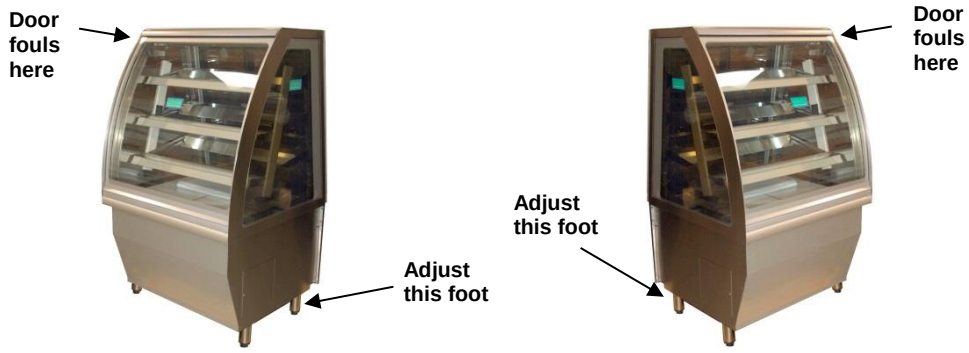
Site Preparation

Ensure the cabinet location and any bench cut outs are made to the precise measurements shown in the specifications section. Position the cabinet in its allocated working position. Use a spirit level to ensure the cabinet is level from side to side and front to back. (If this is not carried out, water may accumulate in the cabinet well, and uneven temperature distribution could also occur).

Tilt Door Adjustment

If the tilt door glass fouls the frame, either the cabinet is not level, or the floor is out of true.

The solution is to adjust the cabinet feet.



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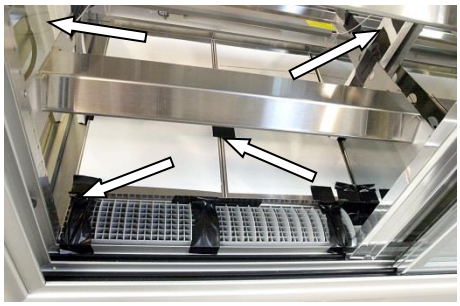
Setting Up cont.

REFRIGERATED CABINETS - INSTALLATION

Cabinet Preparation



Remove all tapes, ties and packers, used to prevent movement during transit.

Lift out the deck trays and grills to gain access to the cabinet well.

Earthing

WARNING-THIS APPLIANCE MUST BE EARTHED/GROUNDED

The cabinet should be earthed via the earth lead in the mains cable.

In addition, an equipotential earth bonding terminal is provided, to allow the cabinet to be bonded to a building surge earth or adjacent equipment.

Power Supply

Before connecting to the power supply, check that the local supply is correct to that shown on the rating plate, located on the rear of the cabinet.

Isolation

If the cabinet is not connected by a plug and socket, but is hard wired to the mains supply, a means of isolation must be provided.

If a plug and socket are used, they should still be accessible after the cabinet is installed.

Location

REFRIGERATED CABINETS - INSTALLATION

Ventilation

The vent located on the rear of the cabinet must never be obstructed. If obstructed the cabinet may overheat and cause an electrical malfunction.

Before use, operate the cabinet for 1-2 hours to remove any fumes or odours, which may be present.

Access

The cabinet should also be positioned so the operating panel and shelves are easily reachable for loading and unloading.

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SERVICING

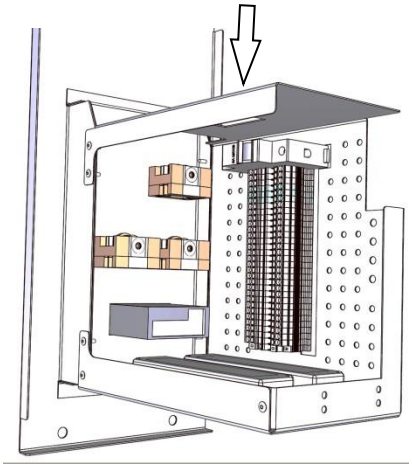
Lighting

REFRIGERATED CABINETS - SERVICING

Caution

DO NOT service lights without isolating the cabinet at the main switch or unplugging it from the wall.

Circuit Breaker



All lighting circuits are protected by a circuit breaker, MCB.

On IN C08/12/15&18 cabinets the circuit breaker and LED power supplies are located behind the control panel.

The MCB can be operated via a cut-out in the top of the chassis.

On the IN 5C24 cabinet, the circuit breaker and power supplies are located on a separate chassis, in the base of the cabinet.

Test Lighting Components

Before replacing an LED strip, check that the power supply is working.

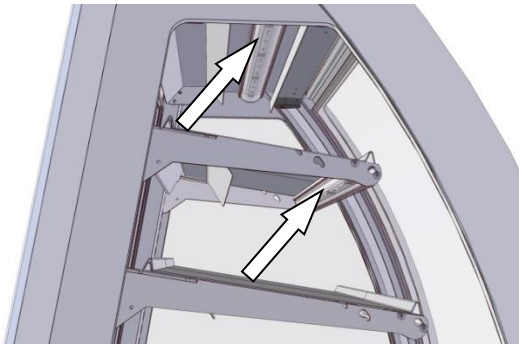
If there is no dc voltage at the output, the power supply should be replaced.

Access to LED Strips

The LED strips are protected with plastic covers. These clip into grooves in the aluminium extrusion.

Remove the plastic cover to access the LED strip.

The top light assembly is similar to the shelf lights, but the correct replacement unit must be used.

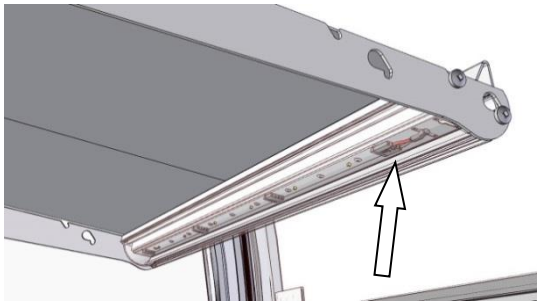


LED Strip Replacement

Individual LED modules cannot be replaced. A complete light unit must be used.

Connection is made with a plug and socket. Disconnect the faulty unit, and re-connect the replacement unit.

Replace the plastic covers.



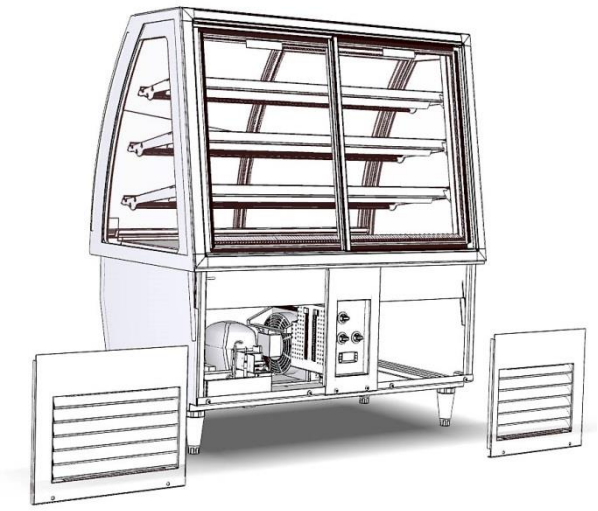
Refrigeration

REFRIGERATED CABINETS - SERVICING

Caution

DO NOT attempt to service the refrigeration equipment without isolating the cabinet at the main switch or unplugging it from the wall.

Access to Compressor etc.



To gain access to the refrigeration condenser, radiator and ACR module etc., the rear panels should be removed.

The control panel chassis may also be removed for greater access.

The IN 5C24 cabinet has two condenser assemblies, located at either end of the cabinet.

Remote Condensers

Some cabinets can be supplied for operation from remote refrigeration condenser units. These versions must have the condensate piped to a drain.

Continued on next page

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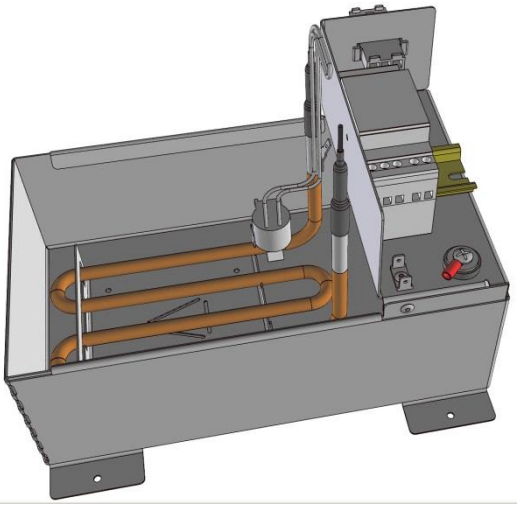
Condensate Disposal

The automatic condensate removal, ACR system consists of a water tray, a water level detector and a boil-off element with an over temperature cut-out.

If the element fails, it may be replaced by springing it from the mounting bracket. Cut and splice the leads and protect with heat-shrink sleeves.



ACR Fault Finding Guide

First check if the condensate water level probe in the ACR tank is dirty and needs cleaning (a dirty probe may either fail to detect water, or give a false indication of water) clean if required.

Check the Finder Level Control unit sensitivity range adjustment is set to 75kΩ. If the sensitivity is set too low, the Finder Level Control unit may not detect the condensate water and won't switch on the ACR element. If the sensitivity is set too high, the Finder Level Control unit may get a false indication of the condensate water and switch on the ACR element without water present.

Fault: ACR element is on continuously when no condensate water is present.

Test: Check if the Finder Level Control unit is faulty by disconnecting the probe wire from terminal B1 on the Finder Level Control unit. With the cabinet power turned on and after waiting 10 seconds, check for 230V across terminals 11 and 14. If 230v is not present across terminals 11 & 14, replace the Finder Level Control unit.

Fault: ACR element does not heat even though condensate water is present and touching the water level probe.

Test: First check the ACR unit has a 230V power supply.

Next, check the Finder Level Control unit water sensing circuit by short-circuiting the level sensor terminals B1 & B3. Turn the cabinet power on and wait 10 seconds and then check if the ACR element heats. If the element heats, check for an open circuit in the water sensing probe circuit and clean the probe.

If the element does not heat, turn the cabinet power off and take the element wire out of terminal 11 and wire into terminal 14 on the Finder Level Control unit. Turn the cabinet power on and wait 10 seconds and then check if the ACR element heats. If the element heats, replace the Finder Level Control Unit. If the element does not heat replace the element and Therm-O-Disc assembly.

Note: The element and Therm-O-Disc are supplied as a complete assembly.

Continued on next page

Refrigeration cont.

REFRIGERATED CABINETS - SERVICING

Condenser Radiator

For efficient refrigeration performance, the condenser radiator must be kept clean. Failure to do this will lead to a build-up of dust, and restricted airflow will prevent the unit from working properly. The compressor may overheat and the cabinet temperature may rise.

Regular vacuuming will prevent a build-up of dust and fluff, however, three monthly service checks, which include cleaning of the condenser using $C0_2$ by a refrigeration engineer, are mandatory.

Be very careful not to bend or damage the soft aluminium fins when vacuuming the radiator. If the fins are flattened, airflow will be restricted and overheating will result.

Louver Panels

All louvered panels should be kept free of dust by regular vacuuming, so that air flow is not restricted.

Continued on next page

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Refrigeration cont.

REFRIGERATED CABINETS - SERVICING

Temperature Regulator XR40CX

Model XR40CX is a microprocessor based controller.
It uses two NTC temperature probes, the first one, for temperature control, is located in the return air (air on), and the second one, located between the fins of the cooling coil, measures the defrost termination temperature.

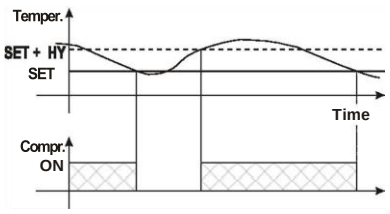
Pressure switches, monitoring the condenser gas pressure, are connected to the digital input terminals.

Since the temperature control probe is located on the return air side of the coil, (Air On), the measured temperature will be higher than the average air temperature inside the cabinet.

The instrument is fully configurable through special parameters that can be easily programmed through the keyboard, or by use of a “hot key”.

XR40CX Compressor Control

The regulation is performed according to the temperature measured by the thermostat probe with a positive differential from the set point: if the temperature increases and reaches set point plus differential the compressor is started and then turned off when the temperature reaches the set point value again.



In case of a fault in the thermostat probe the start and stop of the compressor are timed through parameters **COn** and **COF**.

XR40CX Defrost Control

Parameters are used to control the interval between defrost cycles (IdF), its maximum length (MdF) and two defrost modes: timed or controlled by the evaporator’s probe (P2P).

In this cabinet, the start of the defrost cycle is timed, but the cycle will be terminated as soon as the defrost probe reaches the pre-determined temperature.

At the end of defrost dripping time is started, its length is set in the FSt parameter. With FSt =0 the dripping time is disabled

Continued on next page

Refrigeration cont.

REFRIGERATED CABINETS - SERVICING

XR40CX Key Functions

KEY	FUNCTION
SET	To display target set point; in programming mode it selects a parameter or confirm an operation
❄	(DEF) To start a manual defrost
∧	(UP): To see the max. stored temperature; in programming mode it browses the parameter codes or increases the displayed value
∨	(DOWN): To see the min stored temperature; in programming mode it browses the parameter codes or decreases the displayed value
⏻	To switch the instrument off, if onF = oFF. Not enabled
∧ + ∨	To lock & unlock the keyboard
SET + ∨	To enter into programming mode
SET + ∧	To return to the temperature display mode

XR40CX LED Functions

LED	MODE	FUNCTION
❄	ON	Compressor enabled
❄	Flashing	Anti-short cycle delay enabled
❄	ON	Defrost enabled
❄	Flashing	Drip time in progress
(!)	ON	An alarm is occurring
❄	ON	Continuous cycle is running
☀	ON	Energy saving enabled
°C/°F	ON	Measurement unit
°C/°F	Flashing	Programming phase

Continued on next page

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XR40CX Min & Max Recorded Temperature

Press and release the ⩔ key.
Lo will be displayed followed by the minimum temperature recorded.
Press the ⩔ key again or wait 5s to restore the normal display.

Press and release the ⩓ key.
Hi will be displayed followed by the maximum temperature recorded.
Press the ⩓ key again or wait 5s to restore the normal display.

XR40CX Reset Max/Min Temperature Memory

Press the **SET** key for more than 3s, while the max. or min. temperature is displayed. (**rSt** message will be displayed)

To confirm the operation the **rSt** message starts blinking and the normal temperature will be displayed.

XR40CX Display the Set-point

To show the set-point value, press and immediately release the **SET** key.

Press and immediately release the **SET** key or wait for 5 seconds to display the probe temperature again.

XR40CX Change the Set-point

To change the set-point value, press the **SET** key for more than 2 seconds;
The value of the set-point will be displayed and the °C or °F LED starts blinking;
To change the set value push the ⩓ or ⩔ arrows within 10s.
To memorise the new set-point value push the **SET** key again or wait 10s.

XR40CX Start a Manual Defrost

To start a manual defrost, press the ❄ (DEF) key for more than 2 seconds.

XR40CX Programming Mode

Enter the Programming mode by pressing the SET + ⩔ keys for 3s
(the °C or °F LED starts blinking).

- Use the ⩓ or ⩔ keys to select the required parameter.
- Press the SET key to display its value.
- Use the ⩓ or ⩔ keys to change its value.
- Press SET to store the new value and move to the following parameter.

To exit Programming mode, press SET + ⩓ or wait 15s without pressing a key.

NOTE: the set value is stored even when the procedure is exited by waiting for the time-out to expire.

Continued on next page

Refrigeration cont.

REFRIGERATED CABINETS - SERVICING

XR40CX The Hidden Menu

The hidden menu includes all the parameters of the instrument.

TO ENTER THE HIDDEN MENU

- Enter the Programming mode by pressing the SET+▽ keys for 3s, (the **°C** or **°F** LED starts blinking).
- Release the keys, then press the SET+▽ keys again, for more than 7s. The **Pr2** label will be displayed immediately followed from the **Hy** parameter.

NOW YOU ARE IN THE HIDDEN MENU.

- Select the required parameter.
- Press the SET key to display its value
- Use △ or ▽ to change its value.
- Press SET to store the new value and move to the following parameter.
- To exit: Press SET+△ or wait 15s without pressing a key.

NOTE 1: If no parameter is present in **Pr1**, after 3s the **noP** message is displayed. Keep the keys pushed till the **Pr2** message is displayed.

NOTE 2: The set value is stored even when the procedure is exited by waiting for the time-out period to expire.

TO MOVE A PARAMETER FROM THE HIDDEN MENU TO THE FIRST LEVEL AND VICEVERSA.

Each parameter present in the HIDDEN MENU can be removed or put into "THE FIRST LEVEL" (user level) by pressing SET+▽

In HIDDEN MENU when a parameter is present in the First Level the decimal point is shown.

XR40CX Locking and Unlocking the Keyboard

To lock the keyboard, press the △ +▽ keys for more than 3 s.

The **POF** message will be displayed, followed by the previous temperature display.

If a key is pressed more than 3s the **POF** message will be displayed.

To unlock the keyboard, press the △ +▽ keys for more than 3s, till the **Pon** message is displayed.

Continued on next page

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Refrigeration cont.

REFRIGERATED CABINETS - SERVICING

FPG Settings

Note that the following settings are Dixell factory defaults. Refer to the Specification section for the correct FPG settings for your cabinet.

Dixell Default Settings

Label	Name	Range	Default Setting
Set	Set point	LS÷ US	-5.0
Hy	Differential	0,1÷25.5°C/ 1÷ 255°F	2.0
LS	Minimum set point	-50°C÷SET/-58°F÷SET	-50.0
US	Maximum set point	SET÷110°C/ SET ÷ 230°F	110
Ot	Thermostat probe calibration	-12÷12°C /-120÷120°F	0.0
P2P	Evaporator probe presence	n=not present; Y=pres.	Y
OE	Evaporator probe calibration	-12÷12°C /-120÷120°F	0.0
P3P	Third probe presence	n=not present; Y=pres.	n
O3	Third probe calibration	-12÷12°C /-120÷120°F	0
P4P	Fourth probe presence	n=not present; Y=pres.	n
O4	Fourth probe calibration	-12÷12°C /-120÷120°F	0
OdS	Outputs delay at start up	0÷255 min	0
AC	Anti-short cycle delay	0 ÷ 50 min	1
rtr	P1-P2 percentage for regulation	0 ÷ 100 (100=P1 , 0=P2)	100
CCt	Continuous cycle duration	0.0÷24.0h	0.0
CCS	Set point for continuous cycle	(-55.0÷150,0°C) (-67÷302°F)	-5
COn	Compressor ON time with faulty probe	0 ÷ 255 min	15
COF	Compressor OFF time with faulty probe	0 ÷ 255 min	30
CF	Temperature measurement unit	°C ÷ °F	°C
rES	Resolution	in=integer; dE= dec.point	dE
Lod	Probe displayed	P1;P2	P1
rEd2	X-REP display	P1 - P2 - P3 - P4 - SEt - dtr	P1
dLy	Display temperature delay	0 ÷ 20.0 min (10 sec.)	0
dtr	P1-P2 percentage for display	1 ÷ 99	50
tdF	Defrost type	EL=el. heater; in= hot gas	EL
dFP	Probe selection for defrost termination	nP; P1; P2; P3; P4	P2
dtE	Defrost termination temperature	-50 ÷ 50 °C	8
IdF	Interval between defrost cycles	1 ÷ 120 ore	6
MdF	(Maximum) length for defrost	0 ÷ 255 min	30
dSd	Start defrost delay	0÷99min	0
dFd	Displaying during defrost	rt, it, SEt, DEF	it
dAd	MAX display delay after defrost	0 ÷ 255 min	30
Fdt	Draining time	0÷120 min	0
dPo	First defrost after start-up	n=after IdF; y=immed.	n
dAF	Defrost delay after fast freezing	0 ÷ 23h e 50'	0.0
ALc	Temperature alarms configuration	rE= related to set; Ab = absolute	Ab
ALU	MAXIMUM temperature alarm	Set÷110.0°C; Set÷230°F	110
ALL	Minimum temperature alarm	-50.0°C÷Set/ -58°F÷Set	-50.0

Continued on next page

Refrigeration cont.

REFRIGERATED CABINETS - SERVICING

Dixell Default Settings cont.

Label	Name	Range	Default Setting
AFH	Differential for temperat. alarm recovery	(0,1 °C÷25,5°C) (1 °F÷45°F)	1
ALd	Temperature alarm delay	0 ÷ 255 min	15
dAO	Delay of temperature alarm at start up	0 ÷ 23h e 50'	1.3
AP2	Probe for temperat. alarm of condenser	nP; P1; P2; P3; P4	P4
AL2	Condenser for low temperat. alarm	(-55 ÷ 150°C) (-67÷ 302°F)	-40
AU2	Condenser for high temperat. alarm	(-55 ÷ 150°C) (-67÷ 302°F)	110
AH2	Differ. for condenser temp. alar. recovery	[0,1 °C ÷ 25,5°C] [1 °F ÷ 45°F]	5
Ad2	Condenser temperature alarm delay	0 ÷ 254 (min.) , 255=nU	15
dA2	Delay of cond. temper. alarm at start up	0.0 ÷ 23h 50'	1,3
bLL	Compressor OFF for condenser low temperature alarm	n(0) - Y(1)	n
AC2	Compressor OFF for condenser high temperature alarm	n(0) - Y(1)	n
i1P	Digital input polarity	oP=opening; CL=closing	cL
i1F	Digital input configuration	EAL, bAL, PAL, dor; dEF; Htr, AUS	EAL
did	Digital input alarm delay	0÷255min	5
Nps	Number of activation of pressure switch	0 ÷15	15
odc	Compress status when open door	no; Fan; CPr; F_C	no
rrd	Regulation restart with door open alarm	n – Y	y
HES	Differential for Energy Saving	(-30°C÷ 30°C) (-54°F÷ 54°F)	0
Adr	Serial address	0÷247	1
PbC	Kind of probe	Ptc; ntc	ntc
onF	on/off key enabling	nu, oFF; ES	nu
dP1	Room probe display	--	--
dP2	Evaporator probe display	--	--
dP3	Third probe display	--	--
dP4	Fourth probe display	--	--
rSE	Set operating value	actual set	--
rEL	Software release	--	--
Ptb	Map code	--	--

XR40CX Hot Key

To program the controller from a Hot Key:

- Turn OFF the instrument, and disconnect probe Pr4.
- Insert a programmed Hot Key into the 5 PIN socket and then turn the Controller ON.
- The parameter list of the Hot Key is automatically downloaded into the Controller memory, the **doL** will blink, followed a by a flashing **End**.
- After 10 seconds the instrument will restart working with the new parameters.
- Remove the Hot Key, and reconnect probe Pr4.

NOTE the message **Err** is displayed if programming fails. In this case turn the unit off and then on again, if you want to restart the download again, or remove the Hot Key to abort the operation.

Continued on next page

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Refrigeration cont.

REFRIGERATED CABINETS - SERVICING

XR40CX Alarm Signals

Message	Cause	Outputs
P1	Room probe failure	Compressor output acc. to par. **Con** and **COF**
P2	Evaporator probe failure	Defrost end is timed
P3	Third probe failure	Outputs unchanged
P4	Fourth probe failure	Outputs unchanged
HA	Maximum temperature alarm	Outputs unchanged.
LA	Minimum temperature alarm	Outputs unchanged.
HA2	Condenser high temperature	It depends on the **Ac2** parameter
LA2	Condenser low temperature	It depends on the **bLL** parameter
dA	Door open	Compressor according to rrd
EA	External alarm	Output unchanged.
CA	Serious external alarm (i1 F=bAL)	All outputs OFF.
CA	Pressure switch alarm (i1 F=PAL)	All outputs OFF

XR40CX Alarm Recovery

Probe alarms P1, P2, P3 and P4 start some seconds after the fault in the related probe; they automatically stop some seconds after the probe restarts normal operation. Check connections before replacing the probe.

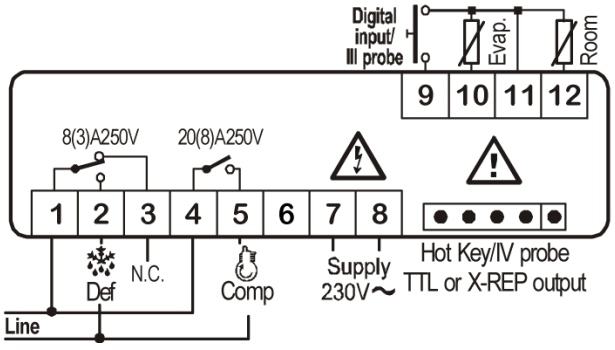
Temperature alarms HA, LA, HA2 and LA2 automatically stop as soon as the temperature returns to normal values.

Alarms EA and CA (with i1 F=bAL) recover as soon as the digital input is disabled. Alarm CA (with i1 F=PAL) recovers only by switching off and on the instrument.

XR40CX Other Messages

Message	Cause
Pon	Keyboard unlocked.
PoF	Keyboard locked
noP	**In programming mode**: none parameter is present in Pr1 **On the display** or in dP2, dP3, dP4: the selected probe is not enabled
noA	No alarm is recorded.

XR40CX Connections



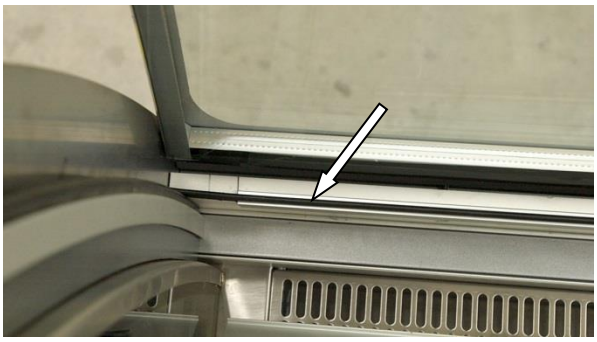
Gaskets

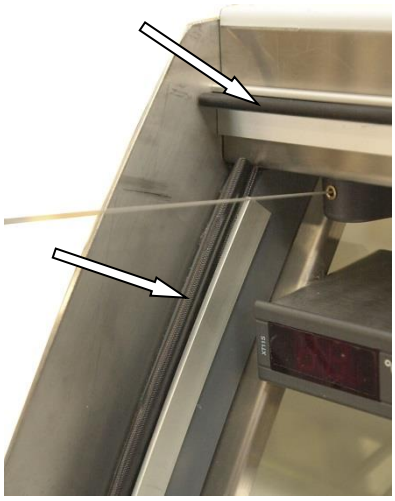
REFRIGERATED CABINETS - SERVICING

Qlon Gaskets

The front door aperture is fitted with Qlon gaskets along the top, bottom and on either side.

The gaskets are foam filled, and have T section bases, which slide into aluminium extrusions.

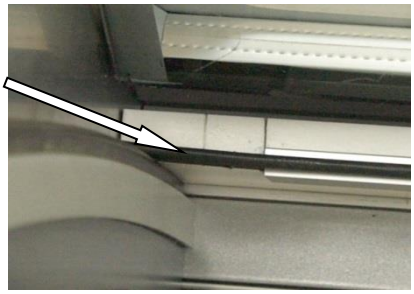




Gasket Replacement

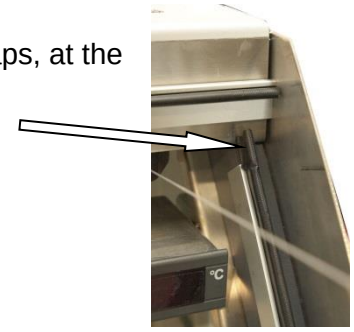
The top aluminium extrusion is in two halves, with a 20mm gap at the centre.

The bottom extrusion has a gap at one side.



To replace the gasket, pull the old one out of the extrusion. Cut the replacement gasket to length, and feed it in through the gap.

The side gaskets can be removed and replaced via gaps, at the tops of the aluminium extrusions.



Rubber Gaskets

The rubber gaskets on sliding doors fit into T section slots in the door frames, and can also be replaced if damaged.

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SPECIFICATIONS

Mechanical

REFRIGERATED CABINETS - SPECIFICATIONS

	CABINET MODEL							
	IN 5C08	**IN 5C12**	**IN 5C15**	**IN 5C15 Remote**	**IN 5C18**	**IN 5C18 Remote**	**IN 5C24**	**IN 5C24 Remote**
Height (150mm Feet)	1443 mm	1443 mm	1443 mm	1443 mm	1443 mm	1443 mm	1443 mm	1443 mm
Height (100mm Feet)	1393 mm	1393 mm	1393 mm	1393 mm	1393 mm	1393 mm	1393 mm	1393 mm
Width	807 mm	1207 mm	1507 mm	1507 mm	1807 mm	1807 mm	2407 mm	2407 mm
Depth	789 mm	789 mm	789 mm	789 mm	789 mm	789 mm	789 mm	789 mm
Dry Weight	125 kg	183 kg	213 kg	183 kg	275 kg	240 kg	323 kg	285 kg
Height Adjustment (150mm Feet)	- 0 + 30 mm	- 0 + 30 mm	- 0 + 30 mm	- 0 + 30 mm	- 0 + 30 mm	- 0 + 30 mm	- 0 + 30 mm	- 0 + 30 mm
Height Adjustment (100mm Feet)	- 0 + 25 mm	- 0 + 25 mm	- 0 + 25 mm	- 0 + 25 mm	- 0 + 25 mm	- 0 + 25 mm	- 0 + 25 mm	- 0 + 25 mm
Front Doors	Slide, Tilt or Fixed Glass	Slide, Tilt or Fixed Glass	Slide, Tilt or Fixed Glass	Slide, Tilt or Fixed Glass	Slide, Tilt or Fixed Glass	Slide, Tilt or Fixed Glass	Slide, Tilt or Fixed Glass	Slide, Tilt or Fixed Glass
Cabinet Well Material	Stainless steel	Stainless steel	Stainless steel	Stainless steel	Stainless steel	Stainless steel	Stainless steel	Stainless steel
Number of Shelves	3 plus base	3 plus base	3 plus base	3 plus base	3 plus base	3 plus base	3 plus base	3 plus base
Display Area *	1.2 m²	1.8 m²	2.3 m²	2.3 m²	2.7 m²	2.7 m²	3.6 m²	3.6 m²
Refrigerant	R134A	R134A	R134A	N/A	R134A	N/A	R134A	N/A
Refrigerant Charge	Refer to the Product ID/Rating Label for details.							
Condensate capacity	2.5 litres	2.5 litres	2.5 litres	N/A	2.5 litres	N/A	2.5 litres	N/A
Climatic Class & IP	Cabinets are tested under Climate Class 3 conditions and have IP 22 ratings							

***** Because the front face of Square glass cabinets is vertical, deeper shelves can be fitted in the upper two levels. This will increase the display area by about 10%.

Electrical

REFRIGERATED CABINETS - SPECIFICATIONS

	CABINET MODEL							
	IN 5C08	**IN 5C12**	**IN 5C15**	**IN 5C15 Remote**	**IN 5C18**	**IN 5C18 Remote**	**IN 5C24**	**IN 5C24 Remote**
Voltage	220-240 V 50 Hz 1ϕ							
Power	1.01 kW	1.21 kW	1.54 kW	230 W excl. condenser	1.42 kW	300W excl. condenser	1.93 kW	360W excl. condenser
Current	4.4 A	5.3 A	6.7 A	1A excl. condenser	6.2 A	1.3 A excl. condenser	8.4 A	1.5 A excl. condenser
Connection	Three core cable with 10A, 3 pin plug							
Temperature Range[1]	2° - 4° C	2° - 4° C	2° - 4° C	2° - 4° C	2° - 4° C	2° - 4° C	2° - 4° C	2° - 4° C
Lighting	4 x LED strips	4 x LED strips	4 x LED strips	4 x LED strips	4 x LED strips	4 x LED strips	8 x LED strips	8 x LED strips

[1] Controlled Ambient cabinets, designated IN-CA---, have a temperature range of 16° - 18°C

Controller Settings

REFRIGERATED CABINETS - SPECIFICATIONS

Dixell XR40CX Settings	**Parameter**	**Integral Condenser Models**	**Remote Condenser Models**	**Integral Controlled Ambient**	**Remote Controlled Ambient**	**Units/Range**
Set Point	Set	2	2	16	16	degC
Differential	Hy	2	2	2	2	degC
Anti Short Cycle Delay	AC	0	0	0	0	Min
Comp On Time - Faulty Probe	C0n	4	4	4	4	Min
Comp Off Time - Faulty Probe	C0F	6	6	6	6	Min
Defrost Terminate Temp	dtE	3	3	3	3	degC
Interval Between Defrosts	idF	4	4	4	4	Hrs
Display During Defrost	dFd	DEF	DEF	DEF	DEF	rt, it, Set, DEF
Maximum Temperature Alarm	ALU	12	12	*110*	*110*	degC
Differential For Temp Alarm	AFH	8	8	*1*	*1*	degC
Temperature Alarm Delay	Ald	60	60	*15*	*15*	Min
Probe For High Temp Alarm	AP2	nP	nP	nP	nP	nP, P1, P2, P3, P4
Digital input polarity	i1P	oP	*cL*	oP	*cL*	cL, oP
Digital input configuration	i1F	PAL	*EAL*	PAL	*EAL*	EAL, bAL, PAL, dor, dEF, AUS, Htr, ES
Digital input alarm delay	did	0	*5*	0	*5*	Min
Activations of pressure switch	Nps	1	*15*	1	*15*	0-15

Parameters shown thus are Dixell default settings

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Compliance

REFRIGERATED CABINETS - SPECIFICATIONS

Standards

FPG refrigerated, controlled ambient and ambient food display cabinets are designed to meet and exceed:

- International safety standards for electrical appliances: IEC 60335-1, IEC 60335-2-89, and the equivalent country-specific standards including AS/NZS, BS EN and UL 471.
- International standards for electromagnetic compatibility/emissions: CISPR 14-1, and the equivalent county-specific standards including AS/NZS CISPR and BS EN 55014-1.
- Essential safety requirements: AS/NZS 3820 and AS/NZS 4417
- Energy efficiency for refrigerated appliances: MEPS (Australia/New Zealand)

Please contact FPG to discuss your requirements for meeting country-specific standards.

Performance Aspects

The refrigerated cabinets are HACCP compliant, with the following performance:

Cabinet Operating Temperature	Average Internal Humidity	Test Conditions
+2° to +4°C	70% RH	25°C Ambient with 60% RH

NB: Cabinets can also be supplied with an operating temperature of +16°C to +18°C

Improvements

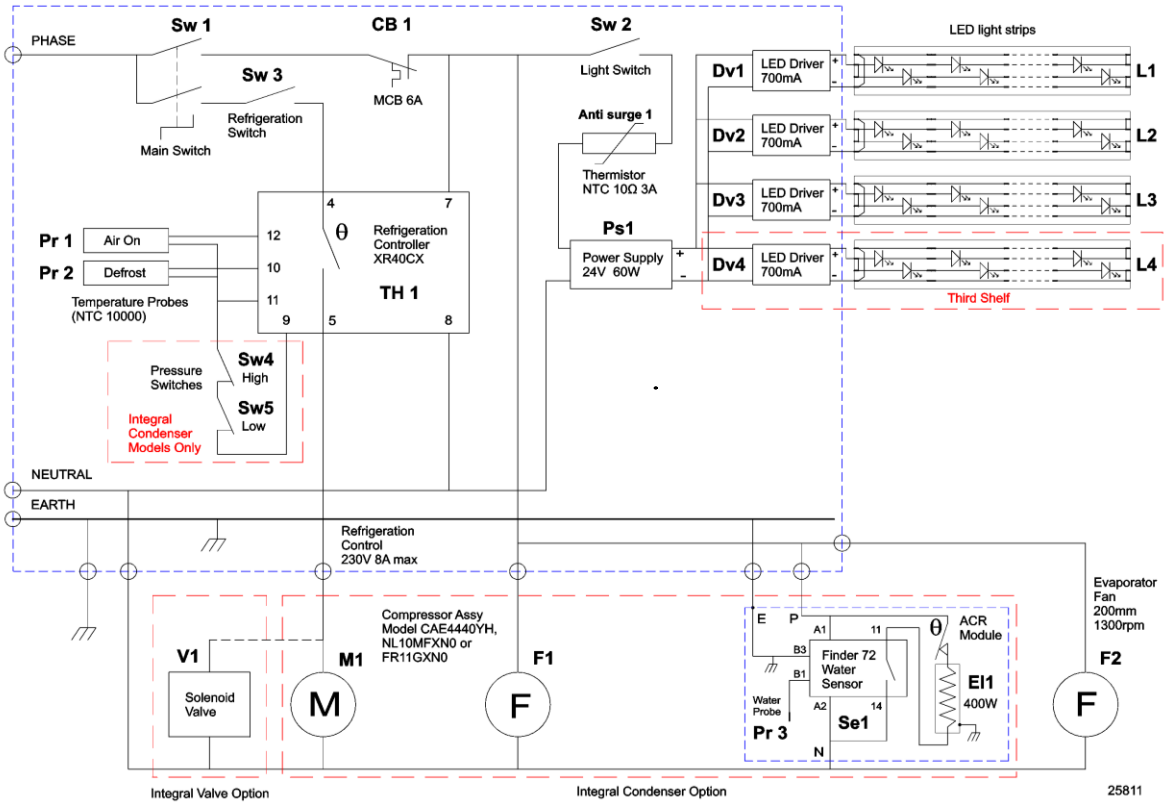
REFRIGERATED CABINETS - SPECIFICATIONS

Ongoing Development

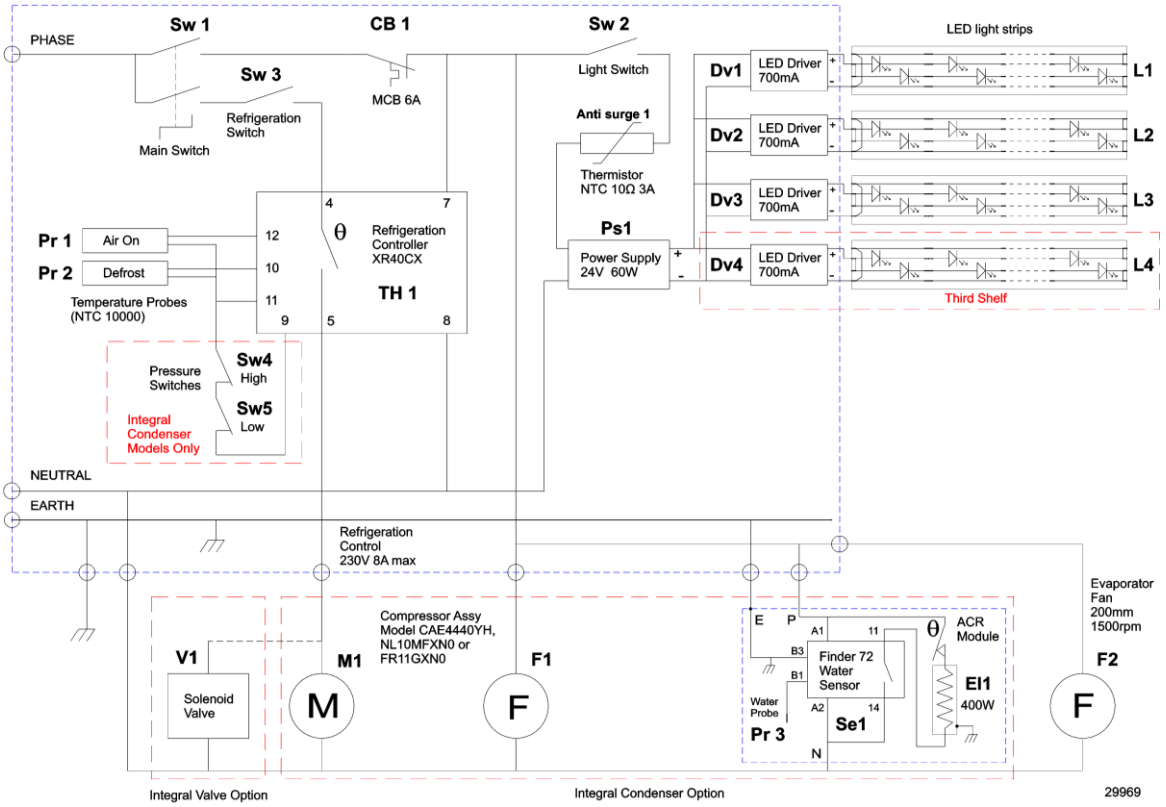
FPG reserves the right to change specifications and construction, as part of ongoing product improvement.

ELECTRICAL CIRCUIT DIAGRAMS

Model: IN 5C08-CU **Inline 5000 Series, 800mm Refrigerated Cabinet**



Model: IN 5C08-SQ **Inline 5000 Series, 1200mm Refrigerated Cabinet**



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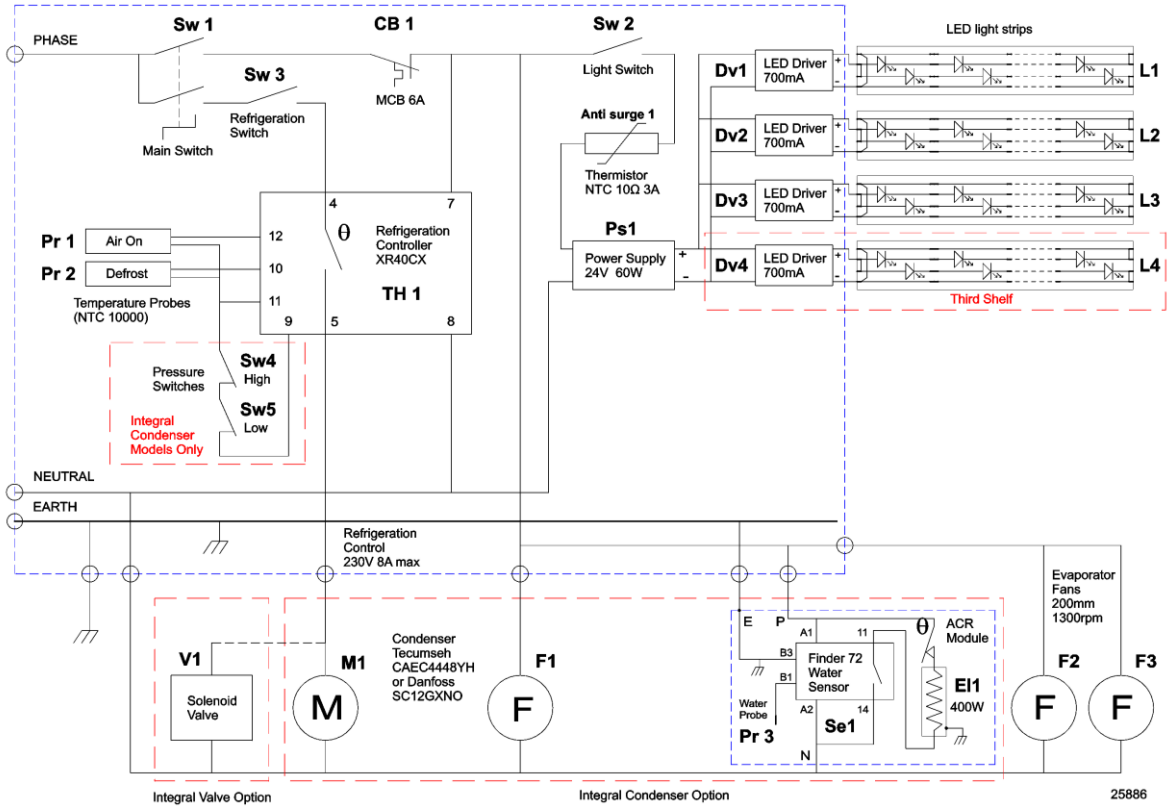
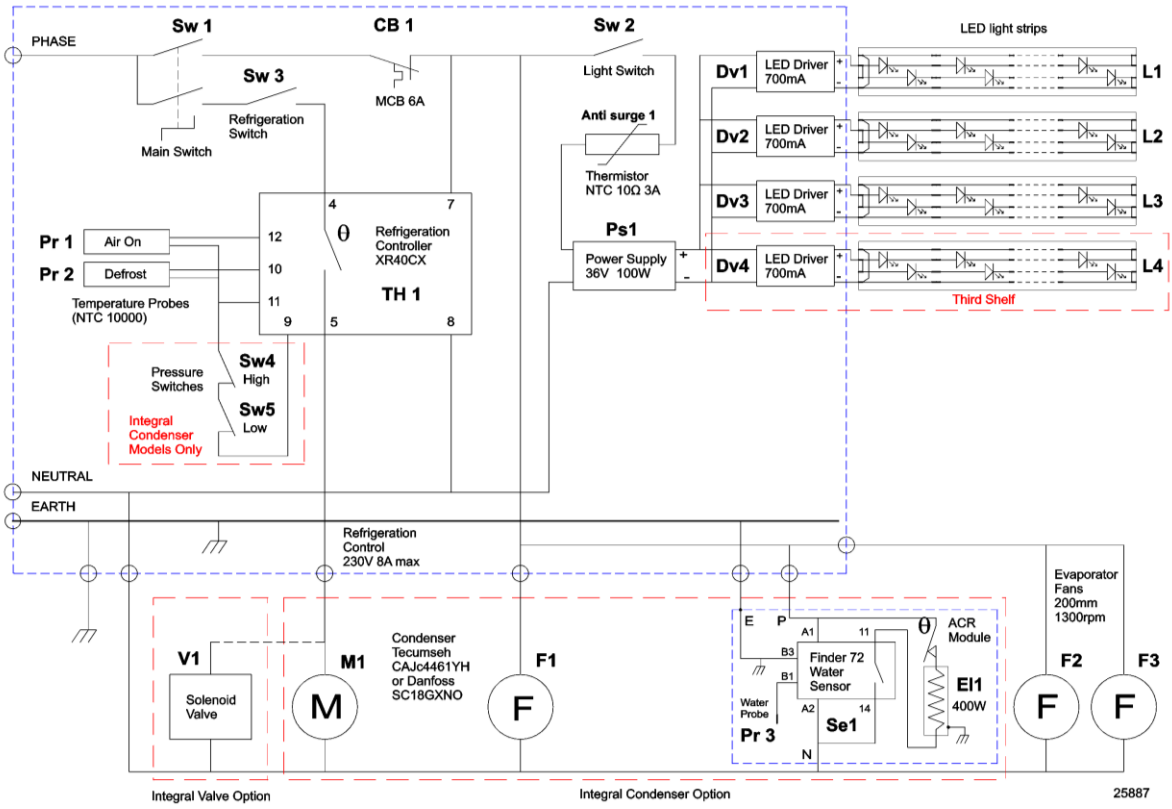
ELECTRICAL CIRCUIT DIAGRAMS, Continued

Model: IN 5C12 **Inline 5000 Series, 1200mm Refrigerated Cabinet**

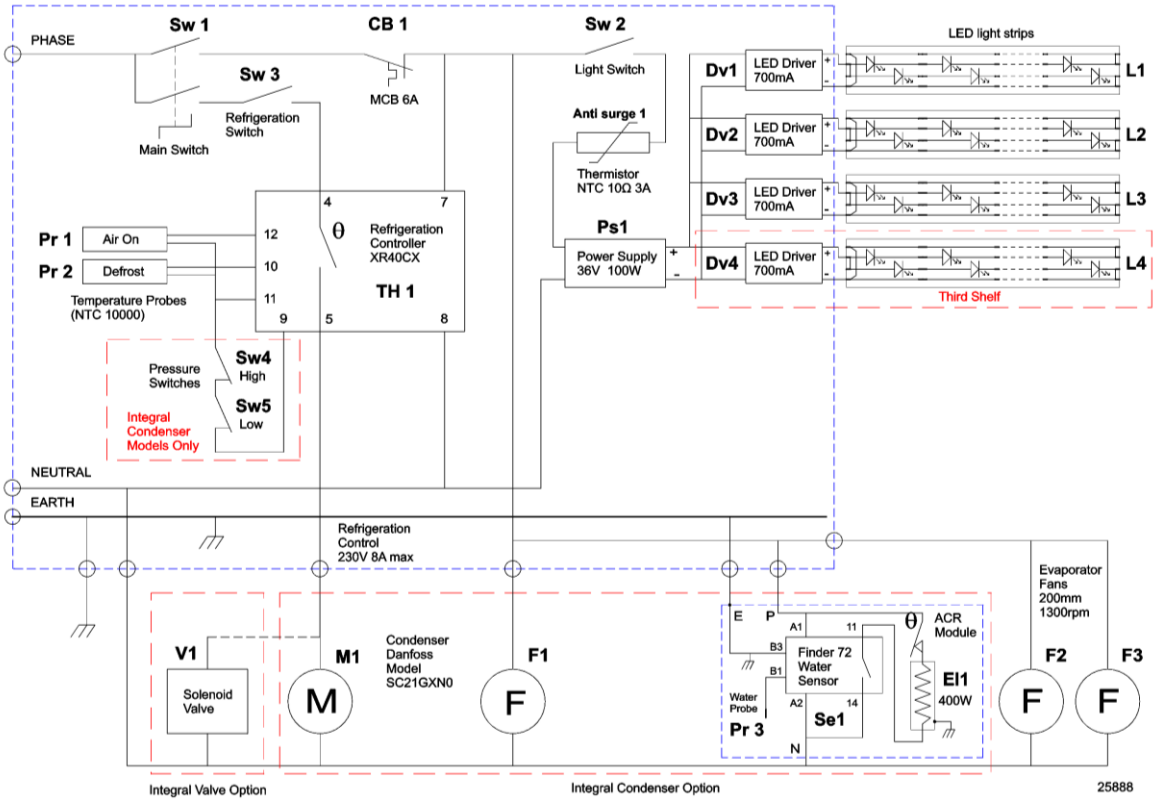


Model: IN 5C15 **Inline 5000 Series, 1500mm Refrigerated Cabinet**

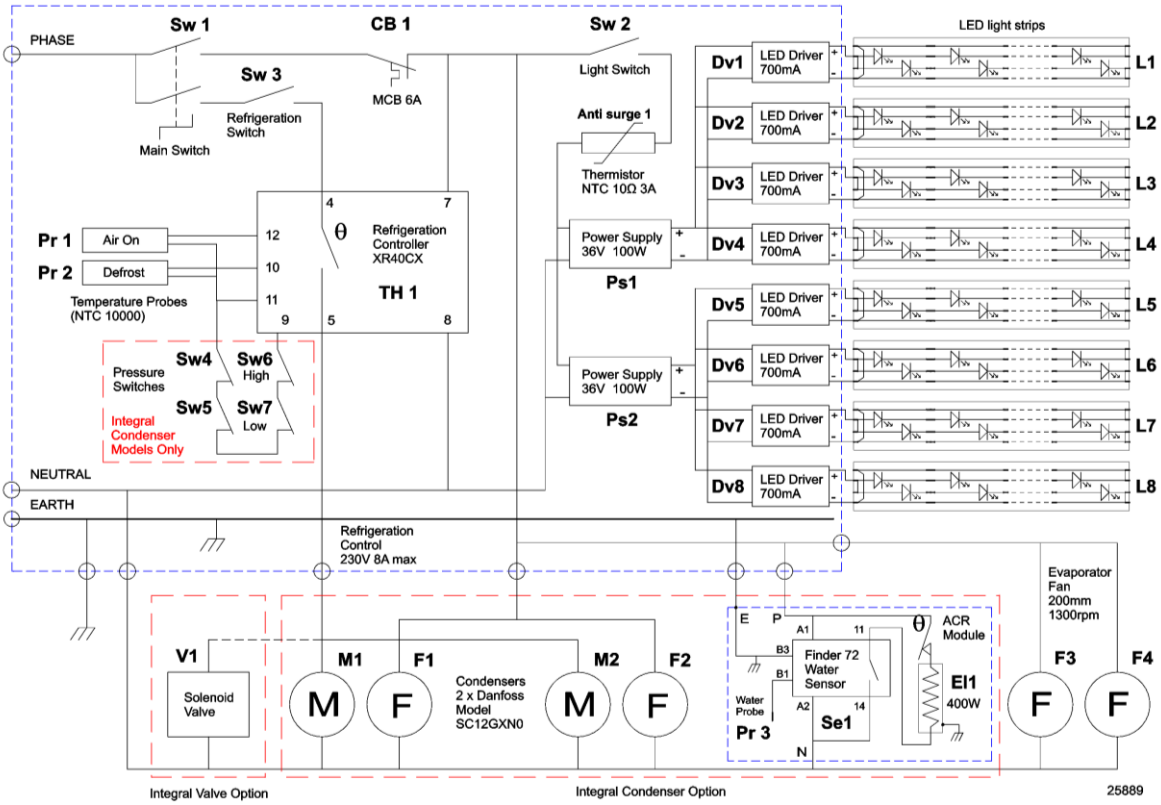


ELECTRICAL CIRCUIT DIAGRAMS, Continued

Model: IN 5C18 **Inline 5000 Series, 1800mm Refrigerated Cabinet**



Model: IN 5C24 **Inline 5000 Series, 2400mm Refrigerated Cabinet**



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SPARE PARTS

Cabinet Serial Number

When ordering spare parts, please quote the Serial Number printed on the label fixed to the control panel. This will enable FPG to ensure that spare parts are fully compatible with the cabinet.

To satisfy warranty conditions, use only FPG supplied spare parts.

Part Description	FPG Part No.
Switch assy. EGO	14372
Main Switch Knob	14373
Light and Refrigeration Switch Knobs	14374
Circuit Breaker 6A	10522
Polycarbonate Light Cover 1120mm	18113
Polycarbonate Light Cover 720mm	18114
Top Light Replacement Kit for 5C08 Curved / Square	69255 / 70441
Shelf Light Replacement Kit for 5C08 Curved / Square	69804 / 69804
Top Light Replacement Kit for 5C12 & 24 Curved / Square	69509 / 70440
Shelf Light Replacement Kit for 5C12 & 24 Curved / Square	69696 / 69696
Top Light Replacement Kit for 5C15 Curved / Square	70442 / 69706
Shelf Light Replacement Kit for 5C15 Curved / Square	69801 / 69801
Top Light Replacement Kit for 5C18 Curved / Square	69685 / 69799
Shelf Light Replacement Kit for 5C18 Curved / Square	70443 / 70443
24V 60W LED power supply	21613
36V 100W LED power supply	25922
LED Driver 700mA	25762
Anti-surge Thermistor 10 Ohm 3A	22354
Solenoid Valve Body	23412
Solenoid Valve Coil 230V 9W	23413
ACR Water Sensor, Finder 72	25309
ACR Element 400W, with thermostat	18274
Evaporator fan, Unada 200mm 1300rpm (Air Circulation)	72912
Evaporator fan, Unada 200mm 1500rpm (Air Circulation)	72938
Dixell XR40CX digital refrigeration controller	21219
NTC temperature probe	15870
High Pressure Switch (auto reset)	21023
Low Pressure Switch	20164
Condenser fan (for 800/1200/2400 cabinets)	14598
Condenser fan (for 1500/1800 cabinets)	11004
FR11GXN0 condenser assy (for 800 cabinets only)	12611
NL10MFXN0 condenser assy (for 800 cabinets only)	21734
SC12GXN0 condenser assy (for 1200/2400 cabinets)	12612
SC18GXN0 condenser assy (for 1500 cabinets only)	12614
SC21GXN0 compressor assy (for 1800 cabinets only)	12615

SPARE PARTS Continued

Location of Glass Parts

In the following table, handed glass parts are labelled as viewed from the REAR of the cabinet.

Part Description	FPG Part Number
5K LH/RH Curved End Glass	21191
5K LH DG Square End Glass	17650
5K RH DG Square End Glass	17651
Back Inner Sliding Door (800 cabinets)	18564
Back Outer Sliding Door (800 cabinets)	18565
Back Inner Sliding Door (1200 cabinets)	18566
Back Outer Sliding Door (1200 cabinets)	18567
Back Inner Sliding Door (1500 cabinets)	18568
Back Outer Sliding Door (1500 cabinets)	18569
Back Inner Sliding Door (1800 cabinets)	18570
Back Outer Sliding Door (1800 cabinets)	18571
Back Inner Sliding Door (2400 cabinets)	18572
Back Outer Sliding Door (2400 cabinets)	18573
Front Panel (800 Square Glass Cabinet)	18982
Front Panel (1200 Square Glass Cabinet)	18756
Front Panel (1500 Square Glass Cabinet)	18984
Front Panel (1800 Square Glass Cabinet)	18986
Front Panel (2400 Square Glass Cabinet)	18988
Top Panel (800 Square Glass Cabinet)	18983
Top Panel (1200 Square Glass Cabinet)	18757
Top Panel (1500 Square Glass Cabinet)	18985
Top Panel (1800 Square Glass Cabinet)	18987
Top Panel (2400 Square Glass Cabinet)	18989
Front Inner Curved Sliding Door (800 cabinets)	66093
Front Outer Curved Sliding Door (800 cabinets)	66094
Front Inner Curved Sliding Door (1200 & 2400 cabinets)	66095
Front Outer Curved Sliding Door (1200 & 2400 cabinets)	66096
Front Inner Curved Sliding Door (1500 cabinets)	66215
Front Outer Curved Sliding Door (1500 cabinets)	66216
Front Inner Curved Sliding Door (1800 cabinets)	66099
Front Outer Curved Sliding Door (1800 cabinets)	66100
Front Curved Tilt Door (800 cabinets)	63006
Front Curved Tilt Door (1200 cabinets)	63007
Front Curved Tilt Door (1500 cabinets)	63008
Front Curved Tilt Door (1800 cabinets)	63009
Front Curved Tilt Door (2400 cabinets)	63183
Qlon seal	13677
Slide-in rubber door seal	11426
Stick-on brush strip	10310
Sliding Door Bottom Glider module	13361
Pull Box, for tilt doors	12588
Product Manual for Inline 5000 Series Refrigerated Cabinets	26107

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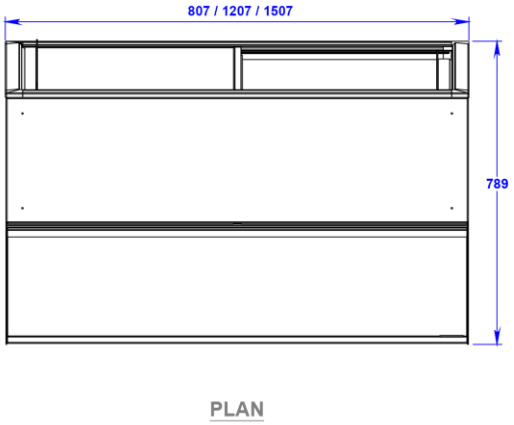
MECHANICAL DRAWINGS

Cabinet Feet

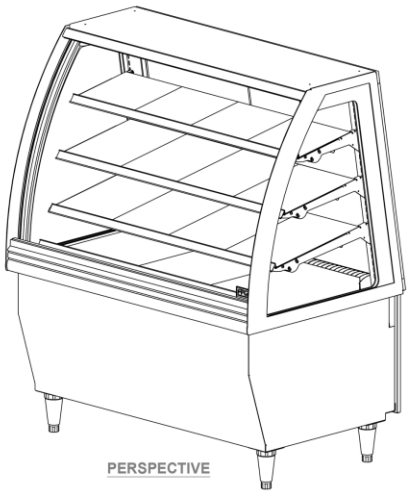
These drawings show cabinets fitted with the standard 150mm tapered feet.

Alternative 100mm cylindrical feet are available for special orders. These will reduce the overall cabinet height, and also have only -0 +25mm of adjustment.

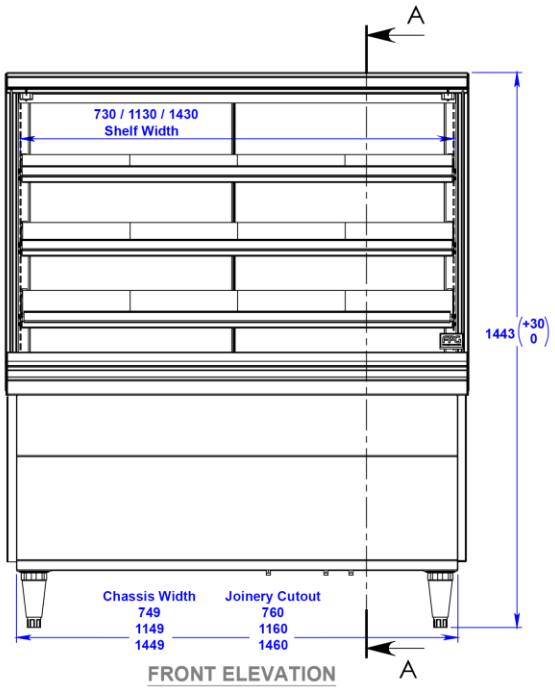
Tilt Door Cabinets
Types
IN 5C08/12/15



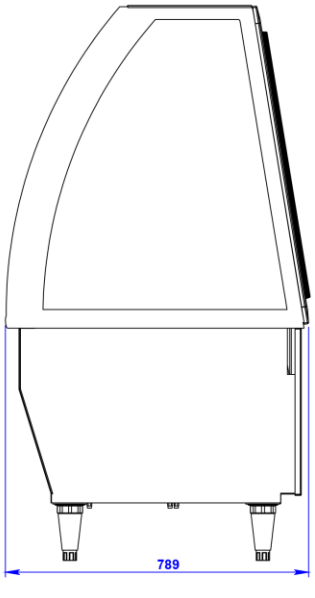
PLAN



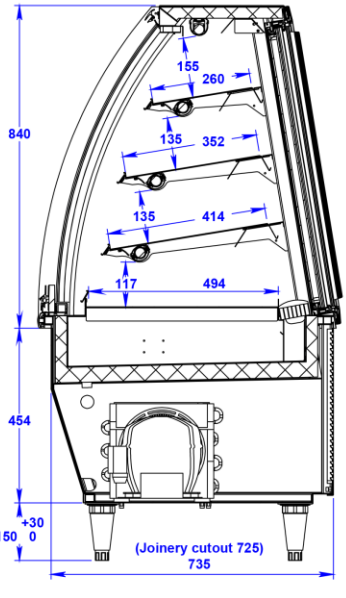
PERSPECTIVE



FRONT ELEVATION

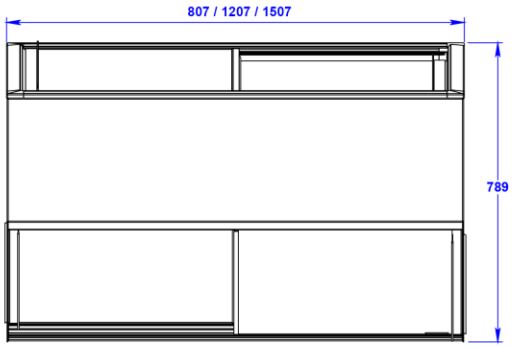


SIDE ELEVATION



SECTION A-A

Sliding Door
Cabinets, Types
IN 5C08/12/15



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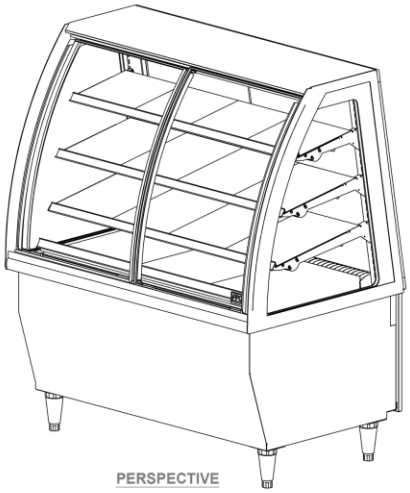

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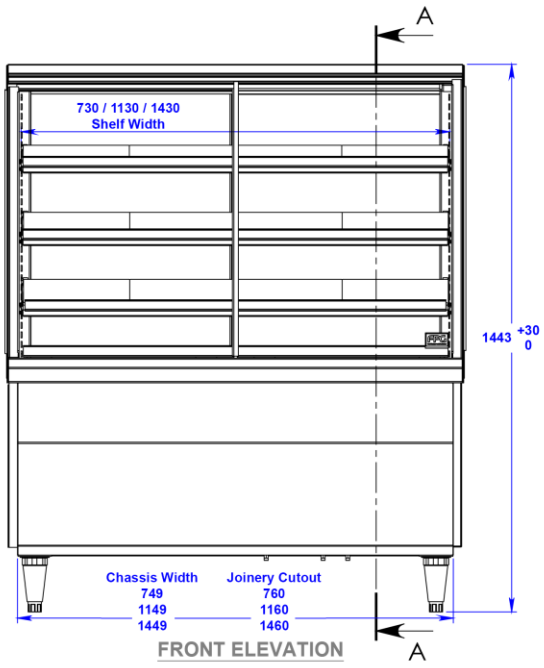

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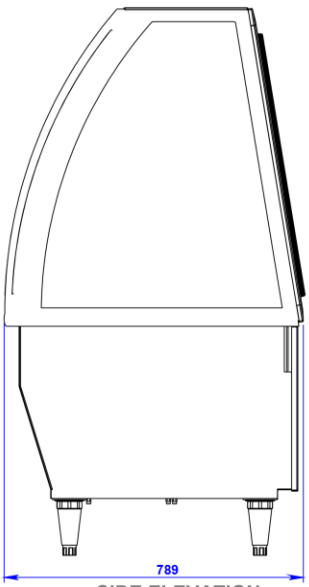
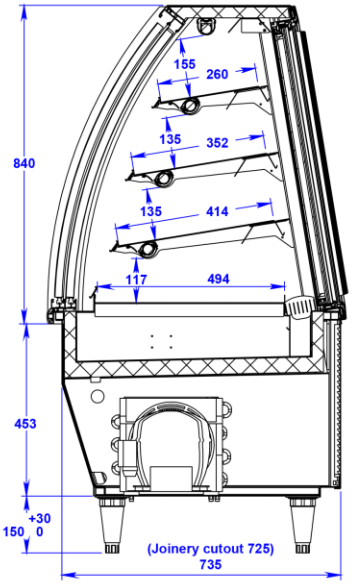


SIDE ELEVATION



SECTION A-A

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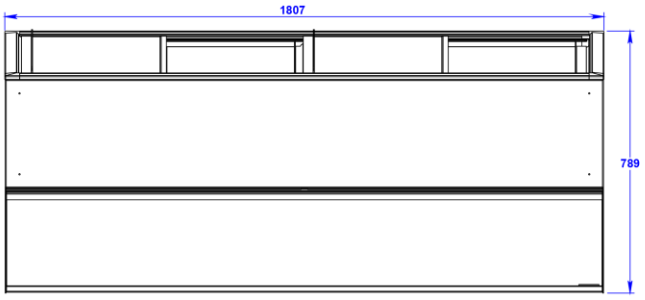
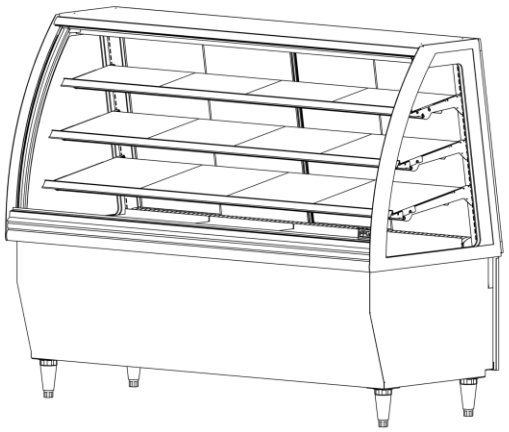
Tilt Door Cabinets,
Type
IN 5C18



PLAN



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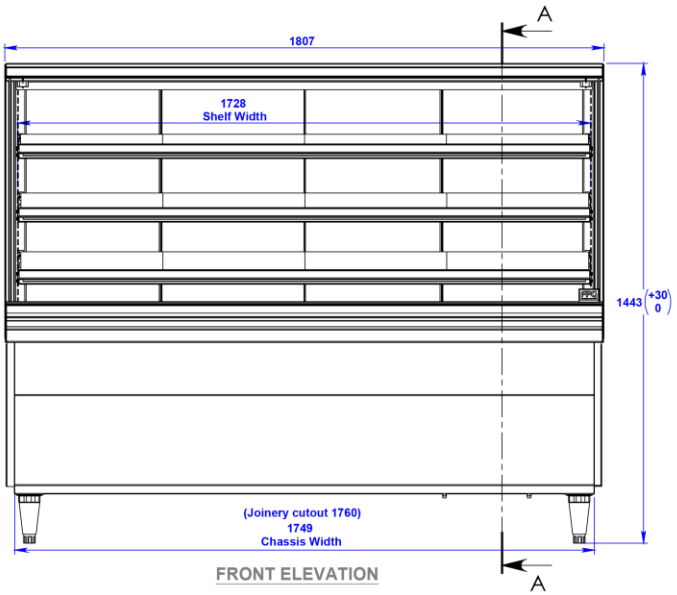

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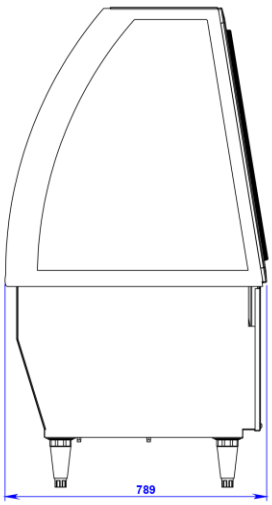
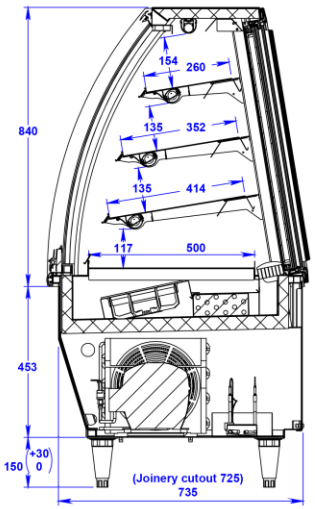
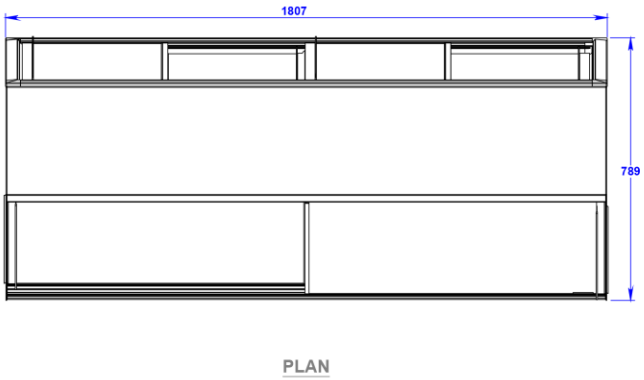


SIDE ELEVATION

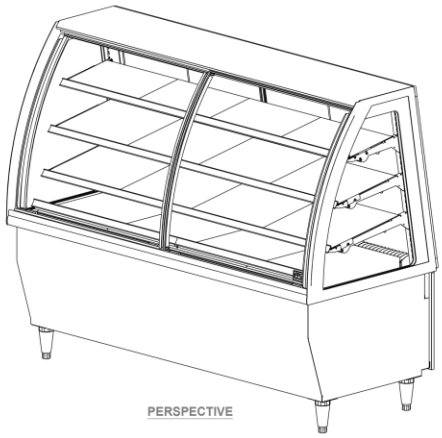


SECTION A-A

Sliding Door Cabinets, Type IN 5C18



PLAN



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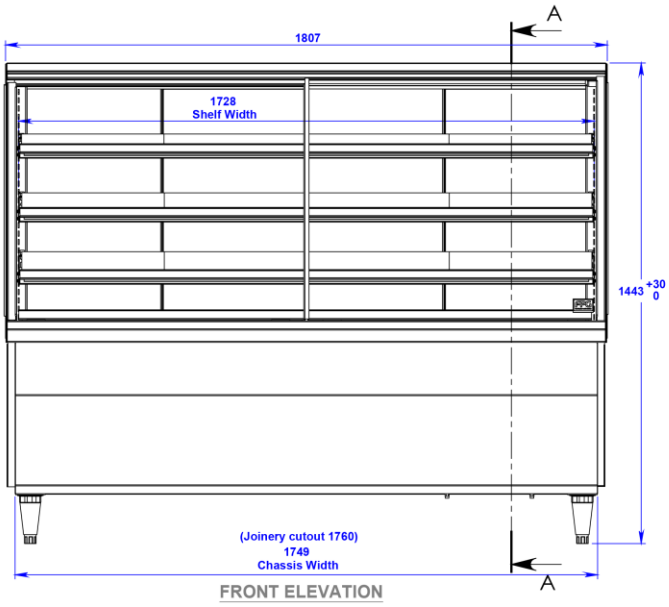

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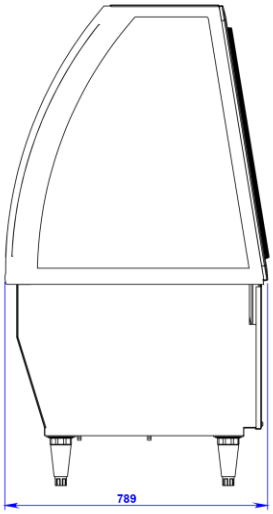

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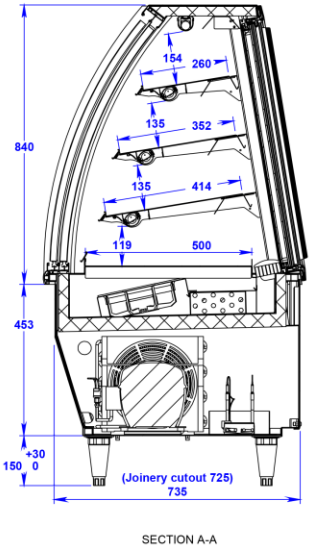

SECTION A-A

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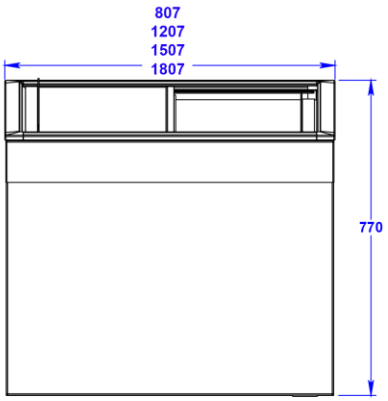
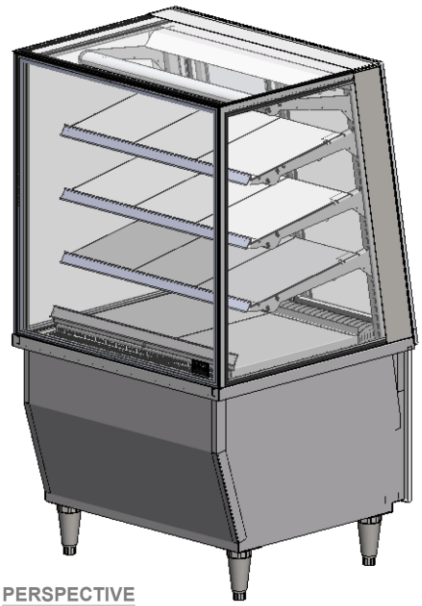
Square Glass Cabinets Types IN 5C08/12/15/18

Because the front face of Square glass cabinets is vertical, deeper shelves can be fitted in the upper two levels. This increases the display area by about 10%.

A 2400mm version of the square format cabinet is also available. It has split shelves, in a 2 x 1200mm configuration.



PLAN



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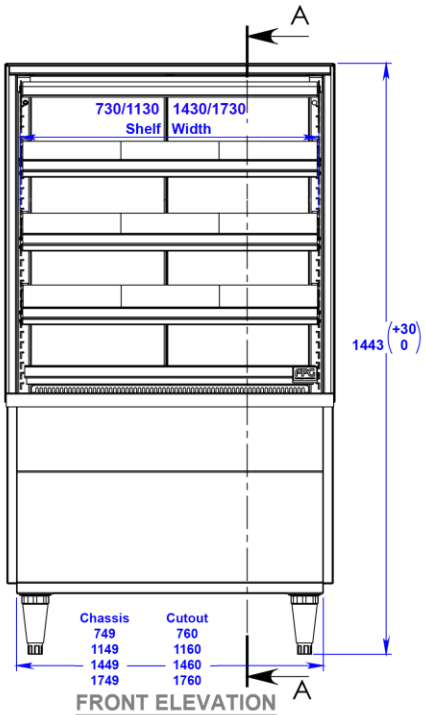
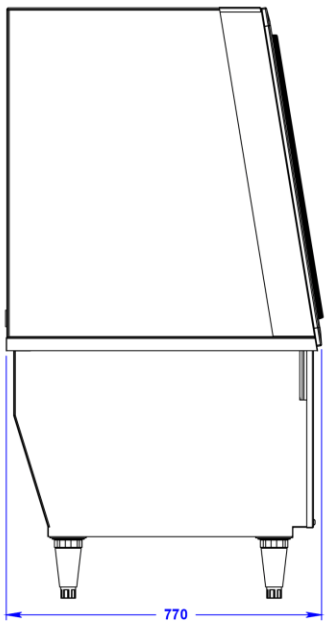
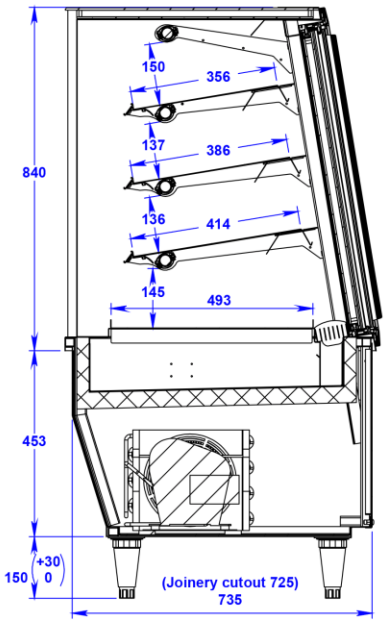


FRONT ELEVATION



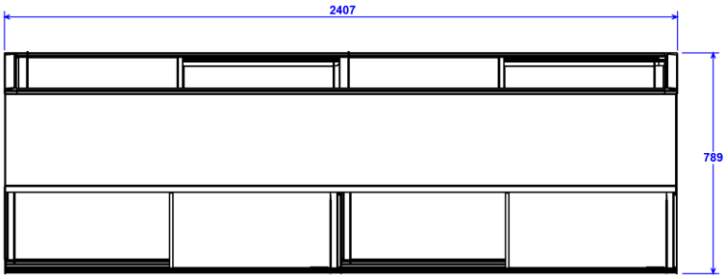
SIDE ELEVATION



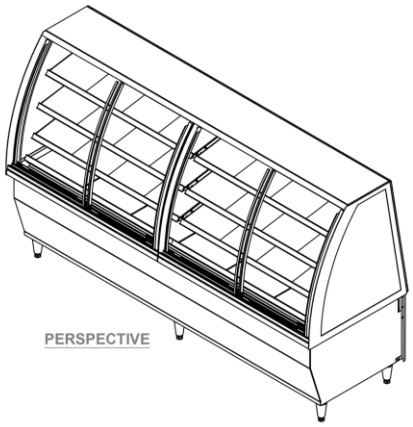
SECTION A-A

Cabinet Type
IN 5C24

Although shown with front sliding doors, this cabinet is also available with a front tilt door.



PLAN



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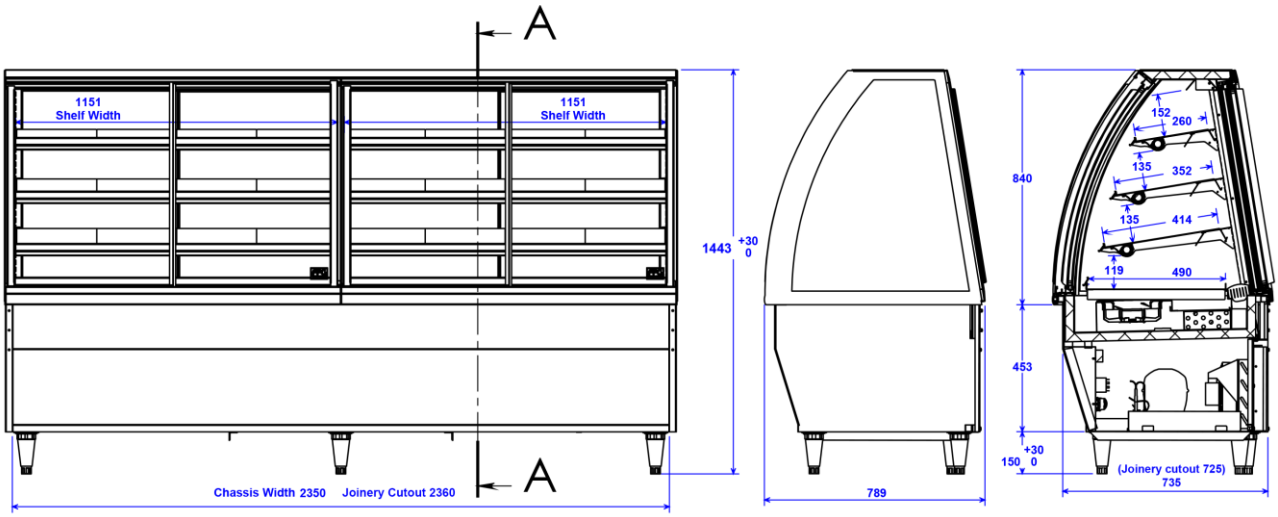

FRONT ELEVATION

SIDE ELEVATION

SECTION A-A

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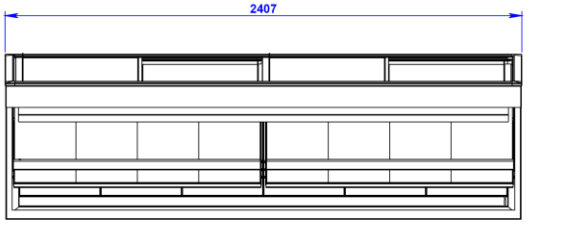
Square Glass Cabinet Type IN 5C24

Although shown with front sliding doors, this cabinet is also available with a front tilt door.



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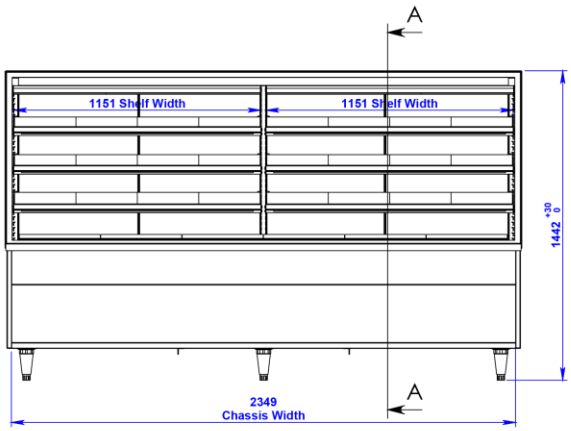
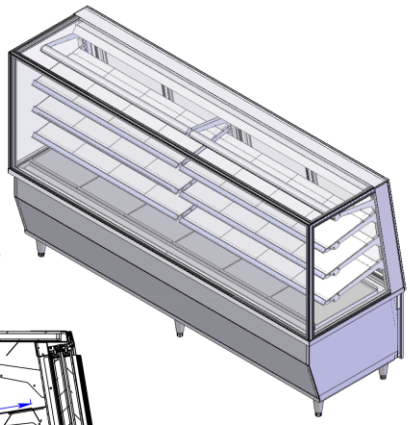
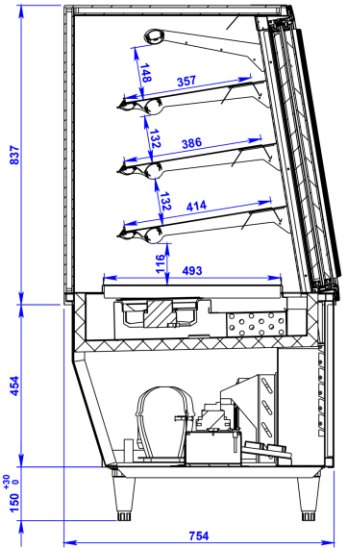


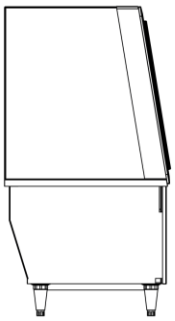
FRONT ELEVATION

PERSPECTIVE





SECTION A-A



SIDE ELEVATION

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