FPG

PRODUCT MANUAL

INLINE 3000C
FOOD CABINETS

Heated Cabinets

Curved Format

INSTALLATION - OPERATION - MAINTENANCE

Table of Contents

INTRODUCTION

Welcome

HEATED 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 install, 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

HEATED 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.

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

Continued on next page

Warranty cont.

HEATED 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.
- 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 assemblies 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.

OPERATION

Cabinet Layout

HEATED CABINETS - OPERATION

3000 Series Cabinets

The 3000 Series cabinets are available with either fixed glass or sliding glass front doors, and sliding glass rear doors, (hinged on 600).

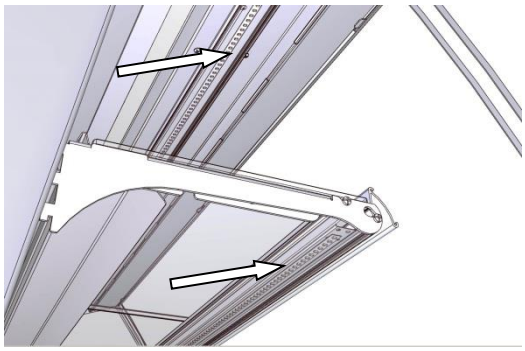
The series includes Ambient, Heated and Refrigerated models.

The cabinet lighting and temperature controls are on the back of the cabinet.

Lighting

All cabinets are fitted with high efficiency LED lighting strips in the ceiling of the cabinet as standard.

Additional LED strips, below each shelf, are available as an optional extra, at the time of ordering.



Controls

HEATED CABINETS - OPERATION

Light Switch

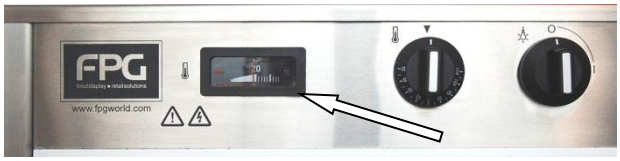
The control panel is located at the top of the cabinet back.

To turn the lights on, rotate the switch, with the LIGHT symbol.

Heating

Set the desired temperature with the thermostat control knob. Turn it to the off mark when heating is not required.

Thermometer



A thermometer indicates the internal temperature of the cabinet.

Preparation

HEATED CABINETS - OPERATION

Shelf Location and Ticketing

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

If shelf lights are fitted, 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.

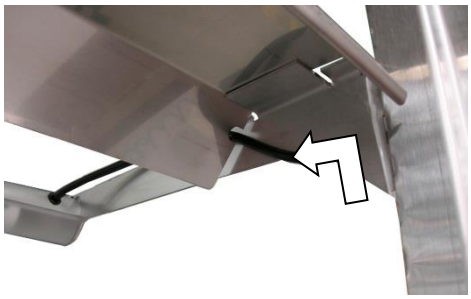
Wire shelf racks are supplied as standard, but trays, as shown, are available to order.

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

Shelf Adjustment

To move the shelf brackets, first remove the sliding doors and the shelf trays.

Using two people, one on each bracket, lift the brackets straight up firmly and then pull the brackets forward, to disengage them from the slots in the support posts.



Insert the brackets into their new position, and push bracket down firmly.

The brackets may be positioned to give two different degrees of slope to the shelves.

Refit all shelf trays and doors.

N.B. *Make sure 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.

Set the Temperature

Set the thermostat to the desired temperature, 75 degrees Celsius is the recommended setting to maintain food temperature within food safety guidelines.

NOTE Setting the dial to a higher temperature than required will not speed up the heating process. **Set it to the desired temperature.**

Fumes and Odours

Before use, operate the cabinet for 4 hours to remove any fumes or odours, which may be present. This will avoid possible tainting of food.

Continued on next page

Preparation cont.

HEATED CABINETS - OPERATION

Load Cabinet

Load the cabinet with **pre-heated** product.

The cabinet is designed to maintain the temperature of pre-heated product above 65°C.

It is not an oven, and consequently, if cold product is introduced, there could be a considerable delay before the operating temperature rises to the normal operating level.

WARNING:
Aluminium Foil

Do NOT place aluminium foil on the base trays. This will disrupt the convection circulation of air, and cause uneven heating.

Blockage of air vents may cause severe overheating of the cabinet base.

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.

WARNING:
Extraction Fan

Do not place items on top of the cabinet, where they could block the air flow from the extraction fan.

Door Opening

The cabinet is designed to maintain food at a temperature above 65°C. The heating 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 fall. Once the doors are closed the temperature will take some time to rise to the normal operating level. The longer the doors are open the longer the time to restore normal operating temperature.

TROUBLE SHOOTING

FAULT	POSSIBLE CAUSE	REMEDY
Doors are not sliding smoothly	Door not in track	Install door correctly in track
	Debris in track	Clean door tracks (see cleaning)
	Lack of lubricant	Apply food grade lubricant to door track
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
	The thermostat is in the OFF position	Turn control knob to desired temperature
	Internal fuse blown	***Have wiring checked and replace fuse*** *(5A Slow Blow)*
Cabinet does not reach temperature	One or more doors is open	Close doors and re-test temperature after thirty minutes
	Thermostat setting disturbed	Re-set thermostat and re-test after thirty minutes
	Thermostat is faulty	***Have thermostat replaced***
	An element is blown	***Have the element replaced***
Cabinet lights not working	The light switch is OFF	Turn light switch ON
	A failed LED power supply	***Replace the power supply***
	An LED strip has failed	***Replace the LED assembly***
	Internal fuse blown	***Have wiring checked and replace fuse*** *(5A Slow Blow)*
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

A wall chart is included at the back of this manual. It contains step-by-step instructions for every day cleaning of your cabinet. However, please read the following additional information.

Cautions

HEATED 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

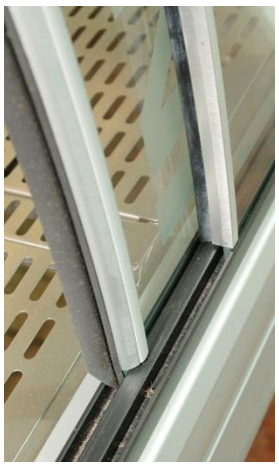
HEATED CABINETS - CLEANING

Metal Surfaces — 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 use abrasive pads or cleaners, because they will damage the surface of the glass.

Sliding Doors



Sliding glass doors are located by plastic guides at the top and bottom.

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

When replacing doors, make sure that they are located in the correct slots, top and bottom. The left door should be in the inner slots, and the right door in the outer slots.

Sliding door tracks should be vacuumed out regularly to keep doors sliding freely.

Continued on next page

Interior

HEATED CABINETS - CLEANING

Cabinet Well

To clean the hot cabinet well, first lift out the deck trays and dividers and then sweep out or vacuum away loose debris.

This cabinet is a dry well unit, so the well is not waterproof. Do NOT pour water into the well as it will leak out and damage insulation and electrical wiring.

Trays, Racks, Shelves & Air Grills

Stainless steel trays, racks, 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.

Routines

HEATED CABINETS - CLEANING

Schedules

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

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.

INSTALLATION

Regulations

HEATED 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

HEATED CABINETS - INSTALLATION

Unpacking

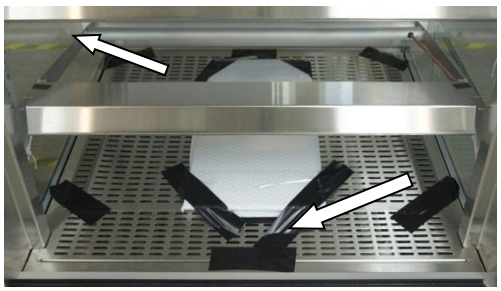
Unpack and check unit for damage and report any damage to the carrier and supplier. Report any deficiencies to your supplier.

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 Mechanical Drawings. 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, uneven temperature distribution could occur).

Cabinet Preparation



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

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

Check that all plastic film protection has been removed from surfaces; otherwise it will melt when the cabinet heats up.

Re-assemble the trays and shelves.

Shelf Trays

Remove the shelf trays from their packing, peel off the protective plastic coating and assemble them on the support members.

Continued on next page

Setting Up cont.

HEATED CABINETS - INSTALLATION

Grounding

WARNING: THIS APPLIANCE MUST BE GROUNDED TO EARTH

The grounding lead, in the mains cable, must always be connected to ground.

A binding post is also provided adjacent to the control gear chassis, to allow the cabinet to be bonded to a surge grounding conductor or to adjacent equipment, should this be required.

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

HEATED CABINETS - INSTALLATION

Ventilation

The heated cabinet is designed to meet the HACCP specification with free room air circulation.

Access

Access to the back of the cabinet is required for loading, cleaning, re-positioning of shelves and operation of the control panel.

Fumes and Odours

Before use, operate the cabinet for 4 hours at 90°C, to remove any fumes or odours, which may be present. Open the doors periodically during this period, to allow a change of air. This will avoid possible tainting of food.

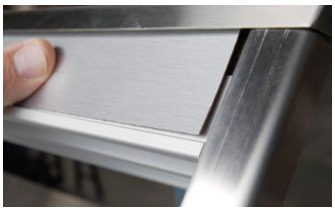
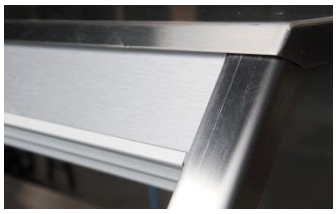
Livery

HEATED CABINETS - INSTALLATION

Custom Inserts

The captive strips, above and below the front doors, can be removed and replaced with coloured or printed strips of decorative laminate, if desired.

The cabinet top must be unscrewed, to allow the upper strip to be changed.

The lower strip is held captive by the cabinet ends, and has to be bowed for removal and insertion.

Insert the upper edge into the narrow groove, closest to the curved surface, bow the strip to insert the end into the lower groove, then, use your thumbs to work the rest of the strip into place.

If the strip is hard to bend, a length of wooden dowel can be placed underneath to aid bowing. The dowel should be progressively withdrawn as the strip is inserted.

Note: Most metals are too rigid for insertion in this position.

Maximum strip thickness is 0.75mm. See Mechanical Drawings for dimensions.

SERVICING

Control Gear

HEATED CABINETS - SERVICING

Location

The electrical control gear is located in the top of the cabinet.

Remove the top plate to access the control gear.

The chassis has a light switch, power supplies for the lights and fan, a thermostat, a thermometer and a protective fuse.

Extraction fans are fitted in the cabinet top, to keep the power supplies cool.

Lighting

HEATED CABINETS - SERVICING

Caution

Do <u>not</u> service lights without isolating the cabinet from the mains supply.

Test Lighting Components

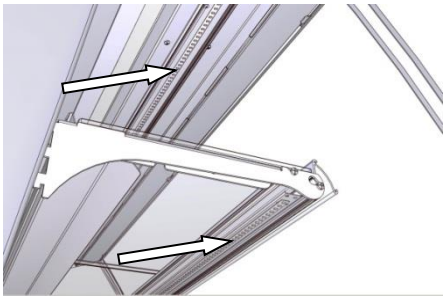
Before replacing an LED strip, check that its power supply is working.

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

If there is a dc output, the LED strip must be replaced.

Access to LED Strips

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

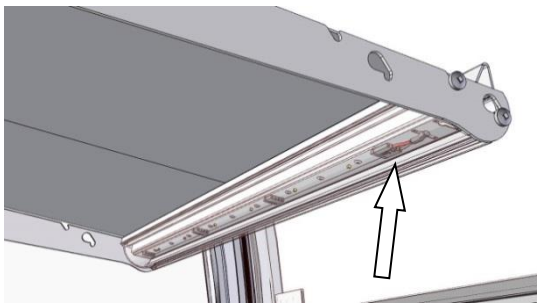


Remove the plastic cover to access the LED strip.

The top light assembly is different from the shelf lights, so 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 supply lead from the faulty unit, and reconnect it to the replacement unit.

Heating

HEATED CABINETS - SERVICING

Caution

DO NOT attempt to replace heating elements without isolating the cabinet at the supply switch or by unplugging it from the mains supply.

Element Replacement

CAUTION: This must only be carried out by a qualified service person.

Remove all base trays and dividers from inside the cabinet, to reveal the heating elements.

To access the element terminals, remove the screws securing the element to the rear bulkhead. Unclip the element from its support brackets and withdraw it to reveal the connections.

Disconnect the old element, connect the replacement, taking care to replace and refit any insulation material. Position the new element against the bulkhead, clip it into the support brackets and replace the two fixing screws.

Test

Turn the power on and test the heater operation. If normal operation cannot be restored, by replacing the element, other circuit elements will have to be checked, see Fault Finding.

Caution

Do not run the cabinet heaters for extended periods, without the base trays and divider bars in position. Directly radiated heat may otherwise damage the lower light fittings.

Re-assemble

If the heater is now working, replace the steel connection covers and re-assemble the base trays and dividers inside the cabinet.

Door Seals

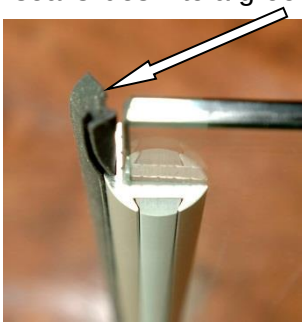
HEATED CABINETS - SERVICING

Seal Replacement

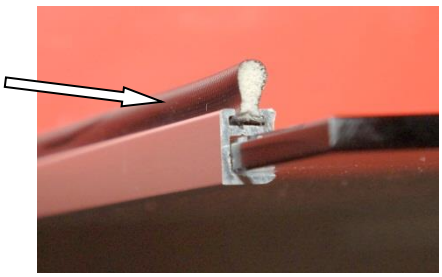
The doors should be removed to allow the old seals to be removed and the new ones fitted. See the Cleaning section for details.

Sliding Doors

Each sliding door has a seal between the door and the cabinet end panel. The seal slides into a groove in the door extrusion, and can be withdrawn and replaced, if damaged.



A centre seal is fitted between the inner and outer doors. The Qlon seal is located in a slot in the aluminium extrusion, and can be replaced if damaged.



Mains Lead

HEATED CABINETS - SERVICING

Lead Replacement

If damaged, the mains lead must ONLY be replaced by a qualified service person.

SPECIFICATIONS

Mechanical

HEATED CABINETS - SPECIFICATIONS

	CABINET MODEL			
	IN 3H06	**IN 3H08**	**IN 3H12**	**IN 3H15**
Height	767 mm	761 mm	761 mm	761 mm
Width	593 mm	803 mm	1203 mm	1503 mm
Depth	663 mm	663 mm	663 mm	663 mm
Dry Weight	62 kg	62 kg	92 kg	122 kg
Cabinet Well Material	Stainless steel			
Cabinet Colour	Grey, stainless steel and natural anodised aluminium.			
Top Lighting	Standard			
Shelf Lighting	Optional			
Glass Type	Toughened			
Glass (front/back)	Single glazed			
Glass (ends)	Double glazed			
Front Doors	Sliding or Fixed options			
Number of Shelves	Three plus base			
Display Area	0.7 m^2	0.9 m^2	1.4 m^2	1.8 m^2
Climatic Class & IP	Cabinets are tested under Climate Class 2 conditions and have IP 20 ratings			

Electrical

HEATED CABINETS - SPECIFICATIONS

	CABINET MODEL			
	IN 3H06	**IN 3H08**	**IN 3H12**	**IN 3H15**
Voltage	220 - 240 V 50 Hz 1ϕ			
Power (with shelf lights)	875 W	900 W	1.7 kW	1.8 kW
Current (with shelf lights)	3.8 A	3.9 A	7.2 A	7.7 A
Connection	3 pin plug, 10 A lead			
HACCP Temp. Range	65° - 80° C	65° - 80° C	65° - 80° C	65° - 80° C
Max. Temp. Range	30° - 90° C	30° - 90° C	30° - 90° C	30° - 90° C
Top Lights	1 x LED strip	1 x LED strip	1 x LED strip	1 x LED strip
Optional Shelf Lights	3 x LED strips	3 x LED strips	3 x LED strips	3 x LED strips

Compliance

HEATED CABINETS - SPECIFICATIONS

Standards

FPG heated food display cabinets are designed to meet and exceed:

- International safety standards for electrical heated appliances: IEC 60335-1, IEC 60335-2-49, IEC 60335-2-50 and the equivalent country-specific standards including AS/NZS and BS EN.
- 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

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

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.

Performance Aspects

The cabinet is HACCP compliant, with the following performance:

Cabinet Operating Temperature	Test Conditions
>65°C	22°C Ambient with 65% RH

Improvements

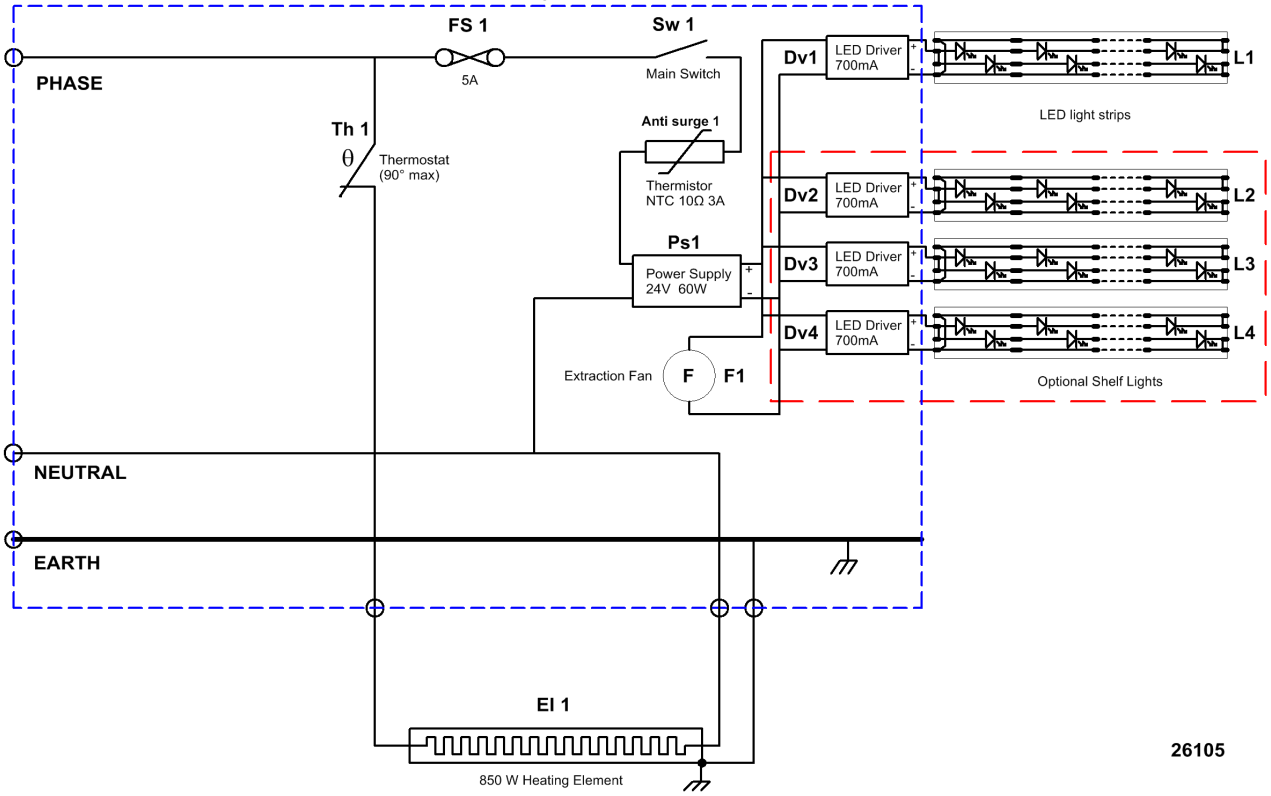
HEATED CABINETS - SPECIFICATIONS

Ongoing Development

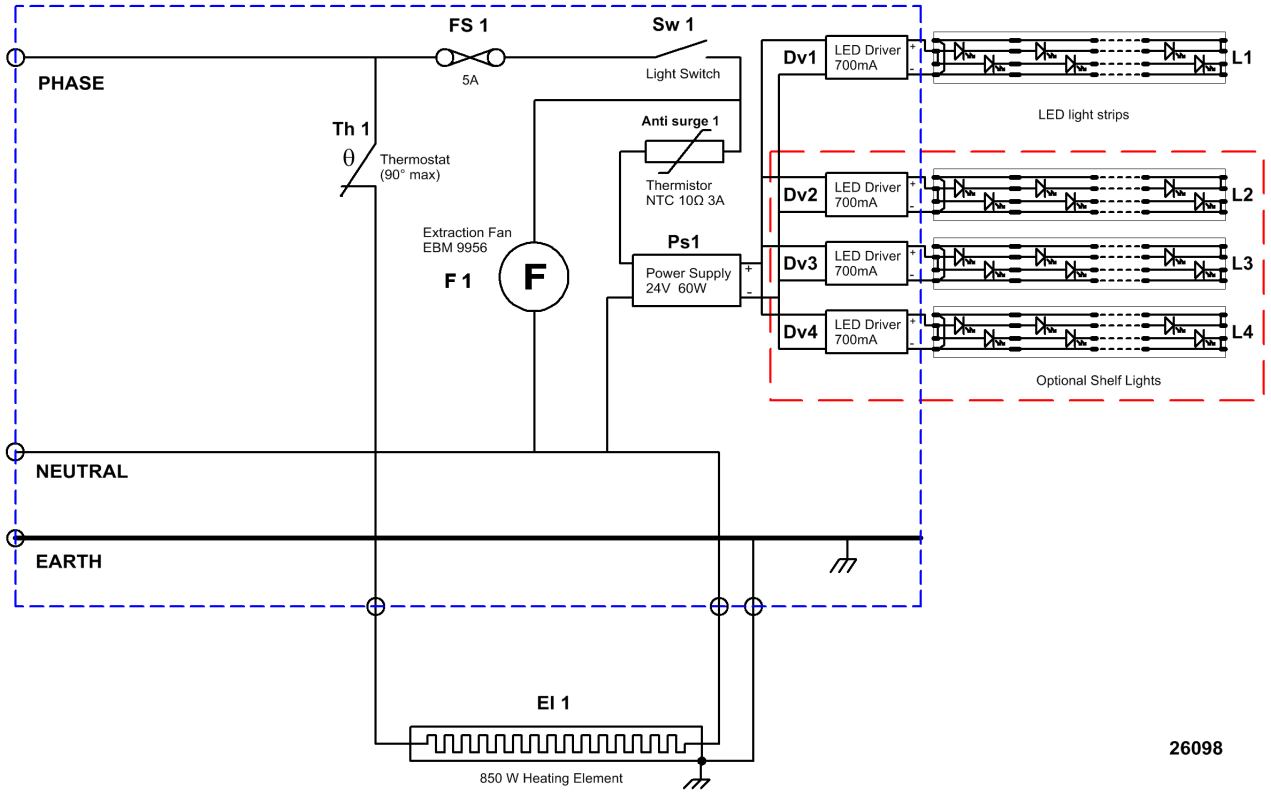
FPG reserves the right to change specifications and construction, as part of ongoing product improvement.

ELECTRICAL CIRCUIT DIAGRAMS

Model: IN 3H06 **Inline 3000 Series, 600mm Heated Cabinet**

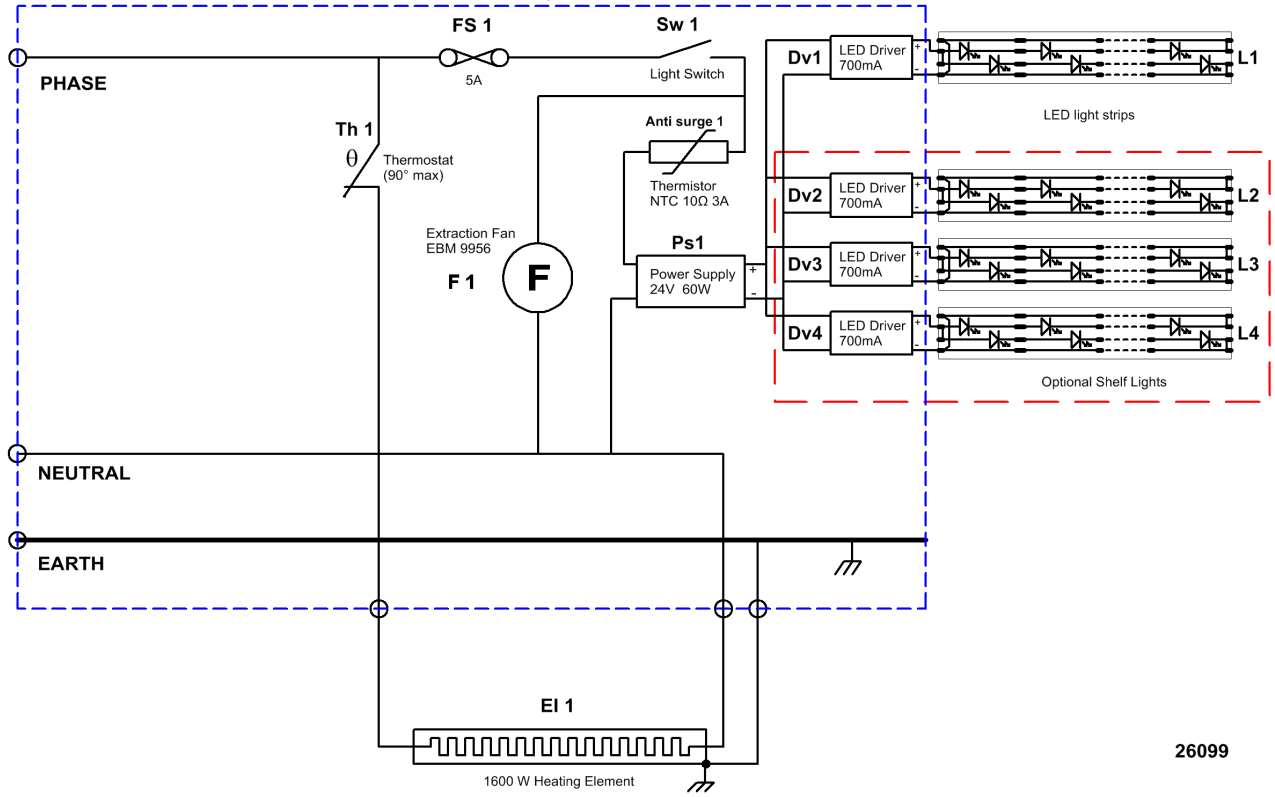


Model: IN 3H08 **Inline 3000 Series, 800mm Heated Cabinet**

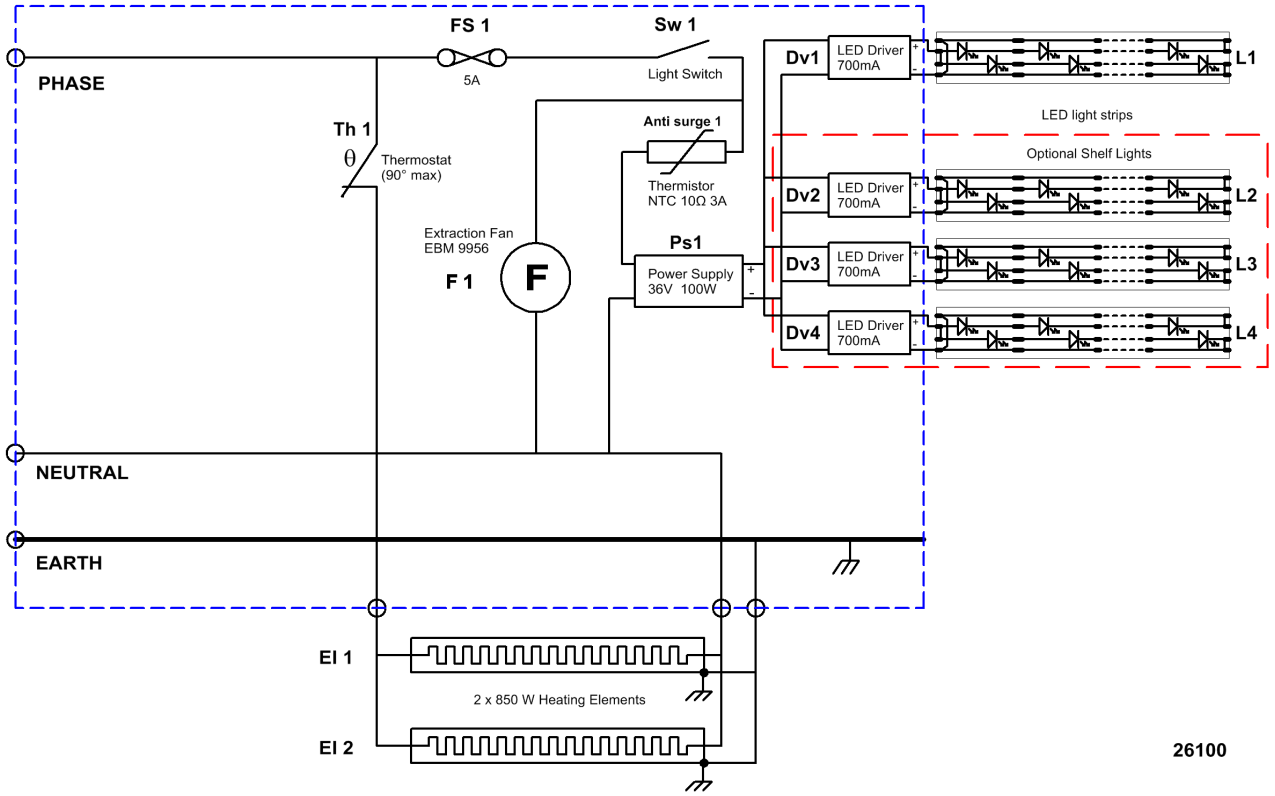


ELECTRICAL WIRING DIAGRAMS, Continued

Model: IN 3H12 **Inline 3000 Series, 1200mm Heated Cabinet**



Model: IN 3H15 **Inline 3000 Series, 1500mm Heated Cabinet**



SPARE PARTS

Cabinet Serial Number

When ordering spare parts, it is important to 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 your cabinet.

To satisfy warranty conditions, and ensure optimum performance, use only FPG supplied spare parts.

Part Description	FPG Part No.
Light Switch EGO	14372
Knob (light switch)	14374
24V 60W LED power supply	21613
36V 100W LED power supply	25922
LED Driver 700mA	25762
Polycarbonate Light Cover 1120mm	18113
Polycarbonate Light Cover 720mm	18114
Top Light Replacement Kit for 3H06	69871
Shelf Light Replacement Kit for 3H06	69839
Top Light Replacement Kit for 3H08	71647
Shelf Light Replacement Kit for 3H08	70397
Top Light Replacement Kit for 3H12	69858
Shelf Light Replacement Kit for 3H12	69869
Top Light Replacement Kit for 3H15	69863
Shelf Light Replacement Kit for 3H15	69424
Thermostat 90°C	21112
Control Gear 40 dia Knob 90C for Rainbow Thermostat	21113
Thermometer	11925
Fuse Link (5A, 250V, Slow Blow)	13330
Extraction Fan 119 mm 230V	21614
Extraction Fan BLDC 60x60x25mm (600 cabinets only)	23282
Shelf Light Diffuser 1120mm Long Clear Polycarb	18113
Shelf Light Diffuser 720mm Long Clear Polycarb	18114
Heating Element 850W (800/1500 Cabinets only)	22557
Heating Element 1600W (1200 Cabinets only)	18683
Qlon centre door seal	13677
Slide-in rubber door seal	11424

Spare Parts continued

Handed Parts

All handed parts are referenced as viewed from the back of the cabinet

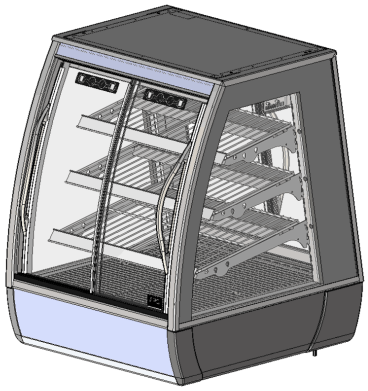
Part Description	FPG Part No.
LH End Glass Kit (viewed from back of cabinet)	62709
RH End Glass Kit (viewed from back of cabinet)	62710
Back Inner Sliding Door(800 cabinets only)	62662
Back Outer Sliding Door(800 cabinets only)	62663
Back Inner Sliding Door(1200 cabinets only)	62664
Back Outer Sliding Door(1200 cabinets only)	62665
Back Inner Sliding Door(1500 cabinets only)	62666
Back Outer Sliding Door(1500 cabinets only)	62667
Front Inner Curved Sliding Door (600 cabinets)	66934
Front Outer Curved Sliding Door (600 cabinets)	66935
Rear Swing Door (600 cabinets only)	66965
Front Inner Curved Sliding Door (800 cabinets)	63342
Front Outer Curved Sliding Door (800 cabinets)	63343
Front Inner Curved Sliding Door (1200 cabinets)	63344
Front Outer Curved Sliding Door (1200 cabinets)	63345
Front Inner Curved Sliding Door (1500 cabinets)	63346
Front Outer Curved Sliding Door (1500 cabinets)	63347
Front Fixed Glass Kit (800 cabinets)	62643
Front Fixed Glass Kit (1200 cabinets)	62649
Front Fixed Glass Kit (1500 cabinets)	62653
Product Manual for Inline 3000 Series Heated Cabinets	15876

MECHANICAL DRAWINGS

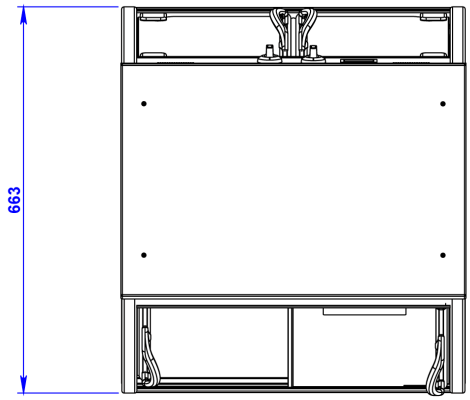
Dimensions

HEATED CABINETS - MECHANICAL DRAWINGS

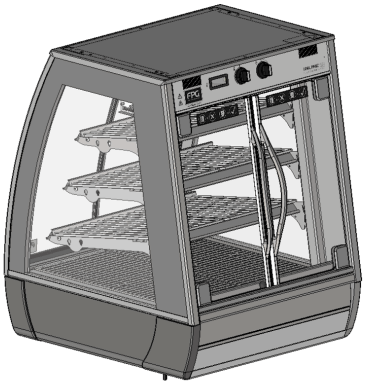
IN-3H06-A002

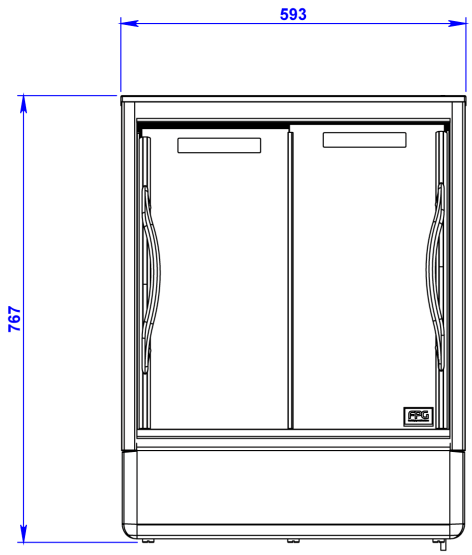


PERSPECTIVE

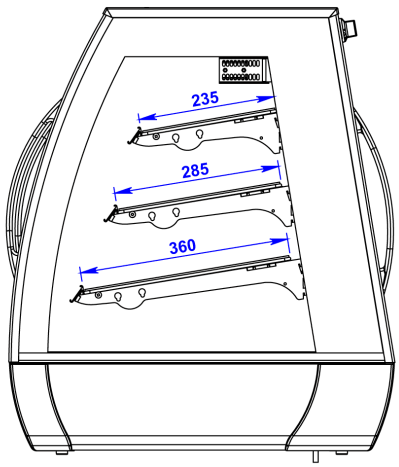


PLAN





FRONT ELEVATION

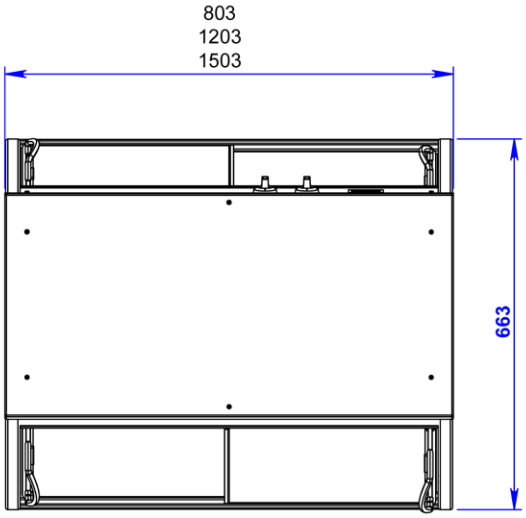


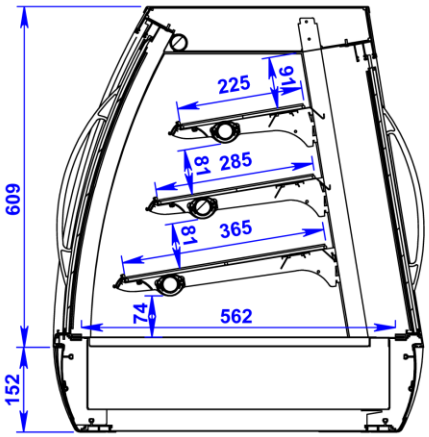
SIDE ELEVATION

Dimensions cont.

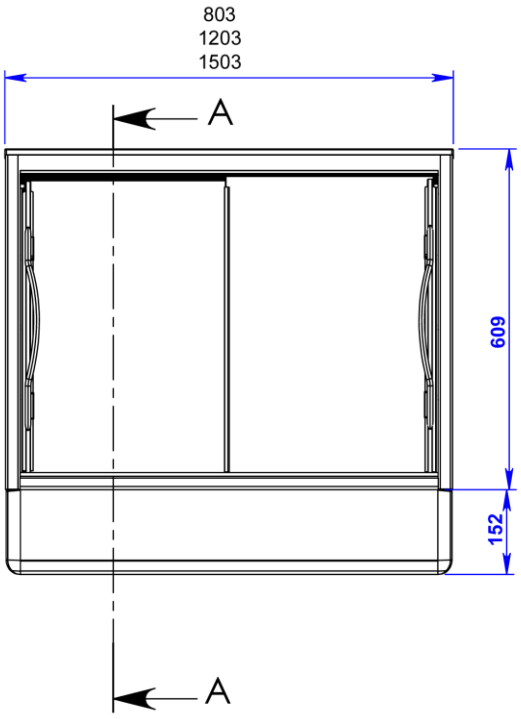
HEATED CABINETS - MECHANICAL DRAWINGS

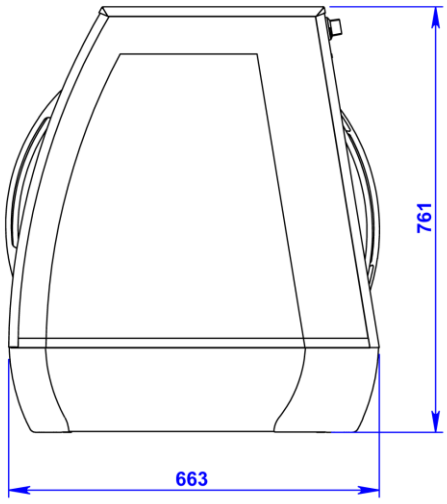
IN-3H08/12/15





SECTION A-A





Continued on next page

Dimensions cont.

HEATED CABINETS - MECHANICAL DRAWINGS

Cabinet Variants

The drawings show the common overall dimensions for 800mm, 1200mm and 1500mm cabinets.

The cabinets can have a single fixed front glass, in place of the twin sliding doors shown.

Livery

Top Insert	539 / 749 / 1149 / 1449 mm long x 50 mm wide
Bottom Insert	544 / 754 / 1154 / 1454 mm long x 134 mm wide

Colour / Text Inserts

Max. thickness 0.75 mm

If custom livery is applied to the cabinet, the insert material must be flexible, such as *Formica* decorative laminate or plastic sheet.

Most metals cannot be flexed sufficiently for insertion in the lower position.

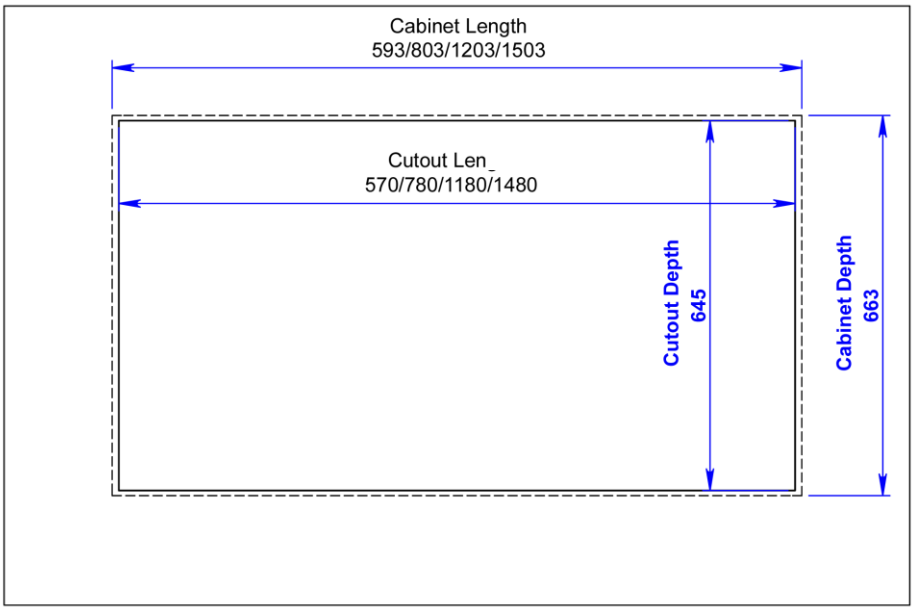
Bench Cut-outs

HEATED CABINETS - MECHANICAL DRAWINGS

In Bench Mounting

Remove the decorative end panels from the base, to allow in bench mounting.

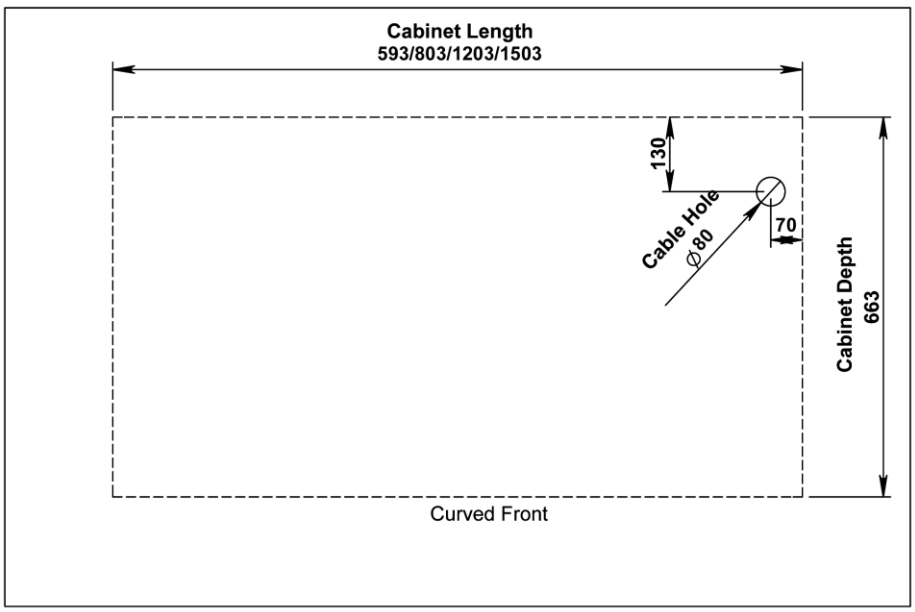
The following diagram shows the aperture dimensions, which will allow the cabinet well to enter the bench. The cabinet deck trays will then be just above bench height.



On Bench Mounting

The following diagram shows the size and location of the holes, required for the cabinets to sit on the bench.

The holes are always in the same location, with reference to the back, right hand corner of all cabinets.



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