5407423 Issue 1 Feb. 2009



HOTPOINT Freestanding Frost Free Fridge Freezers

(Version 2)
Refer to Insert below

Models Covered	Comm. Code
FF187EA	40729
FF187EG	39780
FF187EK	53950
FF187EP	39775
FF187EPL	53947
FF200EA	40733
FF200EG	40732
FF200EX	43503
FF200EK	53952
FF200EP	39777
FF200EPL	53949

IMPORTANT

THERE ARE TWO VERSIONS OF THE ABOVE LISTED MODELS. TO IDENTIFY THE CORRECT VERSION AND SERVICE MANUAL SEE BELOW OR Page 5 FOR A MORE DETAILED EXPLANATION:

VERSION 1 ~
THE POWER MODULE IS MOUNTED AT THE REAR OF THE APPLIANCE ABOVE THE COMPRESSOR COMPARTMENT.

VERSION 2 ~
THE POWER MODULE IS MOUNTED IN THE CONTROL PANEL ONLY, THERE IS NO REAR MOUNTED MODULE.

FOR VERSION 1 MODELS ~ REFER TO SERVICE MANUAL 5407327

Service Information

Indesit Company UK Ltd
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HEALTH AND SAFETY

For the servicing of refrigeration products, containing Isobutane R600a refrigerant.
These instructions are in addition to any other Company procedures already published.
Published primarily for Indesit Company engineers working in the UK or Southern Ireland, for which these instructions are MANDATORY.

1. Only engineers who have been trained on the safe handling of Isobutane R600a refrigerant are authorised to transport, store or carry out system repairs.
2. This manual is not intended as a comprehensive repair/maintenance guide to the appliance.
3. Must only be used by suitably qualified persons having technical competence, applicable product knowledge, suitable tools and test equipment.
4. Servicing of electrical appliances must be undertaken with the appliance disconnected (unplugged from the electrical supply).
5. Servicing must be preceded by earth continuity and insulation checks, plus refrigerant leak detection.
6. Personal safety precautions must be taken to protect against accidents caused by sharp edges on metal and plastic parts.
7. After servicing, the appliance must be rechecked for electrical safety.
8. Smoking, naked flames, or operating gas and/or electrical equipment (including cordless power tools) are forbidden within the storage area, working area and vehicles used to transport Isobutane.
9. The carrying case for the scales and refrigerant must display a red flammability label Part No. 8100063 that should be visible and readable at all times.
10. The vehicle and storage area must be ventilated as far as is reasonably practicable and the aluminium case kept out of direct sunlight. The storage temperature of Isobutane should not exceed 50°C.
11. The vehicle transporting Isobutane (R600a) refrigerant must display a Red Flammable Gas warning sticker (Part No. 8100063).
12. Engineers should not wear clothes that are liable to cause static discharge ('electrostatic sparking').
13. Avoid working in small rooms.
14. Do not work in cellars.
15. Whenever possible move the appliance into a larger open area away from possible ignition sources.
16. Request the customer to turn off all other electrical and gas appliances in the near vicinity of the repair and note that it is done.
    Customers should be advised to restrict activity within the near vicinity for a short time.
17. Isobutane refrigerant must be vented to atmosphere, (outside of the premises e.g. via open window through the clear plastic hose supplied).
18. Isobutane is heavier than air and must not be vented within 3 metres of the following: sewer cover, cellar, drain or any similar construction lower than ground level, boiler air inlet/outlet, or near any possible source of ignition.

continued...

HEALTH AND SAFETY

19. Working with a naked flame i.e. soldering or brazing is forbidden. Unless otherwise stated, pipework connections must only be made using the Lokring coupling system.
20. Electronic leak detectors with high voltage tips must NOT be used with any Isobutane (R600a).
21. All equipment used for this activity must be checked regularly and maintained in a safe working condition; parts must be replaced as required.

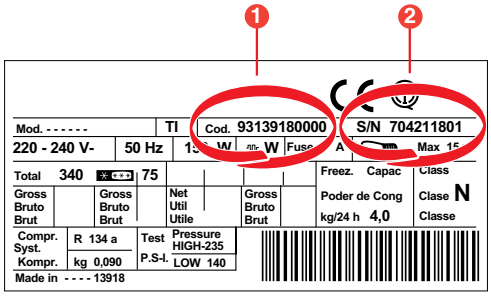
Information Regarding Isobutane Canisters

1. The maximum quantity of Isobutane an engineer should hold or store at any one time is two 1kg net aluminium canisters, supplied individually as Part No. 2602600.
2. Canisters must be stored inside the aluminium case with the weighing scales for protection from possible damage and heat. The aluminium case must NEVER be placed next to a heat source or in direct sunlight.
3. Isobutane must only be dispensed to the appliance from the 1kg net aluminium canister placed in an upright position on the weighing scales provided.
4. All used canisters must be a returned as scrap and therefore, left out for the driver to collect and return for disposal.
5. Canisters must not be punctured or the internal valve damaged.
6. Before storing the canister it must have the extraction tap valve removed and the internal valve of the canister checked for leakage using leak detector (Leak Detector: Part No. 5700043).
7. All used canisters and those found to be leaking should be exhausted to atmosphere to ensure they are emptied completely. Refer to the following paragraph.
8. Refit the extraction tap if necessary, open the tap and then invert the canister.
   This must be done outside in open air away from buildings and ignition sources and complying with Item 18 on previous page.

CONTENTS

Health and Safety . . . . . 2 - 3
Index & Serial Number / Product Identity 4
Introduction . . . . . 5 - 6
Specifications . . . . . 7 - 8
Product Description with Image. . . . . 9 - 10
Component Fuction. . . . . 11 - 12
Alarm Conditions. 12
Auto-Test & Fault Conditions. . . . . 13 - 14
Explanation of Auto-Test Codes . . . . . 15 - 17
Airflow . . . . . 18 - 19
Power / Control Module Parameters . . . . . 20 - 21
Fault Diagnosis Quick guide . . . . . 22 - 23
Servicing & Dismantling Instructions . . . . . 24 - 25
Programming the Module . . . . . 26 - 30
Wiring Connection Information . . . . . 31 - 32
Theoretical Wiring Diagram 33
Thermistor Sensor Information 34
Door Reversal Instructions. 35

PRODUCT IDENTITY



Example

1 Industrial Code:

93 13918 0000

0000 original production
Other numbers denote major production changes

Commercial Code*
*Vital for correct model information and system identification

Factory of origin

2 Serial Number:

7 04 21 1801

Build number that day, e.g. 1801th built

Day of manufacture, e.g. 21st of month

Month of manufacture, e.g. April

Year of manufacture, e.g. 2007

MODEL VERSION IDENTIFICATION

The models included in this publication are 1870 & 2000 mm high no-frost fridge freezers that were introduced in Jan 2008.

There are two versions of the above range of models that share the same model number and commercial code. The versions can be identified by the serial number on the rating plate behind the bottom drawer on the rear wall and/or by the power module position.
NOTE ~ If the first three digits of the serial number commence between **710**or **801** you must confirm the location of the power module to positively identify the model version.
See version descriptions and photos below:

VERSION 1: Refer to Service Manual **5407327** (C00221355) **See photo below**.
Models produced on or before serial number 801019999.
The power module is mounted at the rear of the appliance above the compressor compartment.

VERSION 2: Refer to this Service Manual
Models commencing with serial number 801020001 **See photo below**.
The power module is mounted in the top facia (control panel) of the appliance.



VERSION 1:
The power module is mounted at the rear of the appliance above the compressor compartment



VERSION 2:
The power module has been re-located and is mounted in the top front facia (control panel).

For banding and colour information, refer to the Front Cover and/or Specifications page.

MODEL INTRODUCTION

All models are similar with regard to the furniture design, but there are variations for energy consumption and exterior colour.

Model FF187E interior:

The interior of the fridge has glass shelves, chromed steel wine rack and two salad bins with a glass cover. The door has a bottle shelf with retainer, dairy shelf with a lid and one commodity shelf.

The freezer section has four drawers of varying sizes, the lower two drawers have ice cube compartments inserted in the top of the drawer fronts.

Model FF200E interior:

The interior of the fridge has glass shelves, chromed steel wine rack, fresh box (chiller compartment) and one full width salad bin with a glass cover. The door has a deep bottle shelf with retainer, dairy shelf with a lid and one commodity shelf. The freezer section has four drawers of varying sizes, the lower two drawers have ice cube compartments inserted in the top of the drawer fronts.

The electronic thermostat and LED interface are all part of the power module mounted in the top facia of the appliance; The fridge and freezer temperature settings are adjusted by operating the control knobs mounted in the top facia. All functions are monitored and actioned by the power module mounted in the top facia of the appliance. The fridge baffle is of a motorised type, mounted in the multi-flow unit. The fridge temperature is monitored by a sensor mounted in the return ducting behind the fridge multiflow unit.

The fridge and freezer temperatures are monitored by sensors located in the following locations:

1. Fridge Sensor ~ mounted in the return duct behind the fridge multiflow unit;

2. Freezer Air Sensor ~ mounted in the lower right side of the freezer cabinet liner;

3. Freezer Evaporator Sensor ~ inserted into the top right of the evaporator.

The sensors (thermistors) are not replaceable because they are for the most part foamed behind the liner where they are not affected by moisture. The sensors are double insulated and in the unlikely event of failure a section of the power module is programmed to respond and control the functions on a timed basis from there on in.

The appliance is "no-frost" design (Full Frost-Free) so defrosting is automatic.

All models have rear wheels located in the compressor base plate with adjustable feet fitted at the front.

Doors are reversible, but do require a T20 Torx key to remove the plinth / kick strip.

The climate class is SN / ST signifying that it is designed to operate in ambient temperatures between +10°C to +38°C. As with many refrigeration appliances, it is important that it is installed and operated within the recommended ambient temperature range and that there is adequate ventilation.

ANTI-BACTERIA (Hygiene Control)

Some models have anti-bacteria protection (hygiene control) - built in protection for life of the product. Food safety is becoming increasingly important to consumers with more and more cases of food poisoning.

The hygiene control is built into the plastic of the fridge interior during manufacture so it cannot wash or wear out. It provides permanent protection against bacteria as it reduces on contact the spread of food poisoning bacteria, which can cause contamination and odour.

It gives extra hygiene reassurance as it kills or inhibits the growth of any bacteria, which may come into contact with the interior surfaces of the fridge.

The anti-bacteria protection is approved safe for use in food contact applications by the European Scientific Committee for Food and has proven safe over many in personal care and household cleaning products.products.

SPECIFICATIONS

	Colour				
Introduction Date	**Polar - P**	**Graphite - G**	**Aluminium - A**	**Stainless Steel (inox) - X**	**Black - K**
Jan 2008	FF187EP	FF187EG	FF187EA		
	FF200EP	FF200EG	FF200EA	FF200EX	
May 2008	FF187EPL				FF187EK
	FF200EPL				FF200EK

GENERAL:

Manufactured in:	UK (76)
Appliance Type:	Freestanding Fridge Freezer
Static / No-Frost:	No-Frost
Doors Hinging - Reversible:	Right Hand Yes
Plug/Cable:	UK/ 1.6M

	FF187E	**FF200E**
Energy Class	**A**”	“**A**”
Power Consumption kWh/24hr:	0.95	0.99
Annual Consumption kWh/yr :	347.0	361.0
Noise level:	43dB	43dB
Climate Class: (Rating plate)	SN.N.ST = 10ºC to 38ºC	SN.N.ST = 10ºC to 38ºC
Refrigeration Type:	No-Frost / Fin On Tube (FOT) Evaporator	

DIMENSIONS & WEIGHT:

Models:	**FF187E**	**FF200E**
Height:	1870 mm	2000 mm
Width:	600 mm	600 mm
Depth:	655 mm	655 mm
Weight Gross:	67.4 kg	78.0 kg
Weight Net:	64.5 kg	67.4 kg

CAPACITIES / VOLUME:

Models:	**FF187E**		**FF200E**	
	Fridge	**Freezer**	**Fridge**	**Freezer**
Gross	175 litre	113 litre	205 litre	113 litre
Net	173 litre	84 litre	202 litre	84 litre
Freezing Capacities 24 hrs		8 kg		8 kg
Conservation Time		12 hours		12 hours
Star Rating		4 Star ****		4 Star ****

TECHNICAL DATA:

Power Supply Voltage:	220/240 V
Power Supply Frequency:	50 Hz
Absorbed Power:	180 W
Absorbed Current:	0.5 A

COMPRESSOR WINDINGS Ω

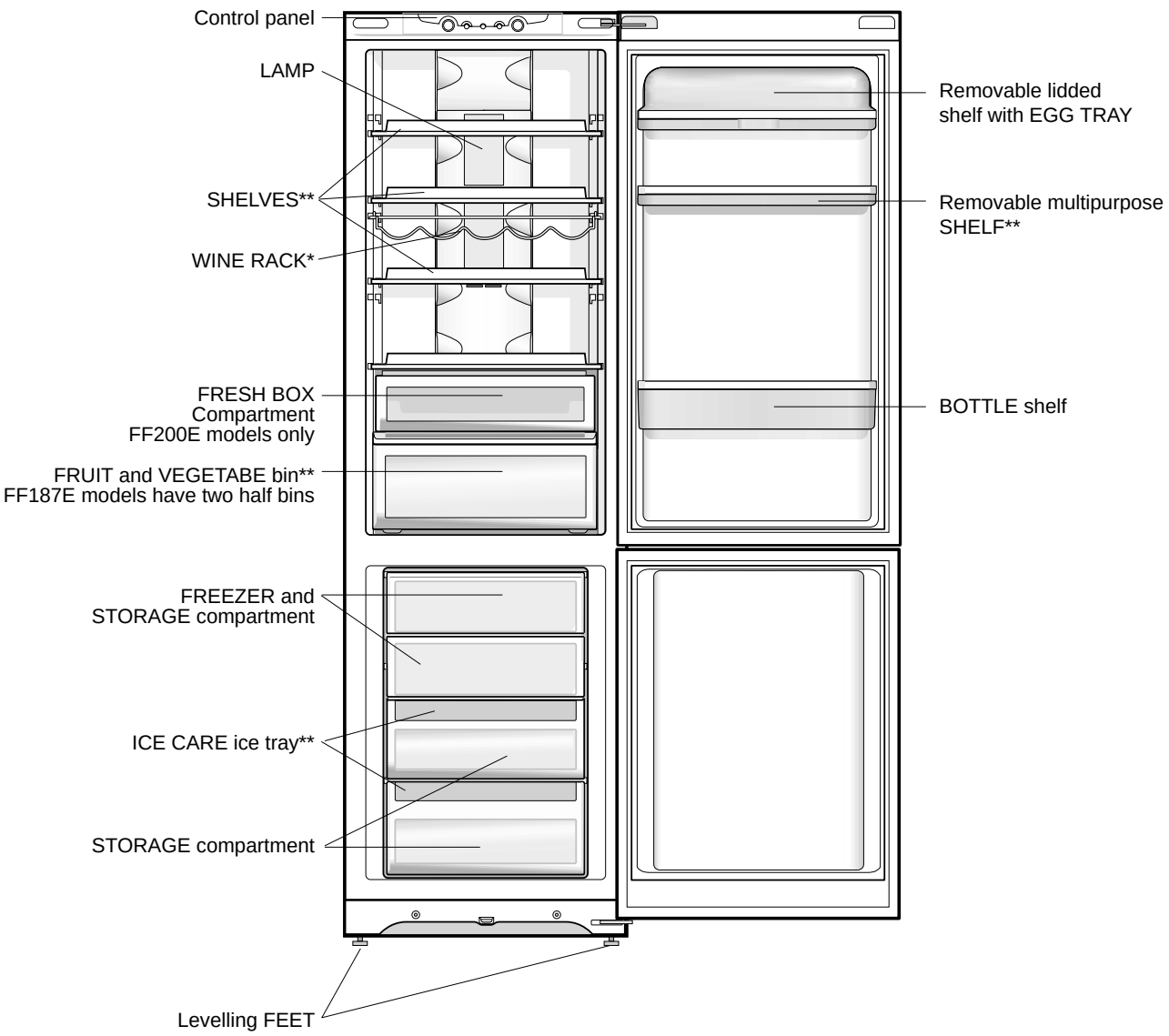
	FF187E	FF200E
Manufacturer:	**Jiaxipera**	**Tecumseh**
Type I/D:	ZBT1114CY	TWB1370MJS
Winding Resistances:		
Start:	16.0 Ω	26.75 Ω
R un:	13.3 Ω	15.75 Ω
Refrigerant Type / Grams:	**R600a** - Refer to the appliance rating plate	
Capacitor:	Refer to Parts List	

HEATER RESISTANCES

Evaporator Defrost Heater:	387.2 Ω
Gutter Heater:	1.61 KΩ
Thermal Fuse:	72 ºC

DESCRIPTION OF APPLIANCE

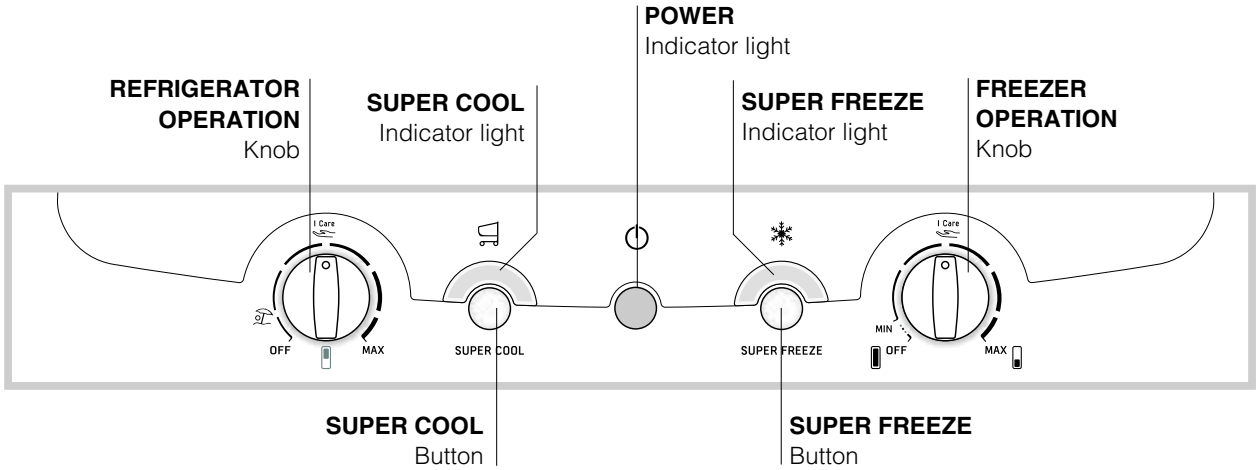
Detailed View



** Varies by number and/or position.

* Available only on certain models.

DESCRIPTION OF APPLIANCE:



The **SUPER COOL** (quick cool) function lowers the temperature of the refrigerator compartment rapidly. When the button is pressed it illuminates the **SUPER COOL** indicator light.

The **REFRIGERATOR OPERATION** knob allows you to adjust the refrigerator compartment from **MIN** (warmer) to **MAX** (colder).

The **HOLIDAY** function will minimise energy usage when away on holiday. It is not necessary to switch the appliance off. It allows the appliance to maintain the temperature of the refrigerator compartment at approximately 15°C (which can be used to conserve make-up and beauty products).
The **FREEZER OPERATION** knob **MUST** be set to **MIN** in order to preserve the frozen food.
An acoustic signal sounds when this function is enabled or disabled.

The **SUPER FREEZE** (fast freeze) function allows the freezing of fresh food. When the button is pressed it illuminates the **SUPER FREEZE** indicator light.

The **FREEZER OPERATION** knob allows you to adjust the freezer compartment from **MIN** (warmer) to **MAX** (colder).

I Care Selecting this position allows the relevant compartment to achieve the optimal temperature setting for energy saving levels.

FREEZER OPERATION knob
OFF ~ Selecting this position switches the appliance OFF including the refrigerator compartment.

REFRIGERATOR OPERATION knob
OFF ~ Selecting this position switches the refrigerator compartment OFF only.

NOTE: - The indicator lights are also used to indicate an unusual temperature increase in the freezer compartment.

See Alarm Conditions on Page 12.

COMPONENT FUNCTION

General Information

The power module is made up of a number of smaller individual modules (sections), each one controlling a functional component. The modules are linked together when required to control a particular function or functions. The linking of the individual modules is optional and therefore allows for each module to be switched ON or OFF, this is determined from the data stored or collected by the modules and the results of module comparisons.

The power module memory stores information such as temperatures and times.

Having individual set of parameter values built in to it, directly aimed at providing the specific control needs for the physical and system characteristics of the model type.

Fridge & Freezer Control

The power module monitors the fridge and freezer air sensors, comparing their sensor resistance values with the cut-in and cut-out parameter values stored in its memory.

Although the parameters are set, they allow for adjustment within those parameters so that the user has control. The results from the comparisons will determine if cooling is initiated, other circuits of the module will also use the results.

The power module will enable normal operation provided there is no malfunction condition.

Fridge or Freezer Malfunction Module

The fridge or freezer malfunction module enables the appliance to continue operating in the unlikely hood of the fridge or freezer sensors failing. Pre-set timed functions stored in the module memory are used to cycle cold request on and off.

A malfunction occurs when the fridge or freezer cabinet sensors return a value to the module of either Open or Closed circuit, rather than a particular resistance value.

Freezer Evaporator Fan Module

The freezer fan is located above the evaporator coil and is designed to distribute the cold air produced by the evaporator coil uniformly inside the freezer compartment and when necessary in the fridge compartment.

The freezer fan is managed by the module and is switched on/off after a preset time interval that is parameterised in the module memory after a compressor start/stop.

The defrost procedure is preceded by activation of the fan for a timed interval that is parameterised in the module memory. The fan will not operate when in the defrost cycle.

After the defrost cycle the fan starts after a timed interval following a compressor start, this interval is also parameterised in the module memory; this interval is different from the interval programmed for normal operating conditions.

Electronic Motorised Damper Assembly (Baffle)

The purpose of the damper is to allow the cold air produced by the freezer evaporator to be distributed inside the refrigerator compartment.

The damper is located behind the fridge multi-flow unit in the upper section. It is controlled by a thermistor positioned into the exhaust (return) duct connecting the evaporator to the damper.

Cold air from the evaporator is distributed in the refrigerator compartment by openings on the multi-flow unit. (See the Air Flow Diagram on page 18.)

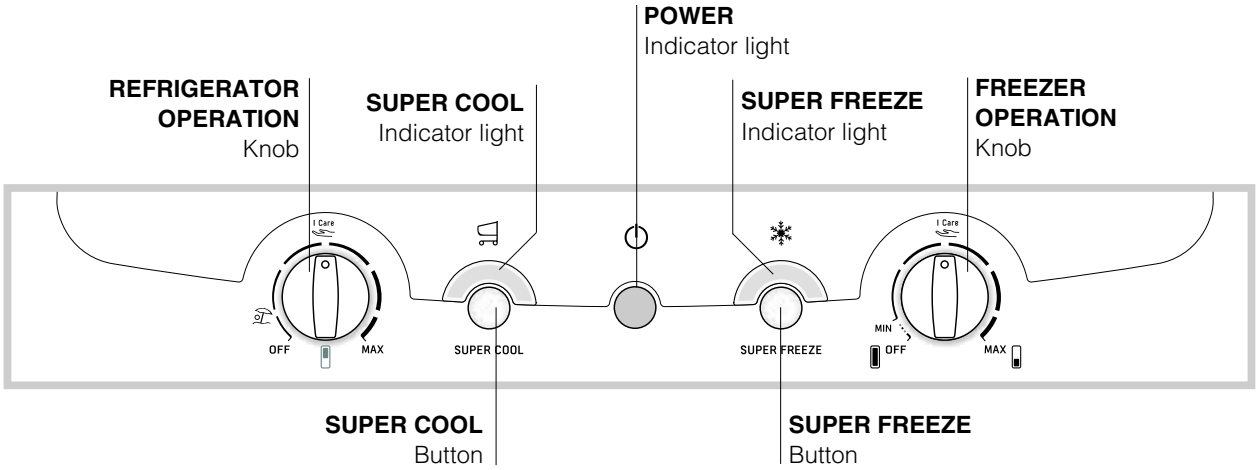
Compressor

The compressor is managed by the power module and switches on whenever a demand for cooling is received.

There are situations of cooling demand in which the compressor remains off. These are as follows:

1. **Compressor protection:** the compressor switches on once a minimum safety time lag has elapsed since the last power-off, thereby allowing the refrigerant gas pressure to reach a point of equilibrium in the refrigerant circuit. The same minimum safety time is observed in the event of a mains power interruption (voluntary or involuntary). This compressor protection strategy is observed only after the product has been operating continuously for the number of hours defined in the module memory.
2. **Long periods of activity:** if the compressor remains on for more than a value set in module memory it is switched off, even in the presence of a cooling demand.
3. **Pause after defrost:** at the end of the defrost cycle the compressor observes a protection time parameterised in the module memory so that the water formed during the defrost can be completely drained.

ALARM CONDITIONS



LEDs			Audible Bleep	ALARM CONDITION
Super Cool	Mains	Super Freeze		
Amber	Green	Amber		
ON or OFF	**ON**	ON or OFF	YES**	Fridge door open for more than 2 minutes*
FLASHING	**ON**	**FLASHING**	YES**	Freezer too warm***
FLASHING	**FLASHING**	**FLASHING**	YES**	Freezer very warm***

* Fridge Interior Lamp also Flashes.

** Plus Bleeping - Open/Close the fridge door to cancel audible bleeping.

*** In these situations the freezer will try to maintain 0°C so food will not refreeze. **(Refer the User to the Troubleshooting page in their user book ~ it explains what action to take with the defrosted food.)**

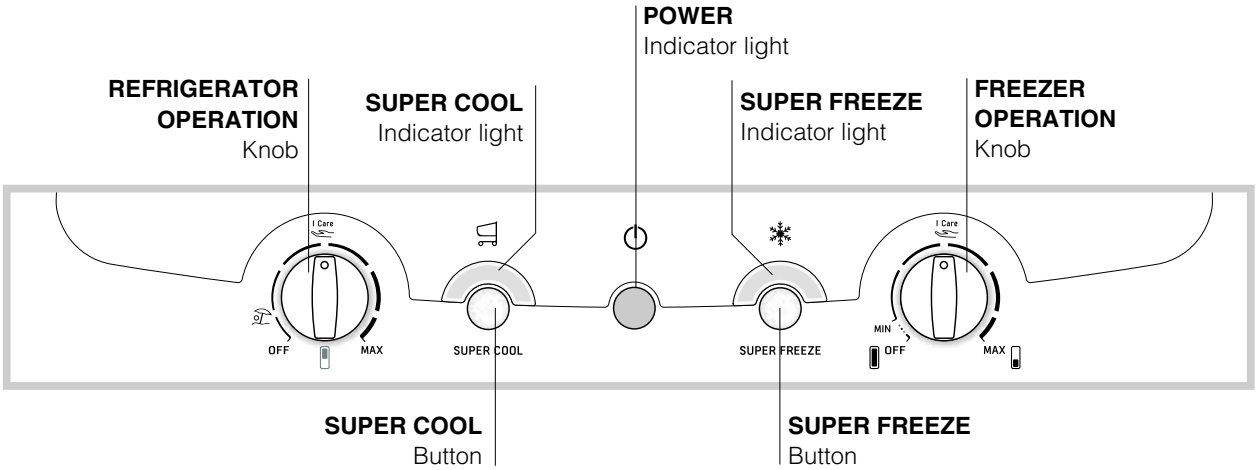
To restore the **'FREEZER WARM'** Alarm condition back to normal operation, turn the freezer knob OFF then ON again.

AUTO-TEST

This helps with a quick check of the loads and sensors (thermistors), which otherwise are difficult to activate. **NOTE: -** Before using the AUTO-TEST it is advisable to check the correct operation of the Mains (Green), Super Cool and Super Freeze (Amber) LEDs and the fridge interior lamps, which are used for signalling possible malfunctions. Ensure both the Super Cool and Super Freeze have not been selected before starting the Auto-Test.

	TO ACTIVATE	TO DEACTIVATE	CHECK	RESPONSE
NO-FROST MODELS **FF187E & FF200E**	1. Open the fridge door and keep ajar while in auto-test. 2. Turn the fridge and freezer control knobs to the minimum setting (appliance OFF position). 3. Push and hold the Super Freeze button in until all three LED lights illuminate at the same time. (The LED lights will extinguish after 5 seconds.)	**Automatically:** After 300 seconds from start of the Auto-Test it will be deactivated. **Manually by:** Turning the fridge and freezer control knob from the OFF position. Or Switching OFF the power supply	**First Stage:** Fridge baffle opens & evaporator fan runs - Check for baffle operation, feel for airflow at both fridge and freezer vents. **Second Stage:** Heaters and Sensors check - Feel for warmer air from freezer vents during defrost heater check. **Third Stage:** Fridge baffle closes - Check for baffle motor operation. **Finish of Auto Test:** Evaporator fan stops and one beep sounds.	**No Fault:** Super Cool & Super Freeze LEDs **OFF** and Power LED **ON** **Fault Detected:** Fridge interior lamp flashes if during the checks described a fault is detected. The console LED lights will determine the actual fault code. Refer to the Table on page14.

FAULT CONDITIONS



Alarm Conditions: are signalled to the user by flashing LEDs and accompanied by an audible beep.

Fault Conditions: are signalled to the engineer during an Auto -Test by flashing LEDs with NO audible beep.

See chart below for Auto-Test fault codes and pages 15 and 17 for Fault Code explanations.

LEDs			Audible Bleep	AUTO TEST FAULT CODES (See pages 15 to 17 for explanations)
Super Cool	Mains	Super Freeze		
Amber	Green	Amber		
OFF	FLASHING	OFF	NO	F **01**
ON	FLASHING	OFF	NO	F **02**
OFF	FLASHING	ON	NO	F **03**
ON	FLASHING	ON	NO	F **04**
FLASHING	FLASHING	ON	NO	F **05**
ON	FLASHING	FLASHING	NO	F **06**
OFF	FLASHING	FLASHING	NO	F **07**
FLASHING	FLASHING	FLASHING	NO	F **09**
ON	OFF	ON	NO	F **14**
FLASHING	OFF	FLASHING	NO	F **20**
ON	ON	FLASHING	NO	F **21**
FLASHING	ON	ON	NO	F **22**
OFF	ON	FLASHING	NO	F **24**
ON	OFF	FLASHING	NO	F **25**

EXPLANATION OF AUTO-TEST CODES

(The fault codes below are generic and also associate with other models not listed in this manual)

FAULT CODE	CAUSE	CORRECTIVE ACTION
F 01	Compressor Relay Sticking	• Check for moisture on module, check connections especially on connector E1; • Check compressor connections; • Refer to **Diagnostic Manual 5407355;** • Replace power module; • Replace compressor.
F 02	Compressor Relay Open	• Check module connections especially on connector E1; • Check resistance reading between pins 9 and 7 of connector E1; • Check that the compressor has not stopped due to over-temperature conditions (thermal cut-out open); • Replace power module; • Replace compressor.
F 03	Faulty Power Module	• Replace power module.
F 04	Evaporator Fan Motor Not Running	• Check module connector E1; • Check resistance reading between pins 1 and 8 of connector E1; • Check the connection of the evaporator fan motor to the freezer compartment wiring junction box; • Replace evaporator fan assembly; • Replace power module.
F 05	Electronic/Motorised Baffle Does Not Open/Close	• Check module connector E2; • Check baffle connection to the connector block foamed in behind the multi-flow unit; • Replace baffle; • Replace power module.
F 06	Defrost Heater Triac Short-Circuit	• Check module connector E1; • Check resistance reading between pins 2 and 6 of connector E1; • Check defrost heater connections and freezer compartment wiring junction box; • Replace defrost heaters; • Replace power module.

EXPLANATION OF AUTO-TEST CODES

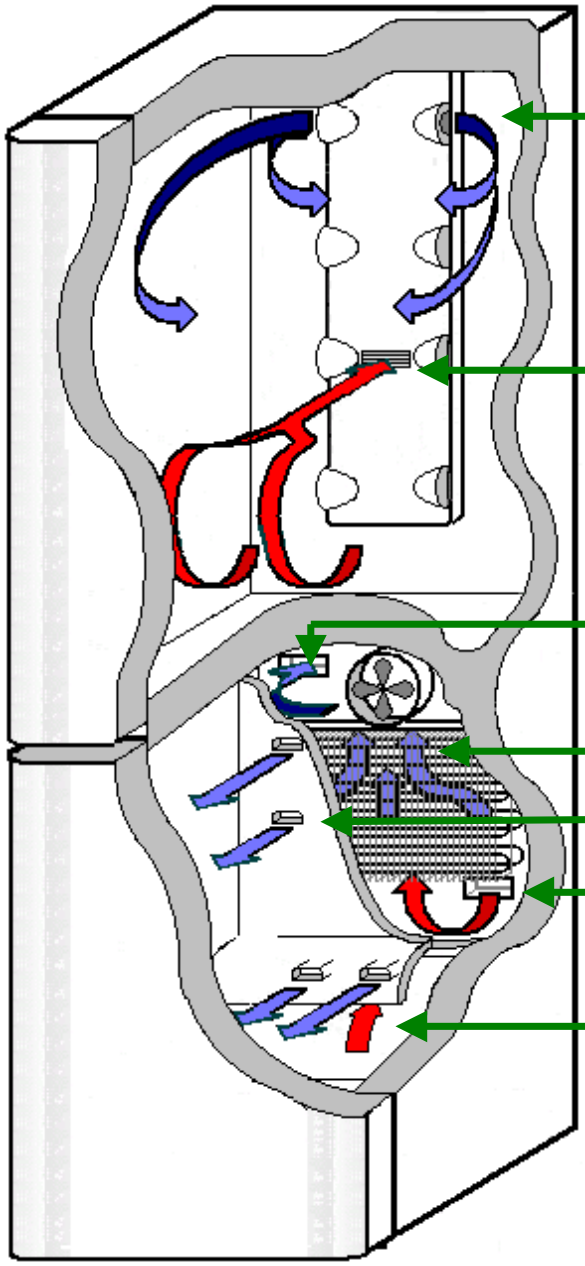
(The fault codes below are generic and also associate with other models not listed in this manual)

FAULT CODE	CAUSE	CORRECTIVE ACTION
F 07	Defrost Heaters	• Check module connector E1; • Check resistance reading between pins 2 and 6 of connector E1; • Check defrost heater and gutter heater connections and freezer compartment wiring junction box; • Check that the thermal fuses are not open circuit; • Replace defrost heaters; • Replace power module.
F 09	Module not programmed	• Re-programme module with correct settings file; • Replace power module.
F 14	Faulty power module	• Replace power module.
F 20	All fridge lamps fail to illuminate	• Check module connector E1; • Check resistance reading between pins 3 and 4 of connector E1; • Replace lamps; • Replace power module.
F 21	NTC ambient sensor on power module faulty.	• Replace power module.
F 22	Fridge air NTC sensor open / short circuit	• Check module connector E4; • Check NTC sensor, ensuring that the values read between pins 3 and 4 of connector E4 is compatible with the values in the “Sensor Resistance Table” on **page 34**, (also heat the sensor by holding it with your hand / fingers where possible and check the change in the resistance value);
F 24	Freezer air NTC sensor open / short circuit	• Check module connector E4; • Check NTC sensor, ensuring that the values read between pins 5 and 6 of connector E4 is compatible with the values in the “Sensor Resistance Table” on **page 34**, (also heat the sensor by holding it with your hand / fingers where possible and check the change in the resistance value);

F 25	Freezer evaporator NTC sensor open / short circuit	• Check module connector E4; • Check NTC sensor, ensuring that the values read between pins 1 and 2 of connector E4 is compatible with the values in the “Sensor Resistance Table” on **page 34**, (also heat the sensor by holding it with your hand / fingers where possible and check the change in the resistance value);

AIR FLOW

Shown through a schematic section of the cabinet



WHEN THE DAMPER (BAFFLE) OPENS, COLD AIR ENTERS THE FRIDGE VIA THE INLET PORTS IN THE MULTI-FLOW UNIT.
NOTE: SOME PORTS ARE INTENSIONALLY BLOCKED OFF.

WHEN THE DAMPER (BAFFLE) OPENS, AIR RETURNS TO THE FREEZER SECTION VIA THE EXHAUST GRILLE IN THE CENTRE OF THE MULTI-FLOW UNIT

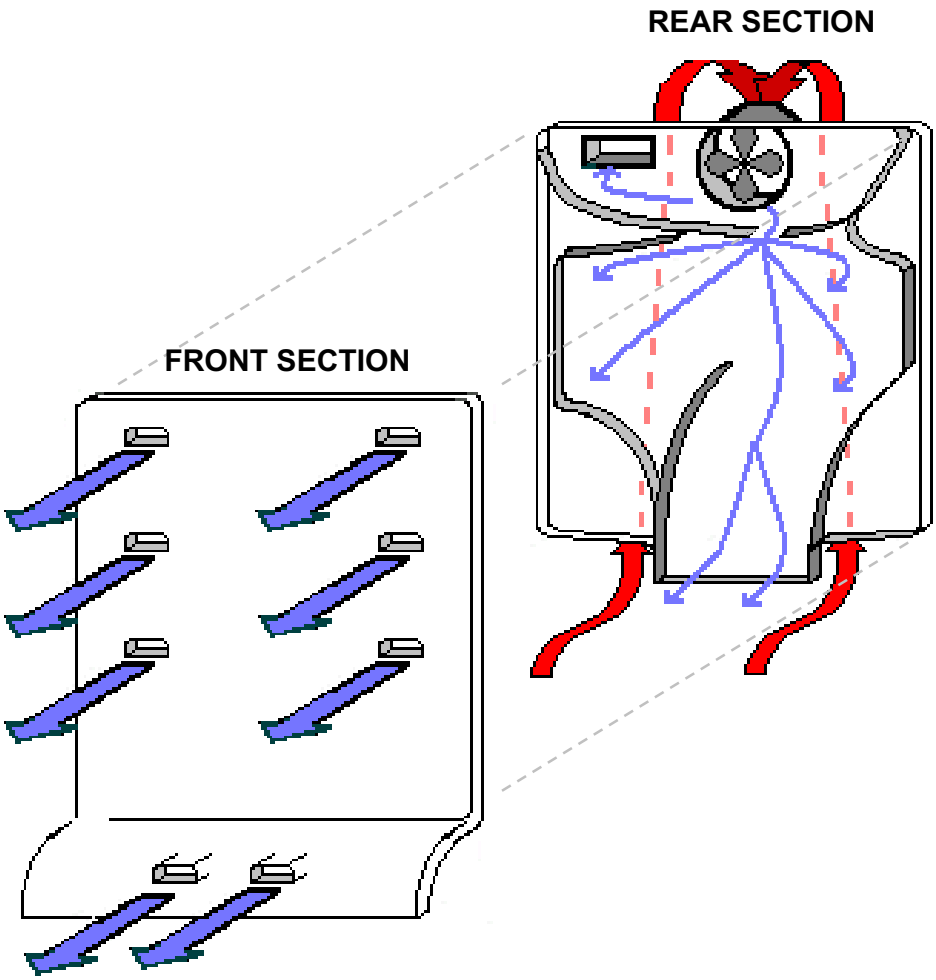
AIR FLOW RETURNS TO THE FRIDGE VIA THE INLET DUCTING.
NOTE: THE DAMPER (BAFFLE) IN THE FRIDGE MULTI FLOW UNIT NEEDS TO BE IN THE OPEN POSITION FOR THIS TO HAPPEN.

THE FAN DRAWS AIR THROUGH THE EVAPORATOR AND BLOWS IT INTO THE TOP OF THE DUCT PANEL, IT IS THEN CHANNELED TO THE INDIVIDUAL FREEZER BASKETS VIA OUTLET PORTS.

THE EVAPORATOR FAN DRAWS AIR FLOW FROM THE FRIDGE EXHAUST BACK THROUGH THE EVAPORATOR.
NOTE: THE DAMPER (BAFFLE) IN THE FRIDGE MULTI FLOW UNIT NEEDS TO BE IN THE OPEN POSITION FOR THIS TO HAPPEN.

CIRCULATED AIR IN THE FREEZER COMPARTMENT IS DRAWN BACK UNDER THE REAR DUCT PANELTO THE EVAPORATOR ASSEMBLY.

DUCT PANEL AIR FLOW
(Exploded View)



= THE EVAPORATOR FAN DRAWS AIR UNDER AND BEHIND THE REAR DUCT PANEL AND THROUGH THE EVAPORATOR ASSEMBLY. IT IS THEN BLOWN BETWEEN THE FRONT AND REAR DUCT PANELS.

= AIR FLOW IS THEN CHANNELLED AND DISTRIBUTED UNIFORMALLY TO THE OUTLET PORTS OF THE FRONT AIR DUCT.

= AIR FLOW IS DIRECTED TO THE INDIVIDUAL STORAGE DRAWERS.

THE ABOVE PROCESS IS REPEATED SO LONG AS THE EVAPORATOR FAN IS RUNNING.

POWER / CONTROL MODULE Parameters

(Values stated are for guidance only - may change without notice)

Parameter Values Stored in the Module Direct the Appliance Operations-	Parameters set in the module memory control the appliance functions. The minimum and maximum values for temperature are preset in the module memory. Sensors monitor temperature and the values are registered in the module. Where the sensor values are outside the presets a particular function will start or stop. Where a sensor fails, open or closed, the appliance operation will be controlled by time. The timed values for this are calculated in the module memory.
	The power module monitors fridge door opening times and compressor run times. When the total of the door open and compressor run times are equal too or exceed the parameter values set in the memory, a defrost sequence will be initiated.

COMPRESSOR OPERATION

Compressor Operation – There are situations of cooling demand in which the compressor remains off. These are as follows:	**Compressor protection:** the compressor switches on once a minimum safety time lag has elapsed since the last power-off, thereby allowing refrigerant gas pressure to reach a point of equilibrium in the refrigerant circuit. The same minimum safety time is observed in the event of a mains power interruption (voluntary or involuntary). **Minimum of 8 minutes - In some instances this has been reported to have been 20 minutes plus.** • This compressor protection strategy is observed only after the product has been operating continuously for the number of hours defined in the module memory. **24 hours**
	• **Long periods of activity:** if the compressor remains on for more than a value set in the module memory it is switched off, even in the presence of a cooling demand. **254 minutes**
	• **Pause after defrost:** at the end of the defrost cycle the compressor observes a protection time parameterised in the module memory so that the water formed during defrost can be completely drained. **12 minutes**

continued…

POWER/CONTROL MODULE Parameters

(Values stated are for guidance only - may change without notice)

DEFROST AND DRIP TRAY HEATING ELEMENTS

Defrost and Drip Tray Heating Elements - The parameters utilised to start the defrost cycle are as follows:	• **Compressor ON time since the last defrost cycle.** **600 minutes** • **Duration of doors open condition.** If the door is opened more than **30 minutes**, there is a defrost every 2 hours. • **Enabling Super Freeze.** The defrost cycle is initiated as soon as you start up the super freeze function. While the super freeze function is enabled there will be a defrost cycle every **2 hours.**
The parameters utilised to end the defrost cycle are as follows:	• **Maximum time defrost heater is ON.** **32 minutes** **Defrost end temperature (freezer evaporator sensor).** **+10°C**

FREEZER FAN OPERATION

Freezer Fan Operation - The freezer fan is managed by the power module and is switched on/off after a preset time interval that is parameterised in the module memory after a compressor start/ stop.	**The defrost procedure** is preceded by activation of the fan and the fridge damper opening for a timed interval that is parameterised in the module memory. **4 minutes**
	After the defrost cycle the fan starts after a timed interval following a compressor start, also this interval is parameterised in the module memory; **12 minutes PLUS 5 minutes** **NOTE:** This interval is different from the interval programmed for normal operating conditions.

FRIDGE LAMP OPERATION

Fridge Lamp Operation - A reed switch and a triac on the power module control the Interior lamps.	**If the door remains open** for a timed period that is greater than the time interval stored in the module memory, the lamp will start flashing and continue until the door is closed. **2 minutes**

continued…

FAULT DIAGNOSIS QUICK GUIDE

SYMPTOM	CAUSE	ACTION
INTERIOR LIGHT FLASHING	• Indicates that the fridge door has been left open for too long a period, (over 2 minutes approx.).	• Close fridge door. • Check the magnet position in the top of the fridge door cover strip. • Check the reed switch mounted on the module.
FRIDGE TEMPERATURE WARM Freezer temperature correct	• Fridge door seal not sealing.	• Check fridge door seal.
	• Fridge baffle is in the closed position.	• Check baffle connections and ensure that the sensor in the return duct is clear of foam and other debris, before replacing the baffle assembly.
	• Ducting between fridge and freezer restricted.	• Check for Ice build up around the inlet and return ducting in the freezer. • Check for air ingress, ensure the freezer multiflow is sealing against evaporator. If the restriction is caused by foam then remove where possible.
FREEZER EVAPORATOR FAN NOT RUNNING	• The fan is managed by the power module and is switched ON/OFF after a pre-set time interval that is parameterised in the module memory after a compressor start/stop. • (Refer to the **'Power/Control Module Parameters'** on **page 21**)	• Allow for delay start before proceeding. • Check fan assembly. • Check fan blades are free to rotate. • Check fan motor is securely clipped into position. • Check wiring and connections.
	• Defrost cycle enabled.	• Advise the customer that the fan will not run during the defrost cycle.
	• Fridge door open.	• Close fridge door. • Check magnet position in top of fridge door. • Check reed switch mounted on the module is OK. Fridge door open - reed switch contacts open, Fridge door closed - reed switch contacts closed.
FREEZER WARM	• Door seals not sealing.	• Check door seals.
	• Evaporator fan not running.	• **(See above)** FREEZER EVAPORATOR FAN NOT RUNNING.
	• Defrost cycle enabled.	• Advise the customer that the freezer may become warmer during the defrost cycle.
	• Compressor not running	• **(See next page)** COMPRESSOR NOT RUNNING.

FAULT DIAGNOSIS QUICK GUIDE

SYMPTOM	CAUSE	ACTION
COMPRESSOR NOT RUNNING (Fridge Interior Lamp/Lamps Working)	• Freezer evaporator and air temperature are correct.	• If the freezer temperature is OK then advise the customer that the compressor will start when there is a demand for cooling.
	• Compressor protection is enabled:- a. If the appliance is accidentally switched OFF and switched immediately back ON. b. After a mains power cut, c. Running continuously, d. Post defrost cycle,	• Compressor protection: a. Allow the compressor to cool and the refrigerant to equalise in the system. b. As **a.** above. c. Check the position of the freezer air sensor; Check refrigerant system for leaks and/or blockages. d. At the end of the defrost cycle the compressor observes a protection time delay parameterised in the memory, this allows the water produced during the defrost cycle to drain away completely.
	• Compressor has a humming noise before the overload switches compressor OFF.	• Compressor possibly seized or PTC faulty.
	• Compressor Start or Run windings faulty.	• Check the resistances of the compressor windings. Refer to **Diagnostic Manual 5407355** for further testing of the compressor.
	• There are situations of cooling demand in which the compressor remains OFF	• See Control/Power Module Parameters **page 20**, Section headed Compressor Operation.
COMPRESSOR NOT RUNNING (Fridge Interior Lamp/Lamps Not Working)	• Mains plug fuse blown.	• Check fuse rating. If the fuse is of the correct rating and has blown then check appliance for reasons.
	• Appliance mains cable faulty.	• Check the condition of the appliance mains cable and the connections to the compressor terminal block.
	• Installation fault.	• Advise customer of installation fault.
CUSTOMER COMPLAINING OF SOUNDS FROM THE FREEZER (Sounds different compared with my previous fridge freezer)	• The evaporator fan circulating the air in the freezer compartment may be heard.	• All the sounds described are quite normal and mean that the appliance is functioning correctly.
	• **Cracking sounds:** This is where parts inside the fridge freezer expand and contract as they rapidly change temperature.	
	• **Gurgling sounds:** Refrigerant flowing through the system pipes can produce gurgling, bubbling, roaring or humming sounds.	

SERVICING & DISMANTLING INSTRUCTIONS

Important Notes for Guidance:

Before commencing any work refer to the Safety Notes at the beginning of this manual.

A. Removing the Fridge Door

1. Remove the contents, food and furniture.
2. Remove the top hinge blanking plug from the top of the fridge door and unclip the door hinge cover magnet strip.
3. While supporting the fridge door, unscrew and remove the top hinge pin and lift the door from the centre hinge.

B. Removing the Freezer Door

1. Remove the fridge door as in A1 to A3.
2. While supporting the freezer door, remove the centre hinge assembly.
3. Lift the freezer door enough to release it from the lower hinge pin.

C. Control Panel (housing the Power / Control module)

1. Remove the fridge door as in A1 & A3.
2. Unclip and remove the top hinge cover and the left hand blanking cover from the control panel.
3. Remove the two screws securing the control panel to the cabinet.
4. Pull the control panel forward enough to gain access to the module and wiring harness.
5. Release the wiring from the module.

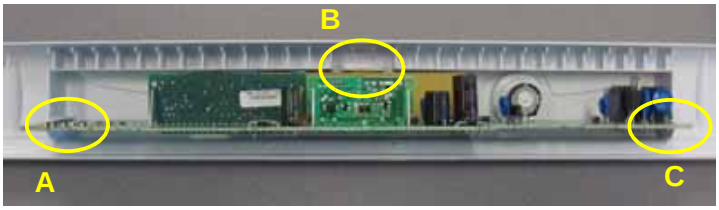
D. POWER / CONTROL Module

1. Remove the fridge door and control panel as in C1 to C5.
2. Set the temperature control knobs to the “I Care” position.

   Unclip the module from the panel. Start with position

   ‘A’ then ‘B’ and ending with position ‘C’.

   See photo on the right for clip positions.



NOTE: - Assemble in the same order starting at position ‘A’ then ‘B’ aligning the control knobs to the potentiometers mounted on the module and ending with position ‘C’. When assembled check that the temperature selectors can rotate through all the settings.

E. Door Seals (replaceable)

NOTE: - There is a moulding at the rear of the door seal that locates into a groove in the door liner to secure it.

1. To replace, ease the seal away from the door liner starting at the middle of one of the sides then work around the door to release completely. If the seal is a tight fit into the liner, the liner must be supported to prevent any damage.

F. Interior Lamps

1. Unclip the lamp cover/s.
2. Unscrew the relevant lamp; the replacement lamp must be of the same rating as the power range indicated on the cover (e.g. 10W).

G. Fridge Multi-Flow Unit

1. Remove the contents, food and furniture from the fridge compartment.

2. Remove the plastic cover from the interior lamp housing.
3. Unscrew the screws at base of multiflow unit and from the inside of the lamp holder.
4. Pull the base of the multi-flow unit towards you while simultaneously sliding it downwards releasing it from the top locating lugs.
   NOTE: - Withdrawing the multiflow unit may be impeded by the baffle unit mounted to the liner wall immediately behind the upper section of the multiflow unit.
5. Disconnect the lamp holder and baffle wiring from the connector blocks (See also J2 below).
6. Replace seals as necessary to ensure good sealing.
7. When reassembling, ensure the wiring is not able to foul the baffle or be trapped by the duct moulding.

H. Door Reversal ~ See Page 35

J. Damper (Baffle) Unit (Motorised Type)

1. Remove the Multi-Flow unit as in G1 to G5.
2. Disconnect baffle wiring from the terminal block above the baffle unit. To release the plug depress the tab on its upper side.
3. Replace seals as necessary to ensure good sealing.

K. Freezer Fan Motor

1. Remove the contents, food and furniture from the freezer compartment.
2. Remove the screws from around the edge of the duct cover **(See photo 1)**.
3. Insert a slotted screwdriver into the cover upper vent holes to unclip the cover from the duct assembly **(See photo 1)**.
4. Pull cover forward and withdraw **(See photo 2)**.
5. With the cover removed, unclip the duct assembly from the sides of the freezer liner and withdraw assembly complete with fan motor housing **(See photo 3.)**.
6. Disconnect fan wiring from the terminal block.
7. Pull fan impeller off the motor shaft; lay the duct assembly face down so the fan motor bracket is upper most. Unclip the plastic fan motor bracket to release the fan motor.

Insert a slotted screwdriver into the upper vents to unclip it from the duct assembly shown in Photo 3.

Photo 1



Photo 2



Photo 3



PROGRAMMING THE POWER MODULE

The replacement power module is supplied un-programmed as it is used on other model with their own specific programmes.

The use of an Eeprom is no longer necessary. The module does not have this component and there is no Eeprom socket for inserting it. The programme file will be stored directly in the microprocessor.

Due to the module being mounted in the top front facia a new **adaptor** is necessary to connect the module. This new adaptor is similar to the earlier low end adaptor, but is compatible with EVOI, EVOII and New Platform modules. Part No. **C00255979.**

See photo **1** & **1a** below**.**

Photo 1



Photo 1a



Version 2007 compatible with:

EVOI, EVOII & NEW PLATFORM modules

The new adaptor can be identified with "**Version 2007**" printed on the plastic housing.

NOTE: The previous low end adaptor can be identified with "**Version 2005**" printed on the plastic housing. "**Version 2005**" adaptors **must not** be connected to New Platform modules.

There are two different methods of programming the module:

INDESIT ENGINEERS ONLY

1. Using a **Hand-Held** or **PC (emit)** with the **BLACK** Hardware Key (to download the programme file).

Suitably Qualified Persons ONLY (refer to pages 2 & 3 of the HEALTH & SAFETY section at the front of this manual before proceeding)

2. Using a **Smart Card** (which contains the specific programme file) in association with a **Smart Reader** for reading the card. See photos 2 & 2a below.

   The Smart Card is listed against all relevant models. You will need the following additional information from the appliance rating plate to identify the correct Smart Card:

Model No., **Industrial Code** and **Serial No.**,

Photo 2
Smart Card



Photo 2a

Smart Card Reader



PROGRAMMING METHODS EXPLAINED: METHOD 1 - Indesit ENGINEERS ONLY

If the Power Module has been replaced it will require programming using the following method.
The module can be programmed via a **Hand-Held** or **PC (Emit)**, using a USB lead (Part No. C00222800), Black Hardware key (Part No. C00115587), Low End Adaptor 2007 (Part No. C00255979 & the Memwriter software. (For more comprehensive information on Memwriter, refer to Manual **C00256775**)

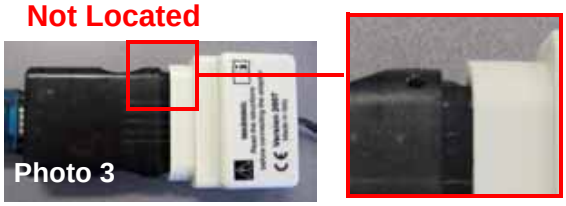


A Hardware Key Pin Repair Kit is available which contains 5 replacement pins (Part Number C00114723)

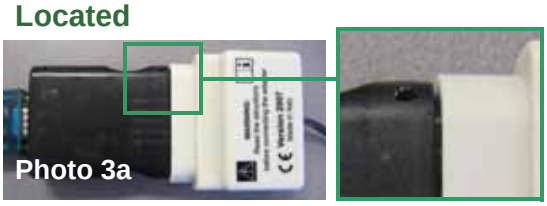


1. Disconnect the appliance from the electricity supply.
2. Connect the Low End Adaptor version 2007 to the module.
   (See "**Connecting the Low End Adaptor**" on page 30)
3. Insert the Black Hardware key into the Low End Adaptor. Ensure the Hardware key is correctly orientated before inserting into the Low End adaptor (there are locating guides on the Hardware key to assist you). **NOTE:** The Hardware Key may require firm pressure to fully locate to the Low End Adaptor. See **photo 3 & 3a** below.

Not Located



Located



4. Connect the Hardware key to a **Hand-Held** or **PC (Emit)**, using the USB lead.
5. Connect the appliance to the electricity supply.
6. Select Memwriter programme.
7. Ensure the correct Valid COM PORT is selected.
8. Ensure the correct Hardware key is selected **(Black)**.
9. Ensure the correct Appliance type is selected **(New Platform)**
10. Open Com Port (A bright green connection icon will light on screen).
11. Select **"Part No."** or **"Commercial Code"** for the search method.
12. Insert the **"Part No."** or **"Commercial Code".** (For UK models refer to the relevant Special Notice if against the Eeprom and/or SmartCard in Partfinder). **IMPORTANT:** Always use the serial No. from the rating plate where prompt; this is to ensure you download the correct file version.
13. Click search button.
14. File to download boxes will now display the programme information. It is important to remember that the actual model No. may not appear, as the programme may be used on other models also. To confirm the correct file is shown, refer to the relevant parts list in Partfinder.
15. Click download.
    If the module has already been programmed with the most updated file a warning box will appear indicating "ALREADY UPDATED"
16. Disconnect the appliance from the electricity supply.
17. Remove the Low End Adaptor from appliance.

NOTE: When starting Memwriter programme the default search is always **Get From Hardware.** Only use **"Part No."** or **"Commercial Code"** search when programming a Non-Programmed module.

PROGRAMMING METHODS EXPLAINED

METHOD 2 - SMARTCARD - *SUITABLY QUALIFIED PERSONS ONLY*

If the Power Module has been replaced, it will require programming using the following method.

1. Disconnect the appliance from the electricity supply.
2. Connect the Low End Adaptor version 2007 to the module.
   (See "**Connecting the Low End Adaptor**" on page 30)
3. Insert the SmartCard into the Card Reader. Care must be taken at this point to ensure that the Chip on the SmartCard enters & faces the PCB of the reader first. See Photo 4 & 4a.
4. Connect the Smart Card Reader into the Low End Adaptor. Ensure the Hardware key is correctly orientated before inserting into the Low End adaptor (there are locating guides on the Hardware key to assist you).
   NOTE: The Hardware Key may require firm pressure to fully connect to the Low End Adaptor.- See photo 5.
5. Connect the appliance to the Electrical supply,
   The LED's on the Smart Card Reader will light in this sequence:

a. **Red** ON: Good Communication between Smart Card Reader & Card. See also Note 1 below.

b. **Red** OFF; **Green** Blinking: Download taking place.

c. At end, **Green** ON = Download **OK**, module programmed, **Red** ON = Download **NOT OK**.

6. Disconnect the appliance from the electricity supply.
7. Remove the Smart Card, Reader and Low End Adaptor from appliance.
8. Reassemble and make appliance safe.
9. Connect the appliance to the Electrical supply.

Photo 4



Photo 4a



Note 1.

a If the **Red** LED is flashing SLOWLY, and a smartcard is inserted, check for the following:
- Blank/erased smartcard (previously used),
- Incorrectly inserted smartcard (check orientation of smartcard chip)
- Poor connection between the smartcard and smartcard reader.

Refer to photo 4 - 4a above.

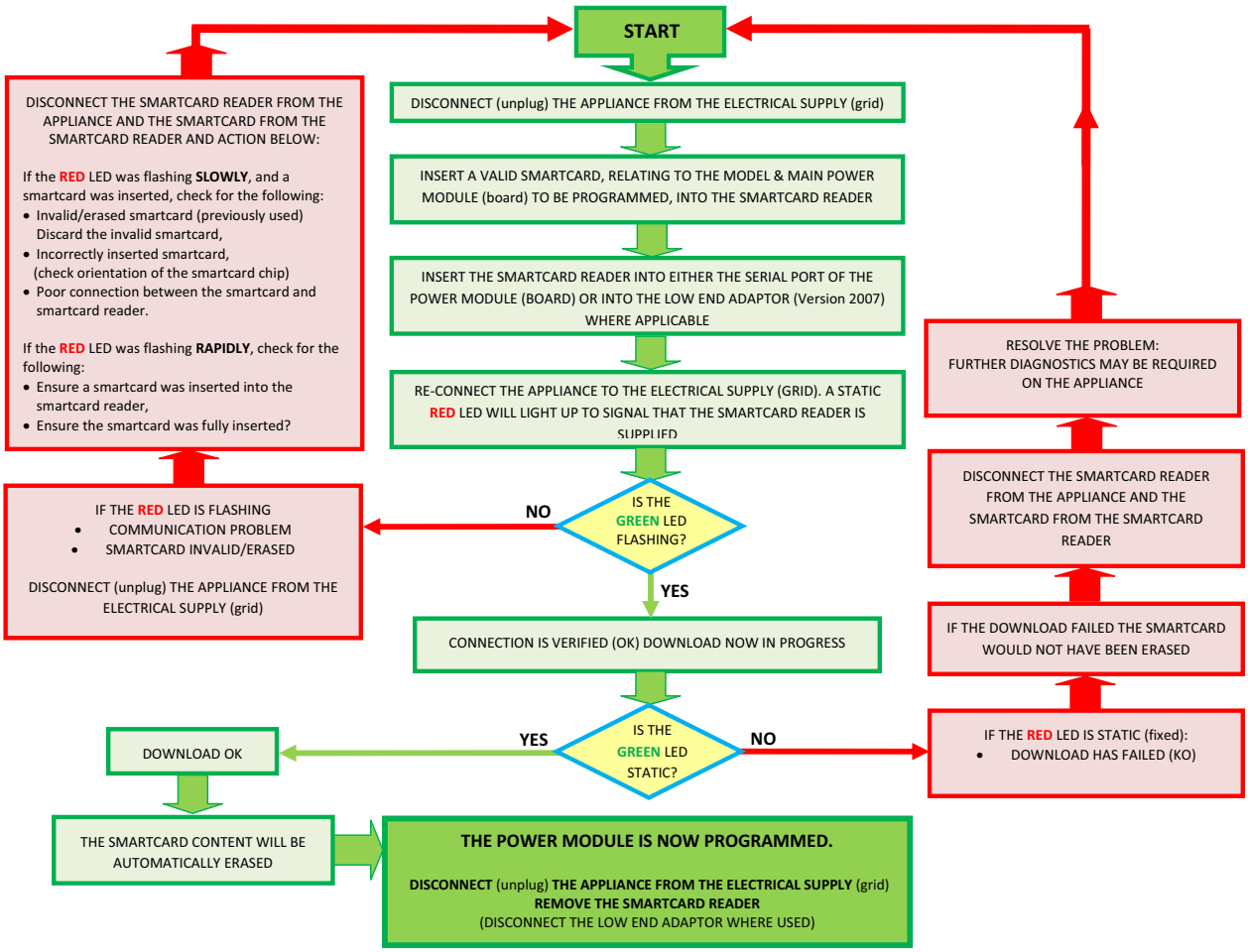
b If the **Red** LED is flashing RAPIDLY, check for the following:
- Ensure a smartcard has been inserted into the smartcard reader,
- Ensure the smartcard has been fully inserted?

Refer to photo 4a above.

Photo 5



SMARTCARD PROGRAMMING PROCEDURE - FLOWCHART



CONNECTING THE LOW END ADAPTOR - 2007 Version

The photos below may show a differnet model to the one you are programming but the Low End Adaptor connection is the same.

BEFORE PROCEEDING UNPLUG THE APPLIANCE FROM THE ELECTRICITY SUPPLY

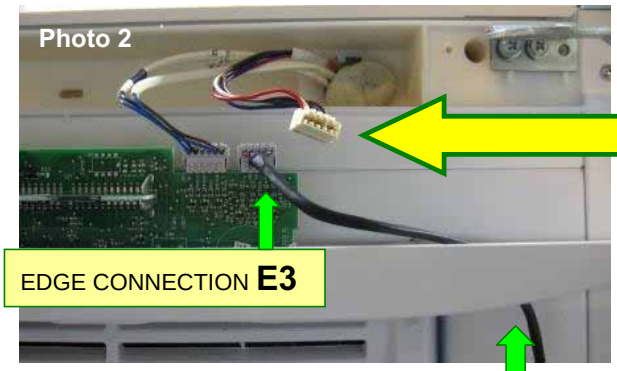
Photo 1



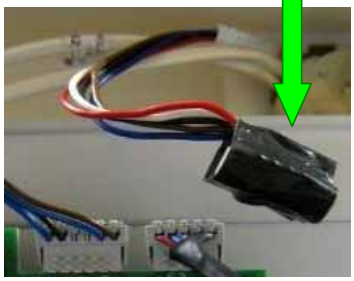
Step 1 - Lower the control panel to access the module and wiring.

Step 2 - Disconnect and insulate the IDC connector block from module edge connection E3. This will prevent it from shorting on the module whilst disconnected.

Photo 2



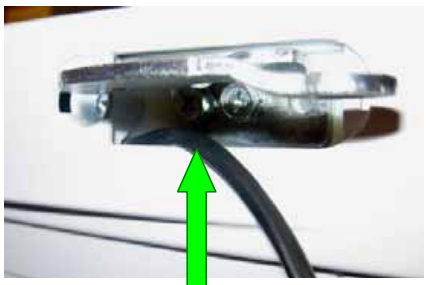
EDGE CONNECTION **E3**



Step 3 - Route the adaptor key through top right hinge opening in the control panel and connect to edge connection E3 on the module.

Photo 3



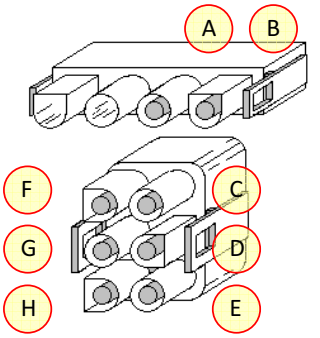


Step 4 - Temporary reassemble the control panel before plugging the appliance in.
To prevent damage to the harness of the adaptor key, route it under the screw fixing post of the control panel.

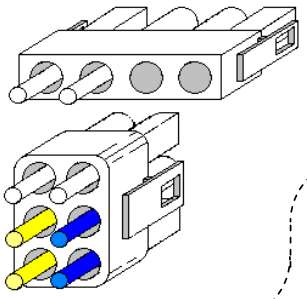
NOTE: Unplug the appliance from the mains supply before disconnecting the adaptor key. The original **IDC** connector block, which you disconnected and taped up earlier in ***Step 2*** above, does not need to be reconnected. This connection was for production purposes only and has no other function. Therefore keep the edge connector insulated and safely positioned in the control housing.

WIRING CONNECTION CHART

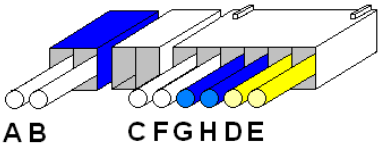
DEFROST HEATER AND THERMAL FUSE CONNECTION PLUG
(FRONT VIEW – PIN SIDE)



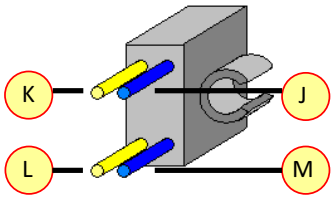
DEFROST HEATER AND THERMAL FUSE CONNECTION PLUG
(REAR VIEW – WIRE SIDE)



ALTERNATIVE DEFROST HEATER AND THERMAL FUSE CONNECTION PLUG
(REAR VIEW – WIRE SIDE)



THERMAL FUSE
(CLIPPED TO EVAPORATOR)



A	~	**WHITE**	Freezer Evaporator Fan Motor
B	~	**WHITE**	Freezer Evaporator Fan Motor
C	~	**WHITE**	Evaporator Defrost Heater
D	~	**YELLOW**	Thermal Fuse
E	~	**YELLOW**	Thermal Fuse
F	~	**WHITE**	Evaporator Defrost Heater
G	~	**BLUE**	Thermal Fuse
H	~	**BLUE**	Thermal Fuse

J	~	**BLUE**	To Terminal Block G
K	~	**YELLOW**	To Terminal Block D
L	~	**YELLOW**	To Terminal Block E
M	~	**BLUE**	To Terminal Block H

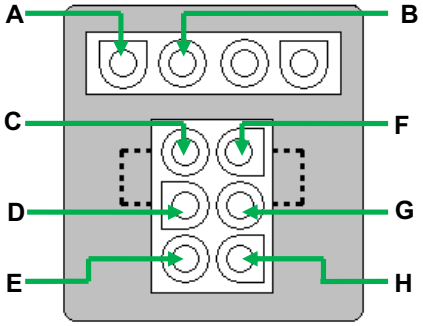
DEFROST HEATER AND THERMAL FUSE CONNECTION SOCKET

From ~ Power Module E1 terminal 1
To ~ Freezer Evaporator Fan

From ~ Gutter Heater (foamed in)
To ~ Evaporator Defrost Heater

From ~ Thermal Fuse (internally linked to socket pin above to Defrost Heater)

From ~ Power Module E1 terminal 2
To ~ Thermal Fuse



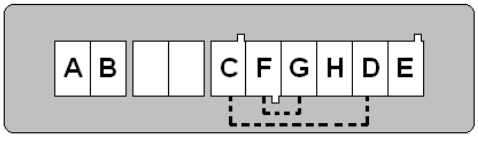
From ~ Power Module E1 terminal 8
To ~ Freezer Evaporator Fan

From ~ Gutter Heater (foamed in)
To ~ Evaporator Defrost Heater

From ~ Thermal Fuse (internally linked to socket pin above to Defrost Heater)

From ~ Power Module E1 terminal 6
To ~ Thermal Fuse

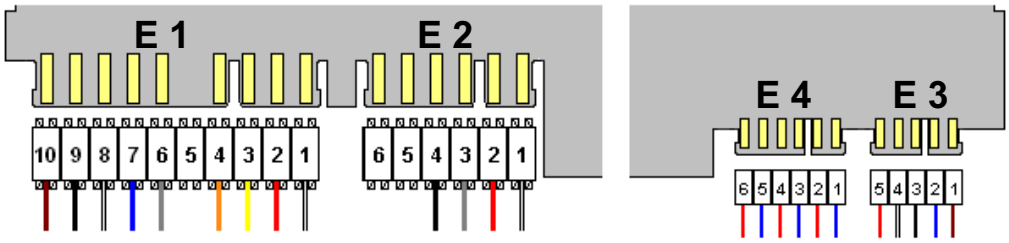
ALTERNATIVE CONNECTION SOCKET



KEY

..... = Indicates Internal Links

POWER / CONTROL MODULE EDGE CONNECTIONS



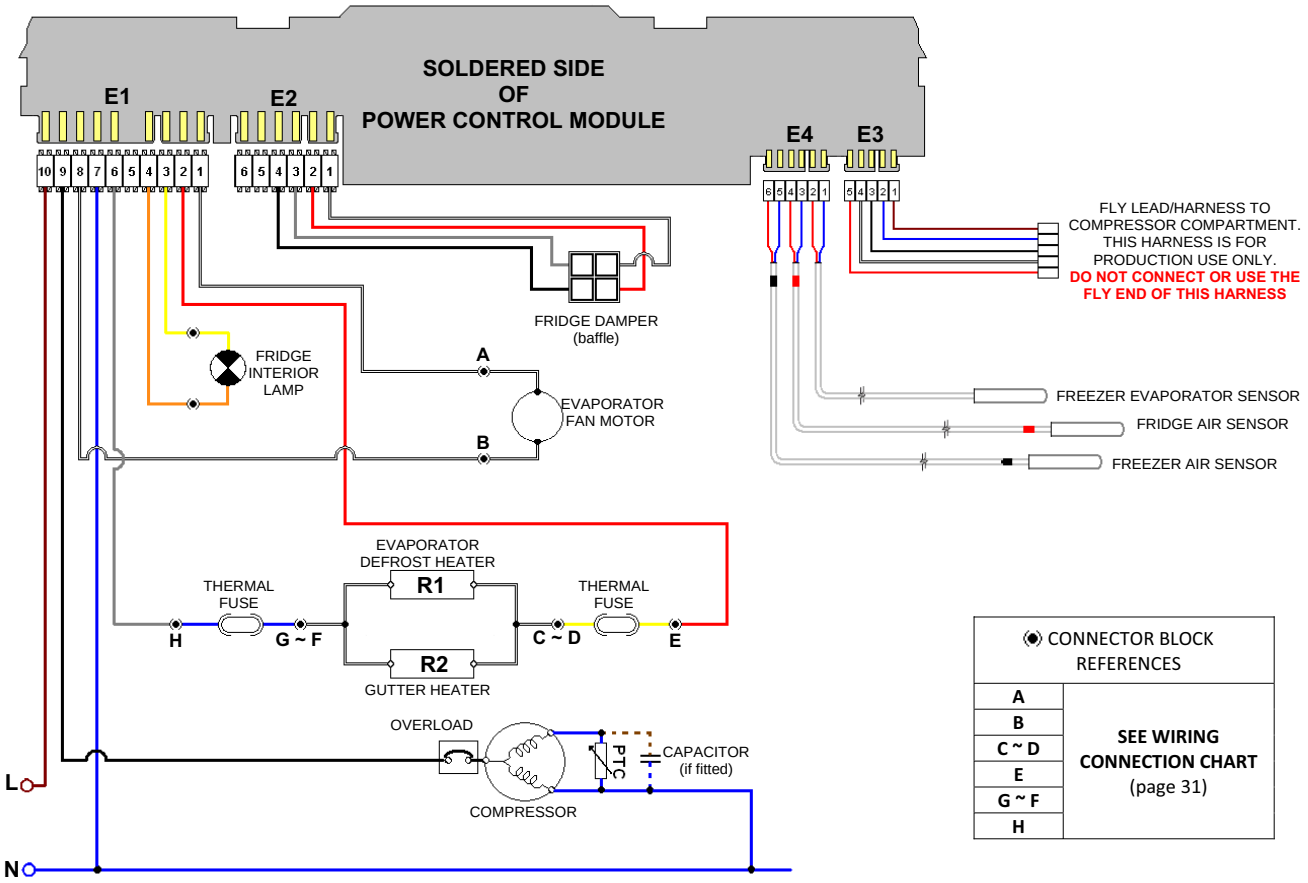
E 1 – TERMINAL CONNECTIONS		
TERMINAL No.	**WIRE COLOUR**	**COMPONENT**
10	**BROWN**	LINE (LIVE)
9	**BLACK**	COMPRESSOR OVERLOAD (COMMON)
8	**WHITE**	EVAPORATOR FAN MOTOR
7	**BLUE**	NEUTRAL
6	**GREY**	THERMAL FUSE
5	NOT USED	
4	**ORANGE**	FRIDGE INTERIOR LAMP
3	**YELLOW**	FRIDGE INTERIOR LAMP
2	**RED**	THERMAL FUSE
1	**WHITE**	EVAPORATOR FAN MOTOR

E 2 – TERMINAL CONNECTIONS		
TERMINAL No.	**WIRE COLOUR**	**COMPONENT**
6	NOT USED	
5	NOT USED	
4	**BLACK**	FRIDGE DAMPER (BAFFLE)
3	**GREY**	FRIDGE DAMPER (BAFFLE)
2	**RED**	FRIDGE DAMPER (BAFFLE)
1	**WHITE**	FRIDGE DAMPER (BAFFLE)

E 4 – IDC CONNECTIONS		
TERMINAL No.	**WIRE COLOUR**	**COMPONENT**
6	**RED**	FREEZER AIR THERMISTOR SENSOR (black sleeve)
5	**BLUE**	
4	**RED**	FRIDGE AIR THERMISTOR SENSOR (red sleeve)
3	**BLUE**	
2	**RED**	FREEZER EVAPORATOR THERMISTOR SENSOR
1	**BLUE**	

E 3 – IDC CONNECTIONS		
TERMINAL No.	**WIRE COLOUR**	**COMPONENT**
5	**RED**	FLY LEAD/HARNESS TO COMPRESSOR COMPARTMENT. THIS HARNESS IS FOR PRODUCTION USE ONLY. **DO NOT CONNECT OR USE THE FLY END OF THIS HARNESS**
4	**WHITE**	
3	**BLACK**	
2	**BLUE**	
1	**BROWN**	

THEORETICAL WIRING DIAGRAM



CONNECTOR BLOCK REFERENCES	
A	SEE WIRING CONNECTION CHART (page 31)
B	
C ~ D	
E	
G ~ F	
H	

THERMISTOR SENSOR LOCATIONS

Three sensors are used in these models, the approximate position is as follows: -

1. Freezer Air Sensor - Located on the compressor step, behind the duct mounting on the right.
2. Freezer Evaporator Sensor - Located in the top right corner of the freezer evaporator.
3. Fridge Air Sensor - Located in the return duct behind the fridge multi-flow unit.

SENSOR RESISTANCE TABLE (Ω)

Temperature (°C)	Resistance (kΩ)
-30	175
-25	129.2
-20	96.3
-15	72.5
-10	55
-5	42.1
0	32.5
5	25.3
10	19.8
15	15.6
20	12.4
25	10
30	8
35	6.5
40	5.3
45	4.3
50	3.6
55	2.9
60	2.4
65	2
70	1.7

DOOR REVERSAL

Important Notes for Guidance:
Before commencing any work refer to the Safety Notes at the beginning of this manual.
Read the instructions below fully and refer to the diagrams on the right before carrying out the door reversal.
Note: Before commencing the door reversal, you will require the left door stops and centre hinge blanking plugs normally supplied loose with the literature pack that comes with the appliance.
If the door stops are not available then they will need to be ordered before proceeding.

A: Reversing the Top Hinge

Remove the top hinge-blanking plug from the top of the fridge door. Unclip the door hinge cover magnet strip. While supporting the fridge door, unscrew and remove the top hinge pin and lift the door from the centre hinge **(Fig. 1a)**.
While supporting the freezer door remove the centre hinge and lift the door from the bottom hinge pin **(Fig. 1b)**.
Remove the upper door hinge, invert and transfer it over to the other side. The original fixing screws are reused to refit it **(Fig. 1c)**.
Remove the hinge blanking covers from the control panel and remove the top hinge, invert and transfer them over to the other side. The original fixing screws are reused to refit it **(Fig. 2)**.

Fig. 1

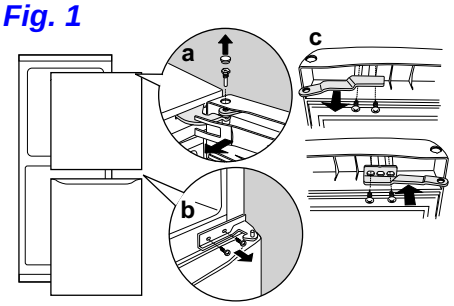


Fig. 2

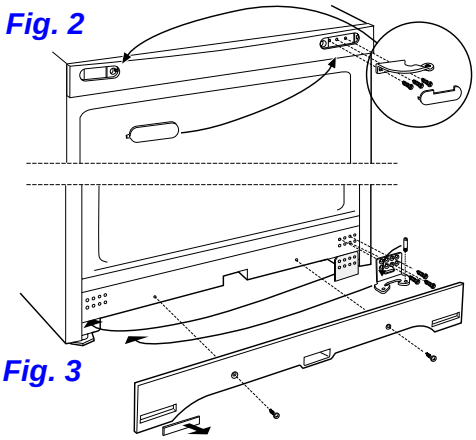


Fig. 3

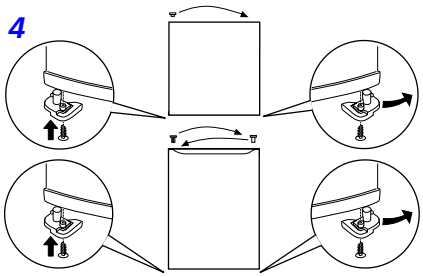
B: Front Base Moulding (Plinth)

Unscrew the two front screws securing the plinth to the base and remove plinth. Remove the lower hinge and slide down the fixing plate, transfer them both to the left hand side. The hinge pin also needs to be transferred to the left pre-threaded hole **(Fig. 3)**.
Before the plinth is screwed back in place, cut out the pre marked blanking plate on the left side and use the blanking plate supplied over to the right side **(Fig. 3)**.

C: Reversing the Top Hinge Bushes and Door Stops

Remove the bottom right hand door stops and fit the left hand door stops (supplied with the appliance) into the bottom left hand side of both doors. Locate the door stop peg and secure in place with the original self-tapping screw **(Fig. 4)**.
Transfer the top blanking plug to the right side of the fridge door.
Transfer the hinge bush and blanking plug over on the freezer door **(Fig. 4)**.

Fig. 4



D: Top Hinge Pin and Door Assembly

If the holes are not present on the left hand side for the centre hinge, carefully position and drill two 3 mm pilot holes guided by the indented markings on the centre transom. Ensure the drill bit does not run too deeply into the appliance **(Fig. 5a)**.
Fit the blanking plugs provided with the appliance into the right hand two centre hinge holes that are now vacant **(Fig. 5b)**.
Place the freezer door onto the bottom hinge pin.
While supporting the door screw the centre hinge into position **(Fig. 5c)**.
Place the fridge door onto the centre hinge pin and align it with the top hinge assembly and screw the top hinge pin in. Refit the hinge blanking plug and the door hinge cover magnet strip to the fridge door, noting that the cut-out end corresponds with the hinge **(Fig. 5d)**. Finally check the door operation.

Fig. 5

