FOSTER
REFRIGERATOR

F Series Cabinets & Counters with AT1-5 & AT2-5 Controllers

Operation, Installation & Service Manual

Issued June 2011

Contents

Manual Information

The products and all information in this manual are subject to change without prior notice.
We assume by the information given that the person(s) working on these refrigeration units are fully trained and skilled in all aspects of their workings. Also that they will use the appropriate safety equipment and take or meet precautions where required.
The service manual does not cover information on every variation of this unit; neither does it cover the installation or every possible operating or maintenance instruction for the units.

Health & Safety Warnings and Information

	Make sure the power supply is turned off before making any electrical repairs.
	To minimise shock and fire hazards, please do not plug or unplug the unit with wet hands.
	During maintenance and cleaning, please unplug the unit where required.
	Care must be taken when handling or working on the unit as sharp edges may cause personal injury, we recommend the wearing of suitable PPE.
	Ensure the correct moving and lifting procedures are used when relocating a unit.
	Do NOT use abrasive cleaning products, only those that are recommended. Never scour any parts of the refrigerator. Scouring pads or chemicals may cause damage by scratching or dulling polished surface finishes.
	Failure to keep the condenser clean may cause premature failure of the motor/compressor which will NOT be covered under the warranty policy.
	Do NOT touch the cold surfaces in the freezer compartment. Particularly when hands are damp or wet, skin may adhere to these extremely cold surfaces and cause frostbite.
	Please ensure the appropriate safety aids or Personnel Protective Equipment (PPE) are used for you own safety.

Environmental Management Policy for Service Manuals and Duets.

Product Support and Installation Contractors

Foster Refrigerator recognises that its activities, products and services can have an adverse impact upon the environment.
The organisation is committed to implementing systems and controls to manage, reduce and eliminate its adverse environmental impacts wherever possible, and has formulated an Environmental Policy outlining our core aims. A copy of the Environmental Policy is available to all contractors and suppliers via our website.

The organisation is committed to working with suppliers and contractors where their activities have the potential to impact upon the environment. To achieve the aims stated in the Environmental Policy we require that all suppliers and contractors operate in compliance with the law and are committed to best practice in environmental management.

Disposal Requirements

If not disposed of properly all refrigerators have components that can be harmful to the environment. All old refrigerators must be disposed of by appropriately registered and licensed waste contractors, and in accordance with national laws and regulations.

IMPORTANT

To the Installer: Installation of these units should be carried out by a competent person and the appropriate codes of practice adhered to, thus ensuring safe installation.
Do not discard this document as it contains important guidelines on Operation, Loading, Cleaning and Maintenance and should be kept for reference.

F Series Cabinet & Counter Descriptions

The F range consists of a choice of capacities and temperature ranges in the Gastronorm format, accommodating GN2/1 (650mm x 530mm) or GN1/1 (530mm x 325mm) shelves or trays. The cabinets are manufactured as a one piece foam shell with easy clean stainless steel exterior
The cabinets conform to current legislation and exceed the Montreal protocol using zero ODP refrigerants and insulation.
There are 2 temperature options rated to Climate Class 5 operation (40^{o}C). Temperature is controlled by a microprocessor control with digital temperature display. The display is clear and easy to read with a wipe clean finish.
The refrigeration system is integral with an air-cooled condensing unit with the refrigerant distribution into the evaporator controlled by capillary tube. Remote systems are available as an option with the refrigerant distribution into the evaporator controlled by an expansion valve. The cooled air is circulated through the evaporator, via the fan into the storage area. The evaporator coil is coated with a special cataphoresis treatment to ensure longevity and corrosion resistance.
A wide magnetic gasket ensures a positive door seal.

Installation

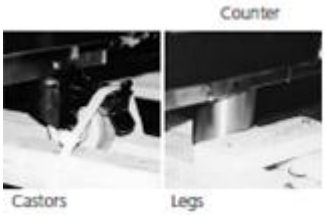
Positioning & Unpacking
IMPORTANT: Ensure a minimum clearance of 150mm above the unit and adequate ventilation for efficient operation. Counter models are designed to breathe from the front but good all-round ventilation will achieve optimum performance and energy efficiency. To achieve optimal efficiency, where possible, ensure the unit is away from heat sources such as cooking equipment, other refrigeration equipment and direct sunlight.

Unpacking: the unit is delivered in a wooden crate. Documentation is inserted into a clear pocket inside the unit. Carefully remove the crate from the unit exterior making sure that any sharp instrument used does not cause damage, plus remove any quality labels.

Cabinet removal from the pallet: Remove the shelf holding the package containing the castors. Remove the retaining bolts, which secure the unit to the pallet. Move the unit over the front of the pallet to fit the lockable castors in the mounting holes. To fit the rear castors, lock the front castors, tilt the unit forwards, remove the pallet and fit the castors in the mounting holes. Ensure that all are tightened firmly into position. This requires 2 persons.

On double door cabinets, ensure 3 castors are fitted at the front.
Ensure during installation the unit is level if not the door/s may not close correctly.

Counter removal from the pallet:



Counters fitted with castors – Remove fittings from inside the unit and ensure all drawers and doors are locked before removal from the pallet. Cut the heavy duty cable ties that hold the front castors to the pallet. Unlock the castors and then carefully roll the unit forward off the pallet.

Counters fitted with legs – Remove fittings from inside the unit and ensure all drawers and doors are locked before removal from the pallet. Remove the fixing blocks located in front of the legs at the front of the unit and cut the straps securing the unit to the pallet. Carefully manoeuvre the unit forward, off the pallet.

Shelf Supports - The units have slotted removable shelf supports allowing flexible shelf positions.

Load Distribution – Evenly distribute the load. For Cabinets: 40kg max per shelf or 160kg per full door section.
For counters 40kg max per shelf or 80kg per door section. Do not stack product on the base of the unit.

Start Up & Operation:
If the cabinet is laid onto its side or back, **DO NOT** switch on immediately but leave in the upright position for at least 60 minutes.

AT1-5 and AT2-5 Controllers

AT1-5 is used on High Temp models

Controller - AT1-5 BS6E-FSI – 00-556223
T1 -Air Probe - SN4B15P1 – 00-556297

AT2-5 is used on Low Temp models

Controller – AT2-5 BS4E-AG – 00-556224
T1 -Air Probe – SN4B15P1 – 00-556297
T2 -Evaporator Probe – SN4B15P2 – 00-556298

Indicators and Buttons – AT1-5

Symbol	Reason	Button	Use
	Alarm		Manual Defrost/Decrease Button
	Compressor Output	M	Increase/ Manual Activation Button
RL2	Auxiliary Output		Exit/ Stand-By Button
			Information/Set Point Button

Indicators and Buttons – AT2-5

Symbol	Reason	Button	Use
	Alarm		Manual Defrost/Decrease Button
	Compressor Output	M	Increase/ Manual Activation Button
RL3	Auxiliary Output		Exit/ Stand-By Button
II°	Activation of 2nd parameter set		Information/Set Point Button
	Fan Output		

Display - for both Controllers

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

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

Information Menu - for both Controllers

The information available in the menu is shown below:

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

Operation

Initial Start Up
Insert the plug into the wall socket and switch on the mains. The cabinet will start automatically and display the actual internal temperature. As the operating temperature had been pre-set, allow the cabinet to reach its normal operating temperature before loading.

1) Start Up

To start the unit, press and hold the  button on the controller for three seconds. The unit will start and the air temperature will be displayed. Important to note that the ability to increase and decrease the set point is not a function available to the user on freezer models as the set point is fixed.

2) Check temperature set point.

- Press the  button (set).
Factory Temperature Set Point:

- Refrigerator temperature set at +1°C to +4°C
- Freezer temperature set at -18°C to -21°C.

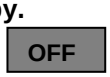
To adjust where possible, use  or  keys whilst keeping the  button depressed.
Release of all keys will revert to normal operating mode.
Exit from set up occurs automatically after 10 seconds if no button is pressed.

Check/adjust the temperature set point.
To make adjustments to the set point it is necessary to access the parameter and alter SPL and SPH accordingly.
Check set point by pressing the  button
To increase set point press  +  until required temperature is displayed.
To decrease set point press  +  until required temperature is displayed.

3) Manual Defrost.

To initiate a manual defrost press and hold  ,  will be displayed, release  .
On completion of the defrost  will be displayed until the cabinet temperature/set point is achieved and then it will revert to displaying the normal cabinet temperature.

4) Set Unit to Standby.

Press  display shows 
This indication is displayed while the unit is not operating but with mains power applied to the unit. This mode may be used for internal cleaning regimes and short periods when the unit is not required.
For extended periods of inactivity the mains supply should be turned off at the mains.

Alarm and Warnings

High temperature alarm

HI Will be displayed.
The alarm will sound but can be silenced by pressing any of the buttons, however it will return after the pre-set designated period. The unit returning to normal operating temperature will automatically cancel the alarm.
Possible Causes: Evaporator fan not working. Restricted airflow through air duct. Evaporator iced up. Compressor not working.

Low temperature alarm.

LO Will be displayed.
The alarm will sound but can be silenced by pressing any of the buttons and the unit will continue to operate, however it will return after the pre-set designated period. The unit returning to normal operating temperature will automatically cancel the alarm.
Possible Causes: Controller faulty (not switching compressor off). Compressor secondary relay will not de-energise (low temperature models).

Door Open Alarm. ('DS' set to 'YES'. *Only applies to cabinets fitted with door switches*.)

DO Will be displayed.

The alarm will sound but can be silenced by pressing ✖⏻.
The display will continue to display the alarm message until cancelled by shutting the door.
If the alarm cannot be cancelled by doing this call your Foster Authorised Service Company.
Possible Causes: Faulty door switch. Door left open for more than 5minutes.

Air Temperature Probe Failure.

E1 Will be displayed.
The alarm will sound but can be silenced by pressing any button.
There is no further action that can be taken by the user in this instance. During this period the unit will continue to operate but have a reduced performance.
Action: Replace Probe.

Evaporator Temperature Probe Failure. (Automatic Defrost Cabinets Only)

E2 Will be displayed.
The alarm will sound but can be silenced by pressing any button.
There is no further action that can be taken by the user in this instance. During this period the unit will continue to operate satisfactorily, but this failure will have an effect on the defrost and therefore efficiency if allowed to continue.
Action: Replace Probe.

Information Menu

Pressing and releasing i▲▼ activates the information menu. From this menu you can display the temperature relating to T1 (air probe), T2 (evaporator probe, if fitted) and T3 (condenser probe, if fitted).
The maximum temperature (THI) and the minimum temperature (TLO) the cabinet has achieved since it was last re-set.
The total operating time of the condenser (CND), since it was last cleaned, and the keyboard status (LOC).

The information to be displayed can be selected sequentially by pressing i▲▼ repeatedly or scrolling through the menu using the ❄▼ or ▲M buttons.

Once selected press i▲▼ to display the value

Exit from the info menu by pressing ✖⏻ or is automatic after 6 seconds if no buttons are pressed.
To reset the temperature settings recorded in THI and TLO and the hours counted in CND, access the info menu press i▲▼ to display the value plus ✖⏻ simultaneously for resetting to be completed.

To check the LOC status scroll through to LOC, press i▲▼ to display status – YES to lock keys. – NO to leave keys accessible.
NOTE: with the keys locked it is not possible to turn the unit off or ON or to check the set point

Cleaning Instructions

IMPORTANT: Before cleaning the power supply should be turned off at the mains and all product removed. Cared for correctly, stainless steel has the ability to resist corrosion and pitting for many years.
The following weekly cleaning regime is recommended

- Exterior. Use a proprietary stainless steel cleaner following the manufacturer's instructions.
- Interior: Wash with mild soapy water, rinse and dry thoroughly.

WARNING: High alkaline cleaning agent or those containing bleaches, acids and chlorines are very harmful to stainless steel. Corrosion and pitting may result from their accidental or deliberate application. If any of these liquids should come into contact with the unit, wipe down the affected area with clean water and rub dry.

Never use wire wool or scouring powders on stainless steel or Aluminium surfaces. All cleaners must be fully rinsed with clean water. Failure to follow correct cleaning regimes will invalidate the warranty.

After cleaning allow the unit to reach its normal operating temperature before reloading with product. During usage all spills should be wiped clean immediately, but care should be taken not to touch the interior of freezer units as warm skin can 'freeze' to metal.
Door Gaskets - These should be inspected on a regular basis and replaced if damaged. To clean, wipe with a warm damp soapy cloth followed by a clean damp cloth and finally thoroughly dry before closing the door.

Condenser Cleaning - Clean the condenser, located in the unit compartment, when it becomes dirty.
IMPORTANT: Disconnect the mains electrical supply to the machine prior to cleaning the condenser. Clean the condenser using a soft brush or vacuum cleaner.
NOTE: If there are any stubborn grease deposits etc. left on or through the condenser call your Foster Authorised Service Provider to carry out a full service. Once the condenser has been cleaned switch the unit back on. Failure to carry out this condenser maintenance may invalidate the warranty of the unit.

Airflow - Do not obstruct the airflow throughout the cabinet interior. Air inlet and outlet duct should not be obstructed with cardboard boxes etc. as this may result in the evaporator icing up causing a loss of performance and temperature rise within the cabinet. Do not place unfrozen product in to frozen food cabinets as the warmth from the product will affect the temperature of the stored product.

Parameter Setting and Adjustment

It is strongly advised that before adjusting any Service Parameters a thorough understanding of the following instructions should be obtained.

The parameters are accessed by pressing the following keys in succession  +  and keeping them pressed for 5 seconds.
After this period the first parameter **'SCL'** will be displayed.
Press button  to pass from one parameter to the next and  button to go back.
Press  to display the value followed by  or  to change it.
Exit from set up is by pressing  or is automatic if no buttons are pressed for 30 seconds.

AT1-5 Default & Individual Parameter Settings

Parameter List							F1/3H & F1/2H	F600H & F1350H
Reg	**Par.**	**Description**	**Min.**	**Max**	**Default**	**Dim.**		
233	SCL	Readout scale	1°C; 2°C; °F		2	flag	2°C	2°C
200	SPL	Minimum set point [I]	-50	SPH	-5	°C	1	1
202	SPH	Maximum set point [I]	SPL	120	5	°C	4	4
204	SP	Set point [I]	SPL	SPH	0	°C	1	1
0	C-H	Refrigerating / Heating selection	REF	HEA	REF	flag	REF	REF
212	HYS	Thermostat hysteresis [I]	1	100	3	°K	3	3
214	CRT	Minimum compressor rest time	0	30	3	min.	2	2
0	CT1	Compressor run with T1 failure	0	30	3	min.	6	6
0	CT2	Compressor stop with T1 failure	0	30	6	min.	4	4
0	CSD	Compressor stop delay from door opening	0	30	1	min.	1	1
217	DFR	Defrost frequency / 24h	0	24	3	1/24h	4	4
206	DLI	Defrost end temperature	-30	30	6	°C	15	15
219	DTO	Maximum defrost duration	1	120	20	min.	15	15
220	DTY	Defrost type	OFF; ELE; GAS		ELE	flag	OFF	OFF
222	DDY	Defrost display control	0	60	10	min.	5	5
0	ATM	Alarm threshold control	NON; ABS; REL		ABS	flag	REL	REL
0	ALA('R)	Low temp. alarm threshold	-50 (-120)	+120 (0)	-50	°C / °K	-25	-25
0	AHA('R)	High temp. alarm threshold	-50 (0)	+120 (+120)	120	°C / °K	-10	-10
0	ALR	Low temp. alarm differential	-12	0	0	°K	-5	-5
0	AHR	High temp. alarm differential	0	12	0	°K	8	8
225	ATD	Alarm temperature delay	0	120	30	min.	90	90
0	ADO	Door alarm delay	0	30	5	min.	5	5
227	ACC	Condenser cleaning period	0	52	0	wks.	0	0
228	SB	Button 0/1 enabling	YES	NO	YES	flag	YES	YES
245.2	DS	Door switch enabling	YES	NO	NO	flag	NO	YES
0	OAU	AUX output control	NON; 0-1; DEF; LGT; FAN; AL1		LGT	flag	FAN	FAN
0	INP	SN4 / ST1	SN4; ST1		SN4	flag	SN4	SN4
236	OS1	T1 (air) probe offset	-125	125	0	°K	0	0
245.0	T2	T2 (evap.) probe enabling	YES	NO	NO	flag	NO	NO
237	OS2	T2 (evap.) probe offset	-125	125	0	°K	0	0
232	TLD	Delay for min./max. temp storage	1	30	5	min.	5	5
234	SIM	Display slowdown	0	100	0	exp.	50	50
235	ADR	Unit peripheral address	1	255	1	exp.	1	1

AT2-5 Default & Individual Parameter Settings

Parameter List							F600L & F1350L
Reg	**Par.**	**Description**	**Min.**	**Max**	**Default**	**Dim.**	
233	SCL	Readout scale	1°C; 2°C; °F		2	flag	2°C
200	SPL	Minimum set point [I]	-50	SPH	-5	°C	-21
202	SPH	Maximum set point [I]	SPL	120	5	°C	-18
204	SP	Set point [I]	SPL	SPH	0	°C	-21
0	C-H	Refrigerating / Heating selection	REF	HEA	REF	flag	REF
212	HYS	Thermostat hysteresis [I]	1	100	3	°K	3
214	CRT	Minimum compressor rest time	0	30	3	min.	3
0	CT1	Compressor run with T1 failure	0	30	3	min.	6
0	CT2	Compressor stop with T1 failure	0	30	6	min.	4
0	CSD	Compressor stop delay from door opening	0	30	1	min.	1
217	DFR	Defrost frequency / 24h	0	24	3	1/24h	4
206	DLI	Defrost end temperature	-30	30	6	°C	20
219	DTO	Maximum defrost duration	1	120	20	min.	20
220	DTY	Defrost type	OFF; ELE; GAS		ELE	flag	ELE
221	DRN	Drain down time	0	30	3	min.	2
222	DDY	Defrost display control	0	60	10	min.	10
0	FID	Fans active during defrost	NO	YES	NO	flag	NO
207	FDD	Fan re-start delay temperature	-30	30	-2	°C	0
245.3	FTC	Evaporator fan timed control	NO	YES	YES	flag	NO
0	FT1	Fan stop delay	0	180	30	sec.	30
0	FT2	Timed fan stop	0	30	3	min.	3
0	FT3	Timed fan run	0	30	1	min.	1
0	ATM	Alarm threshold control	NON; ABS; REL		ABS	flag	REL
0	ALA('R)	Low temp. alarm threshold	-50 (-120)	+120 (0)	-50	°C / °K	-25
0	AHA('R)	High temp. alarm threshold	-50 (0)	+120 (+120)	120	°C / °K	-10
0	ALR	Low temp. alarm differential	-12	0	0	°K	-5
0	AHR	High temp. alarm differential	0	12	0	°K	8
225	ATD	Alarm temperature delay	0	120	30	min.	90
0	ADO	Door alarm delay	0	30	5	min.	5
227	ACC	Condenser cleaning period	0	52	0	wks.	0
230	IISM	2nd parameter set switching mode	NON ; MAN		NON	flag	NON
201	IISL	Minimum 2nd temp. set	-50	IISH	0	°C	-21
203	IISH	Maximum 2nd temp. set	IISL	120	0	°C	-21
205	IISP	Effective 2nd temperature set point	IISL	IISH	0	°C	-21

213	IIHY	Hysteresis 2nd temperature set	1	100	0	°K	3
245.4	IIFT	Evap. fan timed control in mode 2	YES	NO	0	flag	NO
218	IIDF	Defrost Frequency / 24h in mode 2	0	24	0	1/24h	4
228	SB	Button 0/1 enabling	YES	NO	YES	flag	YES
245.2	DS	Door switch enabling	YES	NO	NO	flag	YES
0	LSM	Light control mode	NON; MAN; DOR		NON	flag	NON
0	OAU	AUX output control	NON; 0-1; DEF; LGT; FAN; AL1		NON	flag	DEF
0	INP	SN4 / ST1	SN4; ST1		SN4	flag	SN4
236	OS1	T1 (air) probe offset	-125	125	0	°K	0
245.0	T2	T2 (evap.) probe enabling	YES	NO	NO	flag	YES
237	OS2	T2 (evap.) probe offset	-125	125	0	°K	0
232	TLD	Delay for min./max. temp storage	1	30	5	min.	5
234	SIM	Display slowdown	0	100	3	exp.	50
235	ADR	Unit peripheral address	1	255	1	exp.	1

Parameters highlighted yellow differ from the default controller setting.

Technical Data – All Models

Cabinet Models		F600H	F600L	F1350H	F1350L
Unit Dimension (W x D x H) mm		700 x 850 x 2075	700 x 850 x 2075	1440 x 850 x 2075	1440 x 850 x 2075
Temperature		+1/+4°C	-18/-21°C	+1/+4°C	-18/-21°C
Shelves		4	4	8	8
Refrigerant		R134a	R404a	R134a	R404a
Refrigerant Charge		315 grms	325 grms	475 grms	600 grms
Compressor		FR75GX	SC15CLX	SC15GX	CAJ2446Z-SE
Capillary		0.047 x 3.0	0.047 x 2.5	0.054 x 3.0	0.054 x 2.6
Defrost Type		OFF CYCLE	ELECTRIC	OFF CYCLE	ELECTRIC
Voltage		230	230	230	230
Power Consumption	Watts	510	610	730	610
	Run Amps	2.6	3.2	3.7	3.2
Fuse Rating		13	13	13	13

Counter Models		F1/2H	F1/2L	F1/3H	F1/3L
Unit Dimension (W x D x H) mm		1420 x 700 x 835	1420 x 700 x 835	1870 x 700 x 835	1870 x 700 x 835
Temperature		+1/+4°C	-18/-21°C	+1/+4°C	-18/-21°C
Shelves		4	4	6	6
Refrigerant		R134a	R404a	R134a	R404a
Refrigerant Charge		300 grms	340 grms	300 grms	340 grms
Compressor		FR75GX	SC15CLX	FR75GX	SC15CLX
Capillary		0.042 x 3.0	0.042 x 3.0	0.042 x 3.0	0.042 x 3.0
Defrost Type		OFF CYCLE	ELECTRIC	OFF CYCLE	ELECTRIC
Voltage		230	230	230	230
Power Consumption	Watts	510	610	730	610
	Run Amps	2.6	3.2	3.7	3.2
Fuse Rating		13	13	13	13

Probe Identification

The air probe fitted to these controllers is the 10k NTC type (SN4B15P1 Part number 00-556297).
The evaporator probe fitted to these controllers is the 10k NTC type (SN4B15P2 Part number 00-556298).

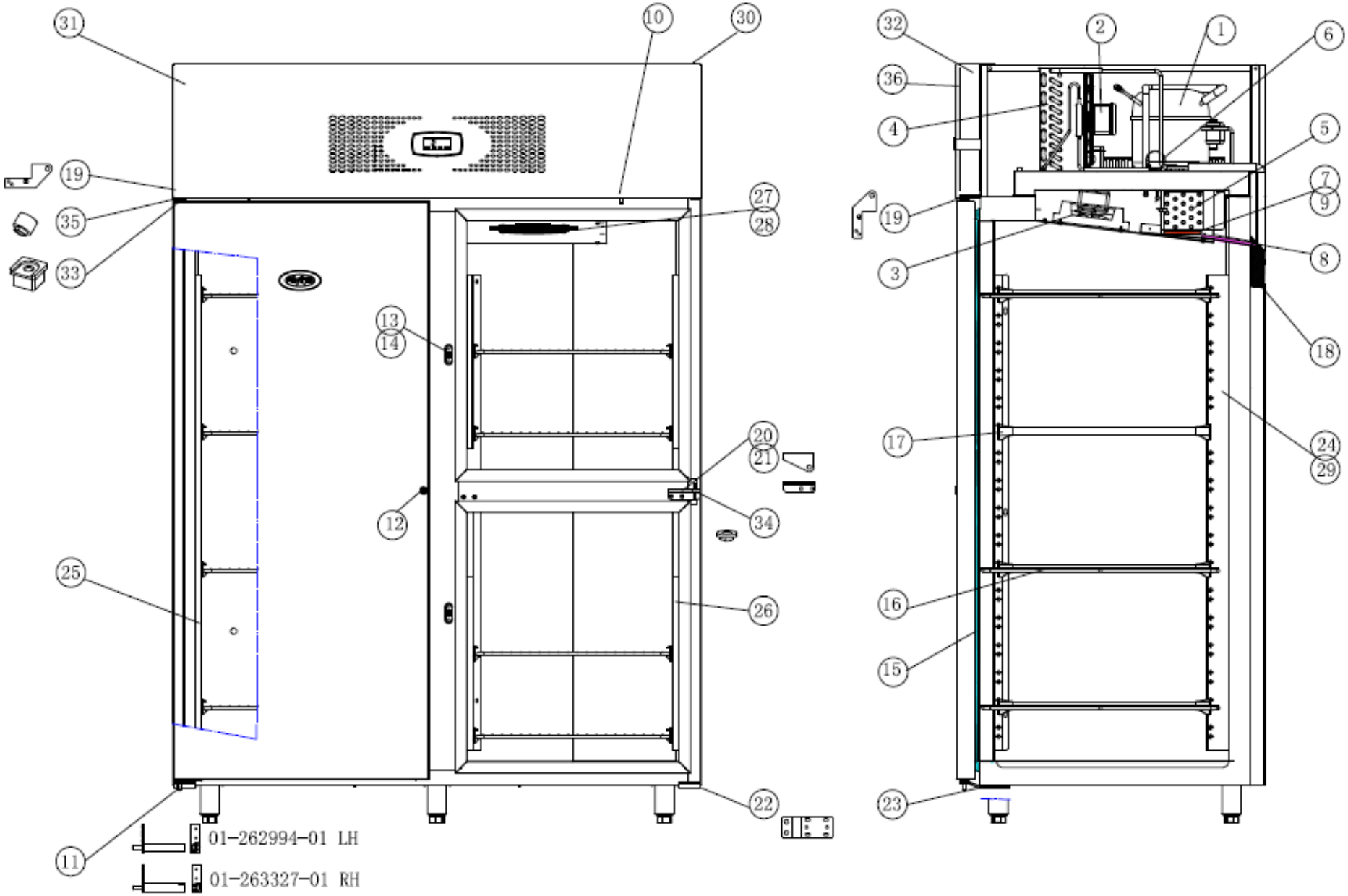
Parts List – Cabinets & Counters

Part #	Description	Cabinet Dia #	F600H	F600L	F1350H	F1350L	F1/2H	F1/2L	F1/3H	F1/3L	Counter Dia #
00-556018	Compressor - FR7.5GX R134	1	X				X		X		1
00-554943	Compressor - SC15CLX			X				X		X	
00-556062	Compressor - SC15GX R134				X						
00-554688	Compressor - CAJ2446Z-SE					X					
15470026	Condenser Fan Grid Mount (7w 200mm)	2	X				X	X	X	X	2
00-555945	Condenser Fan Motor Assy Grid Mount (18w 254mm)			X	X	X					
00-599687	Evaporator Fan Motor (10w 200mm)	3	X	X	X	X					
00-555979	Evaporator Fan Motor (5w 200mm Elco)		X	X	X	X	X	X	X	X	3
15470026	Evaporator Fan Motor (5w)						X	X	X	X	
01-264256-01	Condenser Coil							X		X	4
01-261983-01	Condenser Coil	4	X				X		X		
01-261973-01	Condenser Coil			X							
01-262355-01	Condenser Coil				X						
01-262286-01	Condenser Coil					X					
01-261999-01	Evaporator Coil	5	X								
01-262146-01	Evaporator Coil			X							
01-262361-01	Evaporator Coil				X						
01-262277-01	Evaporator Coil					X					
01-263462-01	Evaporator						X	X	X	X	5
16010671	Capillary	6	3.0m	2.5m							
16010654	Capillary				3.0m	2.6m					
16010642	Capillary						3.0m	3.0m	3.0m	3.0m	6
01-263417-01	Defrost Heater/ Coil	7		X							
01-263420-01	Defrost Heater/ Coil					X					
01-264280-01	Defrost Heater/ Coil							X		X	7
01-264279-01	Defrost Heater Tray							X		X	8
00-556114	Heater Drainline Double Insulated	8		X	X						
15243603	Thermal Cut Out	9		X		X		X		X	9
00-556012	Door Switch	10	X	X	X	X					
01-262994-01	Kason 1539 Cartridge (LH Bottom)	11	X	X	X	X					
01-263327-01	Kason 1539 Cartridge (RH Bottom)		X	X	X	X	X	X	X	X	10
15230531	Hinge Cartridge LH (Self Closing)						X	X	X	X	

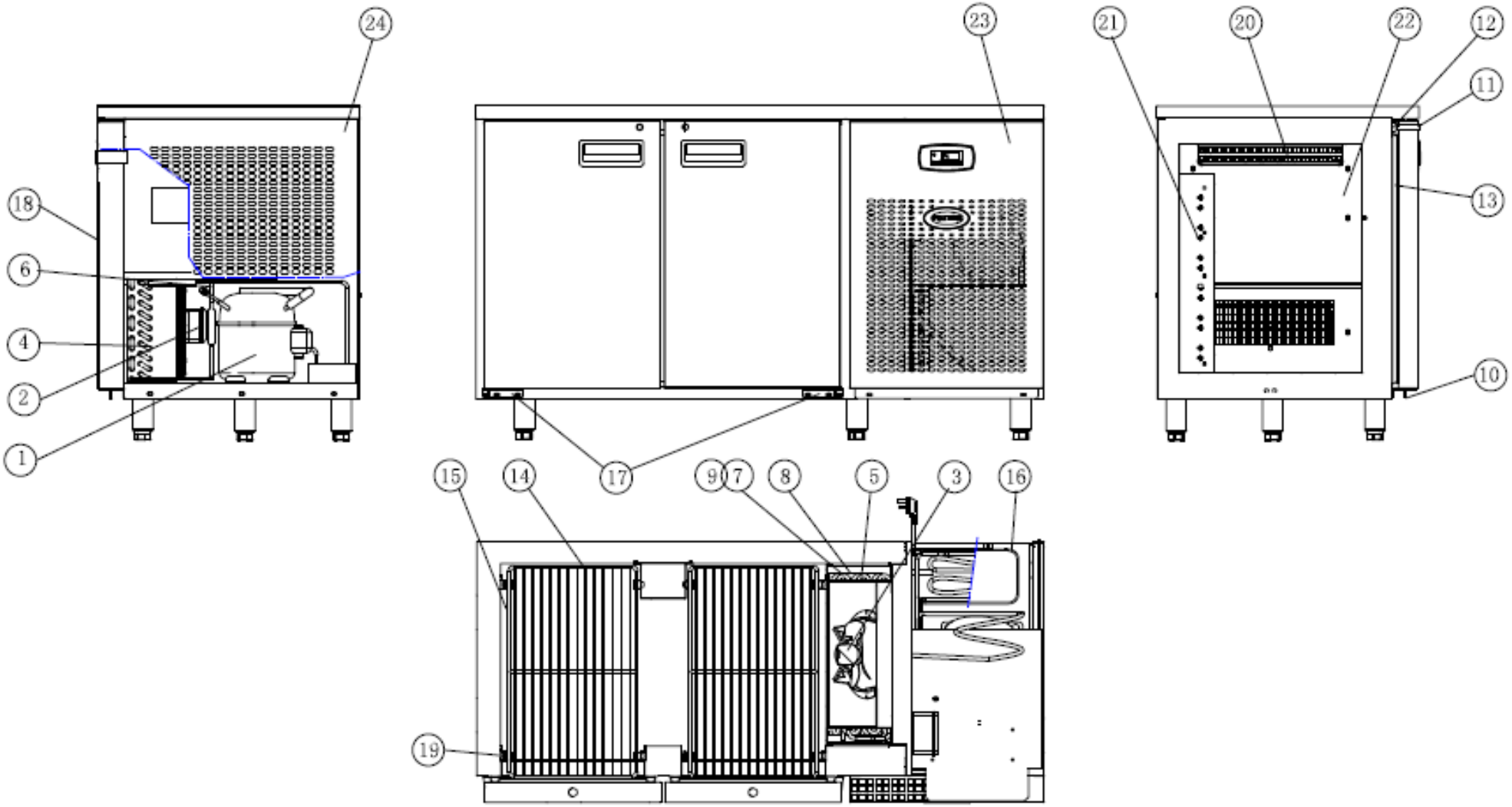
15230530	Hinge Cartridge RH (Self Closing)						X	X	X	X	
00-878781-01	Lock Assy & Keys	12	X	X	X	X					
01-230204-01	Lock Assy & Keys						X	X	X	X	11
15230294	Glass Door Lock		X	X	X	X	X	X	X	X	
15230337	Glass Door Lock with Keep & x2 Keys		X	X	X	X	X	X	X	X	
00-878328-01	Lock Keep	13	X	X	X	X					
01-230200-01	Lock Keep						X	X	X	X	12
00-878661-01	Lock Spring	14	X	X	X	X					
01-263247-01	Cabinet Door Gasket (Full Door 638X1536)	15	X	X	X	X					
01-262055-01	Cabinet Door Gasket (Half Door 638X740)		X	X	X	X					
01-263507-01	Counter Door Gasket (598X389)						X	X	X	X	13
01-264081-01	Counter Drawer Gasket (1/2 drawer 262X389)						X	X	X	X	
01-264026-01	Counter Drawer Gasket (1/3 drawer 150X389)						X	X	X	X	
01-263507-01	Counter Door Gasket						X	X	X	X	
15271430	Shelf GN2/1	16	X	X	X	X					
15271429	Shelf GN1/1						X	X	X	X	14
00-745542-01	Trayslide	17	X	X	X	X					
01-263607-01	Trayslide						X	X	X	X	15
01-262138-01	Vaporiser tray F600	18	X	X							
01-263376-01	Vaporiser tray F1350				X	X					
15271004	Vapouriser Tray						X	X	X	X	16
01-261880-01	Top Hinge Bracket	19	X	X	X	X					
01-262048-01	RH Door Hinge Bracket	20	X	X							
01-262293-01	LH Door Hinge Bracket	21	X	X							
01-262063-01	LH Bottom Hinge Bracket	22	X	X	X	X					
01-262063-02	RH Bottom Hinge Bracket	23	X	X	X	X					
01-264848-01	LH Bottom Hinge Bracket						X	X	X	X	17
01-264796-01	RH Bottom Hinge Bracket						X	X	X	X	
01-262989-01	Rear Centre Support	24			X	X					
01-262972-01	Long Ladderack	25	X	X	X	X					
01-263605-01	Long Ladderack						X	X	X	X	21
01-260186-01	Short Ladderack	26	X	X	X	X					
01-260425-01	Short Ladderack						X	X	X	X	19
01-264041-01	Fan Plate	27	X	X							
01-264074-01	Fan Plate	28			X	X					
01-262974-01	Air Duct	29	X	X							
01-264301-01	Air Duct						X	X	X	X	20

01-261884-01	Top Surround	**30**	X	X	X	X					
01-264229-02	Unit Cover	**31**	X	X							
01-264231-02	Unit Cover	**32**			X	X					
15230510	Kason Pivot Bush	**33**	X	X	X	X					
15230506	Kason Adaptor Bush	**34**	X	X	X	X					
01-262135-01	Adaptor Bush	**35**	X	X	X	X					
00-525066-01	Door Reverse Adapter Bush		X	X							
01-264345-01	Unit Cover Filter	**36**	X	X	X	X					
00-561066-01	Unit Cover Filter						X	X	X	X	**18**
00-525052-01	Unit Cover Filter						X	X	X	X	
01-263483-01	Evaporator Coil Cover						X	X	X	X	**22**
01-264108-01	Unitcover						X	X	X	X	**23**
01-264112-01	End unitcover						X	X	X	X	**24**
Extras Not On Diagrams											
15480001	Accumulator			X				X		X	
15480002	Accumulator					X					
15480908	Drier		X	X	X	X	X	X	X	X	
00-556223	Controller - AT1-5		X		X		X		X		
00-556224	Controller - AT2-5			X		X		X		X	
00-556297	Air Probe		X	X	X	X	X	X	X	X	
00-556298	Evaporator Probe			X		X		X		X	
00-561034	Heater Rod (Remote Only)		X	X	X	X					
15240022	Heater Rod (Remote Only)						X	X	X	X	
00-555708	Castor 75mm swivel		X	X	X	X	X	X	X	X	
00-555709	Castor 75mm swivel braked		X	X	X	X	X	X	X	X	
00-561021	Leg 100mm		X	X	X	X	X	X	X	X	
00-561071	Leg 150mm		X	X	X	X	X	X	X	X	
00-555873	Foster Crystal Badge		X	X	X	X	X	X	X	X	
00-554976	User Guide Label		X	X							
01-232751-01	Hot Gas Vaporiser Coil						X	X	X	X	

Parts List Diagram - Cabinets



Parts List Diagram - Counters



Reversing The Door Opening

Door Opening Definition
The door hinge is mounted on the side of the cabinet or counter that is stated in the description ie right hand mounted means the hinges are placed on the right hand side of the door as you face the refrigerator (as shown below). And visa verse for the left.
The images show the door types that this applies to.

(Cabinets show right hand full and half doors)

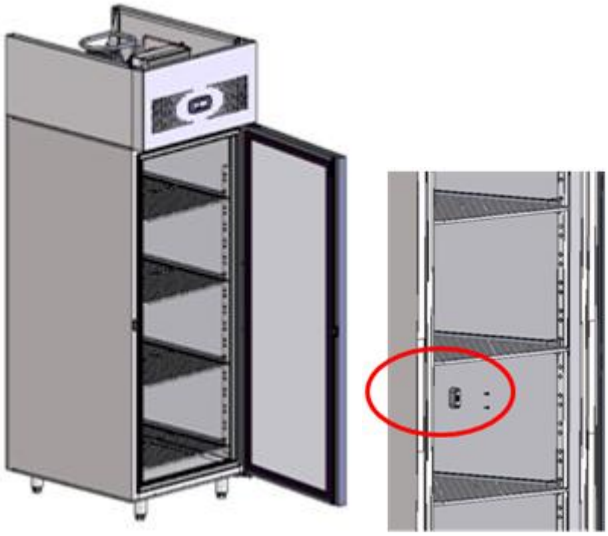
What you will need to make the conversion

Please contact your dealer or our factory for the following componets required to carry out this task.
Please note you will need to cap the original holes with black plastic caps.

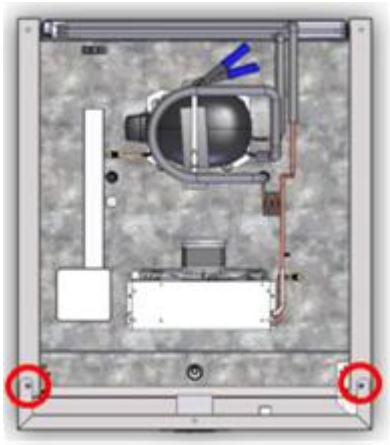
Model	Part Number	Description of Part	Quantity Needed
F600 Full Door LH	00-525066-01	Pivot Bush	1
	01-262063-02	Bottom Hinge Bracket RH	1
	00-554585	Blask Plastic Capping	2
	00-554976	Stick on User Guide	1
	00-555873	Foster Badge	1
F600 Full Door RH	00-525066-01	Pivot Bush	1
	01-262063-01	Bottom Hinge Bracket LH	1
	00-554585	Blask Plastic Capping	2
	00-554976	Stick on User Guide	1
	00-555873	Foster Badge	1
F600 Half Door LH	01-262063-01	Bottom Hinge Bracket LH	1
	00-554976	Stick on User Guide	1
	01-262048-01	Middle Hinge Bracket RH	1
	00-554585	Black Plastic Capping	4
	00-555873	Foster Badge	1
F600 Half Door RH	01-262063-02	Bottom Hinge Bracket RH	1
	00-554976	Stick on User Guide	1
	01-262293-01	Middle Hinge Bracket LH	1
	00-554585	Black Plastic Capping	4
	00-555873	Foster Badge	1

Reversing a Full Door

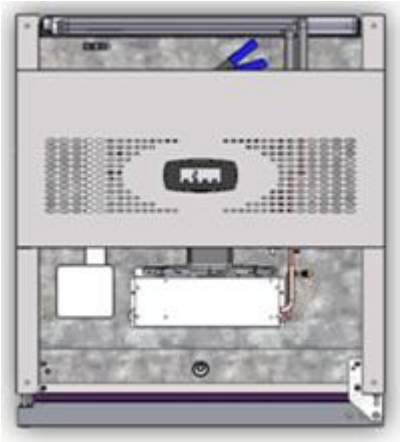
1. Open the door and remove the lock catch using a screw driver.



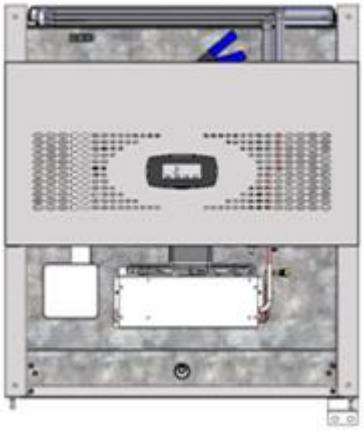
2. Remove the self-tapping screw that retains the unit cover and top surroud using a screw driver.



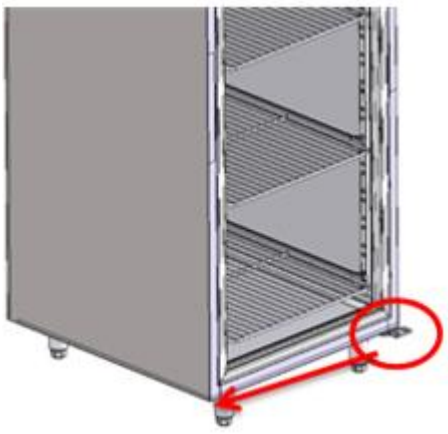
3. Remove the unitcover and lay on top of the unit. **DO NOT disconnect any wiring.**



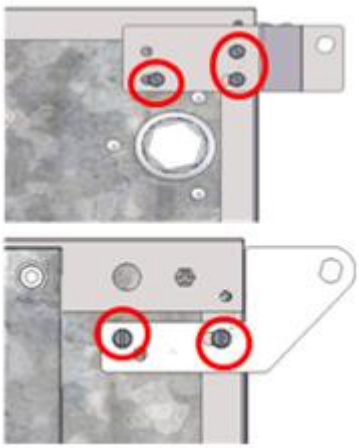
4. Remove the door pivot screw then the door. Release the top hinge bracket retaining screw and remove the bracket

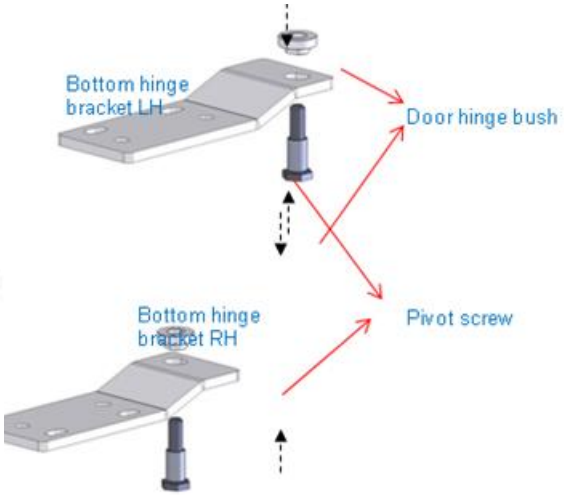


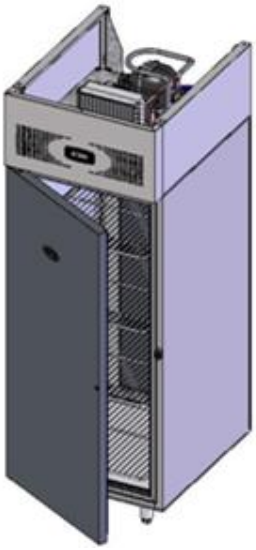
5. Remove the bottom hinge screws and bracket re-assemble the bracket on the opposite side (as shown). Fix the bottom hinge bracket assembly in the correct position on the cabinets bottom clad.



6. Rotate the door 180 degrees and install on the bottom hinge bracket. Locate the top hinge bracket on the door cartridge and the fix the top hinge bracket to the cabinet shell. (See screw positioning images below)



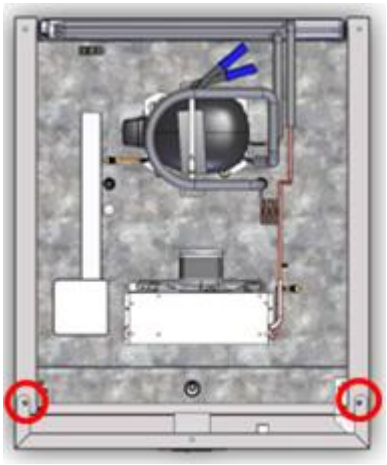




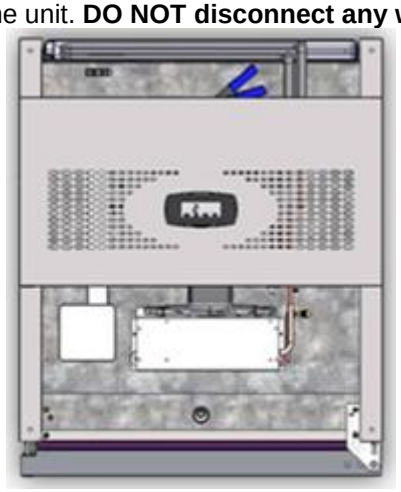
Reversing a Half Door

1. Open the door, remove the lock catches using a screw driver.

2. Remove the self-tapping screws that retain the unit cover and top surround with a screw driver.



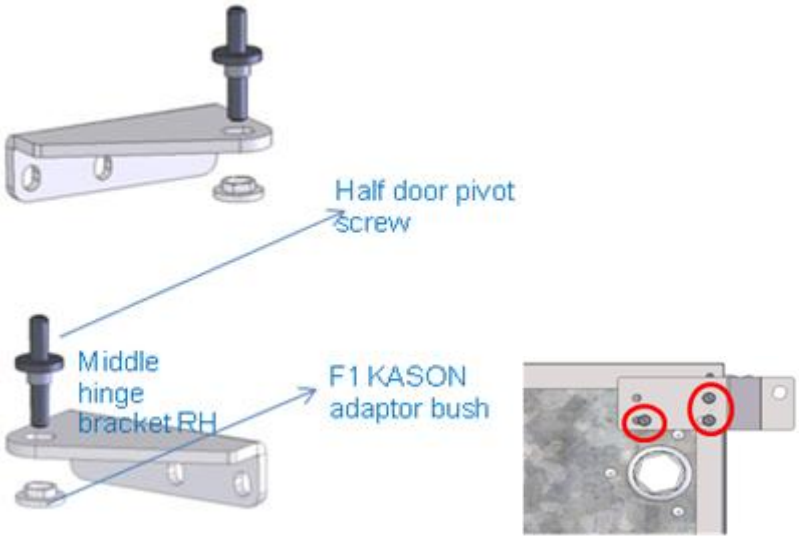
3. Remove the unit cover and lay on the top of the unit. **DO NOT disconnect any wiring.**



4. Remove the top hinge bracket and remove the top door.

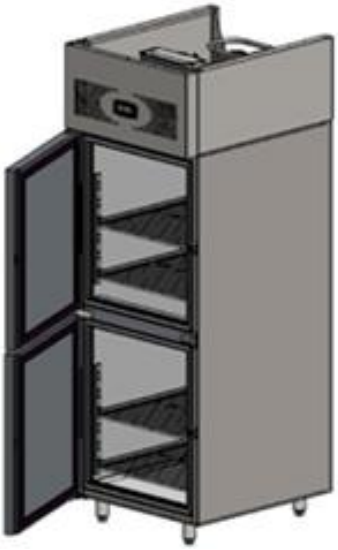
5. Remove the middle hinge bracket and remove the bottom door.

6. Install the bottom hinge bracket on the opposite side of the unit, the bottom door and the middle bracket. (See hinge fitting images below)

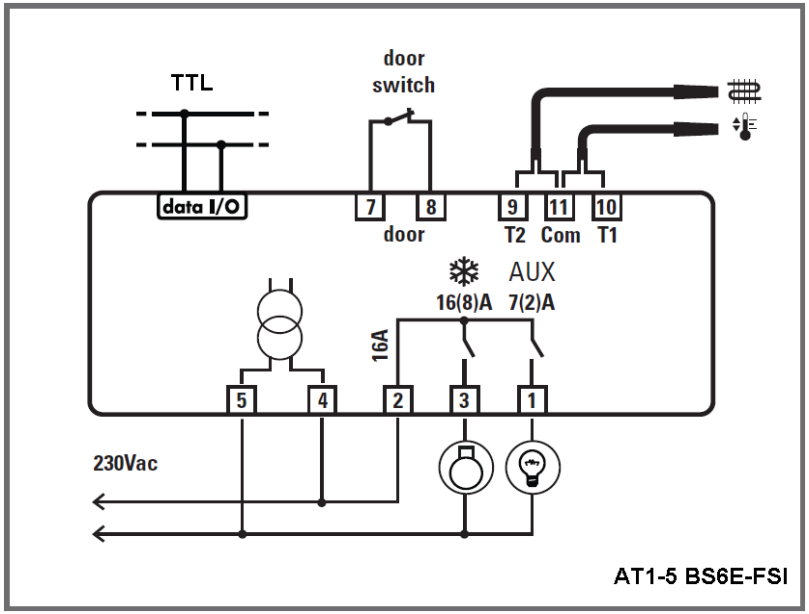


7. Fit the bottom door and top hinge bracket

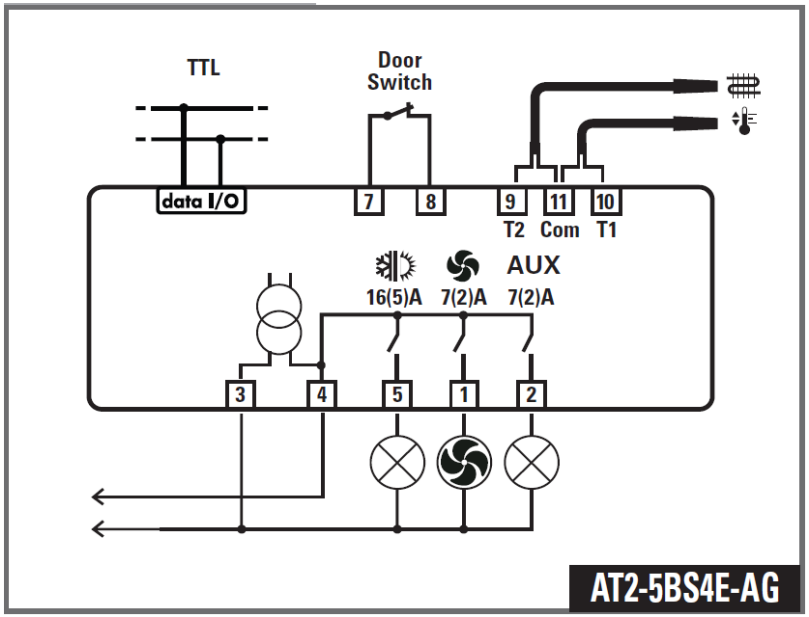
8. Refit the unitcover and lock catches in the appropriate places.



Individual Controller Wiring Diagrams & Technical Information



Power Supply AT2-5…E 230Vac±10%, 50/60Hz, 3W
Relay Output
AT2-5.S... Compressor 16(5) A 240vac
Evaporator fans 7(2) A 240vac
Auxiliary Loads 7(2) A 240vac
Maximum total current 16A
Input NTC 10KΩ@25°C, LAE part No. SN4...
Measurement Range
-50…120°C, -55…240°F
-50 / -9.9…19.9 / 80°C (NTC 10K Only)
Measurement Accuracy <0.5°C within the measurement range
CE - UL (Approvals and Reference norms) EN60730-1; EN60730-2-9;
EN55022 (Class B);
EN50082-1
UL 60730-1A
Front protection
IP55



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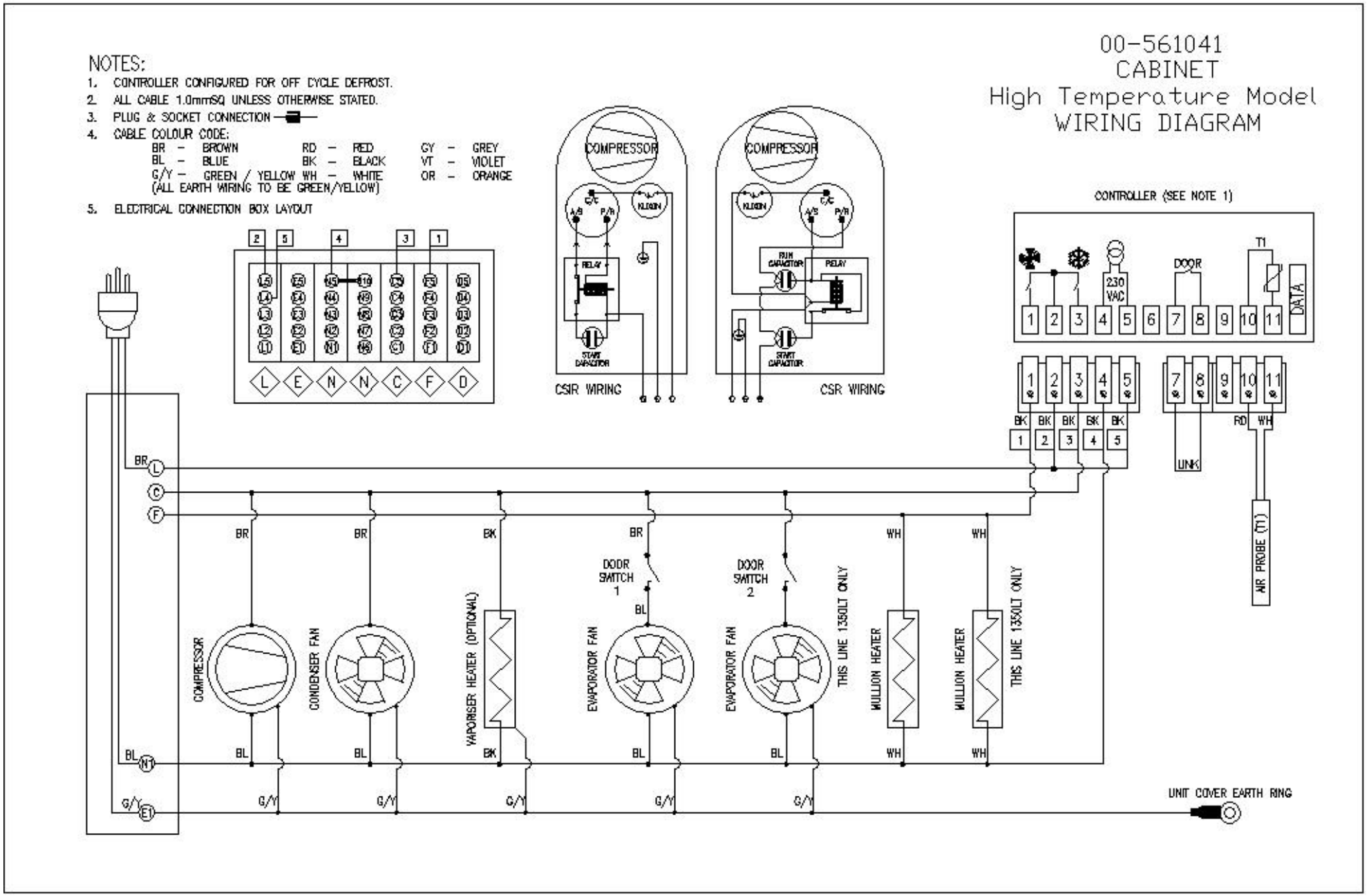
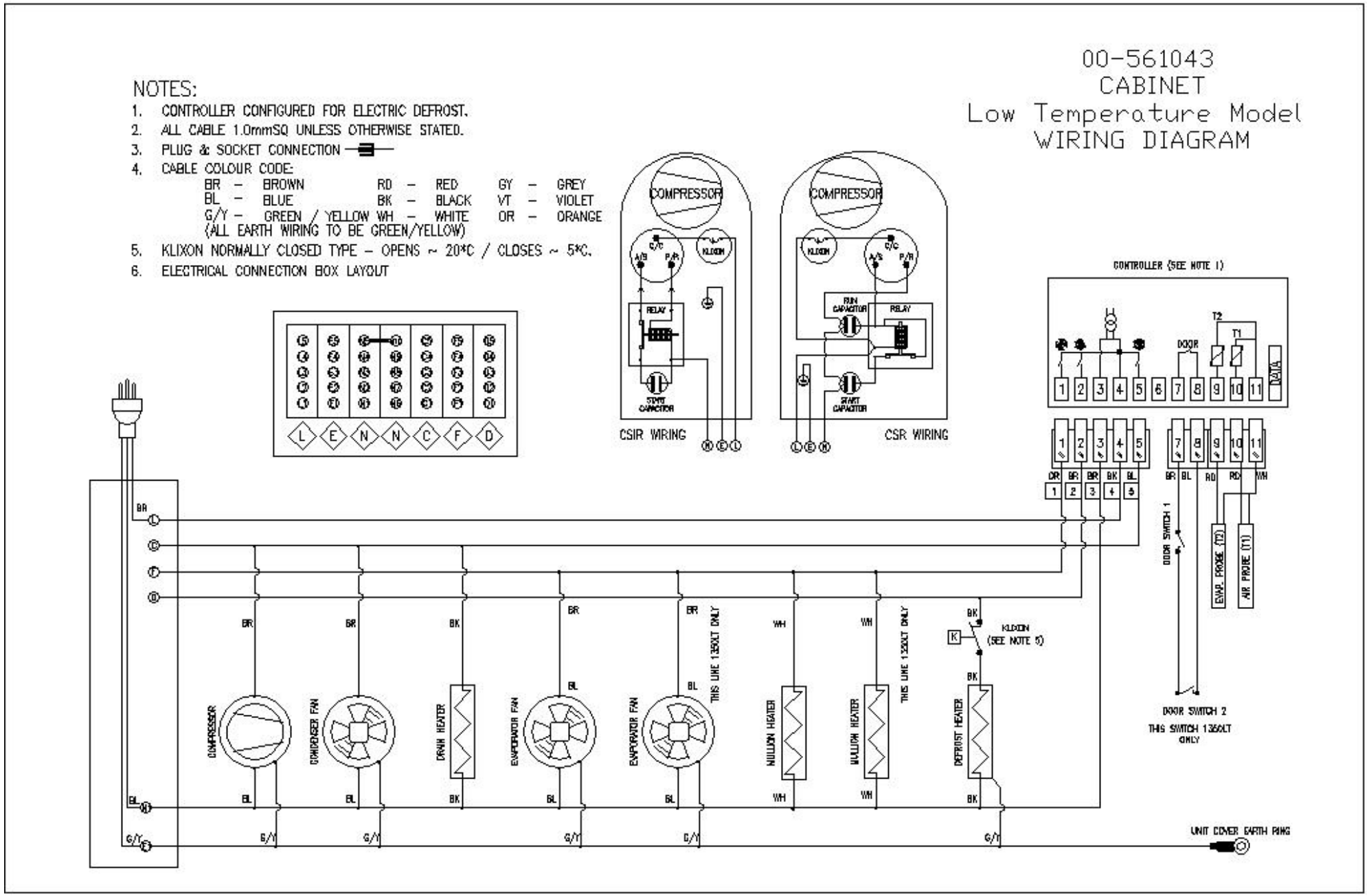
Measurement Range
-50…120°C, -55…240°F
-50 / -9.9…19.9 / 80°C (NTC 10K Only)
Measurement Accuracy <0.5°C within the measurement range
CE - UL (Approvals and Reference norms) EN60730-1; EN60730-2-9;
EN55022 (Class B);
EN50082-1
UL 60730-1A
Front protection
IP55

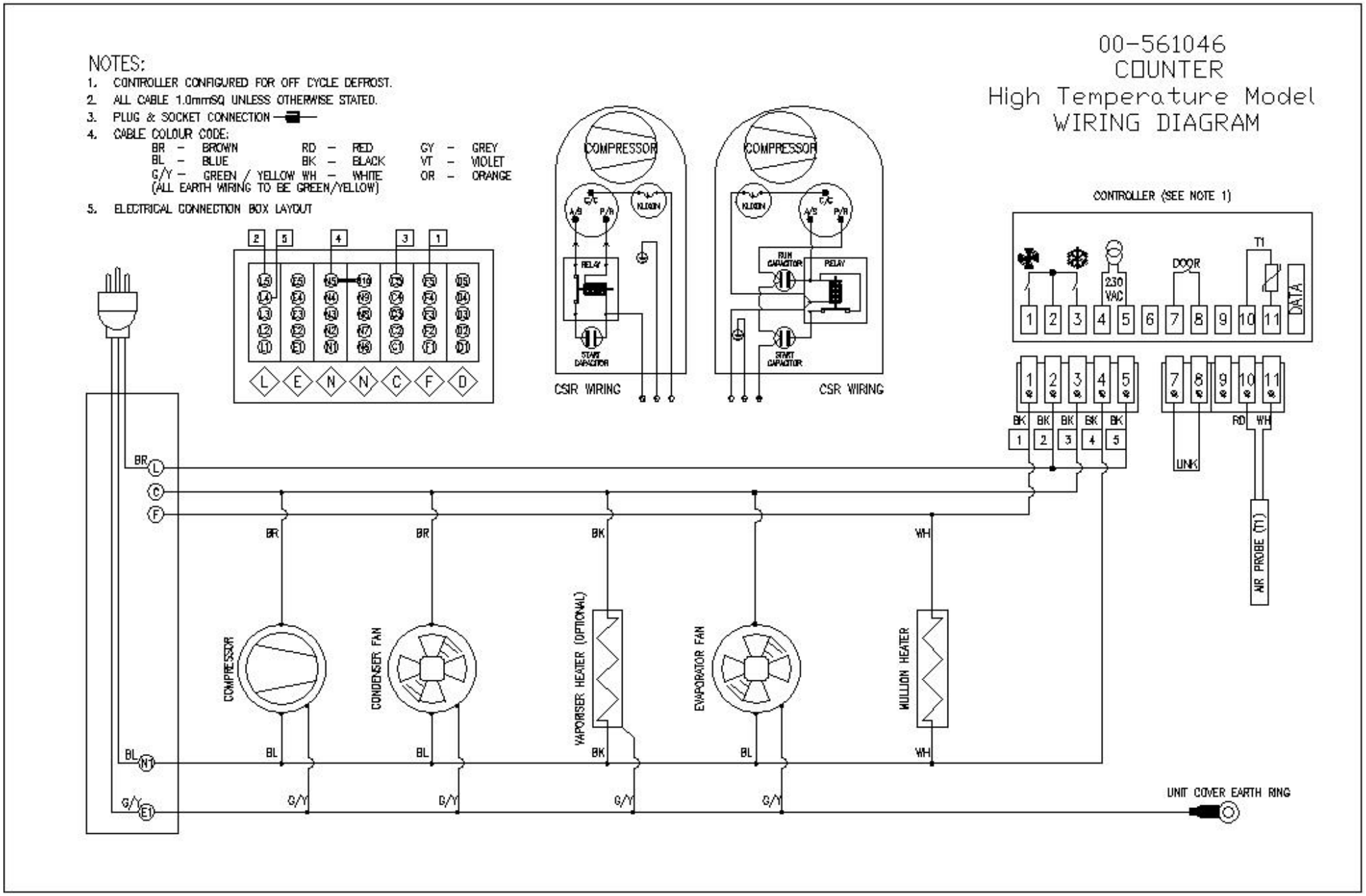
F Series High Temp Cabinets - Wiring Diagram



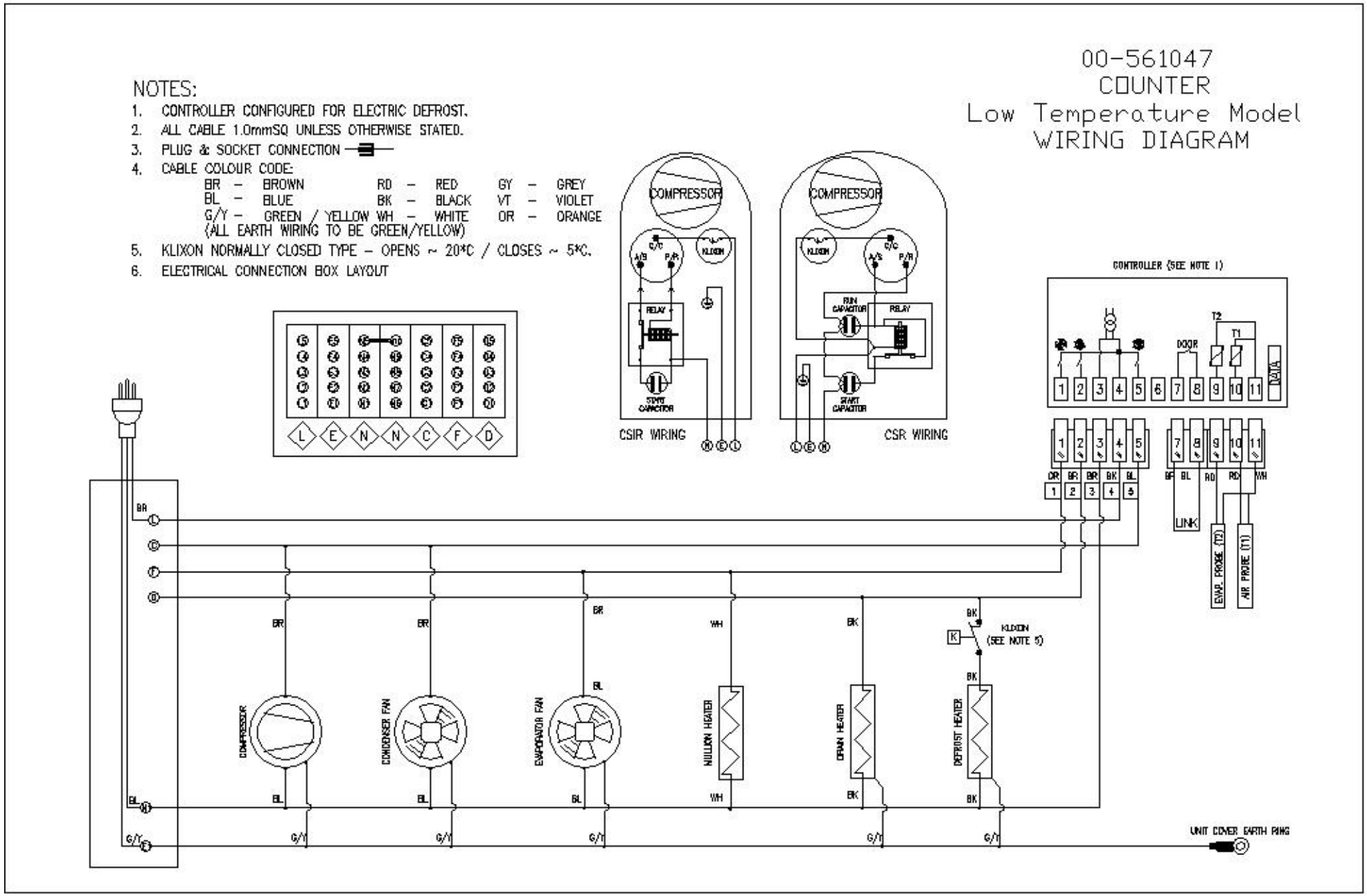
F Series Low Temp Cabinets - Wiring Diagram



F Series High Temp Counters - Wiring Diagram



F Series Low Temp Counters - Wiring Diagram



Troubleshooting

Problem	Possible Cause	Solution
Compressor will not start	No voltage in or to the mains plug	Use voltmeter to check
	Electrical conductor or wires may be cut	Use ohmmeter to check for continuity
	Defective electrical component: relay, thermal protector etc.	Replace defective component
	Compressor motor has a winding open or shorted	Measure ohmic resistance of main and auxiliary winding using ohmmeter. Compare with correct values
	Compressor seized.	Change compressor
	Temperature control contacts are open	Repair or replace the contacts
	Incorrect wiring	Check wiring diagram and correct
	Fuse blown or circuit breaker tripped.	Replace fuse or reset circuit breaker
	Mains plug/lead unplugged	Plug in power cord.
	Controller temperature set too high	Set controller to lower temperature.
	Cabinet in defrost cycle	Wait for defrost cycle to finish
The temperature is too cold	Controller temperature set too low	Set to warmer position and check if the compressor stops according to controllers operating range.
	Controller does not disconnect the condensing unit	Check the insulation of the thermostat. If problem persists, change the thermostat
	Control contacts are stuck closed	Change the control. Check amperage load
	Defective or incorrect temperature control	Determine correct control and replace.
The temperature is not cold enough	Controller temperature set too high	Adjust to colder setting
	Condenser is dirty	Clean condenser
	The refrigerator has been placed in an inadequate location	The unit must not be near stoves, walls that are exposed to the sun, or places that lack sufficient air flow.
	Compressor is inefficient or there is high pressure due to air in the system	If there is air in the system, purge and recharge
	Iced up evaporator coil	Check temperature control, refrigerant charge, and defrost mechanism. Remove all ice manually and start over.
	Restriction in system	Locate exact point of restriction and correct
	The refrigerator has been used improperly	The shelves must never be covered with any type of plastic or other material that will block the circulation of cold air within the refrigerator.
	Too many door openings	Advise user to decrease if possible
	Excessive heat load placed in cabinet	Advise user not to put in products that are too hot.

	The refrigerator has been overcharged with the refrigerant gas	Check to see if condensation or ice crystals have formed on the suction line. If so, charge with the correct amount of gas.
	The refrigerant gas is leaking	Find the location of gas leak in order to seal and replace the defective component. Change the drier. Perform a good vacuum and recharge unit.
	The evaporator and/or condenser fans are not working	Check electrical connections and make sure that the fan blade isn't stuck. Replace the fan motor if it doesn't work.
	Blocked air flow	Re-arrange product to allow for proper air flow. Make sure there is at least four inches of clearance from evaporator.
	Fuse blown or circuit breaker tripped	Replace fuse or reset circuit breaker.
Electrical Shocks 	Wires or electrical components are in direct contact with metallic parts of the unit.	Check for appropriate insulation on the connections of each component.
Noise 	The refrigerator is not level.	Check if the noise goes away after you level the refrigerator
	The condenser is not fastened correctly. Copper tubing is in contact with metal parts.	While the compressor is working, check to see if metal parts are in contact with one another and/or if the screws that fasten the condenser are tightened.
	The evaporator and/or condenser fans are loose	Check if the fans are securely fastened. Also, check if the fan blades are loose, broken or crooked. If so, change the faulty blade.
	Compressor has an internal noise	If the noise persists after all other measures have been taken, it may be originating from the compressor.
	Loose part(s)	Locate and tighten loose part(s)
Extreme condensation inside the refrigerator	Controller temperature set too low	Set the controller to a warmer position & check to see if compressor stops as should.
	The outside environment's relative humidity is very high (over 75%)	This type of occurrence is caused by local climatic conditions and not by the refrigeration unit.
	The refrigerator door won't shut properly	Check the door and/or the magnetic gasket. Adjust the door hinges if needed; replace the gasket if broken.
	The refrigerator has been placed in an inadequate location	The unit must not be near sources that produce too much heat.
No illumination (Glass door models only)	The light switch is in the "off" position	Press the light switch to "on" position
	False contact on the light switch, the fluorescent tube, or the ballast	Inspect all connections
	Light switch, ballast and/or fluorescent tube are damaged	Replace the damaged component.

Condensing unit runs for long periods of time 	Excessive amount of warm product placed in cabinet	Advise user to leave adequate time for products to cool down
	Prolonged door opening or door left ajar	Advise user to ensure doors are closed when not in use and to avoid opening doors for long periods of time.
	Door gasket(s) not sealing properly	Ensure gaskets are snapped in completely. Remove gasket and wash with soap and water. Check condition of gasket & replace if necessary
	Dirty condenser coil	Clean condenser coil
	Evaporator coil iced over	Unplug unit and allow coil to defrost. Make sure thermostat is not set too cold. Ensure that door gasket(s) are sealing properly. Select manual defrost and ensure system works.

Notes

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