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**MAJOR
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CHEST FREEZERS

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FD153S, FD152ES: Energy improved condenser

FD213S, FD212ES: Energy improved condenser
Addition of lid light

FD323S: Energy improved condenser
Addition of lid light

MODELS:

FD152ES

FD212ES

FD153S

FD213S

FD323S

INSTALLATION INSTRUCTIONS

To operate at maximum efficiency, your chest freezer must be installed in a location which permits air circulation around the cabinet. Minimum clearances for air circulation for EACH SIDE AND THE REAR are 5 cm (2").

On some models, adjustable feet are located at the right hand end of the freezer. Adjust the feet when the freezer is installed (or when you move it to another location). When correctly adjusted, the freezer will be firmly positioned on the floor.

If the supply cord of this appliance is damaged it must be replaced by the special cord Piece No. 1413392.

INITIAL START UP

Your freezer was cleaned and polished before it left the factory. Before using you should dust and wipe over, inside and out, using a clean dry cloth.

This product is designed to operate on a power supply of 220/240 volts 50 hertz. Connect to a separate power point with a correctly earthed three pin socket. Do not use double adaptors.

CONTROLLING TEMPERATURE

Close the lid and allow your freezer to operate for approximately 1 hour; when you are sure the freezer is cooling you may load it with frozen food. Allow approximately 5 hours before loading unfrozen food.

Warning: DO NOT TOUCH REFRIGERATED SURFACES, PARTICULARLY WHEN HANDS ARE DAMP OR WET. EXTREMELY LOW TEMPERATURES MAY CAUSE YOUR HANDS TO STICK.

CONTROLS

The temperature control is located at the right hand end of the cabinet. Leave the control knob at the original factory setting, in its mid position for a trial period. The control setting can be adjusted if required by rotating the knob with a coin edge. TURN CLOCKWISE FOR COLDER TEMPERATURE.

INDICATOR LIGHTS - Dependent on Model

The indicator lights are located beside the control knob.

Power on - Green	The green light indicates there is power to the unit and must be on at all times; if the light is off, check your electricity supply.
Combined Quick Freeze Light/Switch - Amber	This facility enables you to freeze fresh food rapidly without resetting the temperature control. When switched to "Quick Freeze" the unit runs continuously and the amber light is on - when "Quick Freeze" is not being used the amber light should be off and the green light on.

FEATURES AND GENERAL HINTS

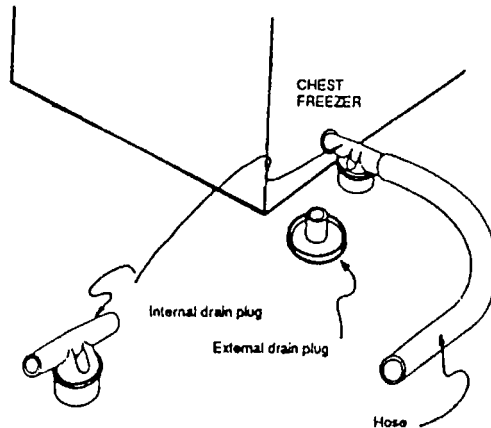
- Try not to leave the lid open too long, especially in warm and humid climates.
- For your convenience a freezer basket(s) is provided for the storage of odd shaped things, e.g. chicken. By reversing the basket handles with a flip over action, one basket can be placed on top of another.
- We recommend that you wrap all foods in freezer bags.
- Corned or pickled products (containing salts) must NOT be stored in the freezer unless thoroughly sealed in several freezer bags. Salts cause metal oxidation.
- In some circumstances (particularly after recent opening and closing of the lid), you may experience a heavier than normal resistance when opening the lid. Should this occur, it is only necessary to wait a minute or so between openings to stabilise the air within the cabinet.
- If going away for an extended period, turn your freezer off, remove all foods, clean and dry interior thoroughly. Disconnect the electrical cord and leave the lid open.
- If there's a power failure - do not open lid. Frozen foods will stay frozen for up to 24 hours depending on temperature and load conditions if lid is kept closed. Cover the area of the door gasket with several thicknesses of newspaper to improve insulation and reduce heat leakage.
- Although food can be frozen anywhere in the cabinet, it is advisable when freezing fresh food to place the items to be frozen directly onto the bottom or against the sides of the chest where they will freeze in the shortest possible time.
- The outside surfaces of your cabinet will be warm to touch - this is normal.

DEFROSTING

Your freezer should be defrosted when frost is approximately 6 mm (1/4") thick; otherwise it will interfere with efficient operation and storage capacity. To ensure hygiene and efficiency, complete defrosting is recommended at least twice each year, preferably when food supply is low.

To defrost

- Switch off power to freezer at power outlet and remove cord.
- Remove frozen food, wrap in newspaper and place in a cardboard box.
- Lift out the internal drain plug from the drain hole inside the freezer. The internal drain plug has a spout which forms a "T", (see Diagram). If difficult to remove, use "T" piece to twist and pull.
- Remove the external drain plug from the front of the freezer and push either end of the spout on the internal drain plug into the drain hole on the front of the freezer - SEE ILLUSTRATION.



- Fit one end of the clear drain hose provided, onto the protruding end of the spout on the internal drain plug and locate the other end of the hose into the household drainage, eg. laundry floor trap.
NOTE! You may choose to run this short hose into a suitable tray or container, or you can connect your garden hose onto the protruding drain spout and run the water outside into your garden etc. If you use a tray or container ensure that it is large enough to accept any water which may flow out.
- Pour approximately 1 litre of warm water down the drain, inside the chest freezer, to clear it of possible ice residue.
- Leave the lid open and wait for the frost to soften; pans of hot water may be placed inside the freezer to speed up defrosting.
WARNING: On no account use an electric heater or hair dryer for defrosting the freezer.
- Scrape the softened frost off the walls, using a plastic scraper -
DO NOT USE A KNIFE, METAL SCRAPER OR SHARP POINTED TOOL TO REMOVE ICE AS THEY CAUSE DAMAGE TO LINER SURFACE.
- After defrosting is complete and all of the water has drained, wipe the freezer out with a damp cloth and dry. Ensure freezer inner surfaces are dry before reloading with frozen food. Water in freezer can cause food to stick to liner when frozen.
- Remove spout from front face of freezer.
- Remove hose from spout.
- Replace the internal drain plug back into the drain hole inside the freezer. Make sure it is seated properly and is tight.
- Replace the external drain plug and store away the hose for future defrosting operations.
- Reconnect power cord to power outlet and switch on.
- Replace frozen food.

CLEANING

Exterior - It is a good idea to polish about once a year with a high-grade wax like the one you use on your car. After that, an occasional wipe over with a clean, damp cloth will help to remove fingermarks. Note: Do not wax plastic parts or decorative trim. Wash these in warm (not hot) water and use an unscented detergent. Avoid getting water on controls.

Interior - The interior should be cleaned when defrosting. Defrost as per section above and then wash interior with a cloth dipped in warm water to which a little baking soda has been added. Thoroughly dry all surfaces and removeable parts. Replace parts and switch on power before restocking with food.

Spilled foods should be wiped up thoroughly and promptly in according with normal hygiene.
Warning: Never use scouring pads and powders, metal polishes, aerosol cleaners, methylated spirits or any other solvent to clean the high gloss plastic interior and components in your freezer. The use of these cleaning products could cause damage to your appliance.

WHAT TO DO BEFORE YOU CALL FOR SERVICE

Here are some easy checks you can make yourself before you call for service. You could quite easily locate the problem and save yourself inconvenience, time, and most importantly, money.

IF FREEZER IS NOT OPERATING

- Check that the cord is plugged into the outlet properly and that the outlet is switched "on".
- Check with another appliance or lamp to see if the outlet has electric current.
- Try adjusting the temperature control to a slightly 'colder' position. (See "Controls").

IF THERE ARE INDICATIONS OF ODOUR

- Does interior need cleaning - Some foods produce odours and should be covered.
- Check that containers and wrapping papers are not the cause.
- Did odour start about the same time you started storing something different?

IF THE LID WILL NOT CLOSE

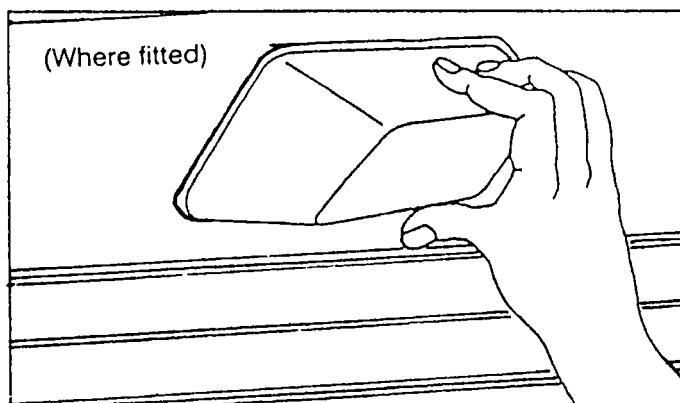
- Check the storage level of frozen food.

NO LIGHT (Where fitted)

- Is there electric current to the power outlet?
- Is the cord plugged into the power outlet?
- Bulb burnt out. Replace with similar type bulb.
- To avoid electric shock in the event of a broken light bulb, remove the power cord of your refrigerator from the power socket before you remove or replace the bulb.

To Remove Light Cover

1. Squeeze bottom of cover and tilt forward to remove
2. To replace cover, fit top of cover into housing, squeeze bottom of cover and clip into housing.



IF YOU STILL REQUIRE SERVICE

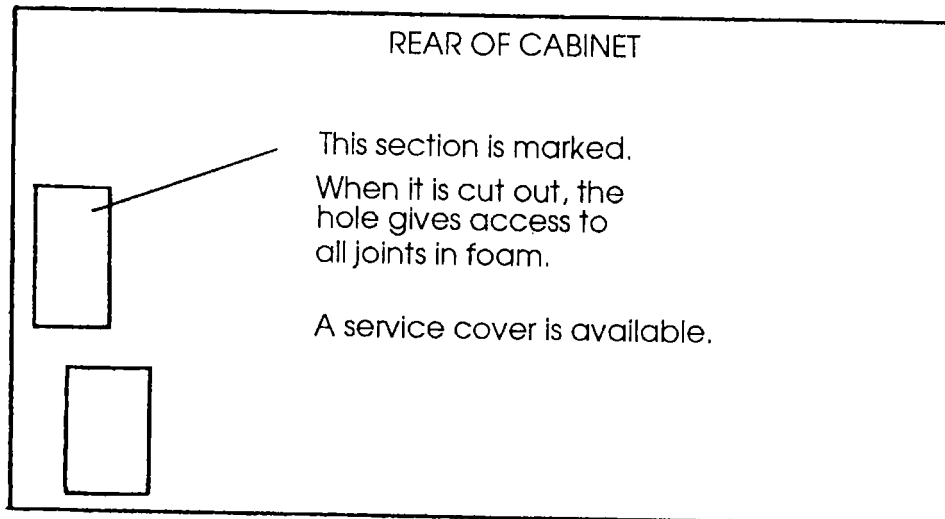
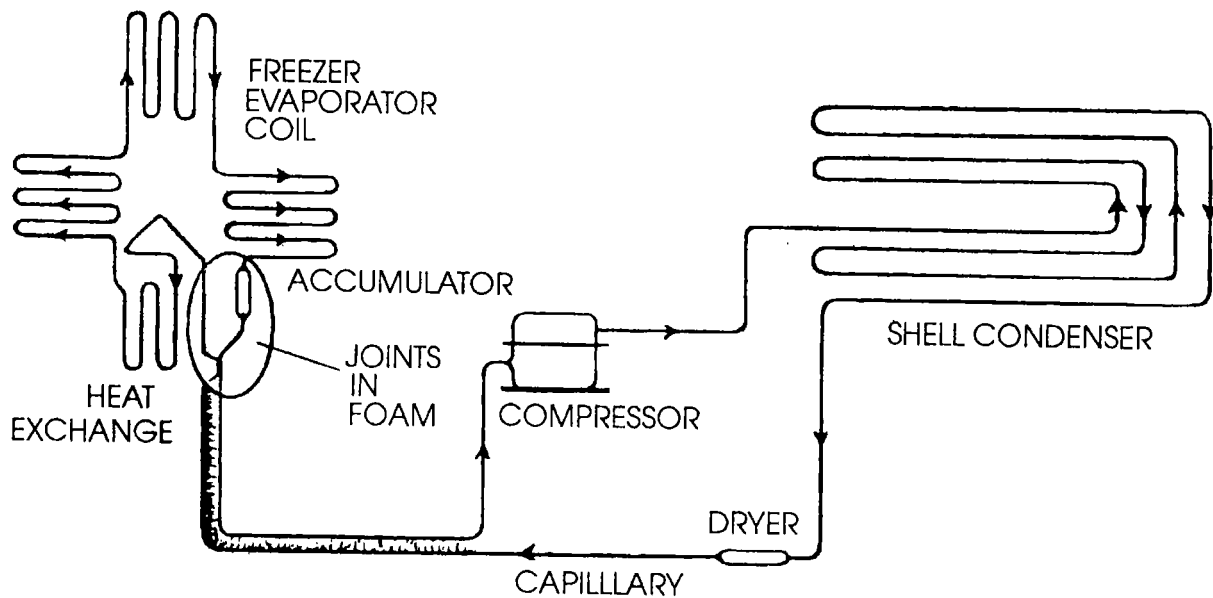
After making the check mentioned above, refer to your nearest Service Centre or the dealer from whom the appliance was purchased. Be sure you quote the Model No. which is stated on the label located on the outside rear surface of your freezer.

SPECIFICATIONS

DESCRIPTION	FD125ES	FD153S	FD212ES	FD213S	FD323S
DIMENSIONS					
Height (Lid Open)(cm)	155	155	155	155	155
Height (cm)	92	92	92	92	92
Width(cm)	56	56	72	72	100
Depth (cm)	66	66	66	66	66
Total Capacity (Litres)	150	150	210	210	320
COMPRESSOR	Embraco	Embraco	Embraco	Embraco	Embraco
Part N°	1424205	1424205	1424206	1424206	1424208
Type	EM50HNP	EM50HNP	EM60HNP	EM60HNP	EM65HAK
Start Windings(ohms)	40.5	40.5	31.6	31.6	37.1
Run Windings(ohms)	16.90	16.90	16.30	16.30	12.3
CONTROL	Danfoss				
Part N°	1411400				
Type	077B2061				
Cut-in (°C)	-14.0+/-1.5				
Cut-out	-23.0+/-1.5				
REFRIGERANT					
Type	R134a	R134a	R134a	R134a	R134a
Charge (Grams)	95	95	121	121	130

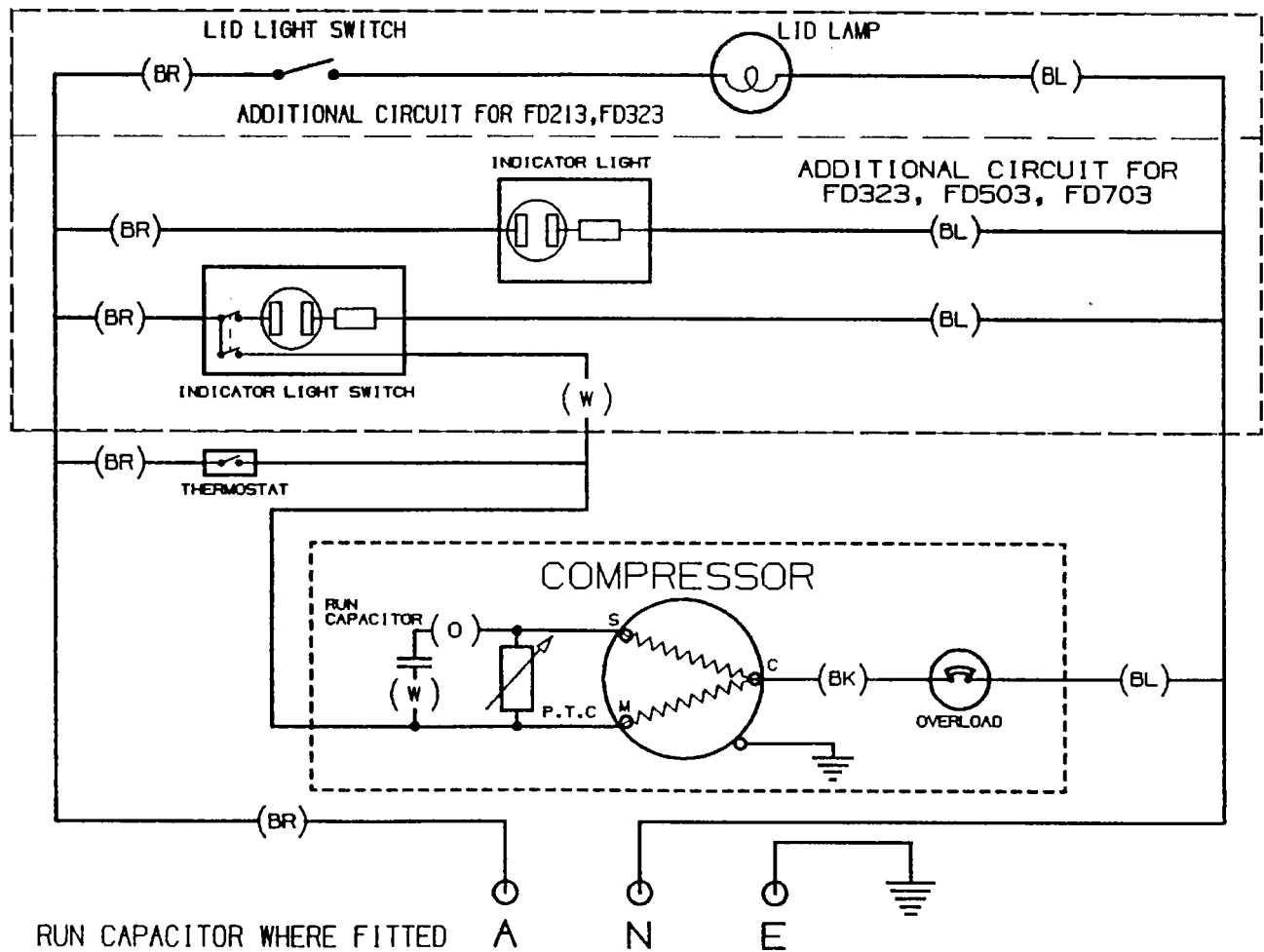
**MODELS: FD153S, FD152ES
FD213S, FD212ES
FD323S**

REFRIGERATION CIRCUIT



**MODELS: FD152ES, FD152ES
FD213S, FD212ES
FD323S**

CIRCUIT DIAGRAM

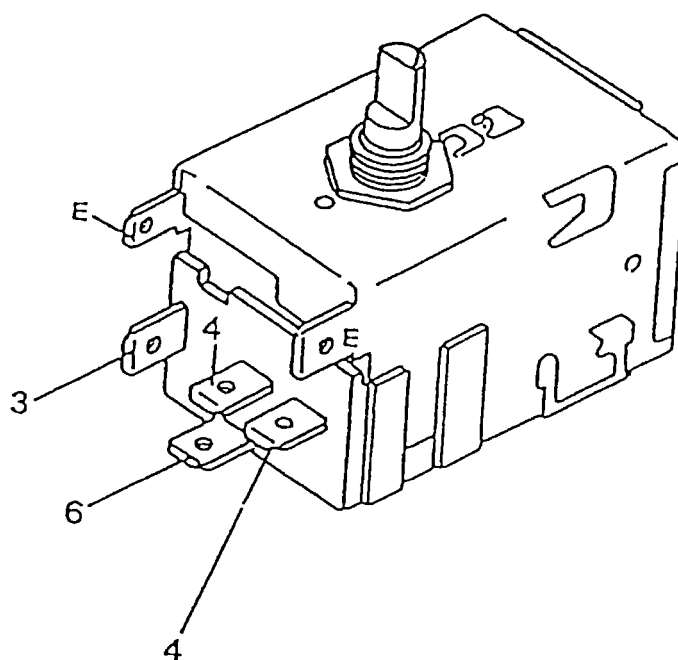


IMPORTANT SAFETY NOTICE

This diagram has been prepared for use by electrically qualified service technicians. The manufacturer (Email) cannot be held responsible for the interpretations of its service publications nor for any injury or damage that may occur in connection with their use.

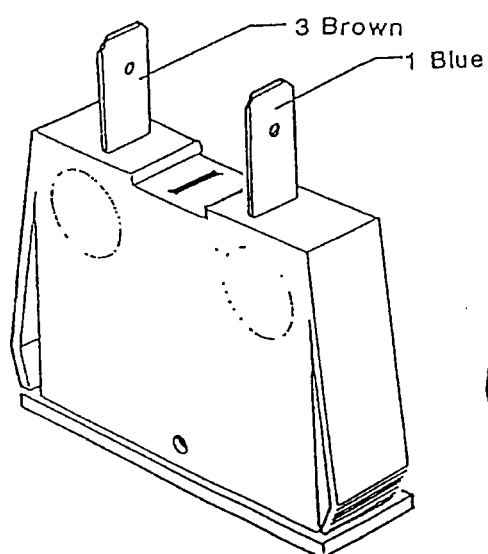
**MODELS: FD153S, FD152ES
FD213S, FD212ES
FD323S**

TEMPERATURE CONTROL

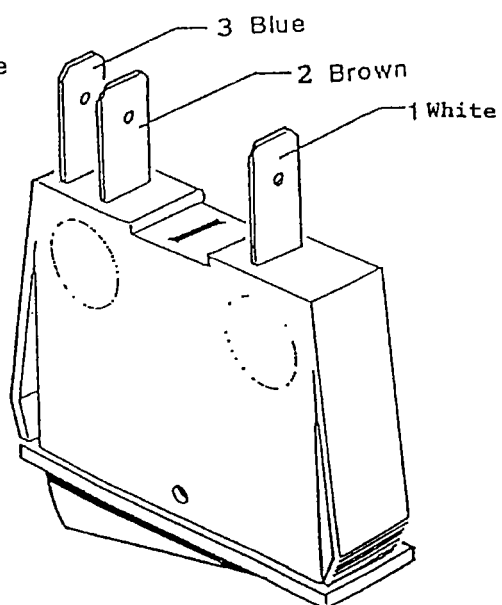


MODEL FD323S

INDICATOR LIGHT



FAST FREEZE SWITCH



CHEST FREEZER WIRING CIRCUIT

Method of operation

The method of operation of the control circuit for the chest freezer shown is:-

When the chest freezer is first turned on both contacts of the thermostat will be closed. This allows the compressor to start. Also 240 volts is applied to the neon indicator in two places and by doing so turns "off" the neon indicator.

After a period of time the freezer will cool enough to open the auxiliary contacts in the thermostat. This then removes one of the 240 volt supplies to the neon indicator which then allows the indicator to turn on.

When the freezer cools further the main contacts will open and the compressor will turn off.

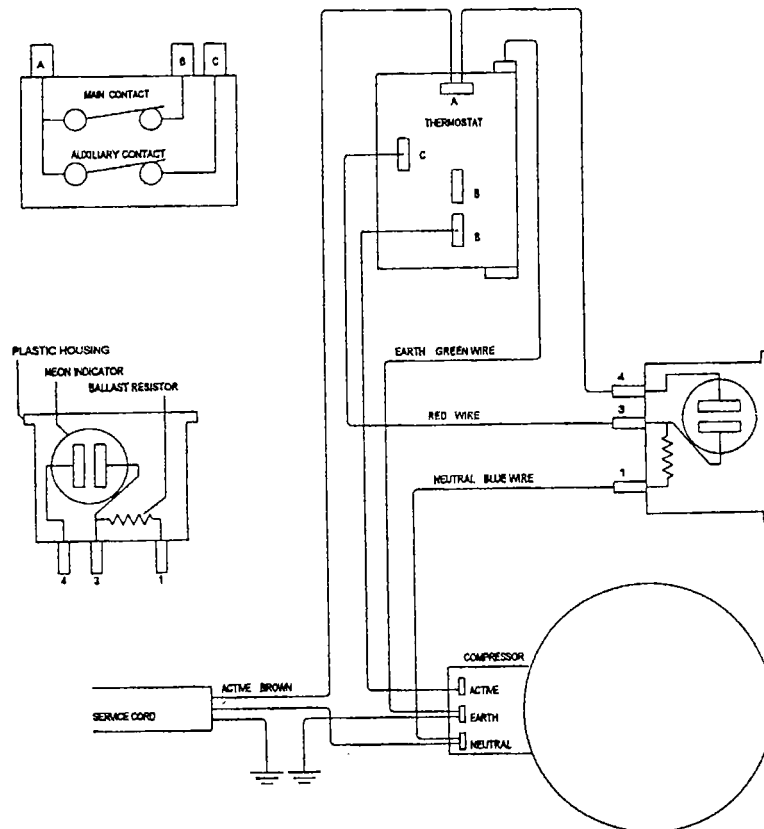
Under normal operation, the freezer will cycle on the main contact on the thermostat and never get warm enough to close the auxiliary contact. The auxiliary contact switches approximately 10° C warmer than the main contacts.

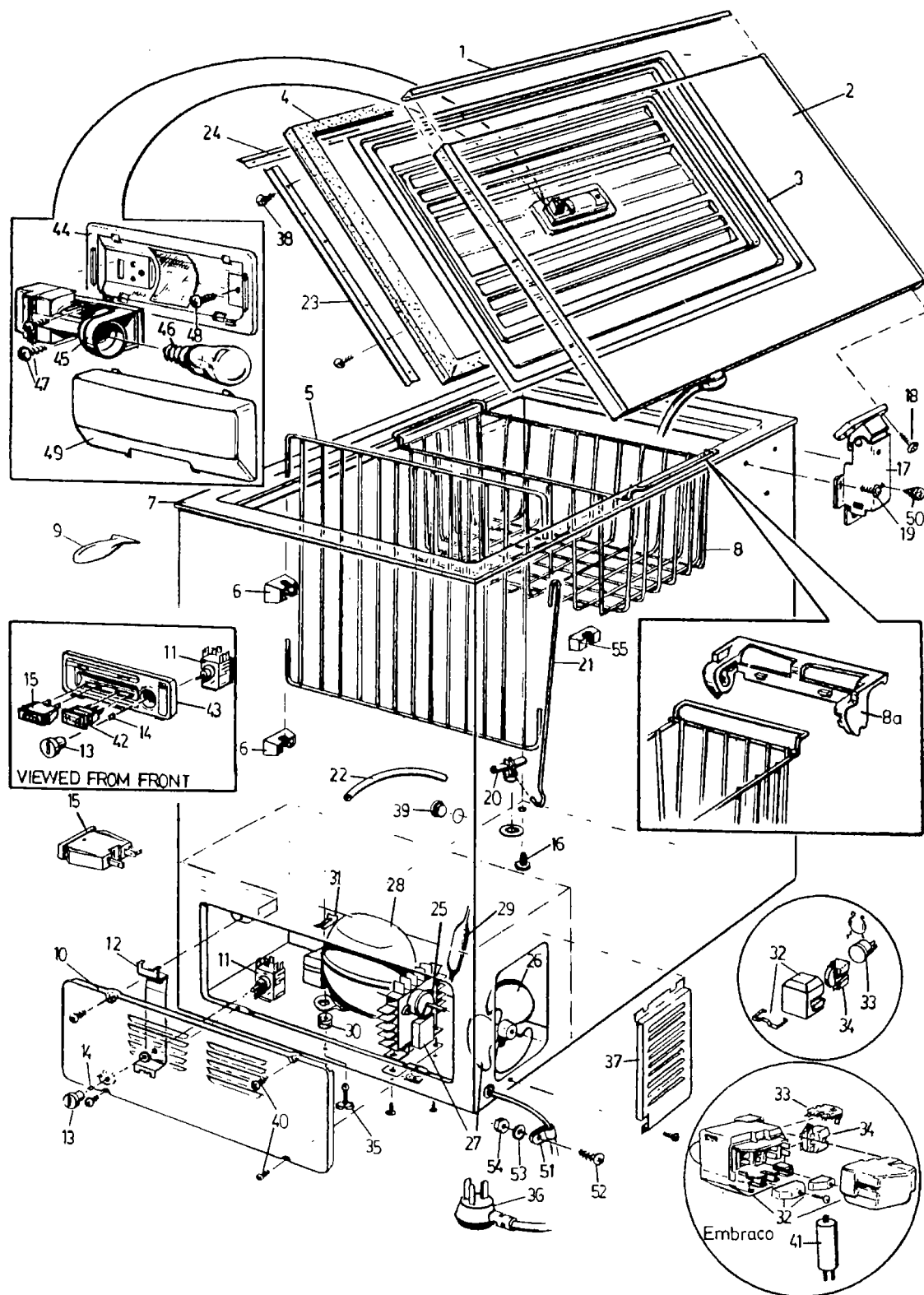
How the neon indicator works.

The neon indicator consist of two parts. The first is the neon globe itself and the second is a ballast resistor. The neon globe is a glass envelope which is filled with the inert gas "NEON". The neon gas only produces light when the gas ionises. This is achieved by passing a small current through the globe. However, when the neon gas ionises it loses most of its resistance and if it was connected directly to the mains it would explode. The ballast resistor is required to keep the current through the neon globe to a suitable level.

When the neon indicator is used in the chest freezer circuit it has permanent 240 volts applied to the two outside pins of the indicator. This will make the indicator light up as there is no connection on the centre terminal. If there is 240 Volts supplied to the centre terminal as well, then this shorts out the indicator (Refer to circuit diagram) and it will not light up. This also results in 240 volts being applied directly across the resistor. This will not harm the resistor as the current through it is very small and the resistor is designed to handle this current.

Note:- If there is any incorrect connections then the neon globe will be damaged!

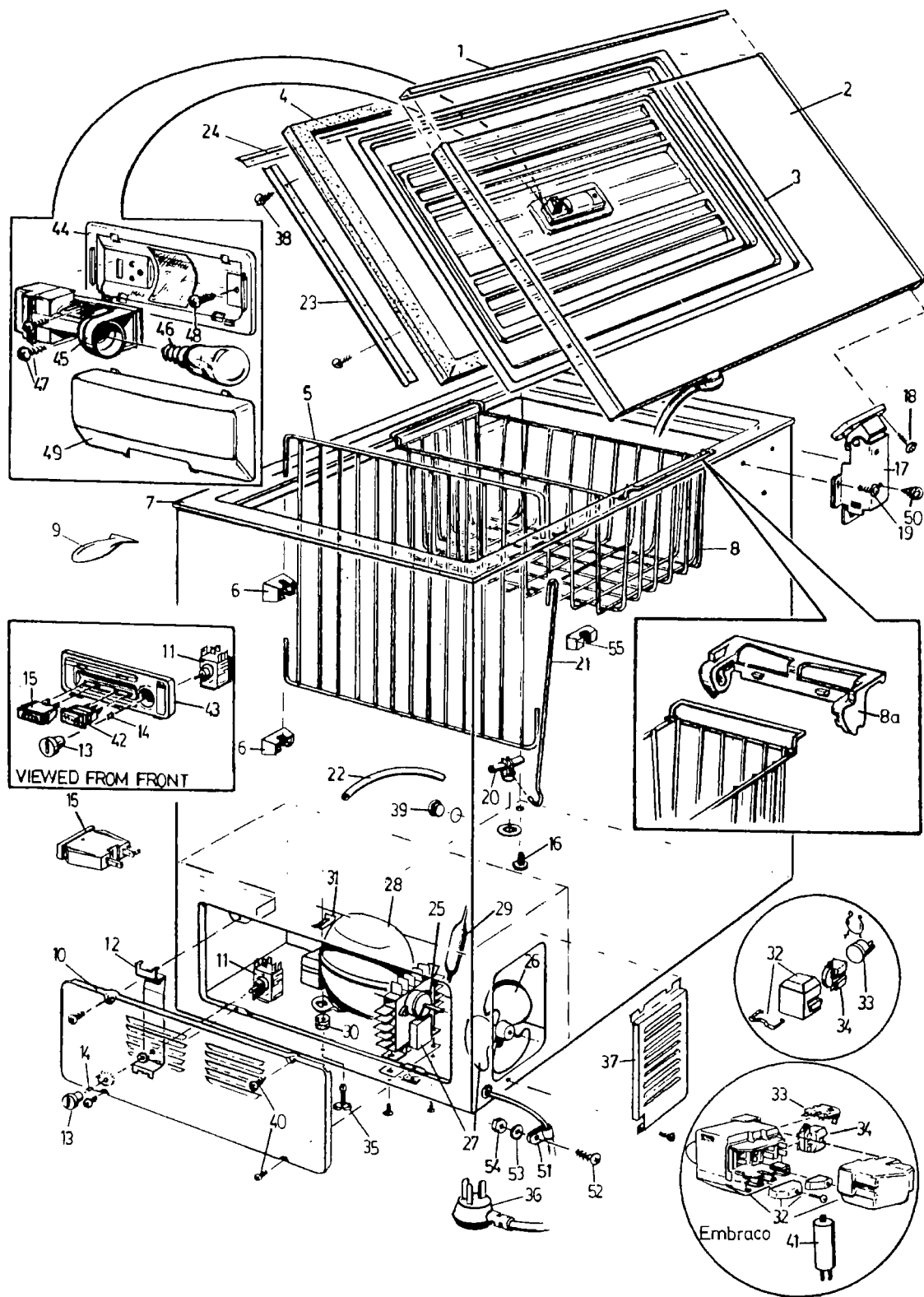




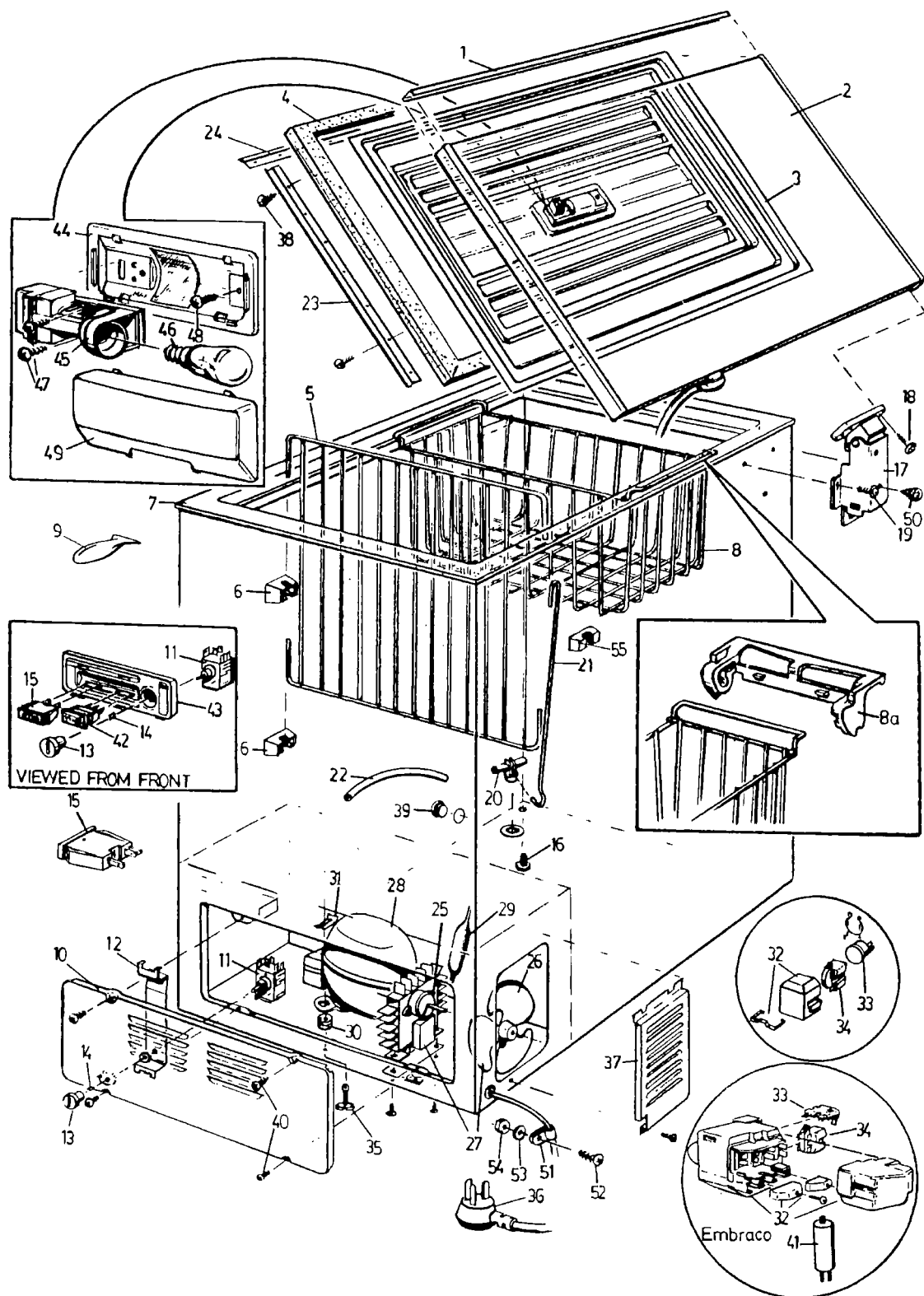
ITEM	PART N°	DESCRIPTION	Ex. 2783	152ES	153S
1	1416954	Handle & Nameplate		1	
	1421962	Handle & Nameplate			1
2	1425544	Lid Assy, Foamed (Inc. Items 3 & 4)		1	
	1425734	Lid Assy, Foamed (Inc. Items 3 & 4)			1
3	N.P.N.	Panel, Inner (Part of Item 2)			
4	N.P.N.	Gasket Assy. (Part of Item 2)			
5	N.P.N.	NOT USED IN THIS MODEL			
6	N.P.N.	NOT USED IN THIS MODEL			
7	1433789	Breaker Collar, 150		1	1
8	1433701	Basket		1	1
8a	1416510	Handle Basket		2	
	1421961	Handle Basket			2
9	715300	Scraper, Defrost		1	1
10	1409191	Cover, Machine Comp.		1	1
11	1411400	Control		1	1
12	1409101	Bracket, Control		1	1
13	1412423	Knob, Control		1	1
14	103456	Clip, Knob		1	1
15	N.P.N.	Not Used On These Models		1	1
16	N.P.N.	NOT USED IN THIS MODEL			
17	1410033	Hinge Assy. (Black Spring)		2	2
18	1412482	Screw, Hinge To Lid.		6	6
19	1403389	Screw, Hinge To Cab.		6	6
20	1418004	Plug, Drain		1	1
21	N.P.N.	NOT USED IN THIS MODEL			
22	1418088	Hose Drain		1	1
23	N.P.N.	NOT USED IN THIS MODEL			
24	N.P.N.	NOT USED IN THIS MODEL			
25	N.P.N.	NOT USED IN THIS MODEL			
26	N.P.N.	NOT USED IN THIS MODEL			
27	N.P.N.	NOT USED IN THIS MODEL			
28	1424205	Compressor EM50HNP (Embraco)		1	1
29	ES5332	Drier		1	1
30	1416723	Grommet, Compressor Mounting		4	4
31	1409732	Clip, Compressor Mounting		4	4
32	1425210	Terminal Board & Cover Assy.		1	1
33	1425212	Overload		1	1
34	1425208	Start Device P.T.C.		1	1
35	1416655	Pin, Compressor Mount		4	4
36	1413393	Service Cord		1	1
37	N.P.N.	NOT USED IN THIS MODEL			
38	N.P.N.	NOT USED IN THIS MODEL			
39	1417999	Plug, Drain, Outer		1	1
40	1409199	Screw, (White)(Machine Compartment Cover)		4	4
41	N.P.N.	NOT USED IN THIS MODEL			
42	N.P.N.	NOT USED IN THIS MODEL			
43	N.P.N.	NOT USED IN THIS MODEL			
44	N.P.N.	NOT USED IN THIS MODEL			
45	N.P.N.	NOT USED IN THIS MODEL			
46	N.P.N.	NOT USED IN THIS MODEL			
47	N.P.N.	NOT USED IN THIS MODEL			
47	N.P.N.	NOT USED IN THIS MODEL			
49	N.P.N.	NOT USED IN THIS MODEL			
50	1406369	Plug, Rubber Hinge		2	2
51	1403438	Clamp, Service Cord		1	1
52	741300	Screw, Service Cord		1	1
53	Q413153	Washer, Lock Service Cord		1	1
54	364033	Nut Clamp Service Cord		1	1
55	N.P.N.	NOT USED IN THIS MODEL			

MODELS: FD212ES, FD213S

EX. VIEW DRAWING 2783A
FREEZER ASSEMBLY



ITEM	PART N°	DESCRIPTION	Ex. 2783A	212ES	FD213S
1	1413079	Handle & Nameplate Assy.		1	
	1421963	Handle & Nameplate Assy.			1
2	1433658	Lid Assy, Foamed (Inc. Items 3 & 4)		1	
	1433657	Lid Assy, Foamed (Inc. Items 3 & 4)			1
3	N.P.N	Panel, Inner (Part of Item 2)			
4	N.P.N	Gasket Assy. (Part of Item 2)			
5	N.P.N	NOT USED IN THIS MODEL			
6	N.P.N	NOT USED IN THIS MODEL			
7	1433790	Breaker Collar, 210		1	1
8	1433701	Basket, Freezer		1	1
8a	1416510	Handle Basket		2	
	1421961	Handle Basket			2
9	715300	Scraper, Defrost		1	1
10	1409191	Cover, Machine Comp.		1	1
11	1411400	Control		1	1
12	1409101	Bracket, Control		1	1
13	1412423	Knob, Control		1	1
14	103456	Clip, Knob		1	1
15	N.P.N	NOT USED IN THIS MODEL			
16	N.P.N	NOT USED IN THIS MODEL			
17	1410034	Hinge Assy. (Blue Spring)		2	2
18	1412482	Screw, Hinge To Lid		6	6
19	1403389	Screw, Hinge To Cab.		6	6
20	1418004	Plug, Drain		1	1
21	N.P.N	NOT USED IN THIS MODEL			
22	1418088	Hose, Drain		1	1
23	N.P.N	NOT USED IN THIS MODEL			
24	N.P.N	NOT USED IN THIS MODEL			
25	N.P.N	NOT USED IN THIS MODEL			
26	N.P.N	NOT USED IN THIS MODEL			
27	N.P.N	NOT USED IN THIS MODEL			
28	1424206	Compressor EM60HNP (Embraco)		1	1
29	ES5332	Drier		1	1
30	1416723	Grommet, Compressor Mounting		4	4
31	1409732	Clip, Compressor Mounting		4	4
32	1425210	Terminal Board & Cover, Assy.		1	1
33	1425213	Overload		1	1
34	1425208	Start Device P.T.C.		1	1
35	1416655	Pin, Compressor Mounting		4	4
36	1413393	Service Cord		1	1
37	N.P.N	NOT USED IN THIS MODEL			
38	N.P.N	NOT USED IN THIS MODEL			
39	1417999	Plug, Drain, Outer		1	1
40	1409199	Screws (White)(Machine Compartment Cover)		4	4
41	1427501	Capacitor		1	1
42	N.P.N	NOT USED IN THIS MODEL			
43	N.P.N	NOT USED IN THIS MODEL			
44	1433694	Housing, Light		1	1
45	1433623	Switch, Light (Tilt)		1	1
46	1433691	Lamp 15W (Small Edison Screw)		1	1
47	1433692	Screw		2	2
48	Q202283	Screw		1	1
49	1417960	Lens, Light		1	1
50	1406369	Plug, Hinge Rubber		2	2
51	1403438	Clamp, Service Cord		1	1
52	741300	Screw, Service Cord & Light Harness		2	2
53	413153	Washer, Lock, Service Cord & Light Harness		2	2
54	364033	Nut Service Cord & Light Harness		2	2
55	1403483	Clamp Light Harness		1	1



ITEM	PART N°	DESCRIPTION	Ex. 2783B	323
1	1421964	Handle & Nameplate Assy.		1
2	1433660	Lid Assy, Foamed (Inc. Items 3 & 4)		1
3	N.P.N.	Panel, Inner (Part of Item 2)		
4	N.P.N.	Gasket Assy. (Part of Item 2)		
5	1412520	Shelf, Divider		1
6	1420608	Support, Shelf		4
7	1433791	Breaker Collar, 320		1
8	1433701	Basket, Freezer		2
8a	1421961	Handle Basket		2
9	715300	Scraper, Defrost		1
10	1412503	Cover, Machine Comp.		1
11	1411400	Control		1
12	N.P.N	NOT USED IN THIS MODEL		
13	1412423	Knob, Control		1
14	103456	Clip, Knob		1
15	1412393	Light, Indicator		1
16	1416570	Foot, Levelling		2
17	1410035	Hinge Assy. (Red Spring)		2
18	1412482	Screw, Hinge To Lid.		6
19	1403389	Screw, Hinge To Cab.		6
20	1418004	Plug, Drain		1
21	N.P.N	NOT USED IN THIS MODEL		
22	1418088	Hose, Drain		1
23	N.P.N.	NOT USED IN THIS MODEL		
24	N.P.N.	NOT USED IN THIS MODEL		
25	N.P.N.	NOT USED IN THIS MODEL		
26	N.P.N.	NOT USED IN THIS MODEL		
27	N.P.N.	NOT USED IN THIS MODEL		
28	1424208	Compressor FG65HAK (Embraco)		1
29	ES5332	Drier		1
30	1416723	Grommet, Compressor Mounting		4
31	1409732	Clip, Compressor Mounting		4
32	1425210	Terminal Board & Cover Assy.		1
33	1425214	Overload		1
34	1425208	Start Device P.T.C.		1
35	1416655	Pin, Compressor Mounting		4
36	1413393	Service Cord		1
37	N.P.N	NOT USED IN THIS MODEL		
38	N.P.N	NOT USED IN THIS MODEL		
39	1417999	Plug, Drain, Outer		1
40	1409199	Screw (White)(Machine Compartment Cover)		4
41	N.P.N.	NOT USED IN THIS MODEL		
42	1412322	Switch, Fast Freeze		1
43	1421969	Housing, Control		1
44	1433694	Housing, Light		1
45	1433623	Switch Light (Tilt)		1
46	1433691	Lamp 15W (Small Edison Screw)		1
47	1433692	Screw		2
48	Q202283	Screw		1
49	1417960	Lens, Light		1
50	1406369	Plug Hinge Rubber		2
51	1403438	Clamp, Service Cord		1
52	741300	Screw, Service Cord & Light Harness		2
53	413153	Washer, Lock, Service Cord & Light Harness		2
54	364033	Nut , Service Cord & Light Harness		1
55	1403438	Clamp, Light Harness		1