FRIGIDAIRE

SERVICE MANUAL

& PARTS LIST

1966 "FROST PROOF"

FRIGIDAIRE REFRIGERATOR

MODEL F P. C. D. 146

FRIGIDAIRE FEBRUARY 1966

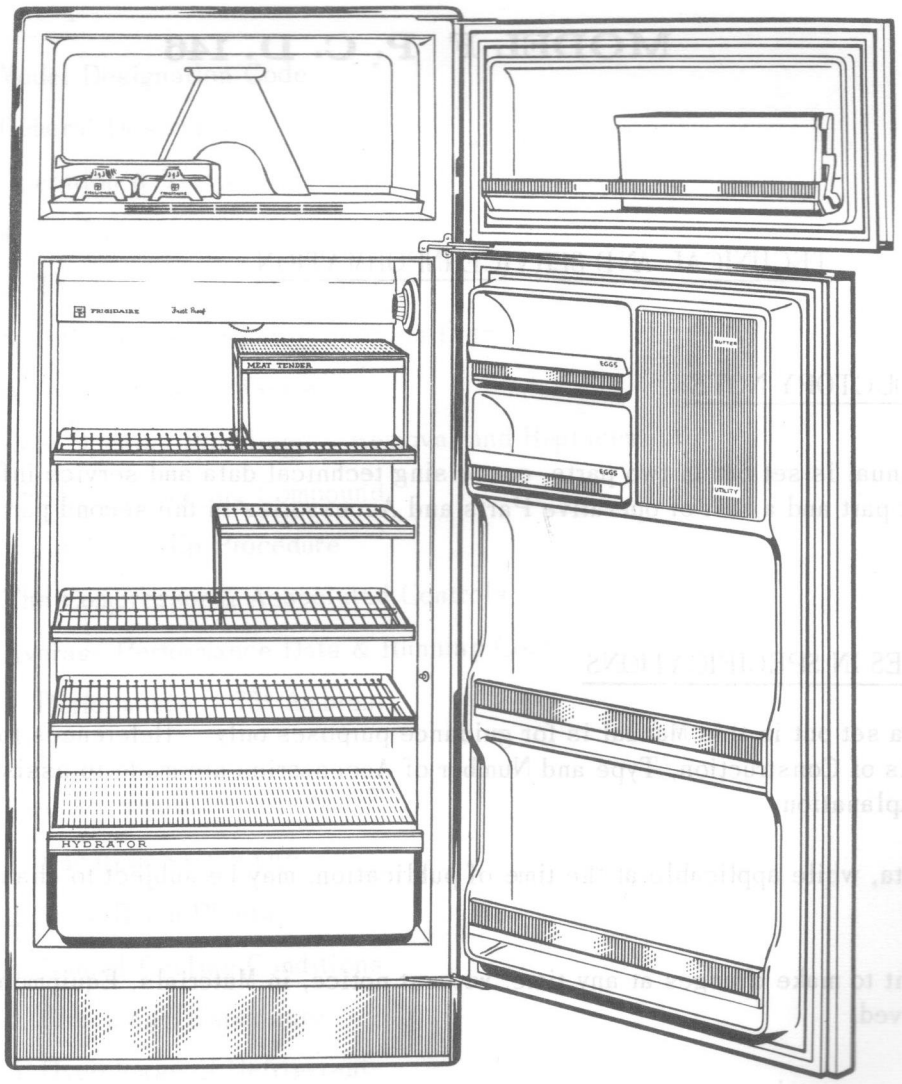
DIVISION OF GENERAL MOTORS HOLDEN'S PTY. LTD.

DANDENONG VICTORIA

1966 "FROST PROOF"

FRIGIDAIRE REFRIGERATOR

MODEL F P. C. D. 146



CABINET DIMENSIONS

HEIGHT 64" WIDTH 28 1/8" DEPTH 28 7/8"
DEPTH – DOOR OPEN 90° – 55 5/8"

Clearance of 16½" is required between Hinge Side Wall and Cabinet to allow full accessability to the Cabinet Interior.

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TECHNICAL AND SERVICE INFORMATION

INTRODUCTORY NOTE:

This Manual is set out in two parts, comprising technical data and service information in the first part and a list of operative Parts and Accessories in the second part.

CHANGES IN SPECIFICATIONS

The data set out in this Manual is for guidance purposes only. References to Part Numbers, Materials of Construction, Type and Number of Accessories are made to assist in making clear explanation.

Such data, while applicable at the time of publication, may be subject to changes from time to time.

The right to make changes at any time, without notice, in Materials, Equipment or Specifications is reserved.

INDEX

PART 1

		Page
A	Model Designation Code	1
B	General Description	1
C	Operation & Temperature Control	2
	1. Air Distribution	2
	2. The Refrigerating Circuit	2
D	Specifications & Control Settings Data	3
E	Adjusting Cabinet Doors	4
F	Door Opening Mouldings – Removal and Replacement	5
G	The Use of Sealing Compound	5
H	Field Touch-Up Procedure	6
I	The Compressor & Associated Controls	7
J	Average Performance Data & Running Cost	8
	1. Performance – 75° Ambient	8
	2. Running Cost	8
K	Service Pointers	8
	1. Vacation Switch Off	8
	2. Show Room Display	9
	3. Normal Cycling Conditions	9
	4. Checking Temperature	11
	5. Overcharge of Refrigerant	11
	6. Shortage of Refrigerant	11
	7. Restricted Capillary	12
L	Temperature Controls	12
	1. The Cycling Thermostat	12
	2. The Food Compartment Air Flow Control	14
	3. The Defrost Timer	14

Cont'd

INDEX

PART 1 (Cont'd)

		Page
M	The Butter Conditioner Assembly	16
N	The Defrost Heater	17
O	Condensate Dryer Heaters	18
	1. The Mullion Heater – Removal & Replacement	19
	2. The Shell Dryer Replacement	20
	3. The Freezer Door Dryer Replacement	21
P	The Air Circulation Motor and Blower	22
Q	Component Replacement	23
	1. The Schrader Valve Connector	23
	2. The General Procedure	24
	3. Replacement Compressors	25
	4. Line Sizes	25
	5. Evaporator Removal and Replacement	25
	6. Compressor and Condenser Removal	25

ILLUSTRATIONS

PART 1

		Page
Fig. 1	Air Distribution Circuit	2
Fig. 2	Compressor & Associated Control Wiring Diagram	7
Fig. 3	Wiring Diagram	9
Fig. 4 & 5	Cycle Charts	10
Fig. 6	Food Compartment Air Control & Cycling Thermostat	13
Fig. 7	Blower & Evaporator (Air Duct & Liner Bottom Removed)	16
Fig. 8	Evaporator Pan – Interior (Components & Mullion Removed)	16
Fig. 9	Condensate Dryers & Butter Heater Layout	19
Fig. 10	Lead Cover Removal	21
Fig. 11	Hinge & Lead Arrangement	22
Fig. 12	Refrigerating System Lay-out & Line Sizes (Double Circuit Condenser)	26
Fig. 13	Refrigerating System Lay-out & Line Sizes (Single Circuit Condenser)	27

INDEX

PART 2

Section		Page
1	Cabinet Shell & Exterior Fittings	29
2	Food Compartment Liner Attachments	29
3	Food Compartment Interior Fittings	30
4	Air Distribution & Freezer Compartment Parts	30
5	Door Opening Mouldings	31
6	Freezer Door and Associated Parts	31
7	Food Compartment Door and Associated Parts	32
8	Butter & Utility Compartment Door & Associated Parts	33
9	Ice Container & Water Disposal Parts	34
10	Door Hinges and Associated Parts	35
11	Thermostats – Relay – Timer & Butter Heater	37
12	Heaters – Light Components and Sundry Electrical Parts	37
13	Electrical Connectors & Covers	38
14	Component Replacement Parts	39
15	Miscellaneous	40
16	Left Hand Opening Cabinets	41

ILLUSTRATIONS

Butter & Utility Compartment Door & Associated Parts	33
Electrical Connectors & Covers	38
Cabinet Door Hinges & Associated Parts	42
Air Distribution & Freezer Compartment Parts)	
Ice Container & Water Disposal Parts)	43

(A) MODEL DESIGNATION CODE – F P.C.D.–146

F P. = Frost Proof C.D. = Custom Deluxe

The last figure in the numerals denotes the Model Year 1966 – while the preceeding figures denote the cubic capacity (S.A.A. Code)

(B) GENERAL DESCRIPTION

• Both the appearance and styling of this model are in keeping with other 1966 refrigerators, The general exterior finish is Snowcrest White BALM Dulux Dynakote enamel, with stainless steel trims fitted along the top and sides of the cabinet front edge. Both exterior door handles feature chrome plated ends with the centre grip covered in wood grained vinyl.

• Model F P.C.D.146 is also available with Left or Right Hand, Door opening.

• Semi-concealed type cabinet door hinges are featured on both the freezer and food compartment doors. Both doors are provided with the magnetic type seal which incorporates a flexible magnetic insert all around to give positive sealing.

• The internally sprung, sealed reciprocating compressor is mounted on resilient rubber bushes with the dome permanently bolted to the mounting tray, therefore, there are no shipping fixings to be removed at the time of installation.

This model refrigerator is provided with a butter conditioner, fitted within a special compartment mounted into the inner door panel.

• The main insulation of polyurethane foam, is formed integral with the cabinet shell, the food compartment liner and the freezer liner. In addition certain wiring is also foamed in with these components. Removable polystyrene blocks and fibre glass are also used during assembly to complete the insulation.

Both exterior doors, also have polyurethane foam insulation formed integral with the outer panel. The Freezer Door has, in addition, a condensate heater foamed in position.

• Three Heaters are incorporated to prevent excessive condensation forming on the cold metal surfaces at the Freezer Door area.

These Dryer Heaters are situated at the shell top and sides, the mullion and the freezer door.

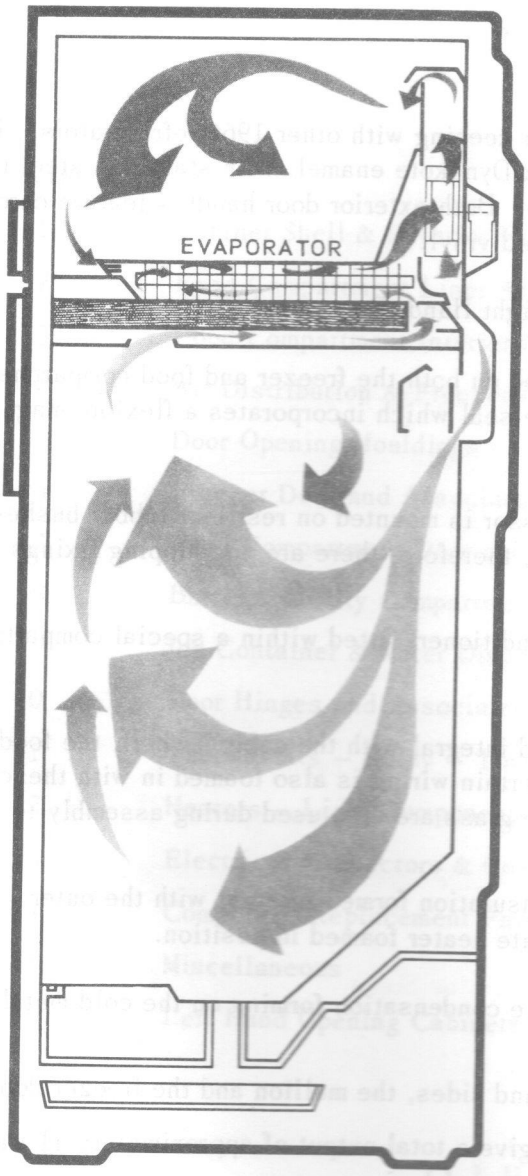
The three Heaters are energised continuously and give a total output of approximately 41 watts.

• An Electric Defrost Heater of approximately 500 watts is also provided to ensure complete defrosting of the Evaporator Coil. The Defrost Heater is energised automatically at twelve hourly intervals, by means of a time initiated, temperature terminated type control.

• The Defrost water is channelled by a drip pan, on which the evaporator locates, to pass down the food compartment rear wall to a float located in the liner bottom. It subsequently passes into a disposal pan located on the de-superheat coil in the unit compartment where it evaporates.

(C) OPERATION AND TEMPERATURE CONTROL

Fig. 1 Air Distribution Circuit



1. The Air Distribution Circuit

The Frost-Proof feature of the freezer compartment of this refrigerator is dependent on the single cross-finned evaporator being maintained at a lower temperature than prevails in the actual freezer compartment.

Moist air from the food compartment is drawn from back to front through 3/8" fin spacings at each side of the evaporator, which is concealed beneath the freezer. Some moisture is removed and deposited on the fins in the form of frost.

The partially dryed air then mixes with the relatively dry freezer air, and is drawn by the circulating fan through the centre 3/16" fin spacings of the evaporator from front to back, depositing the remaining moisture as frost on the coil in passing through it.

The resultant cold dry air is circulated by the fan through ducts downwards to the food compartment, and upwards to the freezer where its dry character dispels any frost which may tend to form, by converting it directly to water vapour. (This process is called sublimation). The moisture so picked up from the freezer is then deposited on the fins of the centre coil during the next circuit.

The Fan is wired from the Thermostat to cycle with the compressor.

The food compartment air flow is controlled by a thermostatically operated Air Flow Control Damper located behind the light shield in the food compartment The sensitive bulb is also located in the food compartment and is baffled from the direct effect of air entering the compartment.

2. The Refrigerating Circuit

A conventional thermostat, located on the side of the food compartment but with the bulb located in a sleeve on top of the freezer controls the Compressor and Fan cycles.

The freezer air which is discharged close to the top also contains some air drawn from the food compartment, therefore the cycles are affected by the loading of both the Freezer and Food Compartments.

2. The Refrigerating Circuit (Cont'd)

An automatic time initiated defrost Timer controls an aluminium clad defrost Heater, attached to the cross-finned coil, to override the normal control circuit twice a day for a 30 minute period, or, until the defrost bulb, located in the air stream behind the evaporator beneath the freezer bottom lining, reaches 46° – 50°F.

(D) Specifications and Control Settings Data

Item	Detail	Part Number
Relay	Kirby Cap. start 3.3 – 3.5 amps dropout, branded ME658–2	7443866
Overload*	KLIXON 212 – 228°F cut out (no load), branded ME380/11 150 – 168°F re-set (no load)	7395506
	* Identical to 1/5 H.P. but higher settings Indicated by Yellow Dot.	
Capacitor	40 Micro-Farad	7444498
Compressor*	1/4 TECUMSEH AE4ZF11 (start 45 ohm run 12 ohm FL amps 1.4 Oil charge 20 ozs. wt. 150 viscosity Gas charge 10 ozs. wt. R.12	
	* Replacement Compressor & 1/4 tails	7443914
Thermostat	Conventional Ranco SA1267 – straight bulb in 1/4 tube taped to freezer	
	Settings No. 1 – 2 ± 2°F and + 10 ± 2°F (normal) No.C 22.5 ± 4°F (warmest) No. 3 – 10 ± 4°F (coldest) 1/4 turn clockwise on range screw = +3°F on settings 1/4 turn clockwise on diff. screw = –3°F on cut in	7443900
F.C. Air Control	Ranco B11 bulb on liner at 45° capillary down. Adjust with bulb in 32° ice & water – damper should be within 1/32 of closed for knob between 2 & 4	
	Turning clockwise No.1 to No.6 = 270° travel = 9°F colder 1 turn clockwise (screw on face) = 2° warmer approx.	7443899
Fan Motor*	(Eilbeck Sydney) 11½ watt. shaded pole 2600 ohm – 2200 RPM Q.C. terminals black and white leads	7443891
	* Cycles with compressor	
Wiring Diagram	January 1966	7445748
Fan Blade	Torrington Dayton centrifugal 4"D backward curve	6588636

(D) Specifications and Control Settings Data (Cont'd)

Item	Detail	Part Number
Defrost Timer	Ranco E11 defrost termination time 30 min. or temp. 46° – 50°. Motor 6000 ohms across mains terminals 1 & 3 Bulb in evap. air with word top so located. Defrost screw on face. 1/2 turn clockwise lowers 2°F	7443898
Defrost Heater	354" x 1/4 O.D. Aluminium coated magnesium oxide insulated, heater wire 475 – 525 watts. approx. 115 ohms. Unshaped (coiled) r eplacement	7443959
Evaporator	7 x 3/8 fins each side for F.C. air 79 x 3/16 fins in centre for mixed air. Suction line 1/4, capillary 12'0 x .031 I.D. x .0720D Replacement & tails (less heater)	7443959
Condenser	34 passes Bundy 26" long (top six passes are pre-condenser) Replacement with 1/4 tails	7445280
De Super Heat Tray & Coil	17 passes Bundy 15" long Replacement with 1/4 tails	7443379
Filter Dryer	1/4 inlet, 3/16 outlet Dessicant – Mobilbead (Silica Alumina Gel) Replacement with 3/16 tails (Molecular Sieve)	FL 329
Dryer Cabinet Shell P/N.7443704 *	252" of 120 ohms per foot (approx. 22.5 watts) 3 passes near freezer, 1 downsides, 53 x 2" Alfoil Tape near freezer PA spec. 1677 – 8 (Black & Red tails across supply). * Use Service Replacement (Procedure 02, Page 20)	FL 417
Dryer Centre Mullion	75" of 1200 ohms per foot approx. 7½ watts. Taped to insulation. Black & Blue tails across supply	7443708
Dryer Freezer Door	77" of 800 ohms per foot (approx. 11 watts) Black & Yellow tails across supply	7443700

(E) ADJUSTING CABINET DOORS

Because the turned back edges provide great strength and the magnetic insert simplifies door sealing, tie rods are not used. Door adjustment must be effected by loosening the seal retaining screws to obtain the desired door position before re-tightening the screws.

Adjustment for alignment of both the freezer and food compartment doors, is provided by means of the movable tapping plate, which receives the top hinge wing to door. retaining screws.

Unless the Hinge Butts are mounted horizontally and the Hinge Pins line up vertically, the Doors may appear out of alignment in the open position.

(F) DOOR OPENING MOULDINGS REMOVAL AND REPLACEMENT

Remove the food compartment mouldings by pulling out from the liner sides with the fingers while the palms are held against the shell side, start at the bottom of the side moulding. The inner edge of the top moulding is retained by screws which must first be removed.

Remove the bottom moulding by lifting gently at either end to free the moulding from the sealing compound at liner edge, and the retaining clips at the shell edge.

Remove the freezer compartment upper moulding by first undoing the moulding to liner retaining screws. The top and both sides are of one piece, ease the sides away first then the top from either end and pull down and out.

To Replace the Mouldings – Locate the tabs at the liner side and then with the thumbs enter the moulding edge into the shell channel. The side mouldings should be located at their bottom edge first to overlap the side edge of the bottom moulding.

Remove the Freezer compartment bottom liner section (Procedure L. 3(a) page 15).

Remove the bottom moulding, (which also forms the return air vent) by first undoing the screws located along the lower inside edge and easing up gently from either end to make free from the sealing compound.

(G) THE USE OF SEALING COMPOUND

It is most important when replacing components, to ensure that effective re-sealing is carried out in all places where sealing compound has been previously used.

Two different types of sealing compound are used as explained below.

1. When replacing the food compartment bottom door opening moulding it is essential to re-seal it with sealing compound otherwise call backs for odour complaints due to wet insulation may ensue.

   The sealing compound is available from Parts & Accessories, Dandenong in 1 lb. tins Part Number 288099.

2. Complete sealing of the air ducts is essential as unsatisfactory air circulation can adversely effect cabinet temperature.

   The freezer compartment mouldings must be re-sealed at the freezer edge, also the support gusset at either end of the centre mullion, to prevent frost build-up beneath the freezer mouldings.

   A special sealing compound, to be used in the freezer area, is available from Parts & Accessories, Dandenong – when ordering quote P.A. Spec. 112 SD.

   NOTE: Do not substitute any other type of sealing compound, in or adjacent to the freezer.

(H) FIELD TOUCH-UP PROCEDURE

The Snowcrest White Finish is a two pack material – Dynakote and Accelerator. The Dynakote requires the addition of Accelerator as follows:–

Small Brush Touch Ups (match head sized areas) are covered by the availability, from Frigidaire Parts and Accessories Department, of Dynakote "Touch up" in 1¼ oz. cans, Part Number 445–2169, white. This can requires mixing with one lid full of the Part Number FL267, 4 oz. bottle of Accelerator, (diluted Catalyst), sufficient to form the correct Catalyst to enamel ratio of 2½ fl. ozs. to 1 gallon.

Small Spray Touch-Ups require further thinning the above mix approximately 20% with 920–6402 Dynakote thinner, Part Number FL.279.
This thinner should also be used for cleaning brushes or spraying equipment.

CAUTION: Thinning the Dynakote enamel to spraying consistency with Accelerator results in a brittle finish due to the use of too much catalyst.

The following remarks will assist in effecting successful Dynakote "Touch-Up"

1. If the phosphate coating is removed by damage or during preparation for Touch-Up, the exposed metal should be treated with "Deoxidine 424".

2. Small match head sized areas, require no preparation but all other surfaces to be touched up should be sanded, have the edges feathered and the area cleaned.

3. Small "dings" should be "knifed" with Dulux 362–0064 line white sanding putty.

4. Spraying equipment requires an atomising pressure not exceeding 18 p.s.i.

   Suitable spraying equipment is :–

   Arnold Touch-Up Gun N.S. Type or DeVilbis Touch-Up Gun C.H. Type.

A.B. Air Cap	90 Air Cap
A.B. Fluid Tip	E. Fluid Tip
No.8 Needle	E. Needle

5. Avoid over wetting the centre of the "patch", mist coat the edges with thinner to blend in any overspray.

(H) FIELD TOUCH-UP PROCEDURE (Cont'd)

6. Touch-up areas less than 1" dia. may be air dried from 1–3 hours, except where the touch-up is in contact with gaskets or plastic sealing strips, in which case infra-red baking by lamps or a radiator placed 12 to 15 inches from the area for 15 to 20 minutes is necessary as is also the case for large areas.

7. Dried touch-ups should be hand cut around the edges with Duco 993–5814 cream compound and polished with a lambswool mop.

It is stressed that lacquer touch-up must not be used in areas contacted by the door seal.

(I) THE COMPRESSOR AND ASSOCIATED CONTROLS

The Reciprocating Compressor is a ¼ H.P. Capacitor start type, and has a "plug on" Magnetic Starting Relay and a Klixon "thermal disc" overload protector both of which are mounted beneath a removable terminal cover. The compressor is rated at 1.4 amps on full load.

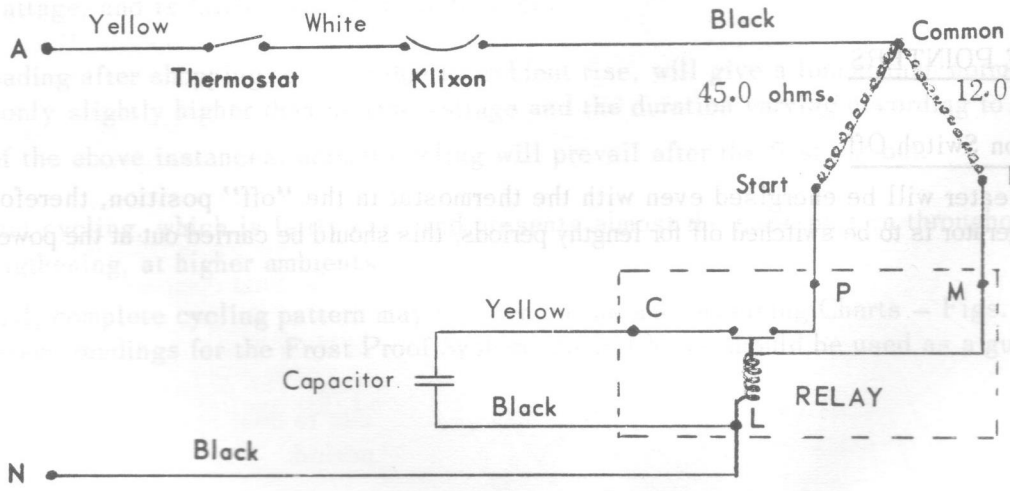
The Relay is a Kirby Capacitor start 3.3 to 3.5 amps. drop out. Branded ME.658 /2 the relay is Frigidaire – Part Number 7443866.

The Overload is branded ME.380 /11 and is supplied under Frigidaire – Part Number 7395506 (yellow dot). The no load settings are 212° to 228°F cut out – 150° – 168°F re-set.

The yellow dot indicates that this is a specially selected overload for the ¼ H.P. compressor and replacements to such should only be with the correct (7395506 yellow dot) overload.

The Capacitor is a 40 Micro-farad 240 V. 50 cycle – Part Number 7444498.

Fig. 2 Compressor & Associated Control Wiring Diagram



(J) AVERAGE PERFORMANCE DATA AND RUNNING COST

1. Performance 75° Ambient

No. 1 thermostat and No.3 air control settings (normal)
Food temperature 38 – 40°F.
Frozen Food 0° – 5°F – Freezer air – 5°F. at cut out.
50% run in 15 minute " on – off " cycles (except defrost cycle).
Normal wattage 225 (compressor 172 + fan and dryers 53).
Suction pressure 0 – 5 psig – Head pressure 120 psig at cut out.

Defrost Cycle

2 x 15 – 20 minutes defrosts at 500 + 41 watts
Freezer air rises to 50°F. Packets to 17°F. max. (no ice cream softening).
Food compartment air rises to 45°F. (no change in product from 38 – 40°F)
Suction pressure rises to 75 psig. Head pressure to 150 psig.

First Cycle After Defrost

The cut out occurs approximately 1½ hours after the start of defrost period.

Note: A shortage of refrigerant is most noticeable at this time by extending this period greatly.

Start up wattage 350. Running wattage 285 dropping at end of cycle to 225 at cut out.

Head pressure remains at 140 – 150 psig for approximately 45 mins. then drops steadily to 120 psig at cut out.

Suction pressure drops quickly from 75 to 25 psig. and then slowly to 0 – 5 psig. at cut out.

2. Running Cost (Multiply x power charge per unit or K.W.H.)

At 70°F (50% run + defrosts). . . . . 4 K.W.H. or units per day
At 90°F (75% run + defrosts). . . . . 5.3 K.W.H. or units per day
At 100°F (90% run + defrosts). . . . . 6.5 K.W.H. or units per day

(K) SERVICE POINTERS

(K1) Vacation Switch Off

The in-built heater will be energised even with the thermostat in the "off" position, therefore when the refrigerator is to be switched off for lengthy periods, this should be carried out at the power outlet.

(K) SERVICE POINTERS (Cont'd)

(K2) For Showroom Display reference should be made to the product wiring diagram Fig. 3 below, which indicates that it is not practical to disconnect the heaters without disconnecting the cabinet light and thus is not easily possible to arrange the product for Showroom Display using the cabinet light only.

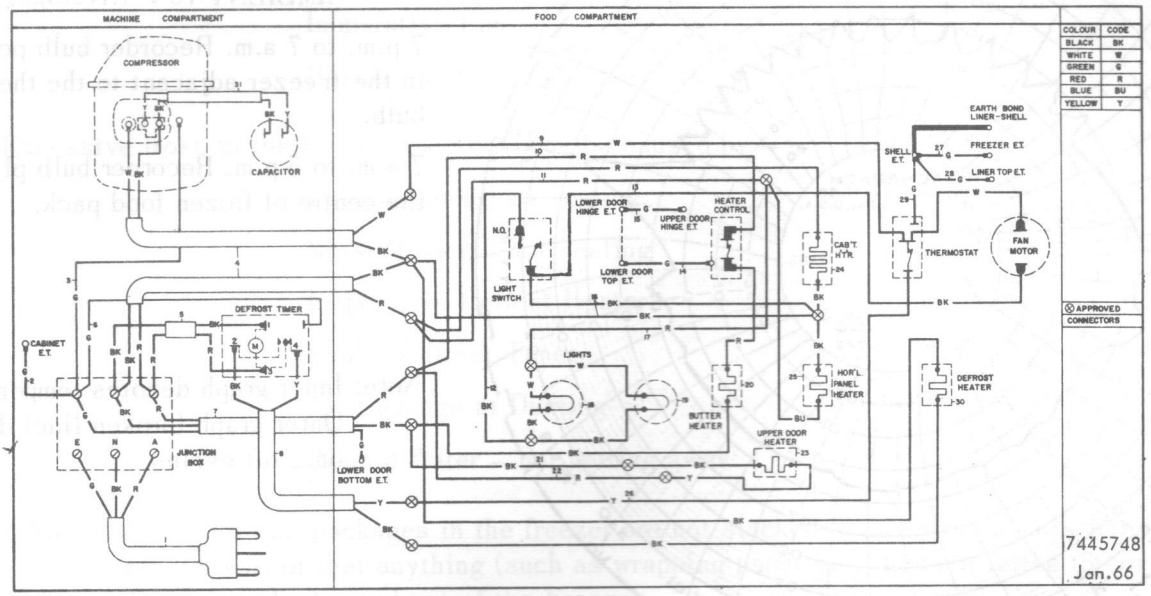


Fig. 3 Wiring Diagram

(K3) Normal cycling conditions which occur during operation of the Frost Proof System may be easier explained when taken as 3 segments of the cycle.

1. The longer than normal "on cycle" after defrosting, this is accompanied by appreciably higher than normal wattage, and is fairly consistant in duration.

2. Added loading after shopping, etc., or due to ambient rise, will give a longer than normal "on cycle", but with only slightly higher than normal wattage and the duration varying according to the load.

   In both of the above instances, normal cycling will prevail after the first cut out.

3. The normal cycling, which is fairly even and presents almost the same pattern throughout, with only slight lengthening, at higher ambients.

   The normal, complete cycling pattern may be seen on the accompanying Charts – Figs. 4 & 5 which show average readings for the Frost Proof System, these Charts should be used as a guide only.

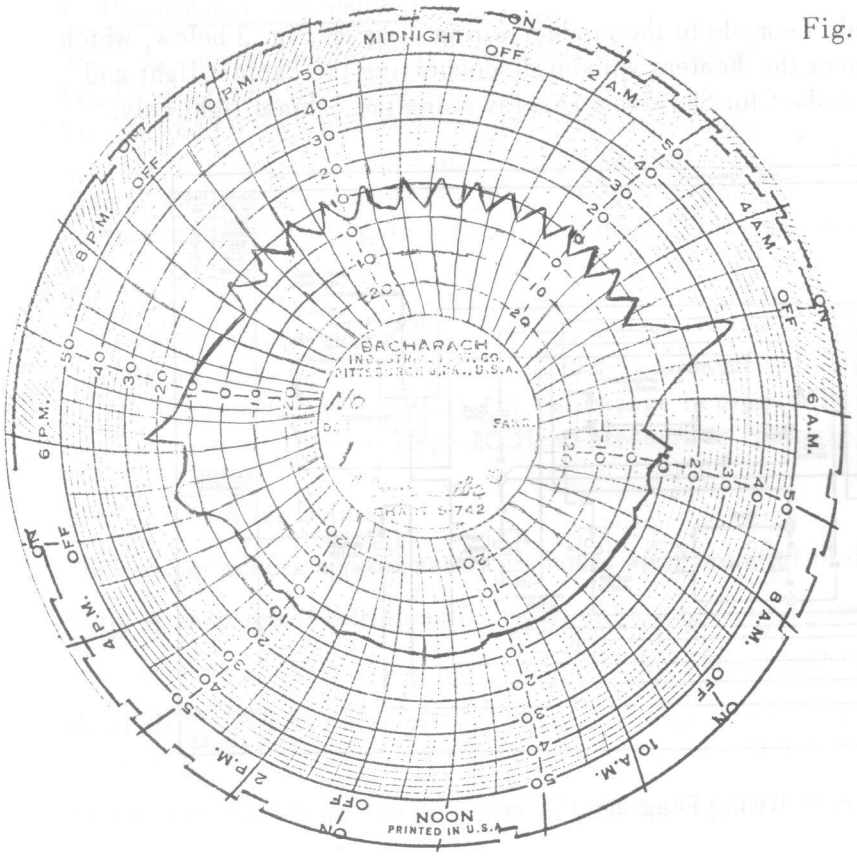


Fig. 4 CYCLE CHART

AMBIENT 78°F (Average)

7 p.m. to 7 a.m. Recorder bulb positioned in the freezer adjacent to the thermostat bulb.

7 a.m. to 5 p.m. Recorder bulb placed in the centre of frozen food pack.

Note: Inner graph denotes temperature
Outer graph (broken line) denotes on - off cycles.

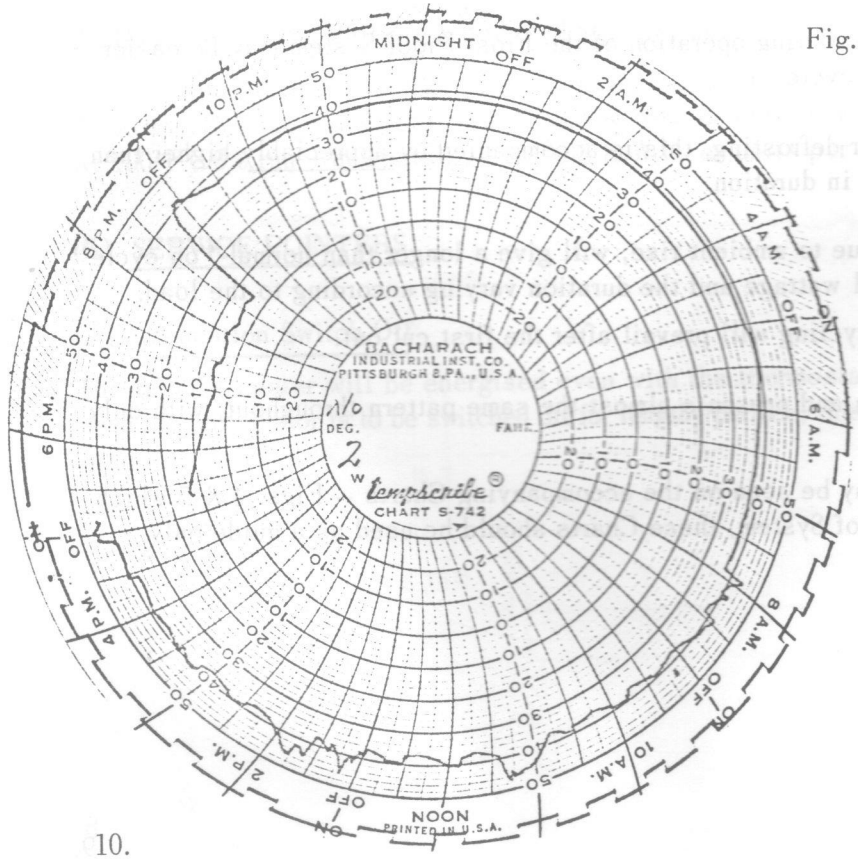


Fig. 5 CYCLE CHART

AMBIENT 70°F (Average)

5.30 p.m. to 8.45 p.m. Recorder bulb located in the centre of frozen food pack.

8.45 p.m. to 8 a.m. Recorder bulb placed in the Meat Tender recording the air Temperature.

8 a.m. to 5 p.m. Recorder bulb located in the food compartment air at the front of the top shelf (adjacent to bottom of Meat Tender).

Note: The occasional higher readings are due to door openings during this last period.

(K) SERVICE POINTERS (Cont'd)

(K4) Checking Temperature is best carried out with a Three Station Temperature Tester – Part Number 12860 which permits the door to be closed and readings taken in the freezer and storage section at the thermostat bulb locations simultaneously.

- Elevated cabinet temperatures may be caused by –

  Faulty Thermostat(s)

  Inoperative Fan

  Restricted Air Ducts (see Note *)

- Excessive frost on the Evaporator Coil, may be caused by –

  Cabinet Doors not sealing

  Moist Minder – not sealing

  Inoperative Defrost Heater

  Faulty Defrost Timer

  Air Leakage at Ducting

  Defrost Water – not getting away.

* Note: Make sure that packages in the freezer are not stacked to cover the air discharge at the freezer rear, or that anything (such as wrapping paper etc.) has not fallen to cover the air inlet at the lower front of the Freezer.

(K5) Overcharge of Refrigerant is accompanied by unsatisfactory temperature and long running time but the wattage is higher than normal (up to 10%).

A frost line extending along the suction line would tend to confirm overcharge, but this could also be caused by a restricted suction line, which should be eliminated by visual examination.

In the case of either overcharge or undercharge of refrigerant, complete evacuation and re-charging with the specified amount of refrigerant is the correct method to rectify the condition.

(K6) Shortage of Refrigerant would tend to give lower than normal operating wattages and unsatisfactory temperatures, but these may still be within the acceptable 10% limit of normal.

Hissing at the Evaporator would confirm a shortage.

Should shortage of refrigerant be suspected leak testing should be carefully carried out before fully re-charging.

A Slight Undercharge of Refrigerant in respect to Frost Proof Systems will show up by slightly extended running time, particularly after defrosting, although a slight shortage will not affect cabinet temperatures. Wattage will be slightly low.

(K) SERVICE POINTERS (Cont'd)

(K6) Shortage of Refrigerant (Cont'd)

A large shortage of Refrigerant will again cause excessive running time, with a considerably lengthened "on cycle" after defrosting. The Freezer Compartment temperature will be higher than normal, but not necessarily that of the Food Compartment. Wattage will be lower than normal, up to 50% below the normal value.

(K7) A Restricted Capillary Tube will give similar symptoms to shortage of Refrigerant. Generally the restriction is in the vicinity of the Filter Drier, therefore any abnormal drop in temperature of the liquid line in this area would indicate a restriction.

A user complaint of warm air circulating may be due to the following reason –

Although the Blower Motor does not run during the defrost cycle, it will operate in conjunction with the compressor immediately defrosting is completed, therefore a very short period of warm air circulation will occur until the Evaporator is cold.

During this period the product temperature will not be adversly effected (See Section J page 8).

(L) TEMPERATURE CONTROLS

(L1) The Cycling Thermostat – Part Number 7443900 is a conventional type (Ranco S.A.1267) with a straight bulb and is calibrated as follows.

Normal (No.1) Setting	Coldest (No.3) Setting
Cut in °F + 10 ± 2	
Cut Out °F –2 ± 2	Cut Out °F –10 ± 4

Limited adjustment must sometimes be effected to bring the control into line with the published calibration settings.

Any replacement thermostat should be checked for calibration when fitted.

(a) Adjusting the Cycling Thermostat may be carried out in accordance with the following instructions:

- The "cut out" adjusting screw is accessable on removal of the cardboard end cover.
- 1/4 turn of the screw clockwise raises the range approximately 3°F.
- The differential screw is on the exterior of the bakelite block between the terminals.
- 1/4 turn of the screw clockwise lowers the cut in approximately 3°F.

(b) To Check the Thermostat Settings locate the thermometer bulb at approximately the centre top of the Freezer.

The thermometer bulb should be held in position to contact the liner top.

Allow for the thermometer reading to vary slightly from that of the thermostat setting.

(L) TEMPERATURE CONTROLS (Cont'd)

(c) The Thermostat Capillary Location is in a ¼" O.D. well, scotch taped, diagonally to the freezer top within the insulation area.

Entry to the well is located 3" in from the right hand side at the liner front edge.

The well provides correct location for the sensing element (when inserted approximately 20" into the well) at an end point 1" forward from the liner rear and 15¼" from the liner right hand side.

(d) Thermostat Removal and Replacement

Remove the Meat Tender and Cover to make working easier.

Remove the Cold Control Button from the Thermostat Spindle (by turning it anti-clockwise) then remove the dial.

Remove the switch mounting plate attaching screws and in turn, the switch from the mounting plate and the wiring from the terminals along with the earth wires.

Remove the thermostat from the hole in the liner side.

Remove the food compartment right hand side and top moulding (Procedure F, Page 5)

Remove the freezer top and sides moulding (Procedure F, Page 5)

Remove the thermostat capillary tube from its position in the well and feed down through the insulation, pulling the thermostat away at the same time.

The Replacement Thermostat Capillary Tube is led up through the insulation to the original location.

Reassemble the mounting plate to the replacement thermostat.

Reconnect the wiring to the thermostat.

Place the thermostat in position on the liner side and secure with the mounting screws. Replace the thermostat dial and turn fully anti-clockwise to the "Off" position, then locate the knob to line up with the indicating point on the mounting plate.

The dial retainer Button should now be replaced.

Make sure that the capillary is inserted to the correct depth in the well (approximately 20").

Replace the mouldings (Procedure F Page 5) be sure that they are effectively sealed. (Procedure G Page 5).

Re-install the accessories.

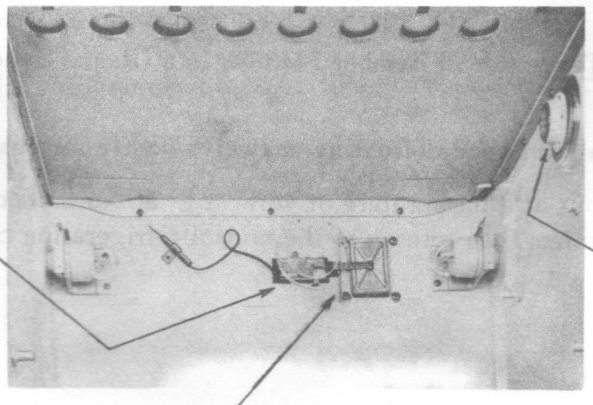


Fig. 6 Food Compartment

(L) TEMPERATURE CONTROLS (Cont'd)

(L2) The Food Compartment Air Flow Control – Part Number 7443899 is a Ranco B11 which is a thermostatically actuated damper type control.

The self aligning damper plate is loosely attached to a pivoted arm, the movement of which is controlled by the thermostat bellows and sensing element.

Note: With the control correctly installed the bulb should be at a 45° angle on the liner back and the capillary entering the bulb at the bottom.

Turning the dial clockwise, No. 1 to No. 6 (270° travel) will give an average colder cabinet temperature of approximately 9°F.

The normal setting is for the knob position to be between 2 and 4 as seen just below the light shield.

(a) The Method of Setting the Air Flow Control to the food compartment, is with the control in position on the liner and the bulb (at the correct angle – capillary down) placed into 32°F ice and water, allowing sufficient time for the bulb to reach 32°F, then turning the dial so that the damper is within 1/32" of the liner.

Further limited adjustment, should this be necessary, is by means of the brass range screw, situated on the face adjacent to the damper arm.

1 turn clockwise will raise the operating temperatures approximately 2°F.

Screw adjustment should only be necessary, if the damper will not close at settings either side of the normal, i.e. 2 to 4 on the dial.

(b) Air Control Removal and Replacement

Remove the Light Shield

Remove the Control Dial, by pulling straight off.

Remove the small aluminium baffle from the liner rear.

Slacken the control bulb clamp retaining screw.

Remove the two control body retaining screws to release the control.

To replace the control reverse the above procedure.

Transfer the dial to the new control, and check the settings as outlined, with the control in position on the liner.

(L3) The Defrost Timer – Part Number 7443898 is a (Ranco Type E11) time initiated temperature terminated control.

The Timer is set to commence defrosting at twelve hourly intervals.

Defrost termination is at a temperature of 48°F ± 2° at the thermostat bulb, or after 30 minutes (which ever is first) the system then returns to the normal refrigeration cycle.

(L) TEMPERATURE CONTROLS (Cont'd)

(L3) The Defrost Timer (Cont'd)

½ Turn Clockwise of the screw on the Timer face lowers the defrost termination temperature approximately 2°F.

The Timer Motor of 6000 ohms resistance is connected internally across terminals 1 and 3 on the control terminal block.

(a) The Defrost Timer – Removal and Replacement

Remove the food compartment mouldings at the top. bottom and right hand side of the cabinet. (Procedure F, Page 5).

Remove the freezer bottom moulding (Procedure F, Page 5)

Remove the sections of Air Ducting as far as the outer housing and fan inlet duct.

Remove the freezer bottom.

Remove the Mullion (Procedure 0.1, Page 19)

Remove the thermostat bulb from the clamp at the evaporator rear

Remove the cabinet apron

Remove the line cover plate.

Remove the two screws which mount the Timer Bracket to the Cabinet.

Push the switch and mounting bracket toward the cabinet rear to clear the cabinet frame.

Turn the bracket length ways to enable the assembly to be eased from the unit compartment. (Cabinet Mounting end first).

Disconnect the wiring.

Release the Timer Capillary from the centre mullion section sealing compound and remove the control.

To Replace the Timer

Clamp the bulb to the original location, lead the capillary along the freezer side and down through the mullion section and the cabinet side.

Note: The thermo bulb is marked "Top", correctly install the bulb with the word "Top" so positioned.

Transfer the timer mounting bracket to the new timer and relocate in the unit compartment.

Reverse the procedure outlined in timer removal, to replace the components.

When replacing the Air Ducting Mouldings reference should be made to Procedure G, Page 5 regarding sealing.

Fig. 7 Blower & Evaporator (Air Duct & Liner Bottom Removed)

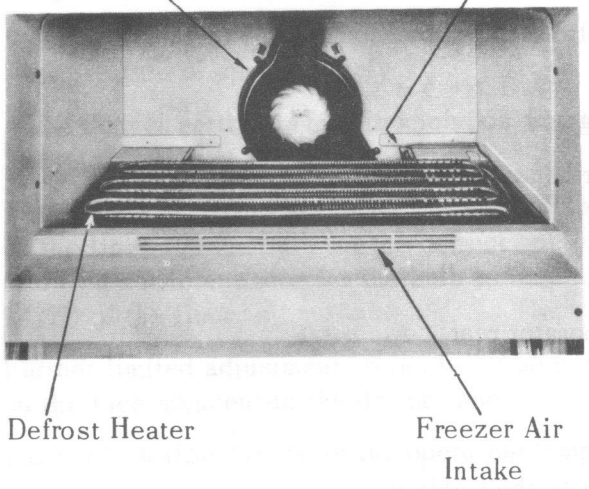
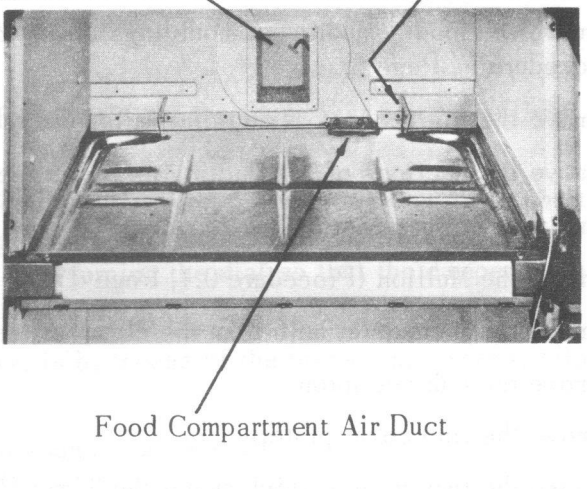


Fig. 8 Evaporator Pan – Interior (Components & Mullion Removed)



(M) THE BUTTER CONDITIONER ASSEMBLY is comprised of an 8000 ohm (7 watt) ceramic enclosed heater Part No. 7396061, wired in series with a bi-metal type control switch Part No. 7442295.

These components attach to a metal shelf and locate in a marked compartment on the inner door panel. With the knob in the central position the compartment shelf should reach 65° to 77°F before the switch opens. It should cut in again when the temperature has dropped between 5° to 13°F.

(a) The Butter Heater Switch Operation is such that the bi-metal holds the switch normally closed, whereupon the heating effect of the current through the bi-metal deflects it to open the circuit.

Transfer of cold from the cabinet interior closes the circuit.

The on period is approximately 15 minutes.

Turning the control knob clockwise operates the switch spindle via a right-hand thread to cause an insulated tip to bear on the bi-metal in such a way that it tends to open the circuit. This makes the compartment colder due to the effect of cabinet temperature.

(b) Adjusting the Butter Compartment Temperature should proceed thus:–

- To Adjust the Butter Compartment Control Colder first turn the spindle fully anti-clockwise until the spindle screw stop contacts the bakelite boss surrounding the spindle. Remove the knob and the serrated stop.

  Turn the spindle clockwise (see Note X) and replace the stop. This lets the screw open the circuit sooner for a definite knob position.

(M) THE BUTTER CONDITIONER ASSEMBLY (Cont'd)

(b) Adjusting the Butter Compartment Temperature (Cont'd)

- To Adjust the Control Warmer reverse the colder adjustment, but first turn the spindle fully anti-clockwise to the stop position before removing the serrated stop.

Note X: 1/8 turn clockwise of spindle relative to stop lowers "cut in" and "cut out" 3°F.

(c) Butter Heater and Switch Removal and Replacement

Both heater and control switch are provided to effect replacements.

Butter heater Part No. 7396061 replacement requires on the job soldering of the leads to the blade type terminals.

Butter heater control switch Part No. 7442295 replacement necessitates transfer of the existing wiring to the crimp type terminals attached to the replacement switch.

Positioning of the butter heater control switch is correct when the terminals point downwards and the bakelite stop on the spindle boss points to the left.

(d) To Remove the Butter Conditioner

Remove the two plastic plugs from beneath the butter shelf, to gain access to the retaining screws.

Remove the conditioner retaining screws from the underside of the shelf.

Ease the assembly away from the door panel in order to disengage the back edge of the plate from the recess.

When clear the assembly may be tilted and turned (taking care not to strain the wiring) to allow access to the Heater and Control Switch.

- Remove the Ceramic covered Heater by sliding the spring clip to disengage and make free the heater.
- Remove the switch assembly from the plate by undoing the two attaching screws.
- Access to the terminals is now possible in order to fit the replacements.
- Replacing the assembly may be effected by reversing the removal procedure.
- The wiring and connection locations to the butter conditioner are shown in diagram Fig. 9, Page 19. Removal of the food compartment inner door panel is required, should it be necessary to gain access to the main lead connections.

(N) THE DEFROST HEATER is fitted on both the underside and the top of the evaporator coil. Recesses are provided in the evaporator fins to receive the heater coil which is formed to match the evaporator tubing.

The Part Number 7443959 heater consists of 354" of ¼" O.D. Aluminium coated magnesium oxide insulated heater wire, rated at approximately 500 watts at 240 V, with a resistance of 115 ohms. Black, rubber covered tails of 68" and 44" lengths are provided for connection to the defrost circuit.

The replacement heater is supplied in coiled form and must be suitably shaped on the job, the discarded heater may be used as a pattern.

(N) THE DEFROST HEATER (Cont'd)

(a) Defrost Heater Removal and Replacement

Remove the Freezer contents

Remove the Food Compartment right hand moulding (Procedure F. Page 5).

Remove the section of the air ducting as far as the outer housing and the fan inlet duct.

Remove the Freezer bottom.

Remove the Freezer mouldings (Procedure F, Page 5)

Remove the Mullion (Procedure O. 1, Page 19) and lay in the Food Compartment.

Remove the four screws, securing the coil to the pan.

Use a flat bladed screwdriver and pry at the crimping points to release the heater from the accumulator channel.

Pull out the evaporator and support it to provide sufficient clearance to enable removal of the heater from the bottom of the coil.

Remove the Defrost Heater from the top and bottom of the coil.

Locate the lead connections (at the lower R.H. side of the cabinet) and disconnect the heater.

(b) Form the replacement heater and press into position in the recesses in the coil fins. Use pliers to carefully crimp the heater in the accumulator channel.

A length of ALUMINIUM wire is provided with the replacement heater to assist in assembling the heater to the evaporator.

Start assembly of the heater and then tie the top and bottom loops together with the ALUMINIUM wire to retain the heater in its grooves in the fins.

Reseal the area where the leads leave the freezer.

NOTE: Do not make connection inside the drain pan, where a short circuit may result, due to the presence of water.

Reverse the procedure, to reassemble the components removed to gain access to the heater.

Be sure to effectively re-seal around the air ducting and mullion gussets.

(O) CONDENSATE DRYER HEATERS

- The Mullion Dryer is located in the slab insulation behind the mullion, between the freezer and food compartments.

  The Part Number 7443708 mullion heater is rated at 240 V, 7.5 Watts approximately and is made up of 75" of 1200 ohms per ft. of element with a 60" black and a 36" blue tail, connected across the supply. The heater is taped to the grooved insulation.

(O) CONDENSATE DRYER HEATERS (Cont'd)

- The Shell Dryer is foamed in position and has one pass either side of the food compartment and three passes located toward the front flange at the freezer section.

  The shell heater (Part Number 7443704) is rated at approximately 22.5 Watts at 240 V. and consists of 252" of 120 ohms per ft. element with a 41" black and an 8" red tail, connected across the supply. Aluminium foil tape – 53" x 2" (P.A. Spec. 1677) is used to bond the 3 pass section of the heater to the cabinet shell.

- The Freezer Door Dryer is foamed in position around the inside of the outer edge of the door. The leads protrude through the door shell and are connected to the main supply, beneath the cover located at the lower hinge.

  The Freezer door heater (Part Number 7443700) is rated at approximately 11 Watts, 240 Volts and consists of 77" of 800 ohms per ft. of element, with a 4" yellow and an 8" black tail.

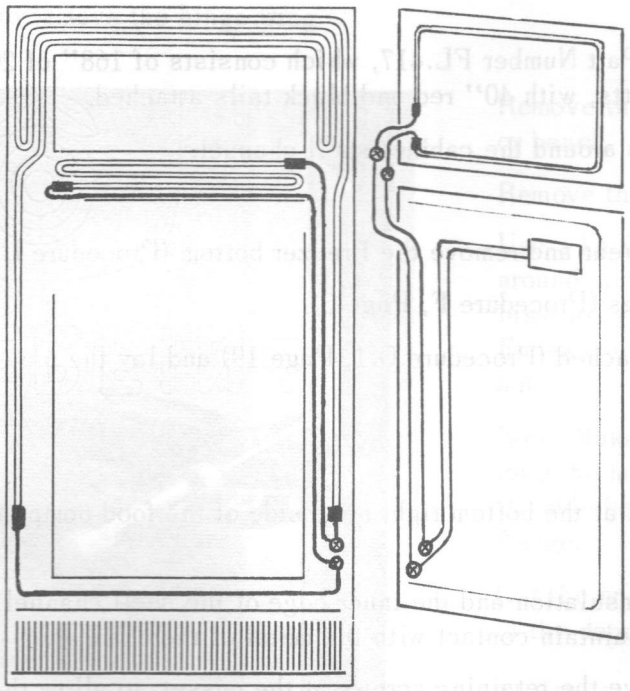


Fig. 9

Condensate Dryers & Butter Heater Layout

(O1) Mullion Heater Removal and Replacement

To Replace the Mullion Heater the door opening moulding above and below the Mullion, also the right-hand food compartment moulding must be removed (Procedure F, Page 5)

Remove the intermediate hinge butt screw which passes into the centre Mullion and slacken the two remaining screws at the cabinet edge.

(O) CONDENSATE DRYER HEATERS (Cont'd)

(O1) Mullion Heater Removal and Replacement (Cont'd)

The four, Mullion retaining screws must be removed, one each, from above and below the Mullion at either end.

The Mullion may then be removed by easing across to one side then down and out, at the same time freeing the heater leads from their position in the insulation at the cabinet side.

Cut the heater leads close to the element.

The heater may be removed from the recess in the foam insulation of the Mullion and the new heater taped in position.

Connect the new heater leads in using Part No. 7444792 crimp connectors. Re-seal any area from which sealing compound may have been removed or displaced (Procedure G, Page 5).

(O2) Shell Dryer Replacement

The replacement shell dryer available is Part Number FL.417, which consists of 168" of 200 ohm per ft. of heater, rated at approximately 20 Watts, with 40" red and black tails attached.

The heater will provide one complete pass around the cabinet shell channel.

- To gain access to the shell channel.

  Remove the Air Ducting at the Freezer rear and remove the Freezer bottom (Procedure L.3,(a) Page 15).

  Remove all of the cabinet door mouldings (Procedure F, Page 5).

  Remove the Mullion, with the heater attached (Procedure O.1, Page 19) and lay the assembly in the food compartment.

- To Fit the Replacement Heater

  Commence installing the heater element at the bottom right hand side of the food compartment approximately 3" from the bottom.

  Press the heater in, between the foam insulation and the inner edge of the shell channel, to a depth of approximately ¼", being careful to maintain contact with the metal of the channel..

  When close to the Mullion gusset, remove the retaining screws at the gusset, to allow the gusset to be moved, enabling the heater to be passed beneath the gusset and behind the channel.

  Note: It is necessary to remove the five gusset retaining screws to allow as much movement as possible of the gusset (it is not possible, or necessary to completely remove the gusset at this stage).

  Reposition the gusset, after locating the heater, and tighten the screws, make sure that the heater is clear of all screw holes.

  Continue feeding the heater in, all around the cabinet shell, removing and replacing each gusset in turn.

(O) CONDENSATE DRYER HEATERS (Cont'd)

(O2) Shell Dryer Replacement (Cont'd)

Locate and disconnect the original heater leads and connect the replacement heater into the "fast on – fast off" connectors.

Note: Extreme care must be taken when installing the element, owing to the fineness of the heater wire.

A chisel shaped piece of wood approximately 3/8" thick x 1½" wide x 3" long and tapered to a working edge of 1/8" (at one 1½" edge) may be found handy to press the heater wire into position.

(O3) Freezer Door Dryer Replacement

Remove the wiring cover at the Freezer door lower hinge and disconnect the wiring

Remove the two screws holding the top hinge wing to the door.

Tilt the door to remove the hinge wing.

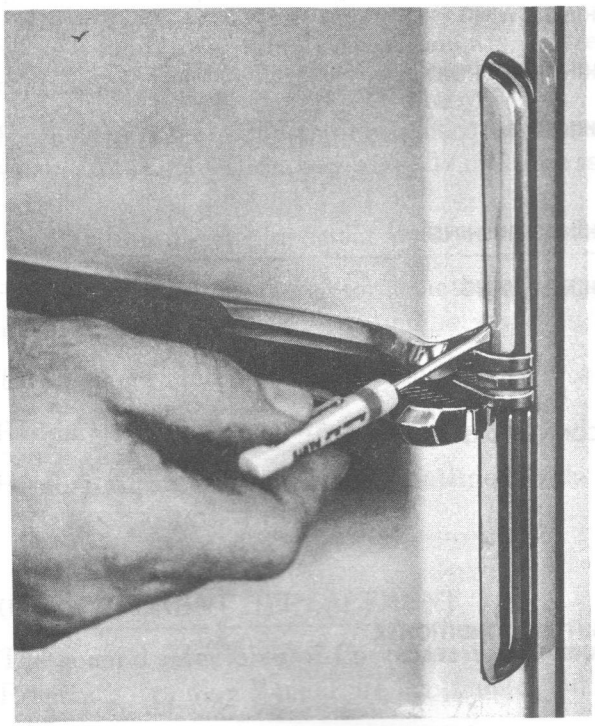


Fig. 10 Lead Cover Removal

Remove the door and lay face down on a padded table or bench.

Remove the inner door panel and gasket.

Use a knife to make a cavity in the insulation all around and beneath the door flange. Clean off as much insulation as possible from the inside of the flange. Endeavour to extend the cavity to beyond the screw holes.

Note: Make the cavity with barely enough clearance to take the heater wire, this will ensure that good contact is made between the heater and the metal of the door flange.

Cut the ends of the old heater wire close to the hole in the door panel and leave the old heater in position.

The Replacement Heater should be inserted into the cavity as far as possible, making sure that the wire is clear of the screw holes.

Lead the new tails through the hole to the out side of the panel.

Wool type insulation may be used if necessary to pack the cavity and hold the condensate heater in position.

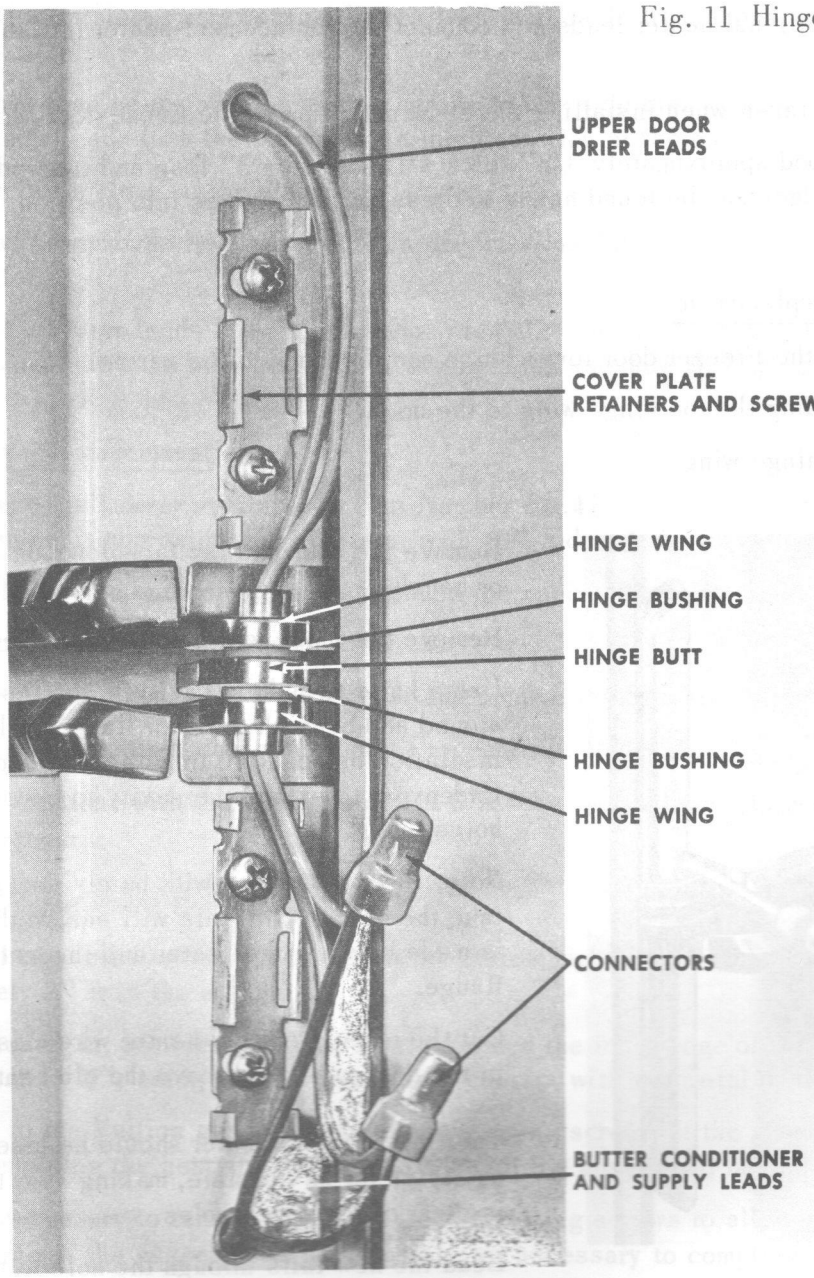
Re-assemble the door and replace on the cabinet.

Use Part Number 7444792 crimp type connectors to re make the wiring connections.

(O) CONDENSATE DRYER HEATERS (Cont'd)

(O3) Freezer Door Dryer Replacement (Cont'd)

Fig. 11 Hinge & Lead Arrangement



(P) THE AIR CIRCULATION MOTOR AND BLOWER

The Fan Motor is located at the rear of the freezer compartment and mounted onto a recess formed in the cabinet insulation.

The motor is wired to cycle in conjunction with the unit compressor. The black and white wiring leads are foamed in position with a suitable length remaining free and equipped with quick connect type terminals to connect to the motor.

(P) THE AIR CIRCULATION MOTOR AND BLOWER (Cont'd)

- The Fan Motor, Part Number 7443891 is an Eilbeck (Sydney) shaded pole motor of 2200 r.p.m. and rated at 11.5 Watts at 240 V. The windings have a resistance of 2600 ohms.
- The Blower wheel is a 4" D. centrifugal type with backward curved blades and is of Torrington Dayton design.

(a) Air Circulation Motor Removal and Replacement

Remove the freezer contents.

Remove the fan housing outer cover and Air Deflector.

Remove the Fan inlet air duct.

Remove the freezer bottom.

Remove the air distribution duct.

Remove the Motor Mounting plate screws.

Disconnect the motor wiring.

Remove the blower wheel, motor mounting plate and spacers, transfer these components to the replacement motor.

The blower wheel adapter is retained to the motor shaft by means of a No.6 – 32 Allen Screw, Part Number 7444354 (Allen Key size, 1/16" across flats).

(b) Position the Replacement Motor in order to connect wiring.

Replace and tighten the motor mounting plate screws, first making sure that the rubber mounting washers are in position on the screws and between the liner and mounting plate.

The washers also provide clearance to allow air circulation in the motor cavity.

Re-install the components in the reverse order of removal. See Note *

Re-seal all areas as previously outlined in the notes on sealing (Procedure G, Page 5).

(Q) COMPONENT REPLACEMENT

The general principles of Component Replacement as laid out in the Frigidaire "Component Replacement Program" Training Manual are applicable, but should be varied in respect to the following features –

Unlike the Rotary Compressor the Reciprocating Compressor (which has a low side dome) does not possess an "in-built" by pass connection between the high side and low side of the system for evacuation purposes.

1. Schrader Valve Connector

For processing, during all component replacements, it is necessary to fit a ¼" schrader type line connector in the high side, between the condenser and the compressor.

* NOTE: Blower wheel clearance should be a minimum of 3/16" between the wheel and motor mounting plate.

(Q) COMPONENT REPLACEMENT (Cont'd)

1. Schrader Valve Connector (Cont'd)

This permits the high side to be evacuated by paralleling it with the low side connection from the charging fitting through flexible hoses to a standard ¼'' line, ¼'' branch tee, thence to the centre port of the gauge manifold.

When charging, the low side can be isolated, if desired, after the vacuum is broken, by closing the FL330 charging tool. This is a special fitting required for processing the Reciprocating Sealed Unit.

Because the Schrader valve, used in Connector Package 5876813, has a nylon gasket for seating in the brass fitting, it is not sufficient to screw the valve in finger-tight, using a tyre valve cap, as is the case with motor car valves. It is necessary to securely tighten the valve into the brass fitting, using a Schrader valve key. These keys are available from motor accessory houses and from many automobile service stations.

It is necessary to truly tighten the Schrader Valve into the brass fitting to prevent leakage which may appear to come from the valve seating but, in fact, comes from the gasket between the Schrader valve and the fitting.

A small degree of leakage may still occur at the Schrader valve seat. Therefore when the Part Number 5876813 Connector is fitted, in servicing reciprocating units, the flare nut and bonnet should be installed and left in place after processing.

2. The General Procedure, for discharging and cutting into the system to enable the necessary replacement to be made is stepped out as follows –

(a) Disconnect the unit electrically.

(b) Compare the components – make sure you have the correct part for the job before cutting into the system.

(c) Install the charging tool on the compressor charging valve and connect a length of tubing to the charging tool, then by cracking the valve discharge the refrigerant – to the outside atmosphere if possible.

(d) Match the components and clean the lines with fine steel wool, in the area where the final cuts are to be made. This can be done while the system is being discharged.

(e) Cut the lines as close as possible to the component being replaced. Use side cutter pliers for this operation.

(f) Remove the component, then with the replacement in position form the lines parallel to the existing lines. Mark the final cutting position of both sets of lines and cut with a sharp tubing cutter.

(g) Assemble the connector fittings on the lines after cutting, and with the component in place tighten the connections.

(h) Start the evacuation as quickly as possible – postpone any assembly work which can be done during evacuation.

(Q) COMPONENT REPLACEMENT (Cont'd)

3. Replacement Compressors

Replacement reciprocating compressors are equipped with starting relay and motor overload protector. They contain the correct oil charge of 150 viscosity refrigeration oil and a holding charge of dry nitrogen. Further oil supplies are available in 1 quart cans – Part No. FL 311.

The correct refrigerant charge is 10 ozs. WT. (R.12).

The correct oil charge is 20 ozs. WT. (150 viscosity).

4. Line Sizes on the parts used when effecting component replacement are as follows –

Compressor 1/4 H.P.	1/4" OD tails
De super-heat Coil	1/4" OD tails
Evaporator	1/4" OD suction line
Evaporator	.072 OD capillary line
Condenser	1/4" OD tails
Drier Filter	3/16" OD tails

Complete details of the required connectors and component part numbers may be obtained from the Service Parts Section in this Manual.

5. Evaporator Removal and Replacement

Follow the instructions as set out in Defrost Heater Removal (Procedure (N), Page 18), and Defrost Timer Removal (Procedure (L3(a) Page 15).

Remove the Defrost Heater and transfer to the new coil

Note: Use only ALUMINIUM wire if it is found necessary to retain the heater in the grooves in the evaporator fins during re-assembly.

When effecting component replacement on the evaporator and lines assembly, it may be found more convenient to remove the unit to allow complete freedom of operation.

6. Compressor and Condenser Removal

Removal of the compressor and mounting tray entails undoing the four nuts, two at either end of the tray and removal of the condenser mounting screws.

Remove the de-super heat support screw at the cabinet front and release the wiring from the spring retaining clips.

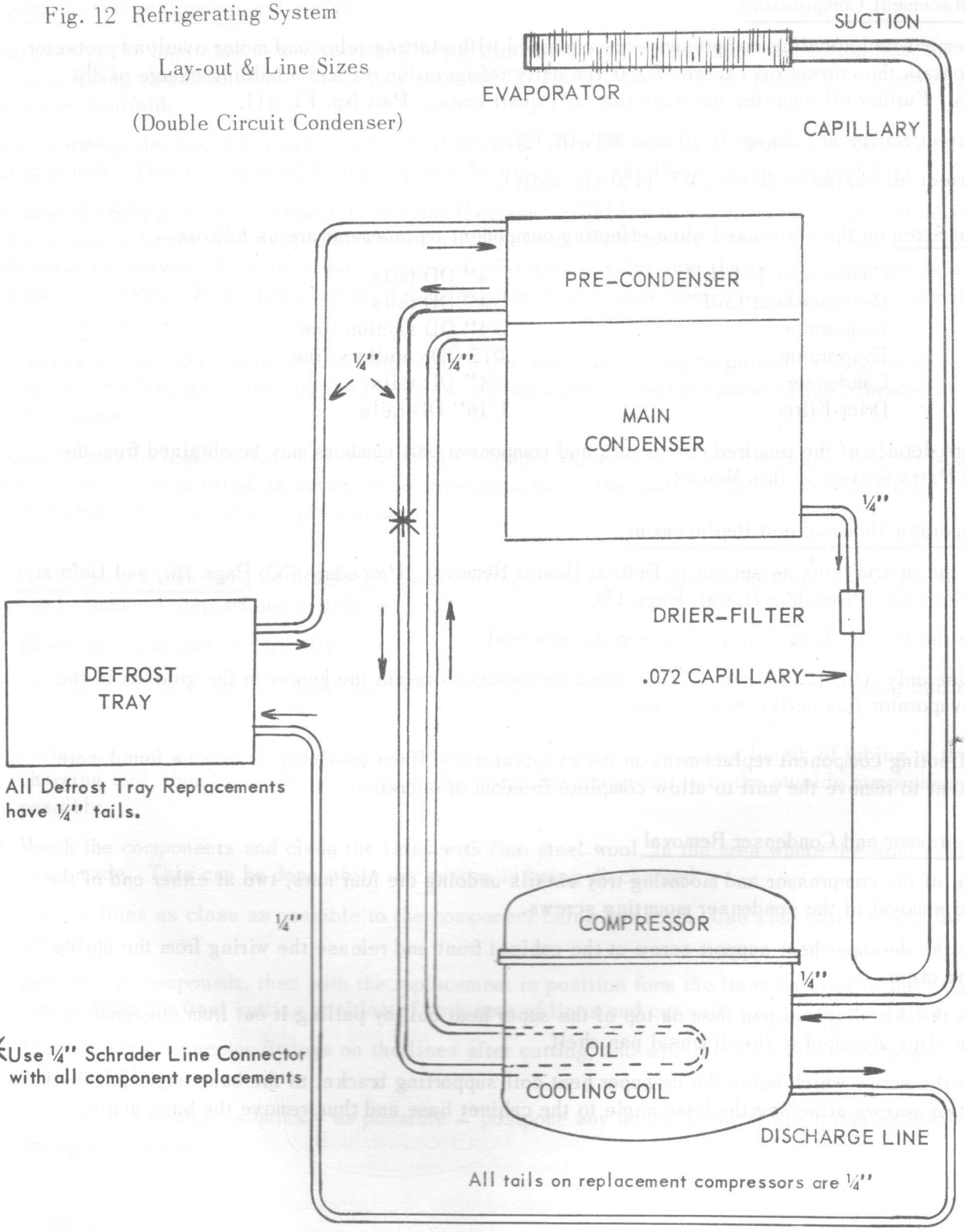
Remove the drip disposal pan from on top of the super heat coil by pulling it out from engagement with the clips attached to the disposal pan shelf.

Remove the screw which holds the de-super heat coil supporting bracket to the base angle followed by the two screws attaching the base angle to the cabinet base and thus remove the base angle.

Fig. 12 Refrigerating System

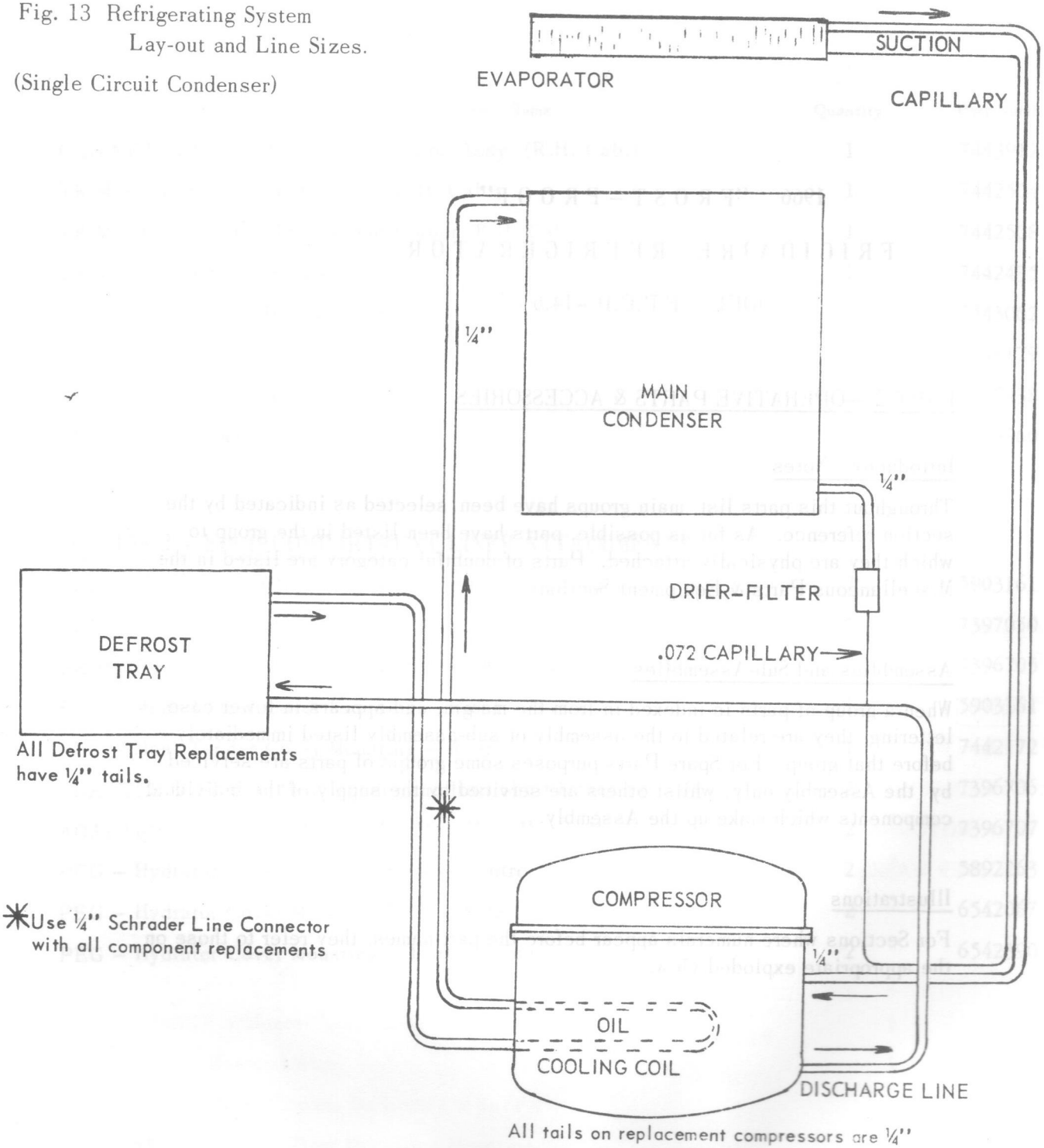
Lay-out & Line Sizes

(Double Circuit Condenser)



NOTE: Refer to Fig.13, Page 27 for diagram showing Single Circuit Condenser Layout as used in initial production.

Fig. 13 Refrigerating System
Lay-out and Line Sizes.
(Single Circuit Condenser)



1966 "FROST-PROOF"

FRIGIDAIRE REFRIGERATOR

MODEL - F P.C.D.-14.6

PART 2 - OPERATIVE PARTS & ACCESSORIES

Introductory Notes

Throughout this parts list, main groups have been selected as indicated by the section reference. As far as possible, parts have been listed in the group to which they are physically attached. Parts of doubtful category are listed in the Miscellaneous Parts & Equipment Section.

Assemblies and Sub-Assemblies

When a group of parts is indexed in from the margin, and appears in lower case lettering, they are related to the assembly or sub-assembly listed immediately before that group. For Spare Parts purposes some groups of parts are serviced by the Assembly only, whilst others are serviced by the supply of the individual components which make up the Assembly.

Illustrations

For Sections where numerals appear before the part names, they refer to those on the appropriate exploded view.

FRIGIDAIRE FROST-PROOF REFRIGERATOR – MODEL FP.C.D.–14.6

SECTION 1 – CABINET SHELL & EXTERIOR FITTINGS

Part Name	Quantity	Part Number
CABINET SHELL – Liner & Insulation Assy. (R.H. Cab.)	1	7443912
TRIM – Cabinet Top and Corner (R.H. Cab.)	1	7442504
TRIM – Cabinet Handle Side and Corner (R.H. Cab.)	1	7442508
TRIM – Cabinet Hinge Side	1	7442435
APRON ASSY. – (R.H. Cab.) with Clips & Bumpers	1	7443062
CLIP – Cabinet Apron	2	7443179
BUMPER – Cabinet Apron	2	6545438
LEVELLING FOOT	2	7393960

SECTION 2 – FOOD COMPARTMENT LINER ATTACHMENTS

PEG – Front – Shelf Mounting (Full Width & Half Shelf)	7	5903161
PIN – Mushroom Head – Half Shelf Front Retaining	1	7397050
GROMMET – Shelf Mounting – Rear (Full Width & Half Shelf)	7	7396705
PEG – Meat Tender Cover Mounting – Front	1	5903161
PEG – Meat Tender Cover Mounting – Rear	1	7442172
ADAPTER – Front – Meat Tender and Half Shelf Mounting	2	7396706
ADAPTER – Rear – " " " " " "	2	7396707
PEG – Hydrator Cover Mounting Rear – Centre	2	5892263
PEG – Hydrator Cover Mounting Rear – Side	2	6542067
PEG – Hydrator Cover Mounting – Front – Side	2	6542390

SECTION 3 – FOOD COMPARTMENT INTERIOR FITTINGS

	Part Name	Quantity	Part Number
	COVER – Meat Tender (No Trims or Supports)	1	6545172
	SCREW – Meat Tender Handle Mounting	2	5899983
	CROWN NUT – Meat Tender Handle Mounting	2	5856816
	HANDLE – Meat Tender	1	7443860
	COVER – Hydrator – (No Trim)	1	7395852
	HANDLE – Hydrator	1	7443858
	HALF SHELF	1	7444392
	FIXED SHELF	2	7444390
	SLIDING SHELF	1	7444391

SECTION 4 – AIR DISTRIBUTION & FREEZER COMPARTMENT PARTS

4	DEFLECTOR – Freezer Air (Above Housing & Fan Cover)	1	7443861
12	FAN – Blower Wheel	1	6588636
16	ALLEN SCREW (1/16") – Fan Adaptor to Fan Motor Shaft)	1	7444345
20	FAN MOTOR – (11½ Watt, 2600 ohm) Eilbeck	1	7443891
24	RUBBER WASHER – Fan Motor Mounting Spacer	4	5855305

SECTION 5 – DOOR OPENING MOULDINGS

Part Name	Quantity	Part Number
MOULDING – Freezer Compt. Top and Sides	1	7444248
MOULDING – Freezer Compt. Bottom	1	7443818
CLIP – Side Moulding Retainer	4	7442392
MOULDING – Food Compt. Top	1	7444235
MOULDING – Food Compt. Bottom	1	7444239
MOULDING – Food Compartment Handle Side (R.H. Cab.)	1	7444240
MOULDING – Food Compt. Hinge Side (R.H. Cab.)	1	7443828

SECTION 6 – FREEZER DOOR & ASSOCIATED PARTS

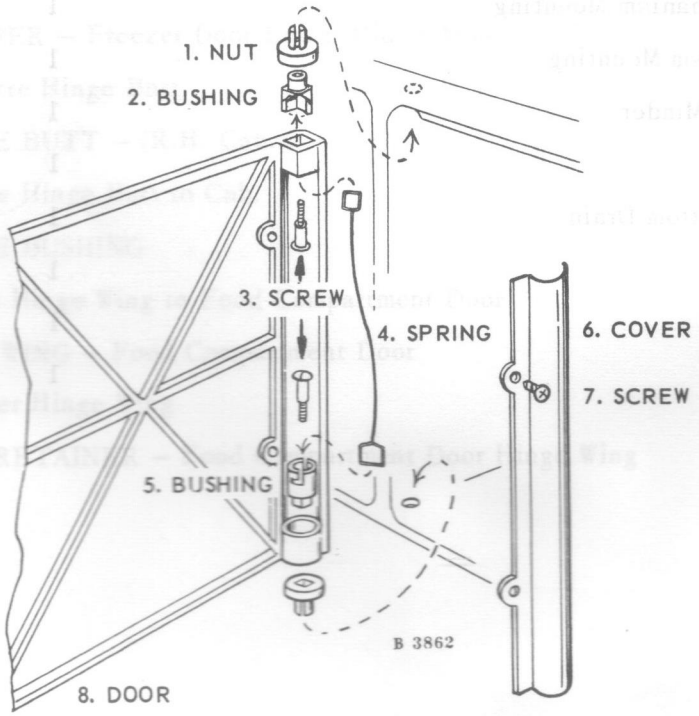
OUTER DOOR PANEL & INSULATION ASSY. – Freezer Door (R.H. Cab.)	1	7443822
INNER DOOR PANEL – Freezer Door	1	7443794
SHELF FRONT – Freezer Door	1	7395881
RETAINER – Freezer Door Shelf Front – R.H.	1	7444236
RETAINER – Freezer Door Shelf Front – L.H.	1	7444237
RIVET – Freezer Shelf Front Retainer Mounting	8	7443835
SEAL – Freezer Door	1	7395842
TRIM CAP – Freezer Door (R.H. Cab.)	1	7442650
SCREW – Freezer Door Cap Mounting	3	5896900
HANDLE – Freezer Door – Centre Section	1	7519997
END – Freezer Door Handle	2	7519992
HANDLE SUPPORT – Plastic	2	7336446
RETAINER – Heater Lead Cover – Freezer Door	1	7442640
COVER – Heater Lead	1	7442627
MEDALLION – (Custom De Luxe Crown/F)	1	7443830
PLASTIC BUSH – Door Medallion Mounting	2	7396677

SECTION 7 – FOOD COMPARTMENT DOOR & ASSOCIATED PARTS

Part Name	Quantity	Part Number
OUTER PANEL & INSULATION ASSY. – Food Compartment Door (R.H. Cab.)	1	7443840
TRIM CAP – Food Compartment Door (R.H. Cab.)	1	7442732
SCREW – Food Compartment Door Cap Mounting	3	5896900
INNER PANEL – Food Compartment Door	1	7444246
DOOR SHELF FRONT – Food Compartment Door	2	7395880
END PIECE – Food Compartment Door Shelf – R.H.	2	7444242
END PIECE – Food Compartment Door Shelf – L.H.	2	7444243
EGG SHELF FRONT	2	7395882
END PIECE – Egg Shelf Front – R.H.	2	7444244
END PIECE – Egg Shelf Front – L.H.	2	7444245
EGG TRAY	2	7518769
BUTTER TRAY	1	7394424
SEAL – Food Compartment Door	1	7395843
HANDLE – Food Compartment Door – Centre Piece	1	7519999
END – Food Compartment Door Handle	2	7519992
HANDLE SUPPORT – Plastic	2	7336446
MEDALLION ASSY. – Frost-Proof	1	7443903
PLASTIC BUSH – Door Medallion Mounting	2	7396677

SECTION 8 – BUTTER & UTILITY COMPARTMENT DOOR & ASSOCIATED PARTS

	Part Name	Quantity	Part Number
1.	EXPANDING NUT – Hinge Bushing Mounting – Butter – Utility Compartment	2	6589972
2.	TOP BUSHING – Butter & Utility Compartment Door (Square)	1	7518004
3.	SCREW – Butter – Utility Compartment Hinge Nut Mounting	2	6589984
4.	HINGE SPRING WIRE – Butter & Utility Compartment Door	1	7395870
5.	BOTTOM BUSHING – Butter & Utility Compartment (Round Slotted)	1	6589973
6.	COVER – Butter – Utility Compartment Door Spring	1	7395846
7.	SCREW – Butter – Utility Compartment Door Spring Cover Mounting	2	7518008
8.	DOOR – Butter & Utility Compartment (R.H. Opening)	1	7395888
	RAIL – Utility Compartment	1	7395838
	PLASTIC RIVET – Butter or Utility Compartment Rail Mounting	2	7395965
	BUTTER TRAY	1	7394424



SECTION 9 – ICE CONTAINER & WATER DISPOSAL PARTS

	Part Name	Quantity	Part Number
1	SHELF – Ice Tray Cover	1	7395928
2	ICE TRAY & HANDLE (Ejector Type)	2	6583731
3	ICE TRAY GRID	2	6583730
4	RETAINING CLIP – Ice Tray Grid	2	6547457
5	ICE CONTAINER	1	7442418
6	MECHANISM – Ice Ejector	1	7442419
7	Bracket Assy. – Linkage Mounting	1	7442412
8	Handle – Lever Arm	1	7442402
9	Spring – Ice Ejector Mechanism	1	6549363
10	Bushing – Handle Pivot	2	6546183
11	Pin – Handle Bushing	1	6548300
12	Actuating Trigger – Ice Ejector	1	6548301
13	Pin – Ejector Handle to Trigger	1	6548299
14	SCREW – Ejector Mechanism Mounting	1	5897304
15	WASHER – Ejector Mechanism Mounting	1	5859219
16	NUT – Ejector Mechanism Mounting	1	5856816
17	FLOAT ASSY. – Moist Minder	1	7395646
18	SEAT – Moist Minder	1	6548260
19	INNER GROMMET – Bottom Drain	1	5895443
20	LOWER DRAIN SEAL	1	5895442
21	LOWER DRAIN TUBE	1	7395906
	DRIP DISPOSAL PAN	1	7399533

FRIGIDAIRE FROST-PROOF REFRIGERATOR – MODEL FP.C.D.–14.6

SECTION 10 – DOOR HINGES & ASSOCIATED PARTS

	Part Name	Quantity	Part Number
1	SCREW – Freezer Door Upper Hinge Butt to Shell	2	7445295
2	SPACER – Freezer Door Upper Hinge Butt to Shell	1	7445640
3	UPPER HINGE BUTT – Freezer Door	1	7445519
4	LOCKWASHER – Hinge Butt Retaining Screw	2	125774
5	NUT – Hinge Butt Retaining Screw (Low Crown)	2	7445294
6	UPPER HINGE PIN – Freezer Door	1	7442612
7	SCREW – Upper Hinge Wing to Freezer Door	2	6549961
8	UPPER HINGE WING – Freezer Door (R.H. Cab.)	1	7442538
9	GASKET – Upper Hinge Wing – Freezer Door	1	7442609
	ADJUSTABLE RETAINER – Freezer Door Hinge Wing (Inside Door)	1	6589974
10	DOOR TRIM – Lower Hinge Wing – Freezer Door (R.H. Cab.)	1	7442642
11	GASKET – Lower Hinge Wing	1	7442609
12	LOWER HINGE WING – Freezer Door (R.H. Cab.)	1	7442586
	ADJUSTABLE RETAINER – Freezer Door Lower Hinge (Inside Door)	1	6589974
13	SCREW – Freezer Door Lower Hinge Wing to Retainer	2	6549961
14	BEARING WASHER – Freezer Door Lower Hinge Wing (Thick)	1	7442580
15	GASKET – Centre Hinge Butt	1	6588397
16	CENTRE HINGE BUTT – (R.H. Cab.)	1	7442578
17	SCREW – Centre Hinge Butt to Cab.	2	6549961
18	CENTRE HINGE BUSHING	1	7443857
19	SCREW – Upper Hinge Wing to Food Compartment Door	2	6549961
20	UPPER HINGE WING – Food Compartment Door	1	7442538
21	GASKET – Upper Hinge Wing	1	7442609
	ADJUSTABLE RETAINER – Food Compartment Door Hinge Wing	1	6589974

SECTION 10 – DOOR HINGES & ASSOCIATED PARTS (Cont'd)

	Part Name	Quantity	Part Number
22	DOOR TRIM – Upper Hinge Wing Food Compartment Door	1	7442643
	UPPER COVER – Butter Heater Lead (Above Lower Door Hinge)	1	7442627
	RETAINER – Butter Heater Lead Upper Cover	1	7442640
	SCREW – Butter Heater Lead Upper Cover Retainer Mounting	2	161860
	ADJUSTABLE RETAINER – Food Compt. Door Hinge Wing (Inside Door)	1	6589974
23	GASKET – Lower Hinge Wing Food Compartment Door	1	7442609
24	LOWER HINGE WING – Food Compartment Door	1	7442586
25	SCREW – Lower Hinge Wing to Food Compartment Door	2	6549961
26	SPACER WASHER – Food Compartment Door Lower Hinge Wing (Thin)	1	7442965
27	LOWER HINGE BUSHING – Food Compartment Door	1	7442614
28	REINFORCEMENT BRACKET – Food Compartment Door Lower Hinge (R.H. Cab.)	1	7442682
29	SCREW – Food Compartment Lower Hinge Reinforcement Bracket Mounting	1	6545846
30	GASKET – Food Compartment Lower Hinge Butt to Shell	1	7442608
31	LOWER HINGE BUTT – Food Compartment Door (R.H. Cab.)	1	7442670
32	SCREW – Food Compartment Lower Hinge Butt Mounting	2	6549961
	LOWER COVER – Butter Heater Lead (Clips to Hinge Butt)	1	7442922

SECTION 11 – THERMOSTATS – RELAY – TIMER & BUTTER HEATER

Part Name	Quantity	Part Number
CYCLING THERMOSTAT – Ranco SA.1267 – No.1 = 10°F ± 2° Cut In & −2 F ± 2° Cut Out	1	7443900
KNOB – Thermostat (Off – B – A – 1 – 2 – 3)	1	7394048
AIR FLOW CONTROL – Food Compartment – Ranco B.11	1	7443899
KNOB – Food Compt. Flow Control (N – 1 – 6)	1	7444387
DEFLECTOR – Food Compt.	1	7445478
STARTING RELAY – (ME.658/2)	1	7443866
OVERLOAD PROTECTOR – (ME.380/11 with yellow dot)	1	7395506
STARTING CAPACITOR & BRACKET – (40 micro-farad)	1	7444498
DEFROST TIMER – Ranco E.11	1	7443898
BUTTER HEATER – 8000 ohm. 7 Watt	1	7396061
SWITCH – Butter Heater	1	7442295
KNOB – Butter Heater	1	7396101

SECTION 12 – HEATERS – LIGHT COMPONENTS & SUNDRY ELECTRICAL PARTS

DEFROST HEATER – (500 Watt) Requires shaping on the job	1	7443959
DRYER – Cabinet Shell 20 Watts (168" x 200 ohm. per foot)	1	FL 417
DRYER – Freezer Door 11 Watts (77" x 800 ohms. per foot)	1	7443700
DRYER – Centre Mullion 7½ Watts (75" x 1200 ohms. per foot)	1	7443708
LIGHT SHIELD	1	7443855
LIGHT BULB – 25 Watt – Fancy Round Clear	2	7392873
LIGHT SOCKET & CORD ASSY.	2	7442073
LIGHT SWITCH	1	7399662
POWER LEAD	1	7392446
JUNCTION BOX	1	7395674

SECTION 13 – ELECTRICAL CONNECTORS AND COVERS

Part Name	Quantity	Part Number
TAG TERMINAL – For Earth Wire to Large Stud (Amp. 42842–1)	AR	7395558
QUICK CONNECT TERMINAL – Single Wire End Entry (Amp 41771)	AR	7395497
QUICK CONNECT TERMINAL – Single Wire Side Entry (Amp. 42835–1)	AR	7395671
PLASTIC COVER – Single Wire End Entry Terminal	AR	7398146
PLASTIC COVER – Single Wire Side Entry Terminal	AR	7398244
TAB TERMINAL – Brass – Male – Full thickness (Use 1 with 7442615)	AR	7442582
TAB TERMINAL – Brass – Male – Half thickness (Use 2 with 7442615)	AR	7443195
HOUSING – Tab Terminal (Black Plastic) Takes Male Terminals	AR	7442615
RECEPTACLE TERMINAL – Brass – Female – 1 Wire End Entry (Use with 7442585)	AR	7442581
RECEPTACLE TERMINAL – Brass – Female – 2 Wire End Entry (Use with 7442585)	AR	7443221
HOUSING – Receptacle Terminal (Black Plastic) Takes Female Terminals	AR	7442585
CLOSED END CONNECTOR – (Large) Use for Sundry Connections	AR	7398470
CLOSED END CONNECTOR – (Small) Use for Sundry Connections	AR	7443641
WIRE CONNECTOR SLEEVE – 1/16" Hole 3/16" O.D. Red Plastic Cover	AR	7444792



7395558



7395497

7442581

7443221



7395671



7398146



7398244

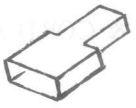


Thick

7442582

7443195

Thin



7442615



7442585

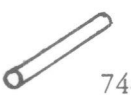


Large

7398470

7443641

Small



7444792

SECTION 14 – COMPONENT REPLACEMENT PARTS

Part Name	Quantity	Part Number

For all Component Changes listed below the FL.330 Charging Tool is required along with the equipment listed in the Component Replacement Manual.

(A) FOR DRYER-FILTER CHANGE

• Dryer-Filter and 3/16 Tails Assy.	1	FL 329
• 1/4" – 3/16" Connector (Condenser to Dryer)	1	FL 318
• 3/16" – .072" Connector (Dryer to Capillary)	1	5876919
• 1/4" – 1/4" Schrader Connector	1	5876813

(B) FOR COMPRESSOR CHANGE (*)

• All parts listed under (A) plus the following:–		
• 1/4 H.P. Compressor & 1/4" Tails	1	7443914
• 1/4" – 1/4" Line Connector	3	5876745

(*) Replacement Compressors are equipped with Relay and Overload. They possess 20½ ozs. wt. 150 Viscosity Oil Charge and a holding charge of Dry Nitrogen.
Oil is available in 1 quart cans FL 311
Refrigerant Charge 10 ozs. wt. R.12.

(C) FOR EVAPORATOR CHANGE

• All parts listed under (A) plus the following:–		
• Evaporator & Tails Assy. (1/4 Suction .072 Capillary)	1	7443917
• 1/4 – 1/4 Line Connector	1	5876745

(D) SUPERHEAT TRAY CHANGE

• All parts listed under (A) plus the following:–		
• Superheat Tray & 1/4 Tails Assy.	1	7443379
• 1/4 – 1/4 Line Connector	2	5876745

SECTION 14 – COMPONENT REPLACEMENT PARTS (Cont'd)

Part Name	Quantity	Part Number
(E) FOR CONDENSER CHANGE (*)		
(*) Note: Condenser on initial production has 1 circuit. Condenser will change during model run to 2 circuit.		
(a) Single Circuit Condenser		
• All Parts listed under (A) plus the following:–		
• Condenser and 1/4 Tails Assy.	1	7443916
(b) Double Circuit Condenser		
• All parts listed under (A) plus the following:–		
• Condenser and 1/4 Tails Assy.	1	7445280
• 1/4 – 1/4 Line Connector	2	5876745

SECTION 15 – MISCELLANEOUS

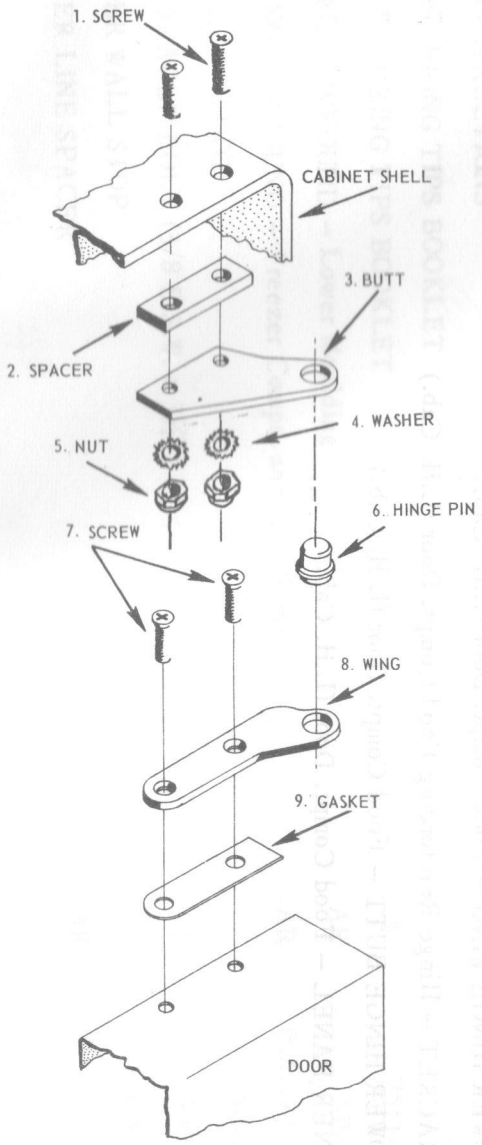
TOUCH UP – See Manual – Section (H) for detail and materials		
WIRING DIAGRAM	1	7445748
WARRANTY CERTIFICATE	1	7396153
USER INSTRUCTIONS	1	7443850
FOOD KEEPING TIPS BOOKLET	1	7398938
FOOD FREEZING TIPS BOOKLET	1	7511425
SEALING COMPOUND – Lower Moulding – 1 lb. tin	AR	288099
SEALING COMPOUND – Freezer Compt. and Air Circuit	AR	P.A.112.S.D
LEVELLING FOOT	2	7393960
WALL SPACER BOLT (3/8 B.S.W. x 3½")	2	7396946
RUBBER WALL STOP	2	5406310
RUBBER LINE SPACER	AR	7399257

FRIGIDAIRE FROST-PROOF REFRIGERATOR – MODEL FP.C.D.–14.6

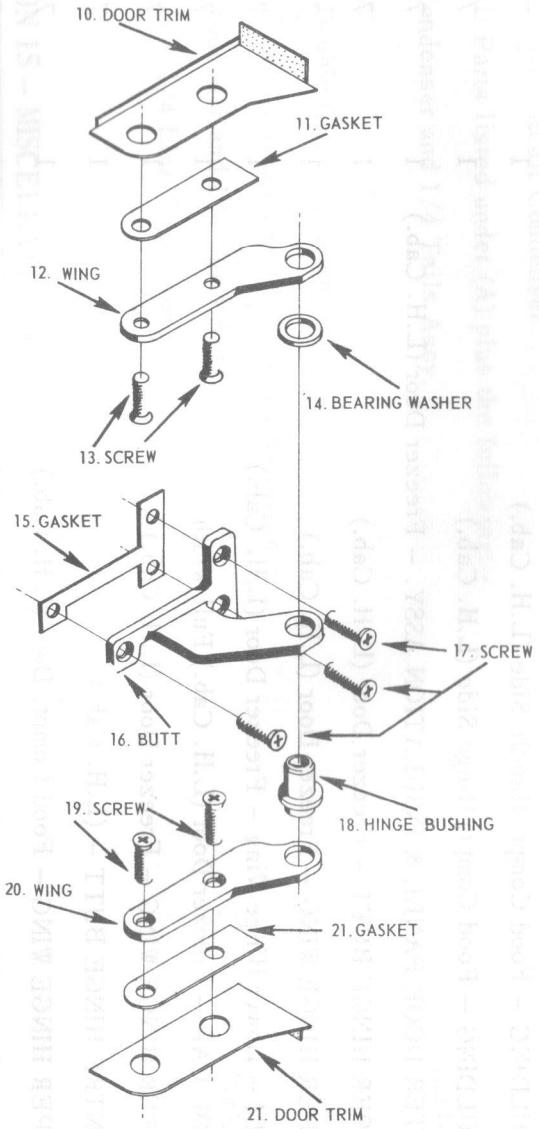
SECTION 16 – LEFT HAND DOOR OPENING CABINETS

	Part Name	Quantity	Part Number
	CABINET SHELL – LINER & INSULATION ASSY. – (L.H. Cab.)	1	7443913
	TRIM – Cabinet Top and Corner (L.H. Cab.)	1	7442505
	TRIM – Cabinet Handle Side and Corner (L.H. Cab.)	1	7442509
	APRON ASSY. – (L.H. Cab.) with Clips and Bumpers	1	7443063
	MOULDING – Food Compt. Handle Side (L.H. Cab.)	1	7444241
	MOULDING – Food Compt. Hinge Side (L.H. Cab.)	1	7443829
	OUTER DOOR PANEL & INSULATION ASSY. – Freezer Door (L.H. Cab.)	1	7443823
3	UPPER HINGE BUTT – Freezer Door (L.H. Cab.)	1	7445519
8	UPPER HINGE WING – Freezer Door (L.H. Cab.)	1	7442539
10	TRIM – Lower Hinge Wing – Freezer Door (L.H. Cab.)	1	7442643
	TRIM CAP – Freezer Door (L.H. Cab.) Full Width	1	7442649
12	LOWER HINGE WING – Freezer Door (L.H. Cab.)	1	7442587
16	CENTRE HINGE BUTT – (L.H. Cab.)	1	7442579
20	UPPER HINGE WING – Food Compt. Door (L.H. Cab.)	1	7442539
22	TRIM – Upper Hinge Wing Food Compt. Door (L.H. Cab.)	1	7442642
	TRIM CAP – Food Compt. Door (L.H. Cab.) Full Width	1	7442733
	OUTER DOOR PANEL & INSULATION ASSY. – Food Compt. Door (L.H. Cab.)	1	7443841
24	LOWER HINGE WING – Food Compt. Door (L.H. Cab.)	1	7442587
28	BRACKET – Hinge Reinforcing Food Compt. Door (L.H. Cab.)	1	7442683
31	LOWER HINGE BUTT – Food Compt. Door (L.H, Cab.)	1	7442671
	INNER PANEL – Food Compt. Door (L.H. Cab.)	1	7444247

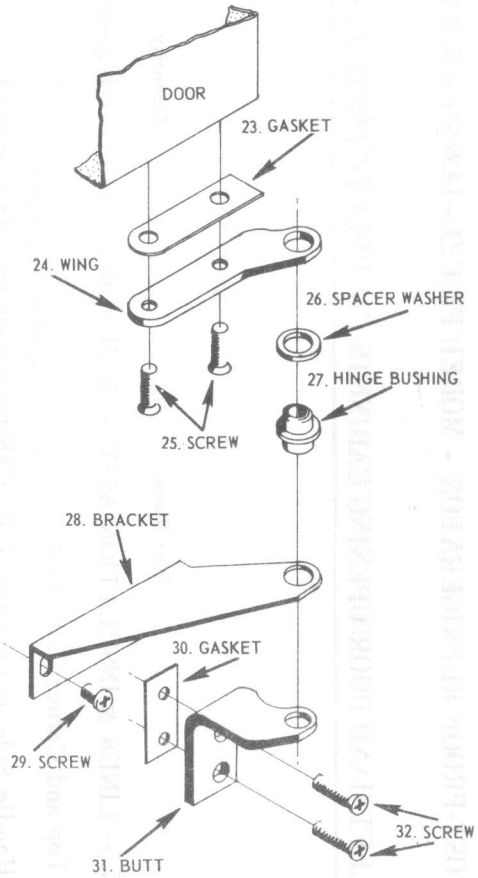
UPPER HINGE



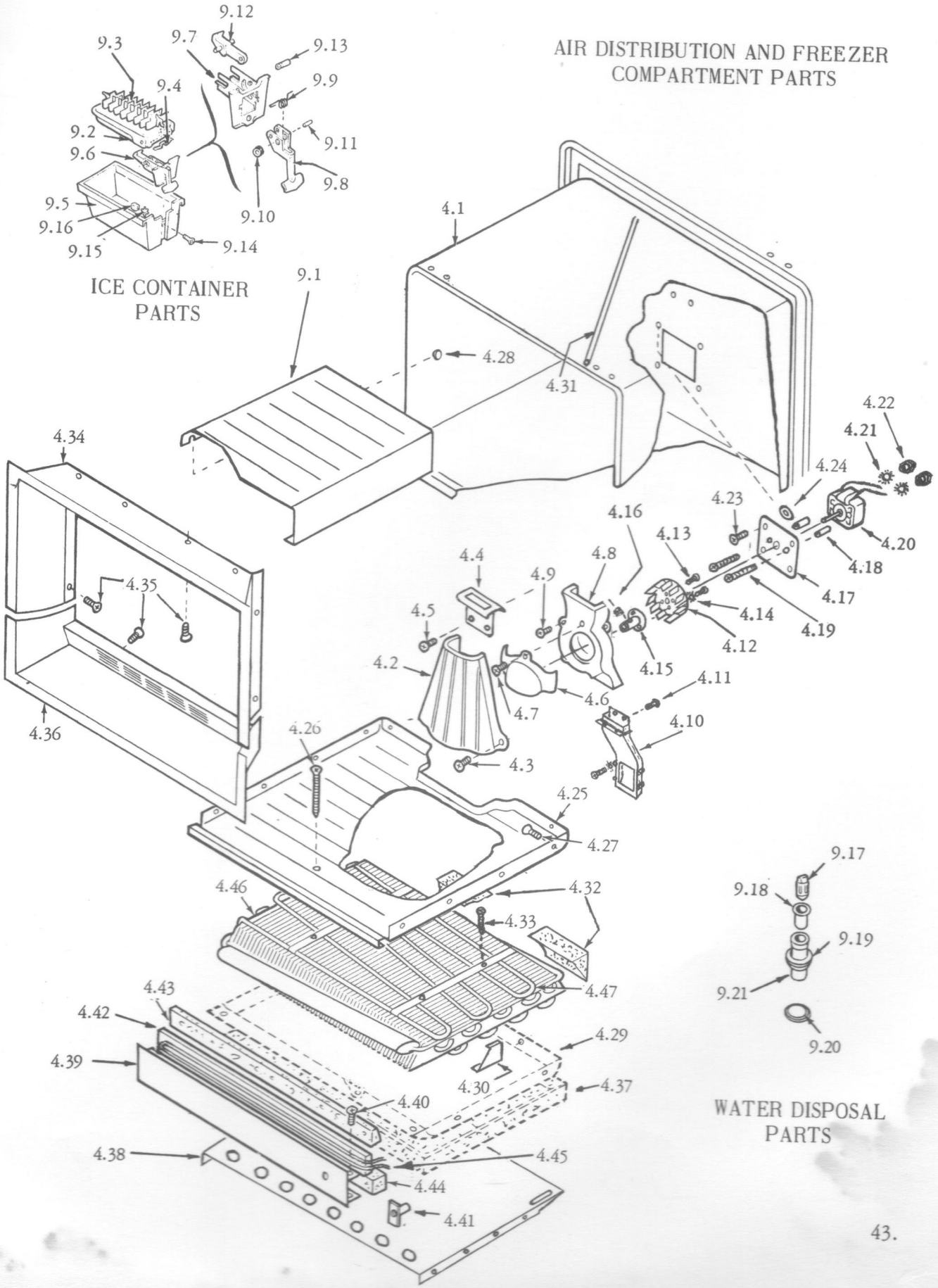
INTERMEDIATE HINGE



LOWER HINGE



CABINET DOOR HINGES & ASSOCIATED PARTS


AIR DISTRIBUTION AND FREEZER COMPARTMENT PARTS
ICE CONTAINER PARTS
WATER DISPOSAL PARTS
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