



***1999 SIDE BY SIDE  
REFRIGERATORS***

***PRODUCT INFORMATION  
AND TECHNICAL GUIDE***

*Frigidaire Brands*

 **FRIGIDAIRE**

***TAPPAN***

**W** White-Westinghouse

**Gibson**



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\* Universal / Multiflex models can be sold under any of the Frigidaire Company Brands

# SAFE SERVICING PRACTICES - ALL APPLIANCES

To avoid personal injury and/or property damage, it is important that **Safe Servicing Practices** be observed. The following are some limited examples of safe practices:

1. **DO NOT** attempt a product repair if you have any doubts as to your ability to complete it in a safe and satisfactory manner.
2. Before servicing or moving an appliance:
  - Remove the power cord from the electrical outlet, trip the circuit breaker to the OFF position, or remove the fuse
  - Turn off the gas supply
  - Turn off the water supply
3. Never interfere with the proper operation of any safety device.
4. **USE ONLY REPLACEMENT PARTS CATALOG FOR THIS APPLIANCE. SUBSTITUTIONS MAY DEFEAT COMPLIANCE WITH SAFETY STANDARDS SET FOR HOME APPLIANCES.**
5. **GROUNDING:** The standard color coding for safety ground wires is **GREEN**, or **GREEN** with **YELLOW STRIPES**. Ground leads are not to be used as current carrying conductors. It is **EXTREMELY** important that the service technician reestablish all safety grounds prior to completion of service. Failure to do so will create a hazard.
6. Prior to returning the product to service, ensure that:
  - All electrical connections are correct and secure
  - All electrical leads are properly dressed and secured away from sharp edges, high-temperature components, and moving parts
  - All uninsulated electrical terminals, connectors, heaters, etc. are adequately spaced away from all metal parts and panels
  - All safety grounds (both internal and external) are correctly and securely connected
  - All panels are properly and securely reassembled

## WARNING

This service manual is intended for use by persons having electrical and mechanical training and a level of knowledge of these subjects generally considered acceptable in the appliance repair trade. Frigidaire Home Products cannot be responsible, nor assume any liability, for injury or damage of any kind arising from the use of this manual.

FRIGIDAIRE MODELS					
Model	Service Data Sheets		Schematic Page #'s	R-134a Refrigerant Charge	Energy Efficiency Rating (kwh/yr)
	Number	Page			
F45WJ26HW0	218905000	8	13 - 14	5.00	1,025
F45WJ26HW1	218905000	8	13 - 14	5.00	1,025
F45WJ26HW2	218905000	8	13 - 14	5.00	1,025
FRS20QRCW6	218768300	7	9 - 10	4.50	783
FRS20WRHW1	218905000	8	13 - 14	4.50	916
FRS20WRHW2	218905000	8	13 - 14	4.50	916
FRS20WRHW3	218905000	8	13 - 14	4.50	916
FRS20ZGGW3	218905000	8	13 - 14	4.50	916
FRS20ZRGW3	218905000	8	13 - 14	4.50	916
FRS20ZRGW4	218909400	8	13 - 14	4.50	916
FRS20ZRGW5	218909400	8	13 - 14	4.50	916
FRS20ZRGW6	218909400	8	13 - 14	4.50	916
FRS20ZSGB3	218905000	8	13 - 14	4.50	916
FRS20ZSHB0	218909400	8	13 - 14	4.50	916
FRS20ZSHB1	218909400	8	13 - 14	4.50	916
FRS20ZSHB2	218909400	8	13 - 14	4.50	916
FRS22ZGGW4	218905000	8	13 - 14	5.00	966
FRS22ZGHW0	218909400	8	13 - 14	5.00	966
FRS22ZRGW1	218877000	8	11 - 12	5.00	966
FRS22ZRGW2	218877000	8	11 - 12	5.00	966
FRS22ZRGW3	218905000	8	13 - 14	5.00	966
FRS22ZRHW0	218909400	8	13 - 14	5.00	966
FRS22ZRHW1	218909400	8	13 - 14	5.00	966
FRS22ZRHW2	218909400	8	13 - 14	5.00	966
FRS22ZRHW3	218909400	8	13 - 14	5.00	966

FRIGIDAIRE MODELS					
Model	Service Data Sheet		Schematic Page #'s	R-134a Refrigerant Charge	Energy Efficiency Rating (kwh/yr)
	Number	Page			
FRS24MWGW2	218905000	8	13 - 14	5.00	915
FRS24MWGW3	218905000	8	13 - 14	5.00	915
FRS24MWGW4	218905000	8	13 - 14	5.00	915
FRS24WSGW1	218877000	8	11 - 12	5.00	915
FRS24WSGW2	218905000	8	13 - 14	5.00	915
FRS24WSGW3	218905000	8	13 - 14	5.00	915
FRS24WSGW4	218905000	8	13 - 14	5.00	915
FRS24WSGW5	218905000	8	13 - 14	5.00	915
FRS24ZGGW4	218905000	8	13 - 14	5.00	998
FRS24ZGHW0	218909400	8	13 - 14	5.00	998
FRS24ZGHW2	218909400	8	13 - 14	5.00	998
FRS24ZRHW0	218905000	8	13 - 14	5.00	998
FRS24ZRHW1	218905000	8	13 - 14	5.00	998
FRS24ZRHW2	218905000	8	13 - 14	5.00	998
FRS26WGHW0	218905000	8	13 - 14	5.00	1,025
FRS26WGHW2	218905000	8	13 - 14	5.00	1,025
FRS26WGHW3	218905000	8	13 - 14	5.00	1,025
FRS26WQHW0	218909400	8	13 - 14	5.00	1,025
FRS26ZGGW4	218877000	8	11 - 12	5.00	1,025
FRS26ZGGW5	218902000	8	11 - 12	5.00	1,025
FRS26ZGGW6	218905000	8	13 - 14	5.00	1,025
FRS26ZGHW0	210909400	8	13 - 14	5.00	1,025
FRS26ZNHW0	210909400	8	13 - 14	5.00	1,025
FRS26ZNHW1	210909400	8	13 - 14	5.00	1,025
FRS26ZPHW0	210909400	8	13 - 14	5.00	1,025

FRIGIDAIRE MODELS					
Model	Service Data Sheets		Schematic Page #'s	R-134a Refrigerant Charge	Energy Efficiency Rating (kwh/yr)
	Number	Page			
FRS26ZRFW3	218902000	8	11 - 12	5.00	1,025
FRS26ZRGW4	218877000	8	11 - 12	5.00	1,025
FRS26ZRGW5	218902000	8	11 - 12	5.00	1,025
FRS26ZRGW6	218905000	8	13 - 14	5.00	1,025
FRS26ZRGW7	218909400	8	13 - 14	5.00	1,025
FRS26ZRGW8	218909400	8	13 - 14	5.00	1,025
FRS26ZSGW3	218902000	8	13 - 14	5.00	1,025
FRS26ZSGW4	218905000	8	13 - 14	5.00	1,025
FRS26ZTHW0	218909400	8	13 - 14	5.00	1,025
FRS26ZTHW1	218909400	8	13 - 14	5.00	1,025
FRS26ZXHW0	218909400	8	13 - 14	5.00	1,025
FRS26ZXHW1	218909400	8	13 - 14	5.00	1,025
FRS28ZRGW3	218905000	8	13 - 14	5.00	1,025
GIBSON MODELS					
GRS20HRHW0	218768300	7	9 - 10	4.50	783
GRS20HRHW1	218768300	7	9 - 10	4.50	783
GRS20ZRHW0	218909400	8	13 - 14	4.50	916
GRS20ZRHW1	218909400	8	13 - 14	4.50	916
GRS20ZRHW2	218909400	8	13 - 14	4.50	916
GRS20ZRHW3	218909400	8	13 - 14	4.50	916
GRS26ZRGW5	218905000	8	13 - 14	5.00	1,025
GRS26ZRHW0	218909400	8	13 - 14	5.00	1,025
GRS26ZRHW1	218909400	8	13 - 14	5.00	1,025
TAPPAN MODELS					
TRS20WRHW0	218905000	8	13 - 14	4.50	916
TRS20WRHW1	218905000	8	13 - 14	4.50	916
TRS20WRHW2	218905000	8	13 - 14	4.50	916

<b>UNIVERSAL-MULTIFLEX MODELS</b>					
<b>Model</b>	<b>Service Data Sheets</b>		<b>Schematic Page #'s</b>	<b>R-134a Refrigerant Charge</b>	<b>Energy Efficiency Rating (kwh/yr)</b>
	<b>Number</b>	<b>Page</b>			
MRS20HNGW1	218768300	7	9 - 10	4.50	783
MRS20HRAWA	218768300	7	9 - 10	4.50	783
MRS20WRGW2	218905000	8	13 - 14	4.50	916
MRS22WHHW0	218905000	8	13 - 14	5.00	920
MRS22WHHW1	218905000	8	13 - 14	5.00	920
MRS22WNGW2	218905000	8	13 - 14	5.00	920
MRS22WNGW3	218905000	8	13 - 14	5.00	920
MRS22WNGW4	218905000	8	13 - 14	5.00	920
<b>WHITE-WESTINGHOUSE MODELS</b>					
WRS20WRHW0	218905000	8	13 - 14	4.50	916
WRS20WRHW1	218905000	8	13 - 14	4.50	916
WRS20WRHW2	218905000	8	13 - 14	4.50	916
WRS22WNHW0	218905000	8	13 - 14	4.50	916

<b>SERVICE DATA SHEET 218768300</b>				
<b>PERFORMANCE DATA NO LOAD AND NO DOOR OPENINGS AT MID-POINT CONTROL SETTING</b>				
	65°F Ambient		90°F Ambient	
Operating Time	37 to 45%		55 to 63%	
Freezer Temperature (°F)	-2° to 3°		-2° to 4°	
Refrigerator Temperature (°F)	34° to 39°		34° to 39°	
Low Side Pressure (Cut-In)	5 to 12 psig		5 to 12 psig	
Low Side Pressure (Cut-Out)	-2 to 2 psig		-2 to 2 psig	
High Side Pressure (Last 1/3rd of Cycle)	110 to 130 psig		150 to 180 psig	
Wattage (Last 1/3rd of Cycle)	170 to 200		180 to 210	
Amps (Running)	1.5 to 1.8		1.5 to 1.8	
Base Voltage	115 VAC		115 VAC	
<b>DEFROST SPECIFICATIONS</b>				
Cabinet Size	Thermostat		Heater	
	Cut In	Cut Out	Watts	Ohms
20'	25°F	47°F	550	24Ω
22' to 28'	25°F	47°F	600	22Ω
Defrost 30 Minutes Every 8 Hours of Compressor Run Time				
<b>CONDENSER FAN MOTOR</b>				
Watts	RPM		Amps	
2.3	1300 CW Opposite Shaft		.15 Running	
<b>THERMOSTATIC DAMPER</b>				
	Full Open		Closed	
	33°F +/- 2°F		22°F +/- 2°F	
<b>ICE MAKER SPECIFICATIONS</b>				
Electrical	115 Volts		60 Hertz	
Thermostat	Opens at 48°F		Closes at 15°F	
Heater Wattage	165			



**SERVICE DATA SHEET 218877000, 218902000, 218905000, AND 218909400**

**PERFORMANCE DATA  
NO LOAD AND NO DOOR OPENINGS AT MID-POINT CONTROL SETTING**

	65°F Ambient	90°F Ambient
Operating Time	37 to 45%	60 to 68%
Freezer Temperature (°F)	0° to 4°	-2° to 3°
Refrigerator Temperature (°F)	34° to 39°	34° to 39°
Low Side Pressure (Cut-In)	5 to 12 psig	5 to 12 psig
Low Side Pressure (Cut-Out)	-2 to 2 psig	-2 to 2 psig
High Side Pressure (Last 1/3rd of Cycle)	110 to 130 psig	150 to 180 psig
Wattage (Last 1/3rd of Cycle)	170 to 200	180 to 210
Amps (Running)	1.5 to 1.8	1.5 to 1.8
Base Voltage	115 VAC	115 VAC

**DEFROST SPECIFICATIONS**

Cabinet Size	Thermostat		Heater	
	Cut In	Cut Out	Watts	Ohms
22' to 28'	25°F	47°F	600	22Ω

Defrost 30 Minutes Every 8 Hours of Compressor Run Time

**CONDENSER FAN MOTOR**

Watts	RPM	Amps
2.3	1300 CW Opposite Shaft	.15 Running

**THERMOSTATIC DAMPER**

	Full Open	Closed
	33°F +/- 2°F	22°F +/- 2°F

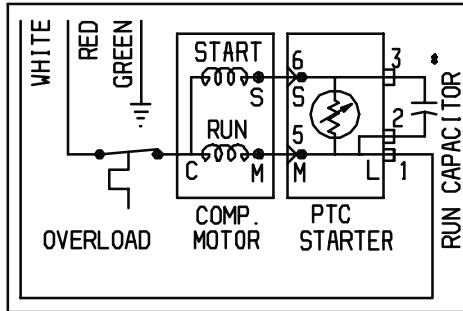
**ICE MAKER SPECIFICATIONS**

Electrical	115 Volts	60 Hertz
Thermostat	Opens at 48°F	Closes at 15°F
Heater Wattage	165	

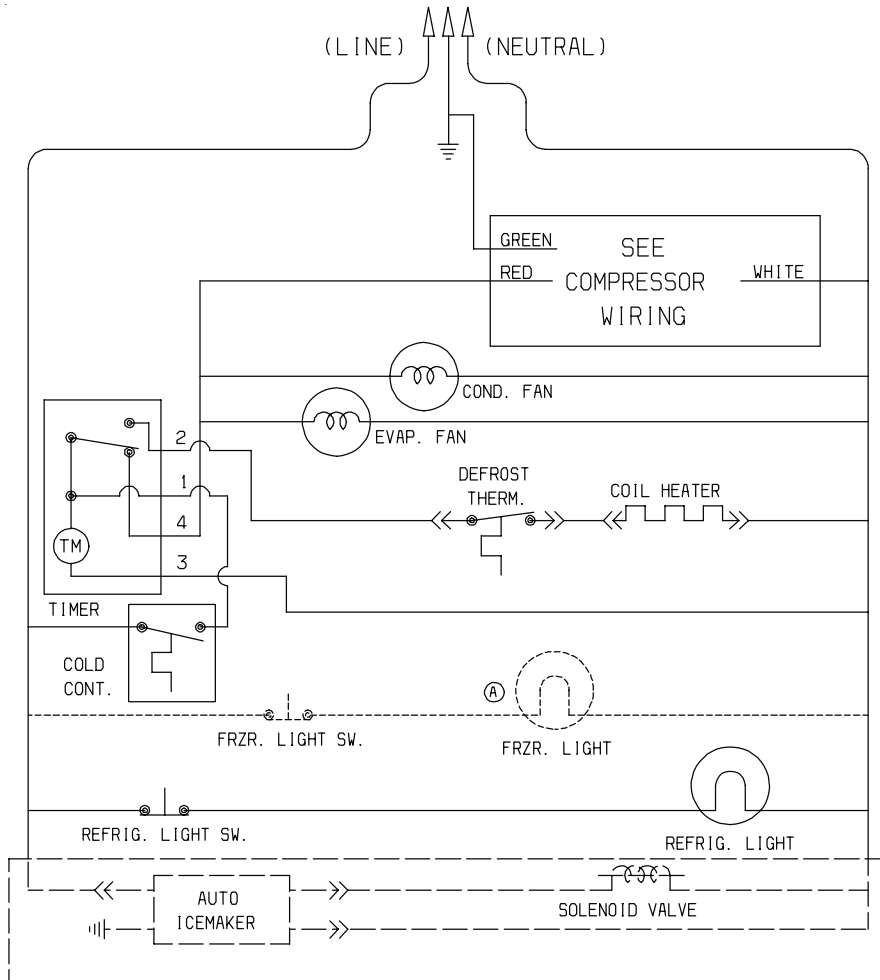


# WIRING DIAGRAMS FOR SERVICE DATA SHEET 218768300.

P.T.C. STARTER WITH RUN CAPACITOR

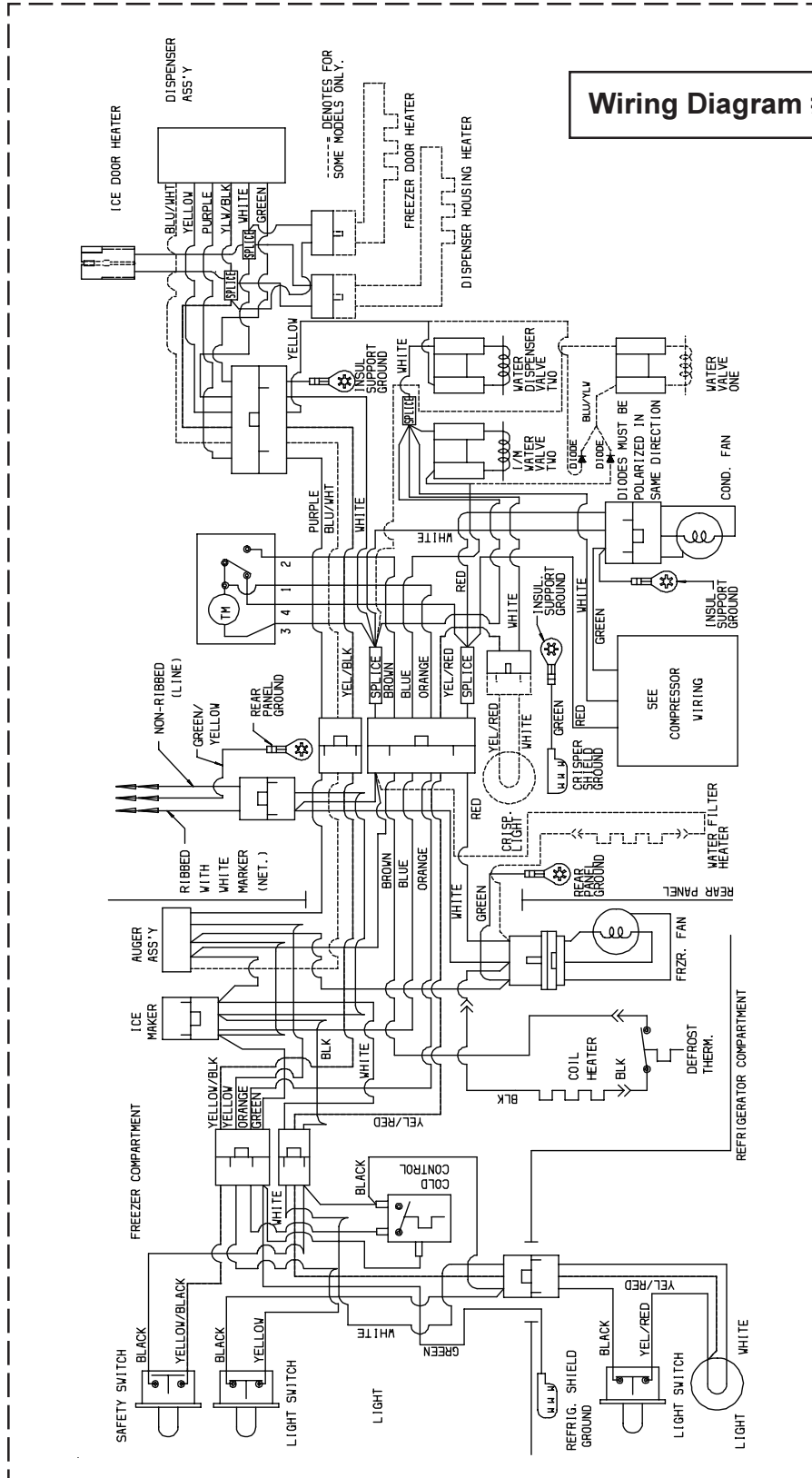


\* CAPACITOR IS ONLY USED WITH SOME P.T.C. MODELS.

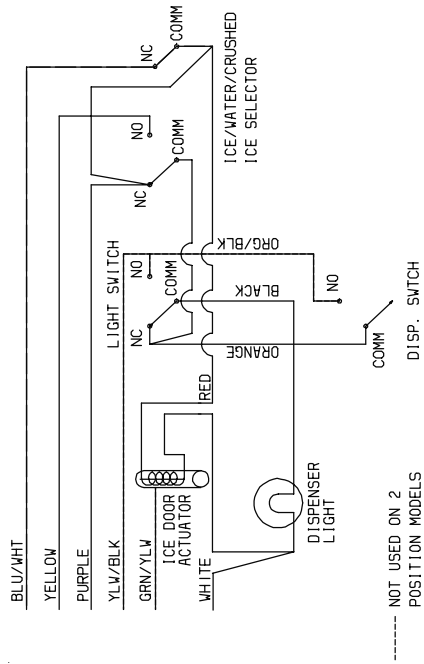
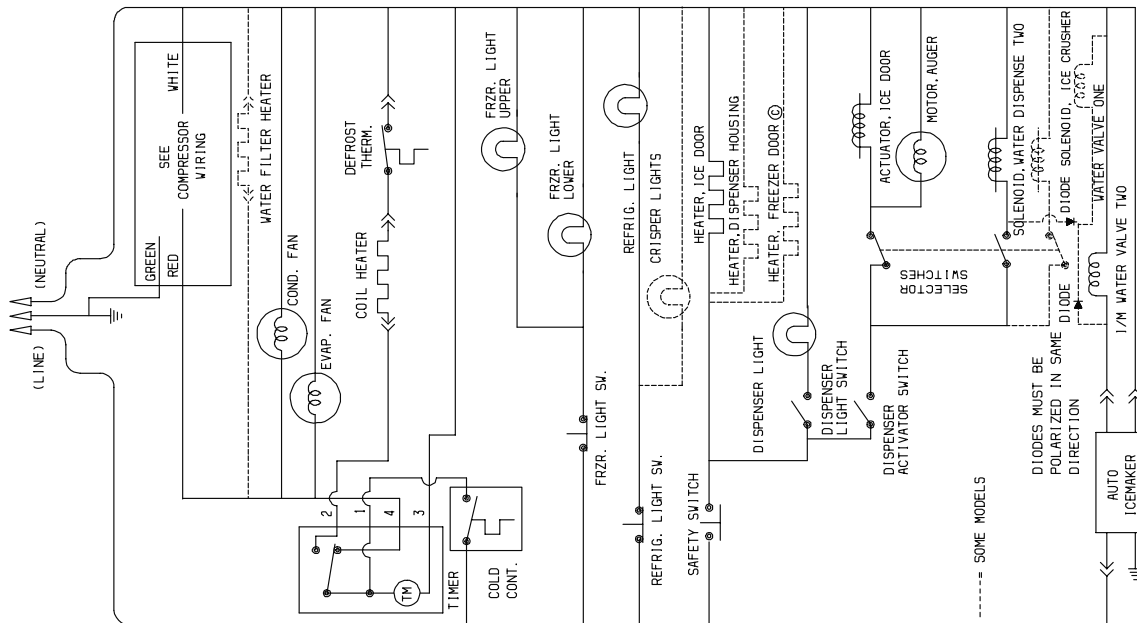


# WIRING DIAGRAMS FOR SERVICE DATA SHEET 218877000 AND 218902000.

**Wiring Diagram # 2188759**

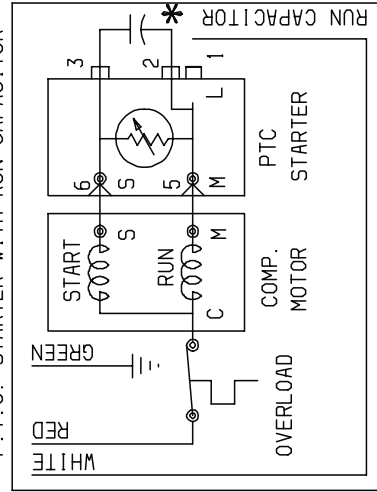


# WIRING DIAGRAMS FOR SERVICE DATA SHEET 218877000 AND 218902000.



DISPENSER HOUSING HEATER

P.T.C. STARTER WITH RUN CAPACITOR

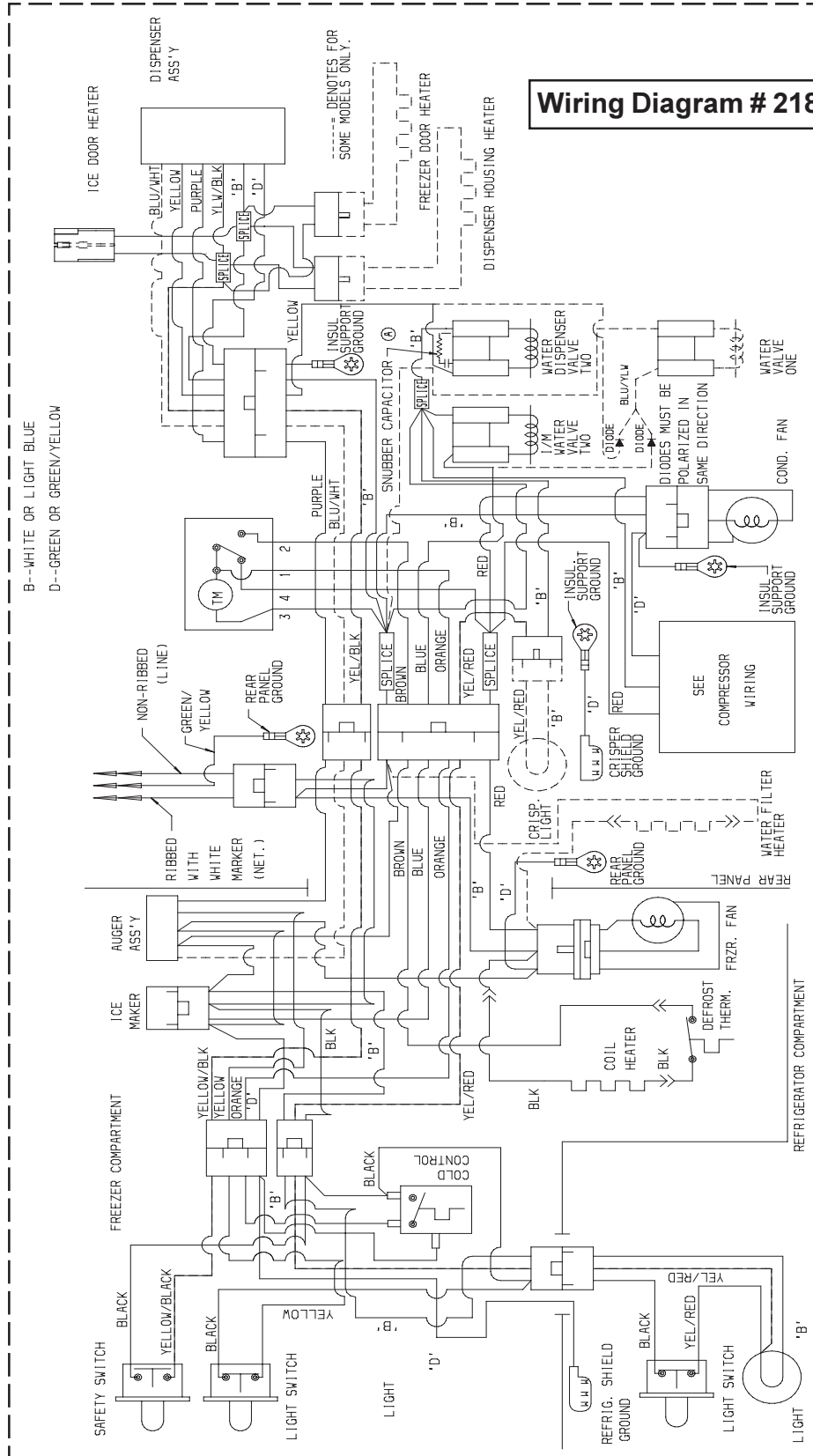


\* CAPACITOR IS ONLY USED WITH SOME P.T.C. MODELS.

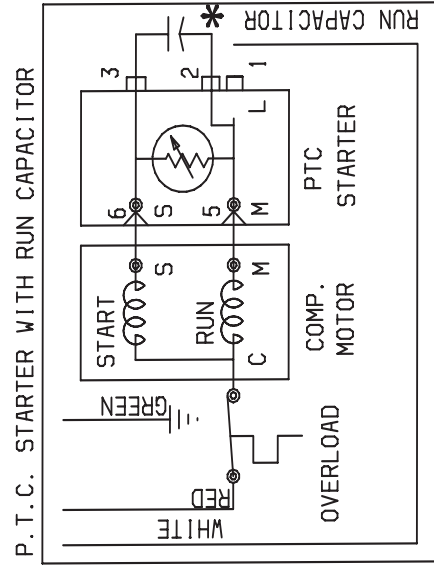
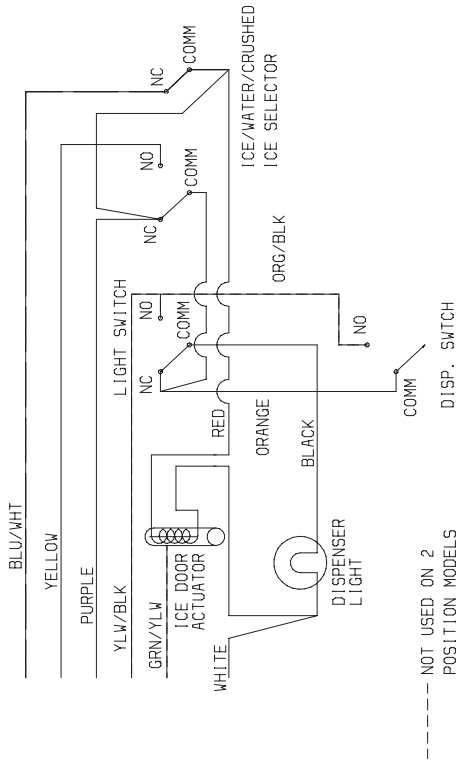
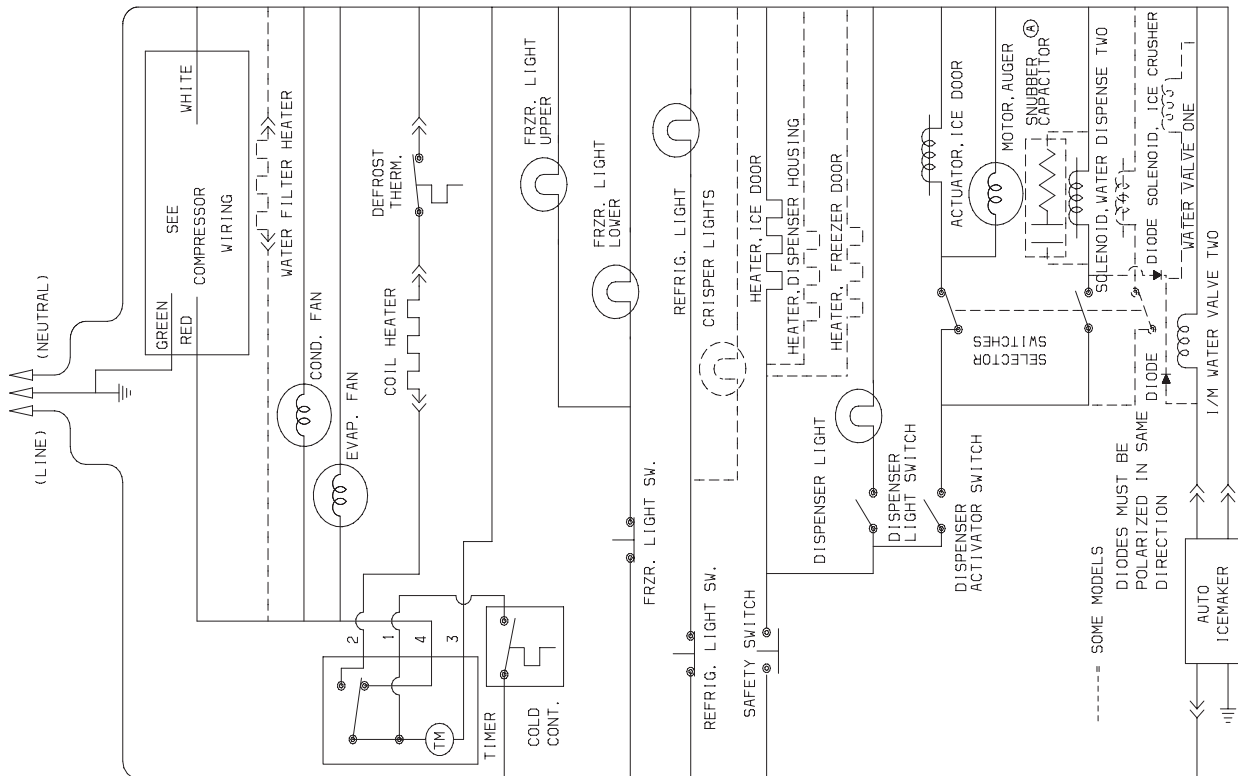
# WIRING DIAGRAMS FOR SERVICE DATA SHEETS

## 218905000 AND 218909400.

**Wiring Diagram # 218903200**



# WIRING DIAGRAMS FOR SERVICE DATA SHEETS 218905000 AND 218909400.



\* CAPACITOR IS ONLY USED WITH SOME P.T.C. MODELS.





# TROUBLESHOOTING GUIDE

PROBLEM	CAUSE	SOLUTION
Compressor will not run.	No voltage at wall receptacle.	Check circuit breaker, fuse or ground fault circuit interruptors.
	Service cord defective, or unplugged at wall receptacle.	Check cord.
	Low voltage causing compressor to cycle on overload.	Voltage fluctuation should not exceed +/- 10% of 115vac. (104-127)
	Control thermostat knob in OFF position.	Turn control thermostat knob to ON position.
	Inoperative control thermostat.	Replace control thermostat.
	Compressor stuck.	Replace compressor.
	Compressor windings open.	Replace compressor.
	Defrost timer stuck in defrost mode.	Replace defrost timer.
	Compressor overload stuck open.	Replace compressor overload.
	Relay lead loose.	Repair or replace lead.
	Relay loose or inoperative.	Repair or replace relay.
	Service cord pulled out of harness.	Repair connection.
	Faulty cabinet wiring.	Repair wiring.
Compressor runs but does not cool.	System out of refrigerant.	Check for leaks. *
	Compressor not pumping.	Replace compressor. *
	Restricted filter drier.	Replace filter drier. *
	Restricted capillary tube.	Replace heat exchanger and evaporator assembly.
	Moisture in system.	See NOTE. *

- \* NOTE:**
- Repair or replace component that is leaking.
  - Replace the compressor if the system is contaminated.
  - Blow out remaining part of system with dry Nitrogen.
  - Pump down and recharge per listing on product serial plate.
  - Always replace filter drier when repairing sealed system.

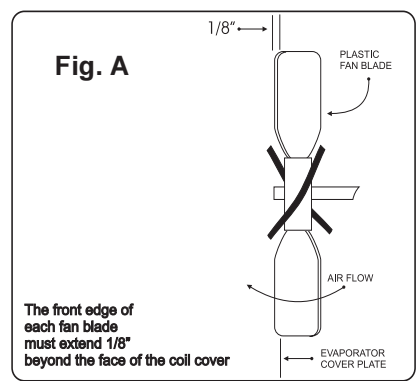
<b>PROBLEM</b>	<b>CAUSE</b>	<b>SOLUTION</b>
Compressor short cycles.	Erratic control thermostat.	Replace control thermostat.
	Faulty relay.	Replace relay.
	Restricted air flow over condenser.	Ensure unobstructed air flow over condenser.
	Low voltage ... fluctuation exceeds +/- 10% of 115vac (104 - 127)	Call qualified electrician.
	Compressor draws excessive watts.	Replace compressor.
Compressor runs too much.	Control thermostat is erratic, or not properly set.	Replace control thermostat or reset to normal position.
	Refrigerator exposed to high heat. (110° or higher)	Move refrigerator to cooler location.
	High room temperature. (110° or higher)	Advise customer not to install refrigerator where temperature will rise above 110°F because compressor will not maintain proper temperatures.
	Low pumping capacity compressor.	Replace compressor.
	Door gaskets not sealing.	Adjust doors or replace door gaskets.
	System undercharged.	Check for leaks. *
	System overcharged.	Charge per listing on product serial plate. *
	Interior light stays on.	Check door switch and door adjustment.
	Contaminents in system.	Flush out system. Replace filter drier, evacuate, and recharge. *
	Capillary tube kinked or partially restricted.	Replace heat exchanger and evaporator assembly. *
	Filter drier partially restricted.	Replace filter drier. *
	Refrigerator and/or freezer compartment overloaded; poor air circulation.	Advise customer.
	Restricted air flow over condenser.	Ensure unobstructed air flow over condenser.
	Condenser fan motor is inoperative. (forced air condenser models only)	Replace condenser fan motor.

\* See NOTE at bottom of page 16.

PROBLEM	CAUSE	SOLUTION
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Noisy.	Tubing vibrates.	Adjust tubing.
	Internal compressor noise.	Replace compressor.
	Loose parts.	Check shelving.
	Compressor operating at high head pressure due to restricted air flow over condenser.	Ensure unobstructed air flow over condenser.

Freezer compartment too warm.	Inoperative evaporator fan motor.	Check wiring and evaporator fan motor.
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	Improperly positioned fan blade.	Position fan blade properly. See Figure A.
	Evaporator frosted up.	Check defrost system, door adjustment, and door gaskets.
	Inoperative condenser fan motor. (forced air condenser models only)	Replace condenser fan motor.
	Restricted air flow over condenser.	Clean condenser.
	Freezer compartment overloaded; poor air circulation.	Advise customer.
	Low room temperature. (60° or lower)	Advise customer not to install refrigerator where temperature will drop below 60°F. Compressor will not maintain proper temperatures.
	Freezer or refrigerator compartment doors left open.	Advise customer.
	Control thermostat out of calibration.	Replace control thermostat.
	Door gaskets not sealing.	Adjust doors or replace door gaskets.
	Control thermostat capillary tube improperly positioned.	Reposition temperature sensing element.
	Shortage of refrigerant.	Check for leaks. *
	Restricted filter drier or capillary tube.	Check for leaks and burnt compressor windings. *

\* See NOTE at bottom of page 16.

<b>PROBLEM</b>	<b>CAUSE</b>	<b>SOLUTION</b>
Freezer compartment too cold.	Inoperative cold control.	Replace cold control.
	Freezer compartment inlet air duct is loose or restricted. Door is loose.	Re-install air duct or remove obstruction from inlet air duct. Adjust door.
	Food compartment air return duct blocked.	If foam block is frozen, replace block; if duct is blocked, remove obstruction.
	Diffuser (foam block) in top of food compartment is broken.	Replace diffuser.
Refrigerator compartment too warm.	Inoperative evaporator fan motor.	Check wiring and evaporator fan motor.
	Improperly positioned evaporator fan blade.	Position fan blade properly. See page 18, Figure A.
	Refrigerator compartment inlet air duct loose or restricted. Door is loose.	Re-install air duct or remove obstruction from air duct. Adjust door.
	Freezer compartment return air duct restricted.	Remove obstruction from return air duct.
	Low room temperature. (60° or lower)	Advise customer not to install refrigerator where temperature will drop below 60°F. Compressor will not maintain proper temperatures.
	Damper control out of calibration.	Replace damper control.
	Control thermostat knob set at too warm a position.	Set control knob to a colder position.
	Evaporator frosted up.	Check defrost system, door adjustments, and door gaskets.
	Refrigerator compartment overloaded; poor air circulation.	Advise customer.
	Refrigerator/freezer compartment doors left open.	Advise customer.
	Inoperative or erratic refrigerator/freezer compartment door switch.	Replace door switch.
	Shortage of refrigerant.	Check for leaks. *
Restricted capillary tube or filter drier.	Check for leaks or burnt compressor windings. *	

\* See NOTE at bottom of page 16.

<b>PROBLEM</b>	<b>CAUSE</b>	<b>SOLUTION</b>
Refrigerator compartment too cold.	Inoperative cold control.	Replace cold control.
	Refrigerator compartment inlet air duct loose or restricted. Door is loose.	Re-install air duct or remove obstruction from air duct. Adjust door.
	Diffuser (foam block) in top of food compartment is broken.	Replace diffuser.
Evaporator blocked with ice.	Inoperative defrost timer.	Check wiring. Repair or replace defrost timer.
	Defrost thermostat terminates too early. Thermostat is open.	Check for correct positioning of defrost thermostat. Repair or replace.
	Refrigerator/freezer compartment doors left open.	Advise customer.
	Heat exchanger and wiring harness openings not sealed.	Seal entrance hole with Permagum or (Food Safe) RTV.
	Ice maker water line and wiring harness openings not sealed.	Seal water line and wiring harness openings.
Frozen drain.	Drain trough not properly formed.	Ensure drain trough is at 90° angle to back of freezer and that lip is up on front and ends.
	Divider (foam block) frozen.	Replace divider. Check drain trough.

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