



FOR SERVICE TECHNICIAN'S USE ONLY

Tech Sheet

Do not Discard

 <p>⚠ WARNING</p> <p>Electrical Shock Hazard Disconnect power before servicing. Replace all parts and panels before operating. Failure to do so can result in death or electrical shock.</p>	 <p>⚠ DANGER</p> <p>Electrical Shock Hazard Only authorized technicians should perform diagnostic voltage measurements. After performing voltage measurements, disconnect power before servicing. Failure to follow these instructions can result in death or electrical shock.</p>
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Voltage Measurement Safety Information

When performing live voltage measurements, you must do the following:


- Verify the controls are in the off position so that the appliance does not start when energized.
- Allow enough space to perform the voltage measurements without obstructions.
- Keep other people a safe distance away from the appliance to prevent potential injury.
- Always use the proper testing equipment.
- After voltage measurements, always disconnect power before servicing.


No-Load Performance, Controls in Normal Position						
	Kw/24 hr ±0.4	Percent Run Time ±10%	Cycles/24 hr ±10	Refrigerator Compartment Average Food Temperature ±4°F	Freezer Compartment Average Food Temperature ±5°F	Ice Maker Compartment Average Food Temperature ±5°F
Ambient °F	70° 90° 110°	70° 90° 110°	70° 90° 110°	70° 90° 110°	70° 90° 110°	70° 90° 110°
27 cu ft	1.2 1.7 3.0	70 80 90	14 14 10	38 38 38	0 0 0	15 15 15


Temperature Relationship Test Chart						
	Evaporator Outlet ±3°F	Evaporator Inlet ±3°F	Suction Line ±7°F	Average Total Wattage ±10%	Suction Pressure ±2 PSIG	Head Pressure ± 5 PSIG
Ambient °F	70° 90°	70° 90°	70° 90°	70° 90°	70° 90°	70° 90°
27 cu ft	-4 -6	-4 -6	75 97	70-85 75-100	6.0 3.6	70 125


Component Specifications

Component	Specifications all parts 115VAC/60HZ unless noted
Compressor	BTUH..... Variable VEGZ7H Watt..... 60 Hz / 113 watts Current Lock rotor..... 3.3 amps± 15% Current Full load..... 3.3 amps± 15% Resistance Run windings..... 6.4 ohms± 15% Resistance Start windings..... 6.4 ohms± 15% Inverter..... 3-6 VDC, Red / White =120 VAC
Electric damper control	Maximum closing time..... 16 seconds Temperature Rating..... 20°F- 110°F RPM..... 4.2
Thermistor	Temperature..... Resistance 77°F..... 2700 ohms± 1.8% 36°F..... 7964 ohms± 1.0% 0°F..... 23345 ohms± 1.8%
Condenser motor	Rotation (facing end opposite shaft)..... Clockwise RPM..... 1090 RPM Watt..... 3.4 watts±15%@115VAC Current..... 0.085 amps± 15%@115VAC
Evaporator fan motor	Rotation (facing end opposite shaft)..... Clockwise RPM..... 3000 RPM Watt..... 5.5 ±15% watts@12 VDC Note: Fan blade must be fully seated on shaft to achieve proper airflow.
Thermostat (Defrost)	Volt..... 120/240 VAC Watt..... 495 watts Current..... 5.8/3.75 amps Resistance across terminals: Above 32°F ±5°..... Open Below 17°F ±7°..... Closed
Evaporator heater	Volt..... 115 VAC Wattage..... 470 ±5% watts @ 115VAC Resistance..... 29.0 ±5% ohms
Control board	Volt..... 120VAC, 60 HZ
Dual Water Valve	Watts..... Blue side 20w, Yellow side 20w
Smart Valve (Isolation)	Watts..... 20w
Ice Box Fan	Rotation (facing end opposite shaft)..... Clockwise RPM..... 3000 RPM Watt..... 5.5 ±15% watts@12 VDC
Light switch	Type..... SPST NC Volt..... 125/250 VAC Current..... 8/4 amps


HOME


ICE


TEMP
PRESS & HOLD TO TURN
COOLING ON/OFF


WATER

Control board Troubleshooting

Service Diagnostics Mode:

1. Activate the keypad by touching the screen.
2. Press and hold the Home Button. While holding Home Button press and hold the Temperature Button.

NOTE: It will take approximately 10 seconds before the service diagnostic screen appears. Once the screen is displayed than release both the home and temperature buttons simultaneously. If the Temp Button beeps, you must start procedure over.

3. Release the Home Button and the Temperature Button simultaneously.
4. On the service menu press service diagnostics .

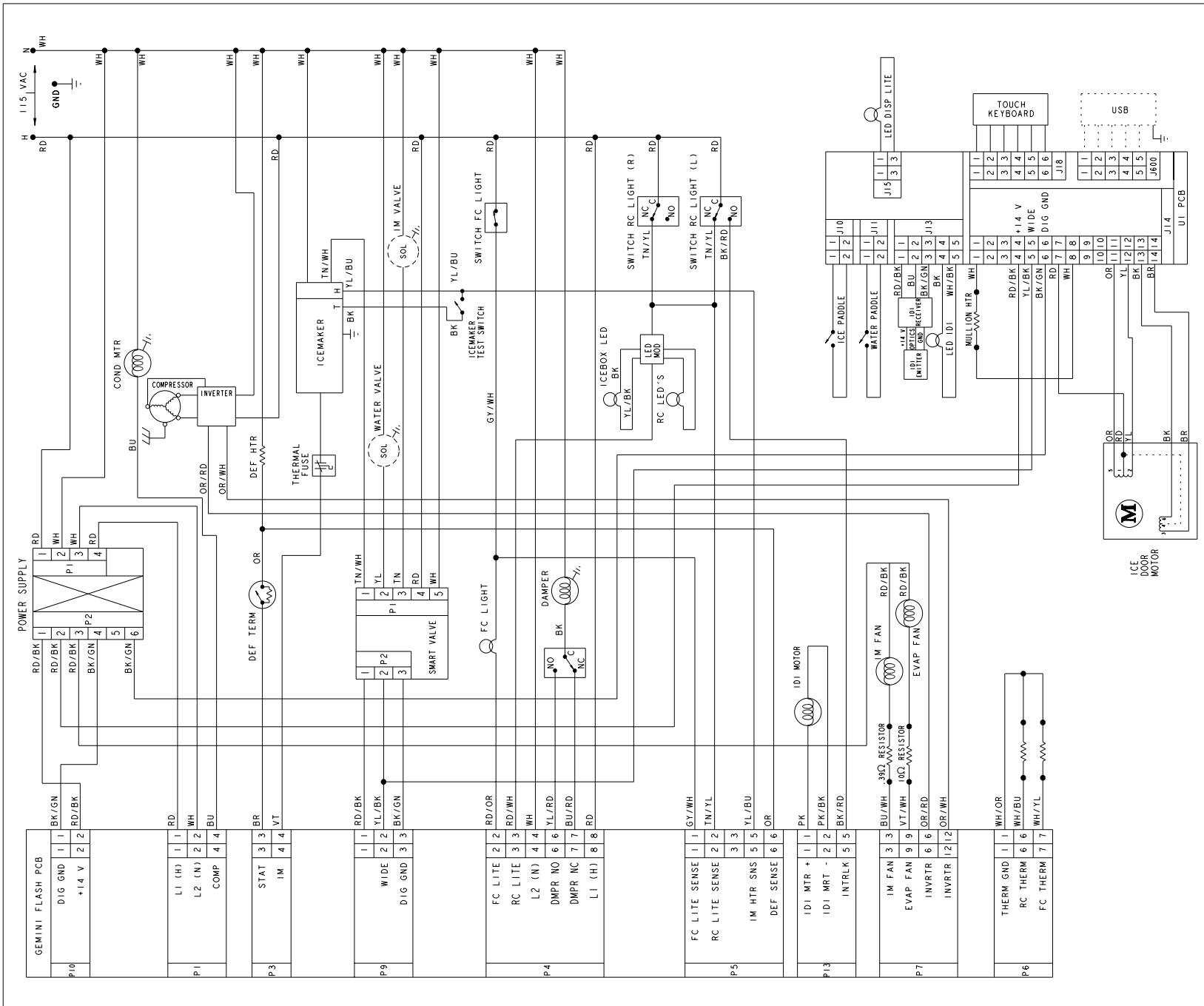
NOTE: The Service Mode can be exited at any time by pressing the back key twice or if left unattended for 20 minutes.

1. **Freezer Compartment Thermistor**
Status 01Pass
2. **Refrigerator Compartment Thermistor**
Status 01Pass
3. **Evaporator fan motor & air baffle motor**
Status 02 fan ON / air baffle cycles open and close
4. **Compressor Status / Speed**
Press an option to change compressor status or speed
Status ON / MAX OFF / MIN
5. **Defrost Heater / Bimetal**
Status 01 Bimetal Closed
6. **Defrost Mode**
Press an option to change defrost mode - Adaptive defrost on 8 hour basic mode.
When switching options disregard exit mode for ADC
7. **Button and Dispenser pad test**
Touch any key or pad to test
8. **Dispenser Lighting**
Select ON or OFF to test dispenser lighting
9. **Refrigerator compartment door switch**
Status 02 door closed 01 door open
10. **Freezer compartment door switch**
Status 02 door closed 01 door open
11. **Ice Door Motor**
Place cup under ice chute, press ice dispenser to perform test
Status 01 door closed 02 door opening 03 door open 04 door closing
NOTE: Prolonged time delay
12. **Water Filter Gallon Usage**
Status Gallons used since reset
13. **Water Filter Usage Rating**
Status 199
14. **Water Filter Time Usage**
Status Days since reset
15. **Water Filter Time Rating**
Status add days after 182
16. **Water Dispense Fill Test**
Place cup under spigot press pad to initiate test
17. **Water Dispenser Fill Test**
Status Valve OFF / ON
18. **Ice Maker Fill Test**
Make sure Ice Maker mold is empty before performing test
Remove icemaker front cover to press icemaker test switch
Status Ice Maker fill OFF. Wait for icemaker unit to cycle
19. **Ice Level Sensor**
Make sure the bin is present and not full before performing test
Status 02 Bin not full and present
20. **Ice Bin Thermistor**
Status 01 Pass
21. **Ambient Thermistor**
Status 01 Pass
22. **Humidity Sensor**
Status 01 Shows actual humidity reading
23. **Ice Box Fan Motor & Ice Box Air Baffle Motor**
Status 02 Fan ON/air baffle closed - ON/OFF delayed cycle
24. **Mullion Heater**
Status ON / OFF to control heater - test ON/OFF
25. **Mullion Heater Mode**
Press an option to change Mullion Heater Mode Sensor operation
Status ON / OFF OFF = heater ON 100% of the time
26. **Forced Defrost Mode**
Press an option to change Forced Defrost Mode
No Forced Defrost / Short Defrost / Long Defrost
27. **Exit**
The Service Mode can be exited at any time by pressing the back key twice

NOTE: When Service Mode is entered, all main control board loads: defrost heater, compressor, fans, ice maker, etc. are turned off. Only the load being checked during a diagnostic step is energized.

Exceptions:

- The Ice bin light illuminates anytime an RC door is open. (10 minute maximum if door is left open)
- The Mullion Heater circuit remains energized (at a rate of 0%, 30%, 70% or 100% of its power dependent on previous setting). The Mullion Heater remains on until diagnostic step 25 (Mullion Heater step), where the technician can turn on/off for testing. Once the Service Mode is exited, the Mullion Heater goes back to the last state previous to entering into Service Mode.

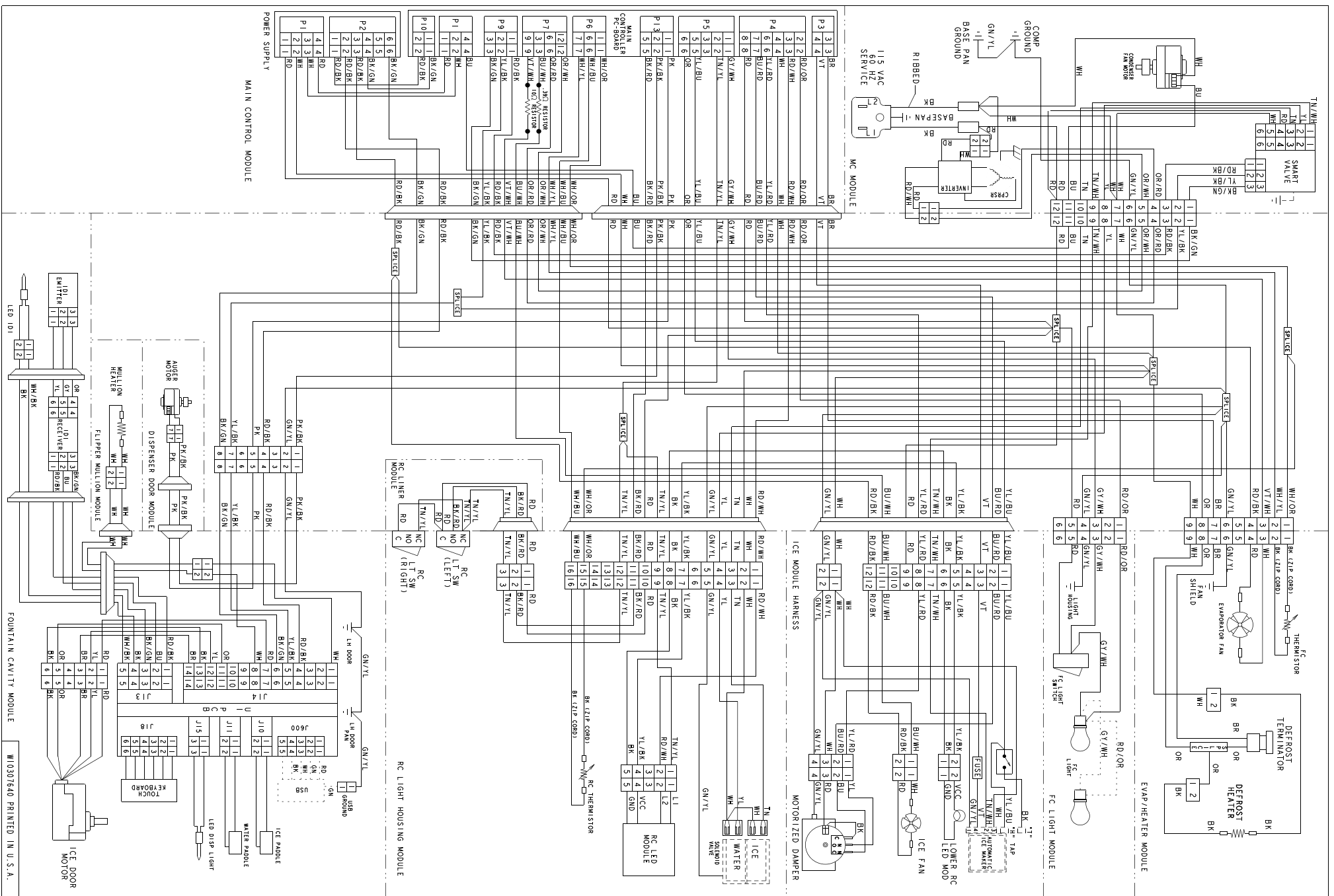


Voltage Test Points

	From	To				
Power Supply	P1	P1-1	115 VAC			
		P1-3		115 VAC		
	P2	P2-1	14 VDC			
		P2-2		14 VDC		
		P2-3			14 VDC	
		P2-4	14 VDC			
Main Control	P1	P1-1		115 VAC		
		P1-2			115 VAC	
	P3	P3-3	115 VAC			
		P3-4		115 VAC		
		P1-2			115 VAC	
	P4	P4-2	115 VAC			
	P4-3	115 VAC				
	P4-8			115 VAC		
Smart Valve	P5		P5-1		115 VAC	
		P5-2	115 VAC			
		P1-1		115 VAC		
	P6	P6-6			14 VDC	
		P6-1	14 VDC			
		P6-1		14 VDC		
Communication	P7	P7-3			14 VDC	
		P7-12	14 VDC			
	P8	P8-2		Communication		
		P9-3	Communication			
	P9	P9-1		Communication		
		P9-2	Communication			
	P10	P10-1		14 VDC		
		P10-2	14 VDC			
	115 VDC	P13		P13-1	115 VDC	
			P13-2	115 VDC		
		P13-5	115 VDC			
		P1-2				115 VDC
		P1-5				
14 VDC	P1	P1-1			14 VDC	
		P1-2		14 VDC		
		P1-5	14 VDC			
115 VAC	P2	P2-1			115 VAC	
		P2-3		115 VAC		
Communication		P2-2	Communication			
		P2-2		Communication		

- Compressor must be off
- RC left door closed
- Ice maker calling for water
- Dispenser calling for water

Wiring Diagram



NOTE: This sheet contains important Technical Service Data.
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DO NOT REMOVE OR DESTROY