

PERFORMANCE DATA NO LOAD & NO DOOR OPENINGS AT MID-POINT CONTROL SETTING		
Type A with Run/Start Capacitor	65°F (18°C) Ambient	90°F (32°C) Ambient
Operating Time	75 to 85%	90 to 100%
Freezer Temperature	0° to 4°F (-18° to -16°C)	-1° to 3°F (-18° to -16°C)
Refrigerator Temperature	34° to 39°F (1° to 4°C)	34° to 39°F (1° to 4°C)
Low Side Pressure (cut-in)	-4 to 0 psig (-27 to 0 kPa)	N/A
Low Side Pressure (cut-out)	-9 to -11 psig (-62 to -76 kPa)	-9 to -11 psig (-62 to -76 kPa)
High Side Pressure (Last 1/3 of cycle)	32 to 40 psig (221 to 276 kPa)	53 to 63 psig (365 to 434 kPa)
Wattage (Last 1/3 of cycle)	33 to 43	55 to 65
Amps (Running)	0.4 to 0.6	0.6 to 0.8
Base Voltage	115 vac (127 vac max)	115 vac (127 vac max)
Refrigerant Change	26' & CD = 65g/23' = 59g	

DEFROST SPECIFICATIONS

Cabinet Size	Thermostat		Heater	
	Cut-In	Cut-Out	Watts	Ohms
23' & 26'	25°F (-4°C)	39.2°F (4°C)	225	58.8

Electronic Timer - (ADC) Defrost 24 minutes every 6 to 72 hours of compressor run time.

CONDENSER FAN MOTOR

Watts	RPM	Amps
3.1 (Energy Star - Some models)	1100 CW Opposite Shaft	.03 Running

ICE MAKER SPECIFICATIONS

Electrical	115 vac (127 vac max)	60 Hertz
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ICE MAKER PLUG CONNECTIONS

Wire Number	Wire Color	Connect to:
1	Lt. Blue	Neutral
2	Yellow	Water Valve
3	Black	Line

ICE MAKER DIAGNOSTIC MODE

Activate:	Press FZ+ and FF+ temperature pads for up to 10 sec. simultaneously. Press FF+ or - to move forward or backward through tests.	
Deactivate:	Press FF+ for up to 10 sec. IM Diagnostic Mode will automatically deactivate after 5 min. of inactivity. NOTE: Silence alarm.	
Test	To activate test	Passing Result
52C	Ice Maker Thermistor	Activates automatically FZ display shows temperature sensed by Ice Maker Thermistor. "OP" if open; "SH" if short
55C	Water Valve	Press Power On-Off Remove ice tray to collect water into a measuring container to measure water fill. If collecting water into ice tray, first perform test 63C to empty ice tray.
58C	Ice Level Sensor	Activates automatically Remove ice bucket. Allow bail arm to drop freely. Pass if no alarm when tray returns to "home" position. Hold bail arm up. Pass if alarm sounds when tray returns to "home" position. The test runs continuously until another test is selected.
63C	Twist Tray	Press Power On-Off Remove ice bucket. FZ display shows "1" and "GOOD".

CAUTION

All electrical parts and wiring must be shielded from torch flame. DO NOT allow torch to touch insulation; it will char at 200°F and flash ignite (burn) at 500°F. Excessive heat will distort the plastic liner.

SERVICE DATA SHEET

A18520603

ICE & WATER - AUTOMATIC DEFROST SIDE BY SIDE MODELS - R600a

IMPORTANT SAFETY NOTE

The information provided herein is designed to assist qualified repair personnel only. Untrained persons should not attempt to make repairs due to the possibility of electrical shock. Disconnect power cord before servicing this appliance.

IMPORTANT

If any green grounding wires are removed during servicing, they must be returned to their original position and properly secured.

SYSTEM DIAGNOSTIC MODE

Activate Press and hold **Freezer +** and **Freezer -** until you hear a beep (10 sec.). Upon entering the diagnostic mode all loads will be turned off and the damper closed. Press **Refrigerator +** to advance to the next test and press **Refrigerator -** to return to the previous test. Loads that are turned ON will turn OFF when advanced to the next test.

Deactivate It will exit automatically after 10 min. of inactivity. To manually exit, press and hold **Freezer +** and **Freezer -** until you hear a beep (10 sec.) The unit will restart and resume the previous temp settings.

Test Sequence	Test	Activation/Deactivation	Test Description
-	LEDs Test 1	Activates Automatically	Turns on all LEDs in display.
-	LEDs test 2		Turns off all LEDs in display.
2	Defrost Heater	Press and release Cube to turn on/off	The heater is on when ON and off when oF . Evaporator Temp Sensor temperature will flash on refrigerator display when the heater is on. NOTE: The heater will turn off after 5 minutes or if the Evaporator Temp Sensor is above 45°C (113°F).
8	Main Water Valve		The main valve is activated when ON and deactivated when oF .
11	Cube Solenoid		The solenoid is activated when ON and deactivated when oF . NOTE: Do not leave the solenoid activated for more than 1 minute.
12	Condenser Fan		The fan is activated when ON and deactivated when oF .
53	Dispenser Water Valve		Water dispenses when ON and stops when oF . NOTE: Be prepared to collect water at dispenser.
82	Ice Maker Water Valve		Remove the ice tray to collect water into a measuring container to measure the water fill. If collecting water into the ice tray, first perform Test 88 to empty the ice tray. Water flows in the tray when ON . Once the fill time is reached, the valves will automatically go to oF state.
10	Auger Motor		Motor is activated when ON and deactivated when oF .
13	Fresh Food Lights		The Fresh Food LEDs are activated when ON and deactivated when oF .
15	Evaporator Fan		Press and release Cube to change the fan state. Fan runs at 3 speeds: OFF, SLOW, FAST. The fan is off when oF , slow when NL and fast when ON . For Locked Rotor Condition the refrigerator displays LC . For Speed Control Signal Unplugged the refrigerator display flashes nS at all speeds. For Unplugged Condition the refrigerator display flashes nP when the fan is set to slow or fast speed.
20	Freezer Lights		Freezer LEDs activated when ON and deactivated when oF .
38	VSC Compressor	The compressor is running at maximum speed when ON and off when oF .	
47	Ice Chute Heater	Press and release Cube to turn on/off The chute heater is activated when ON and deactivated when oF .	
66	Dispenser Lights	Dispenser lights are activated when ON and deactivated when oF .	
94	Fill Tube Heater	The heater is activated when ON and deactivated when oF .	
22	Damper	Press and release Cube to open/close The evaporator fan automatically turns on at maximum speed. When the damper is open it shows OP and when closed it shows CL . Check for air flow when the damper is fully open and for leaks when fully closed. During the transition between states it blinks a 1 . If the evaporator fan presents errors it flashes the error status of the fan (LC , nS , nP) and the status of the damper (OL , CL)	
36	Flapper Motor	The refrigerator display shows OP when the flapper door is open and CL when the flapper door is closed.	

SYSTEM DIAGNOSTIC MODE

Test Sequence	Test	Activation/Deactivation	Test Description
88	Ice Maker Twist Tray	Press and release Cube to activate test	Remove the ice bucket in order to see the rotation of the ice tray clearly. On refrigerator display it shows Go when the tray is in the home (horizontal) position. During the rotation of the ice tray, 1 blinks on the display. In case of a failure, Er shows at the end of the twisting action.
86	Ice Maker Bail Arm		Remove the ice bucket in order to see the status of the ice tray bail arm clearly. Allow the bail arm to drop freely. It shows EN (empty) when the tray returns to home position. Hold the bail arm up by hand. It shows FU when the tray returns to home position. During the rotation of the ice tray, 1 blinks on the display.
23	Fresh Food Door Switch	Open/close FF plunger switch	The refrigerator display shows OP when the door is open and CL when the door is closed.
24	Freezer Door Switch	Open/close FZ plunger switch	
28	Dispenser Paddle	Press the dispenser paddle	The refrigerator display shows OP when the paddle is not pressed and CL when the paddle is pressed.
29	Fresh Food Temperature Sensor	Activates automatically	The refrigerator display shows the temperature sensed by Fresh Food Temperature sensor. Shows OP if the circuit is open and SH if shorted.
30	Freezer Temperature Sensor		The refrigerator display shows the temperature sensed by Freezer Temperature sensor. Shows OP if the circuit is open and SH if shorted.
33	Ambient Temperature Sensor		The refrigerator display shows the temperature sensed by Ambient Temperature sensor located on the main board. Shows OP if the circuit is open and SH if shorted.
39	Evaporator Temperature Sensor		The refrigerator display shows the temperature sensed by Evaporator Defrost Temperature sensor. Shows OP if the circuit is open and SH if shorted.
64	Humidity Sensor		The display shows relative humidity sensed in %. Shows OP if the circuit is open and SH if shorted.
87	Ice Maker Temperature Sensor		The refrigerator display shows the temperature sensed by the Ice Maker temperature sensor. Shows OP if the circuit is open and SH if shorted.
-	Software Parameters		Displays an 8-digit parameter version of the main board. The same digit is displayed simultaneously on the 2 displays.
-	Main Board Firmware Version		
-	User Interface Firmware Version		
-	Lifetime		

ERROR CODES

Display		Interpretation
FZ	FF	
Er	t1	FZ Temp Sensor Open/Shorted
	t2	Evap Temp Sensor Open/Shorted
	t3	FF Temp Sensor Open/Shorted
	t8	Ice Maker Temp Sensor Open/Shorted
	CE	Communication error UI to Main Board
dI	SP	Chute Flapper not closed

SERVICE MODES

Mode	Display	Activate	Deactivate
Manual Defrost	dF	FZ + and FF + for 10 secs	Any key
Demo/Showroom	Demo Light On	FZ + and FF - for 10 secs	
Sabbath Mode	Sb Sb	FZ - and FF + for 10 secs	
System Diagnostics	All LEDs On	FZ + and FZ - for 10 secs	
°F/°C Display	°F or °C	FF + and FF - for 5 secs	
Sleep Mode	Display Always On	"Crush" and "Light" for 5 secs	

ERF2507

INLINE CONNECTOR ABBREVIATION KEY	
ABBR.	EXPLANATION
DC1	6 PIN CONNECTION AT LEFT HINGE
DC2	2 PIN CONNECTION BEHIND UI
DC3	2 PIN CONNECTION TO COMPRESSOR
DH1	3 PIN CONNECTION TO HEATER
DP1	4 PIN CONNECTION AT DAMPER
IM1	12 PIN CONNECTION IN FREEZER COMPARTMENT ICEMAKER
IM2	6 PIN CONNECTION TO ICEMAKER ELECTROMECHANICS
IM3	2 PIN CONNECTION TO FZ NTC
LS1	9 PIN LOW SIDE EVAPORATOR COMPARTMENT
MC1	8 PIN CONNECTION LEFT OF THE COMPRESSOR
RH1/LH1	2 PIN CONNECTION DOOR SWITCH
FZLED	2 PIN CONNECTION NEAR MAIN BOARD, CONNECTION TO FZ LED HARNESS
WV1	6 PIN CONNECTION TO WATER VALVES

