



Fast Track Troubleshooting

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Models Covered:
RS261MDBP/XAA
RS261MDPN/XAA
RS261MDRS/XAA
RS261MDWP/XAA

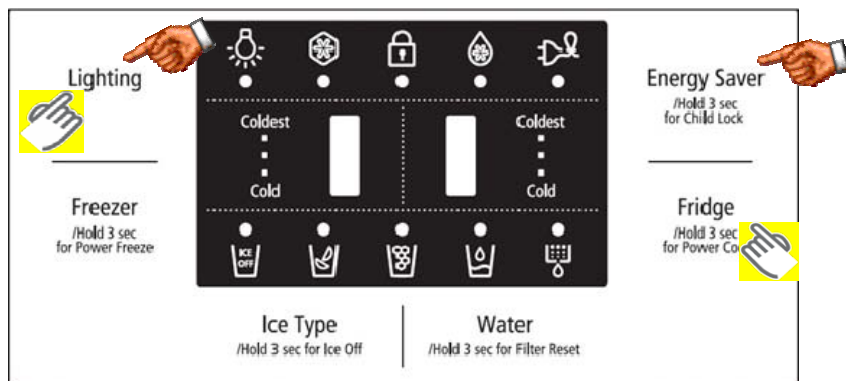
IMPORTANT SAFETY NOTICE – “For Technicians Only” This service data sheet is intended for use by persons having electrical, electronic, and mechanical experience and knowledge at a level generally considered acceptable in the appliance repair trade. Any attempt to repair a major appliance may result in personal injury and property damage. The manufacturer or seller cannot be responsible, nor assume any liability for injury or damage of any kind arising from the use of this data sheet.

NOTICE:

RS261 PN & RS Colors
Parts Change: Refer to bulletin.
Door Handle Parts Change

Self Diagnosis: Press both buttons (Lighting—Energy Saver) *simultaneously* (No sound when both buttons are pressed at the same time) 'til the display quits blinking and beeps, 8-12 seconds, then release and read Fault Codes. This will also cancel the Fault Mode created by self-diagnosis at power up.

Forced Mode: Press both buttons (Lighting – Fridge) *simultaneously* (No sound when both buttons are pressed at the same time) 'til it beeps and goes blank, 8-12 seconds



Installation Note:
2" space required
top, back & sides

Forced Compressor

Forced Defrost

**Cancellation,
unplug unit**

Press Freeze button one time at the Test Mode to Force Compressor Run, measure fan and compressor voltages at main PCB

Press Freeze button a second time to Force Defrost for Freezer, measure defrost voltage at main PCB

Sales Mode, No Compressor Operation
Press Lighting & Freezer buttons simultaneously for 3 sec (you will hear a “Ding Dong”) to remove or put into Sales Mode. Temp bars will go up and down.
Removing power will not cancel this mode.

Temperature/Resistance/Voltage Chart for Refrigerators Sensors

Temp.	(Ω)	Volts	Temp.	(Ω)	Volts	Temp.	(Ω)	Volts	Temp.	(Ω)	Volts
-29.2°F	64227	4.326	1.4°F	28021	3.685	32.0°F	13290	2.853	62.6°F	6771	2.019
-27.4°F	61012	4.296	3.2°F	26760	3.64	33.8°F	12749	2.802	64.4°F	6521	1.974
-25.6°F	57977	4.264	5.0°F	25562	3.594	35.6 °F	12233	2.751	66.2°F	6281	1.929
-23.8°F	55112	4.232	6.8°F	24425	3.548	37.4 °F	11741	2.7	68.0°F	6052	1.885
-22.0°F	52406	4.199	8.6°F	23345	3.501	39.2 °F	11271	2.649	69.8°F	5832	1.842
-20.2°F	49848	4.165	10.4°F	22320	3.453	41.0°F	10823	2.599	71.6°F	5621	1.799
-18.4°F	47431	4.129	12.2°F	21345	3.405	42.8°F	10395	2.548	75.2°F	5225	1.716
-16.6°F	45146	4.093	14.0°F	20418	3.356	44.6°F	9986	2.498	77.0°F	5000	1.675
-14.8°F	42984	4.056	15.8°F	19537	3.307	46.4°F	9596	2.449	78.8°F	4861	1.636
-13.0°F	40938	4.018	17.6°F	18698	3.258	48.2°F	9223	2.399	80.6°F	4690	1.596
-11.2°F	39002	3.98	19.4°F	17901	3.208	50.0°F	8867	2.35	86.0°F	4218	1.483
-9.4°F	37169	3.94	21.2°F	17142	3.158	51.8°F	8526	2.301	87.8°F	4072	1.447
-7.6°F	35433	3.899	23.0°F	16419	3.107	53.6°F	8200	2.253	89.6°F	3933	1.412
-5.8°F	33788	3.858	24.8°F	15731	3.057	55.4°F	7888	2.205	91.4°F	3799	1.377
-4.0°F	32230	3.816	26.6°F	15076	3.006	57.2°F	7590	2.158	95.0°F	3547	1.309
-2.2°F	30752	3.773	28.4°F	14452	2.955	59.0°F	7305	2.111	96.8°F	3428	1.277
-0.4°F	29350	3.729	30.2°F	13857	2.904	60.8°F	7032	2.064	100.4°F	3204	1.213

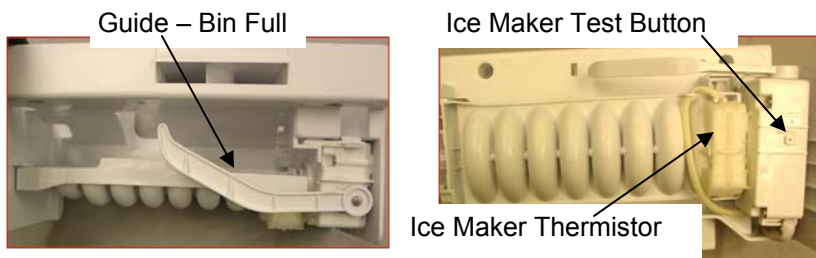
FLEX TRAY Ice Makers

When the initial power is applied, the ice tray will stand by for 2 hours. After the 2-hour standby time, the Ice Maker Sensor will check the temperature, when it is lower than 1.5°F for more than 5 minutes, it will do a harvest, with or without ice in the tray, then fill with water. 58 minutes after water is supplied to the Ice Tray, the Ice Maker Sensor temperature will be checked. When the Ice Maker Sensor maintains lower than 1.5°F for 5 minutes, it completes the harvest (if the ice bin is not sensed as full).

Thermistor senses temperature to determine water fill on newer units

Filling the tray

After the water fill is completed, the ice maker sensor will evaluate the water volume one and a half minutes later. When it detects no or low water level, it will add more water. First supply time will be 1.5 sec, next one will be 1 sec and the last will be 2 sec.



Shattered Ice – Flex Tray

When all ice shatters, it's because of a bad tray or ice cube temp that is too cold (lower than -5 degrees). In some areas, there are water issues that can also cause shattered cubes. The temp in the freezer should not have any effect on this issue, as long as it's below 1.5 degrees F, as a properly installed sensor will not read the freezer temp, only the water/ice temp.

Check the Ice tray for defects in the plastic. Ice that is too cold will shatter during harvest. This can be from the (1) sensor not reading the correct temp (2) or the sensor not mounted correctly (3). By programming the icemaker offset value to a lower number (4), the board not understanding the reading. To check the sensor, you must check the tray temp (not air temp) and compare it to the sensor reading. The sensor should read 3.7 volts at the main board connector when the cube temperature is 1 degree. After the fill, the sensor will read water temp 1.5 to 2.2 volts. To clear offsets, put unit into Diagnostics mode.

Please note, some shattering is normal for a flex tray icemaker.

NO	Error	LED Display
1	ICE MAKER SENSOR	Right-① LED ON 
2	REFRIGERATOR SENSOR	Right-④ LED ON 
3	DAMPER HEATER ERROR	Right-⑤ LED ON 
4	ICE MAKER FUNCTION ERROR	Right-⑦ LED ON 
5	EXIT-SENSOR	Left- ① LED ON 
6	FREEZER SENSOR	Left- ② LED ON 
7	FREEZER DEFROST SENSOR	Left- ③ LED ON 
8	FREEZER FAN ERROR	Left-④ LED ON 
9	CONDENSER FAN ERROR	Left-⑤ LED ON 
10	FREEZER DEFROST ERROR	Left-⑦ LED ON 

Refrigerant Charge
R134a 7.41 oz.

Component Value Chart

Component	Resistance	Wattage	Voltage
Freezer Defrost Heater	48Ω	300	120vac
Dispenser Heater	2400Ω	6	120vac
Fill Tube Heater	2600Ω	5.5	120vac
Damper Heater	144Ω	1	12vdc
Sensors	2.5kΩ-89kΩ	N/A	1~4.5vdc
Fans	N/A	N/A	12vdc

RS261MD

CN 73 120vac Loads
 1-(CN70-3) Water Valve (Wht/Blk-Red)
 7 -(CN70-3) Ice Valve (Vio-Red)
 9 -(CN70-3) Auger Mtr (Pnk-Red)
 11-(CN70-3) Cube Solenoid (Yel-Red)

CN 70 + CN71 120vac Loads
 1 Neutral (Blk)
 3 L1 (Red)
 5-7 Defrost Heater (Brn-Org)
 11-3 Comp (S/Blu-Red)
 13 Neutral (Blk)
 15-3 Dispenser Htr (Blu-Red)

CN 40 Sensors & Switches
 1-2 Ext Sensor (Yel-Yel) 1.2~2vdc
 3-4 Frz Door Sw (Wht/Grn-Gry) 0 or 5vdc
 5-(CN50-5) Freezer Sensor (Yel-Gry) 3.5~4.2vdc
 6-(CN50-5) Frz Def Sensor (Blu-Gry) 2.3~4.2vdc
 7-8 Ref Door Sw (Wht/Red-Gry) 0 or 5vdc
 9-(CN50-5) Ref Sensor (Blk-Gry) 2.4~2.8vdc

CN 76 Cool Zone
 4-5 Damper Htr (Blk-Brn) 13vdc
 3-4 Stepper Mtr (Wht-Blu)
 8-9 Stepper Mtr (Yel-Red)

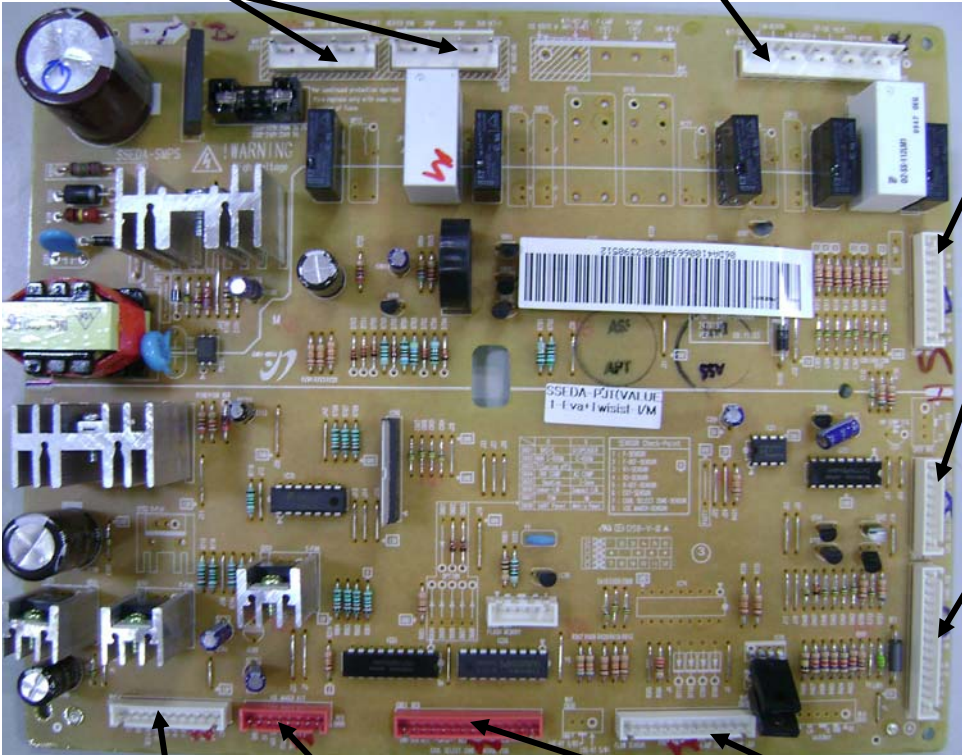
CN 50 Dispenser Switches
 4 To Panel PCB pin 13 (Wht/Yel)
 5 Sensor DC common (Gray)
 6-10 Ice Sw (Yel-Gry)
 7-10 Water Sw (Pnk-Gry)
 8 & 15 Tied together (Prp)
 13 To Panel PCB pin 12 (Wht/Red)

CN 51 Display Panel
 1-7 Panel Data
 14 vdc Common

CN 78 LED Lights 13vdc
 1-2 Frz LEDs (Brn-Gry)
 3-5 Frz LEDs (S/Blu-Gry)
 4-5 Frz LEDs (Prp-Gry)

CN 75 Fans
 2-10 Cond Mtr (S/Blu-Gry) 7~12vdc
 4-10 Frz Evap Mtr (Yel-Gry) 7~12vdc
 5-FG Frz Evap Mtr (Blk)
 7-FG Cond Mtr (Red)

CN 90 I/M
 1-2 I/M Mtr (Red-Blk) 12vdc
 3-8 Eject Sensor (Wht-Gry) 2.3~3.3
 4-8 Test Sw (S/Blu-Gry)
 5 Hall IC out (Prp)
 7-8 5vdc (Blu-Gry)

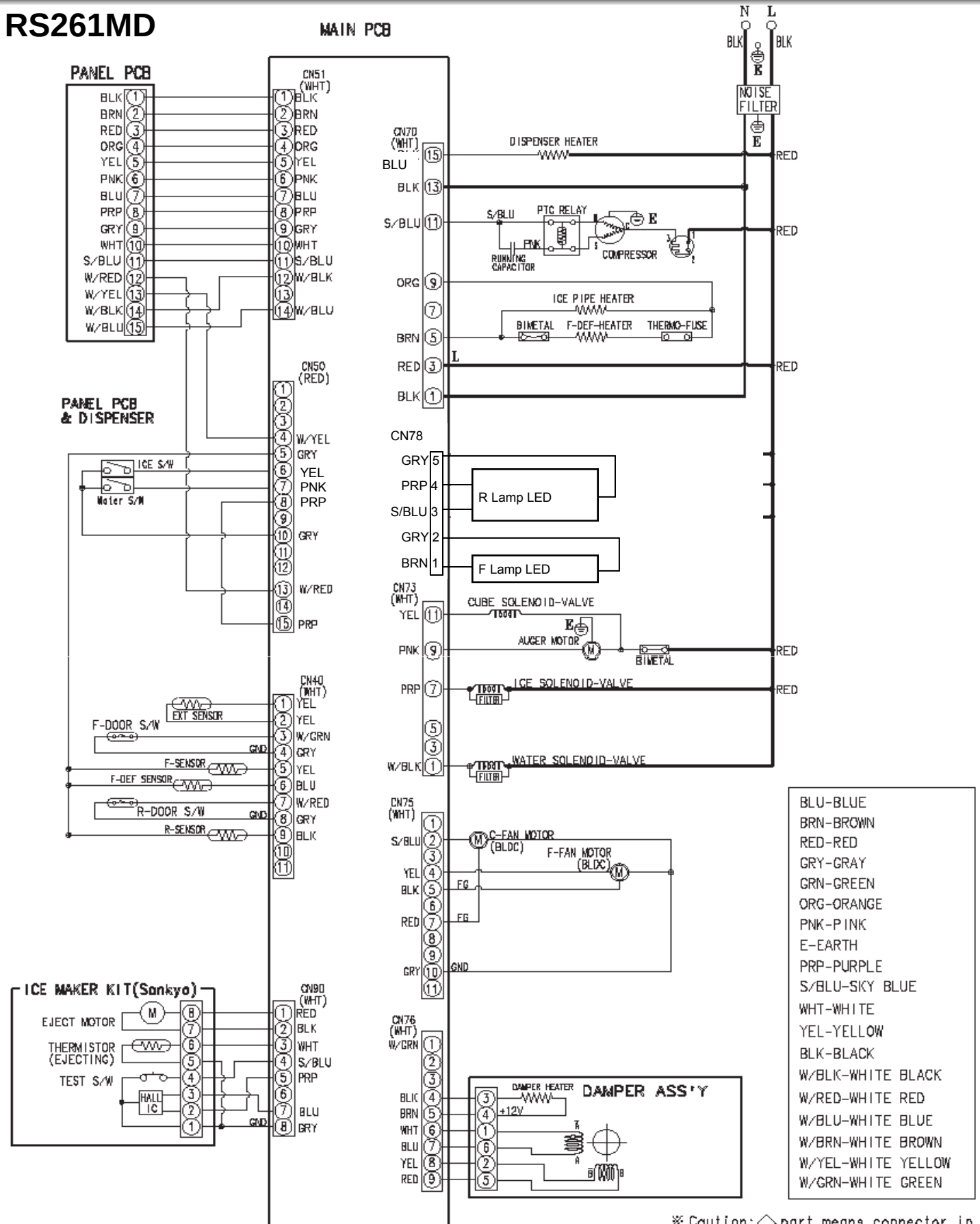


Defrost Information

First Defrost Cycle	4 hr ± 10 min
Defrost Cycle (FRE)	16~40hr (vary according to the conditions used)
Pause time	10 ± 2 min

RS261MD

MAIN PCB



RS261MD Dispenser issue

Water

ICE



The models listed above are a new design incorporating a two stage dispenser lever
 If **water is selected** press the lever a short distance
 If **Ice is selected** press the lever in until the lever is slightly past straight up and down

