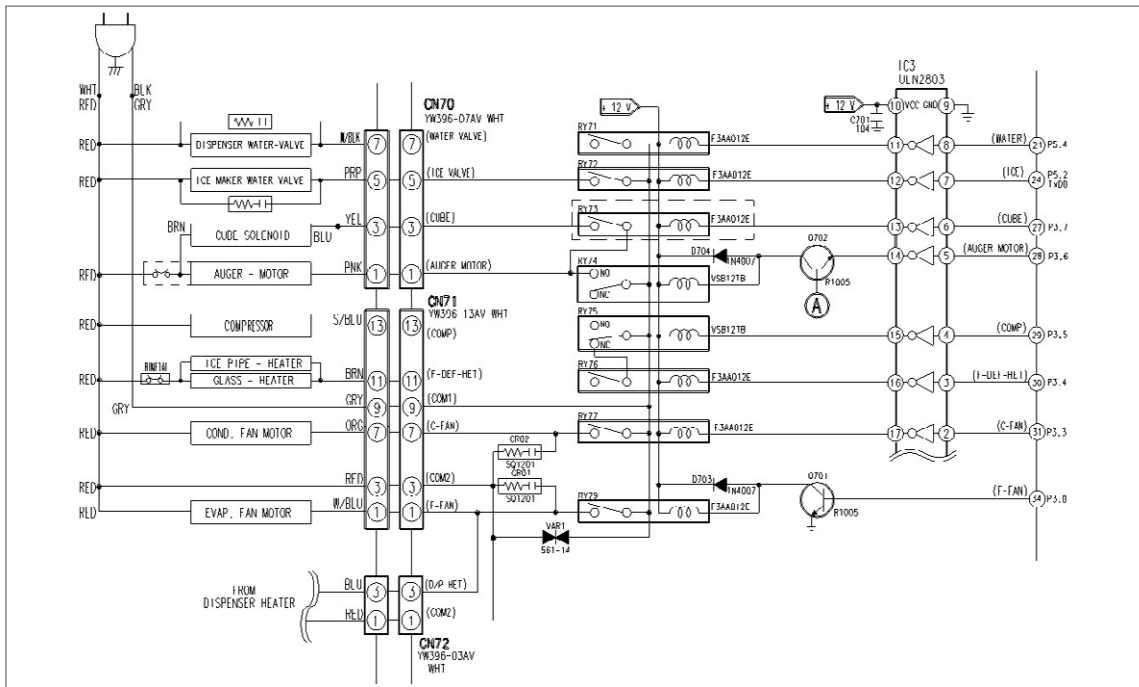


13. Reference

13-1) Measure Load Terminals



* Turn off Power, disassemble Housing connected to MAIN PCB CN70,71,72 and measure followings

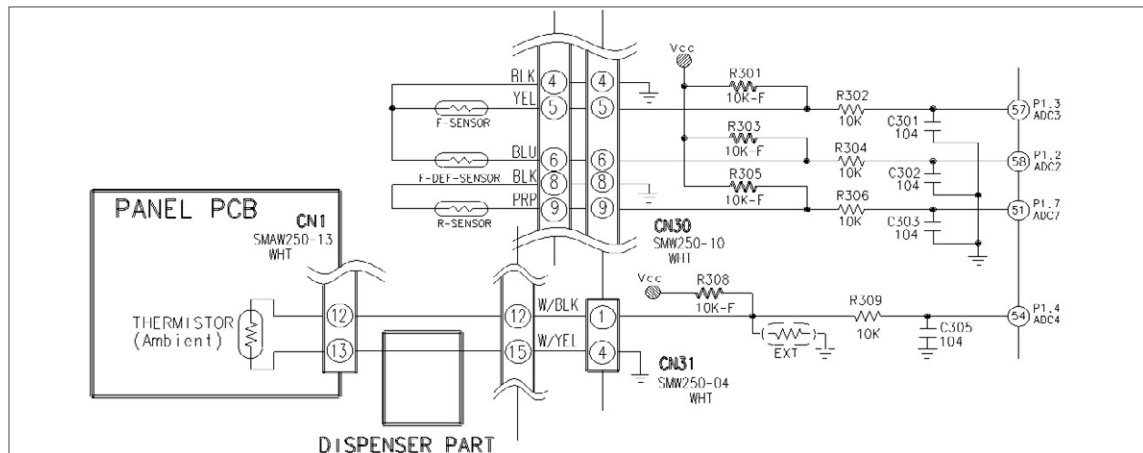
LOAD	TERMINALS PCB CASE	VALUE	DEFECTS	OTHERS
1) DEFROST HEATER 2) ICE PIPE HEATER	CN71 ⑪ & ③	0Ω	THERMAL FUSE, HEATER, WIRE SHORT THERMAL	
		∞Ω	BIMETAL, HEATER, WIRE CUT	
DISPENSER HEATER	CN72 ① & ③	0Ω	HEATER, WIRE SHORT	
		∞Ω	HEATER, WIRE CUT OR HOUSING SLIPPED AWAY	
WATER VALVE ICE MAKER	CN70 ⑤ & CN71 ③	0Ω	COIL, WIRE SHORT	
		∞Ω	COIL, WIRE CUT	
WATER VALVE DISPENSER	CN70 ⑦ & CN71 ③	0Ω	COIL, WIRE SHORT	
		∞Ω	COIL, WIRE CUT	
AUGER MOTOR	CN70 ① & CN71 ③	0Ω	COIL, WIRE SHORT	
		∞Ω	COIL, WIRE CUT	
CUBE SOLENOID	CN70 ③ & CN71 ③	0Ω	COIL, WIRE SHORT	
		∞Ω	COIL, WIRE CUT	
COMP. FAN MOTOR	CN71 ⑦ & ③	0Ω	MOTOR, WIRE SHORT MOTOR, WIRE CUT OR	
		∞Ω	HOUSING SLIPPED AWAY	
F FAN MOTOR	CN71 ① & ③	0Ω	MOTOR, WIRE SHORT	
		∞Ω	MOTOR, WIRE CUT OR HOUSING SLIPPED AWAY	

Reference

* Turn on Power and check status of Relay & Driving Circuit by checking followings according to load operation.

LOAD	RELAY	TERMINALS	VALUE	WHEN IT IS DIFFERENT FROM MEASURED VALUE
DEFROST / COMP OFF	RY76 /RY75	CN71⑩ ~ ⑨	SUPPLY VOLTAGE(SV)	RY76 CONTACT SHORT, FAULTY DRIVING CIRCUIT
	RY75	CN71⑬ ~ ⑨	SV	RY75 NO CONTACT SHORT, FAULTY DRIVING CIRCUIT
COMP ON	RY76 /RY75	CN71⑩ ~ ⑨	SV	FAULTY RY75 / RY76 NO CONTACT SHORT, FAULTY DRIVING CIRCUIT
	RY75	CN71⑬ ~ ⑨	0V	RY75 NO CONTACT OPEN, FAULTY DRIVING CIRCUIT
DEFROST	RY76 /RY75	CN71⑩ ~ ⑨	0V	FAULTY RY76 / RY75 NC CONTACT OPEN, FAULTY DRIVING CIRCUIT
	RY75	CN71⑬ ~ ⑨	SV	RY75 NO CONTACT SHORT, FAULTY DRIVING CIRCUIT
CUBE & AUGER MOTOR OFF	RY73 /RY74	CN71⑨ ~ CN70③	SV	RY73 & RY74 NO CONTACT SHORT, FAULTY DRIVING CIRCUIT
	RY74	CN71⑨ ~ CN70①	SV	RY74 NO CONTACT SHORT, FAULTY DRIVING CIRCUIT
CUBE & AUGER MOTOR OPERATING	RY73 /RY74	CN71⑨ ~ CN70③	0V	RY73 OR RY74 NO CONTACT OPEN, FAULTY DRIVING CIRCUIT
	RY74	CN71⑨ ~ CN70①	0V	RY74 NO CONTACT OPEN, FAULTY DRIVING CIRCUIT
F FAN ON	RY79	CN71① ~ ⑨	0V	RY79 NO CONTACT OPEN, FAULTY DRIVING CIRCUIT
C FAN ON	RY77	CN71⑦ ~ ⑨	0V	RY77 NO CONTACT OPEN, FAULTY DRIVING CIRCUIT
WATER VALVE DISPENSER OPERATING	RY71	CN71⑨ ~ CN70①	0V	RY71 NO CONTACT OPEN, FAULTY DRIVING CIRCUIT
WATER VALVE ICE MAKER OPERATING	RY72	CN71⑨ ~ CN70⑤	0V	RY72 NO CONTACT OPEN, FAULTY DRIVING CIRCUIT

13-2) Measure Sensor Terminals



* Check after disassembling connected to MAIN PCB CN30 & CN32

* Because it is NTC TYPE Sensor, resistance decreases as temp increases

1. Measure resistance between CN30 ⑧ and ⑨ for R-Sensor.
2. Measure resistance between CN30 ⑤ and ④ for F-Sensor.
3. Measure resistance between CN30 ⑥ and ④ for DEF-Sensor.
4. Measure resistance between CN30 ① and ④ for Ambient-Sensor.
5. Compare the above values with current temps of Sensor locations and Part Spec in Manual and evaluate them.

Reference

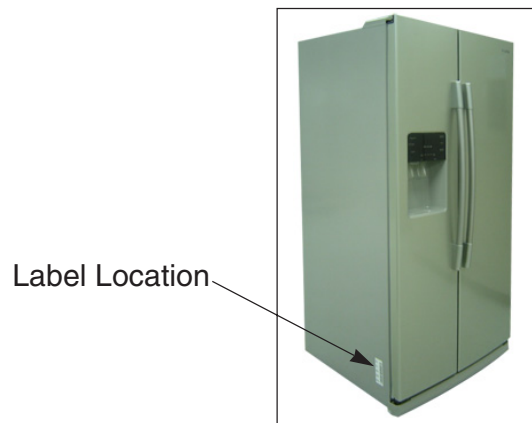
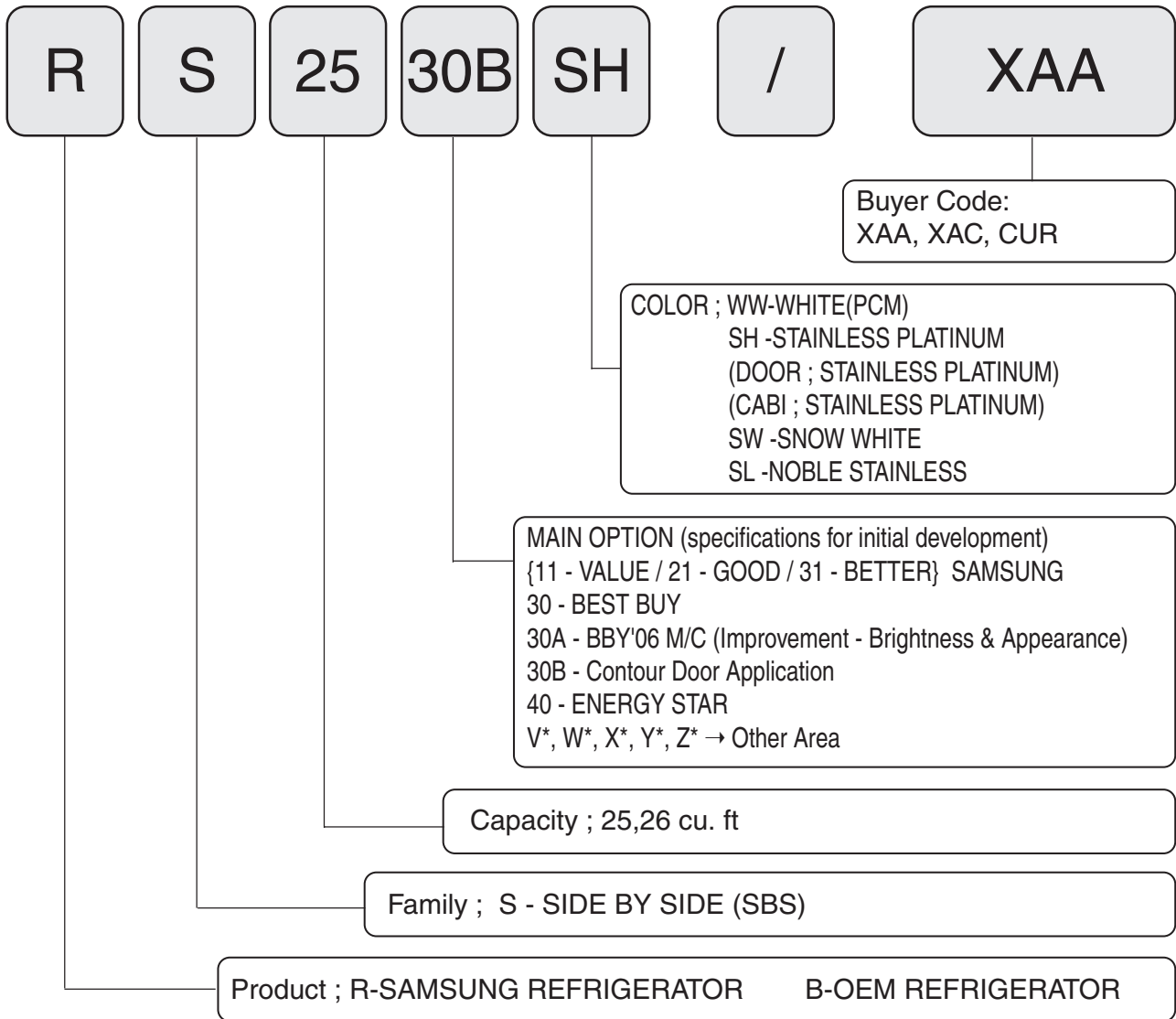
13-3) SERVICE PARTS LIST FOR CIRCUIT

NO	ITEM	SPEC	CODE NO	OTHERS
1	PBA-MAIN	ELECTRONIC	DA41-00219K	
2	PBA PANEL	ELECTRONIC	DA41-00406A	
3	TRANS DC	115V/60Hz	DA26-00022A	
4	SENSOR	DEF SENSOR	DA32-00006D	
		F SENSOR	DA32-00006D	
		R SENSOR	DA32-00006B	
		ICE MAKER SENSOR	DA32-10108B	
		AMBIENT SENSOR	PBA PANEL IN	

※ The second part DA41-xxxx? of CODE for MAIN PCB ASS'Y PART can be changed according to MICOM or Option change, so check it when asking for parts.

14. Nomenclature

2006 Models



15. Specifications

ELECTRICAL SPECIFICATIONS

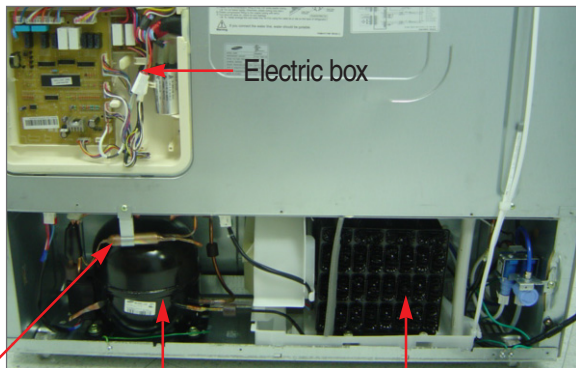
Defrost Control	From 6 to 13 hrs(Only 230V, 50Hz)
Defrost Control	From 6 to 11 hrs(All Model)
Defrost Thermistor(502AT)	59°F/15°C(off)
Electrical Rating	Refer to the label on Refrigerator
Maximum Current Leakage	0.25 mA
Maximum Ground Path Resistance	0.1 Ohm
Energy Consumption	Refer to the label on Refrigerator
Bimetal	104°F (on)/140°F (off)

NO LOAD PERFORMANCE

Ambient Temperature	70°F/21.1°C	90°F/21.1°C
Refrigerator, °F/°C	34~46°F/1.1~7.8°C	34~46°F/1.1~7.8°C
Freezer, °F	-11~7°F/23.9~-13.9°C	-11~7°F/23.9~-13.9°C
Run Time, %	< 40	< 60

REFRIGERATION SYSTEM

Refrigerant Charge (R134a)	6.17 oz(Only for America)
Compressor(MK183C-L2U)	1032 Btu/hr(Only for America)
Compressor oil	Freol α -15
Capillary tube(Dia, Length)	0.033", 130"
Dryer	Molecular Sieve XH-9



Dryer Compressor Sub-Condenser

INSTALLATION

Clearance must be provided for air circulation	
AT TOP	(1" / 2.5cm)
AT SIDES	(1/8" / 0.3cm)
AT REAR	(1" / 2.5cm)

MODELS

RS2530B**

REPLACEMENT PARTS

PBA MAIN	DA41-00219K
PBA PANEL	DA41-00406A
TRANS DC(115V/60Hz)	DA26-00022A
SENSOR(DEF SENSOR)	DA32-00006D
SENSOR(F SENSOR)	DA32-00006D
SENSOR(R SENSOR)	DA32-00006B
SENSOR(ICE MAKER SENSOR)	DA32-10108B
RELAY	DA35-10013Q
OVERLOAD REALY	DA34-10003S
RUN CAPACITOR(12 MF)	2501-001045
FAN MOTOR(FREEZER)	DA31-00003W
FAN MOTOR(UNIT)	DA31-00103A

16. REFERENCE INFORMATION

16-1) Q & A

Problem	Possible Causes	What To Do
The refrigerator does not work sufficiently or at all	• Disconnected power plug	• Check that the power plug is properly connected.
	• Is the temperature control on the display panel set to the correct temperature?	• Try setting it to a lower temperature.
	• Is the refrigerator in direct sunlight or located near a heat source?	• Move the refrigerator to the proper location.
	• Is the back of the refrigerator too close to the wall?	
The food in the refrigerator is frozen	• Is the temperature control on the display panel set to the correct temperature?	• Try setting it to a warmer temperature.
	• Is the temperature in the room too low?	
	• Did you store the food with a high water content in the coldest part of the refrigerator.	
Unusual noises or sounds are heard		• Check that the floor is levelled and stable.
	• Is the back of the refrigerator too near to the wall?	• Move the refrigerator to the proper location.
	• Was anything dropped behind or under the refrigerator?	• Remove the foreign object.
	• A "ticking" sound may be heard from inside the refrigerator. This is normal and occurs because various accessories contract or expand.	
The front corners and sides of the cabinet are hot; condensation occurs	• A pair of heat transfer pipes are installed in the front corners of the refrigerator to dissipate heat generated during the refrigeration process.	• Normal state
	• Condensation can occur when you leave the door open for a long time.	• Normal state
Ice is not dispensed	• Did you stop the ice making function?	• See the control panel.
	• Is there any ice in the storage unit?	• See the ice container.
	• Is the water pipe connected and the shut-off valve open?	• See the valve.
	• Is the freezer temperature too warm?	• Set the temperature lower.
	• Did you wait for 12 hours after installation of the water supply line before making ice?	
You can hear water bubbling in the refrigerator	• The bubbling comes from the refrigerant circulating in the refrigerator and is normal.	• Normal state
There is a bad smell in the refrigerator	• Wrap strong smelling food so that it is airtight. Throw away any rotten food.	
Frost forms on the wall of the freezer		• Allow sufficient space between stored food for efficient air circulation.
	• Is the air vent blocked? • Is the door closed properly?	
No water is supplied	• Is the water pipe connected and the shut-off valve open?	
	• Is the water supply pipe crushed?	
	• Is the water tank frozen because the refrigerator temperature is too low? Select a warmer setting on the display panel.	

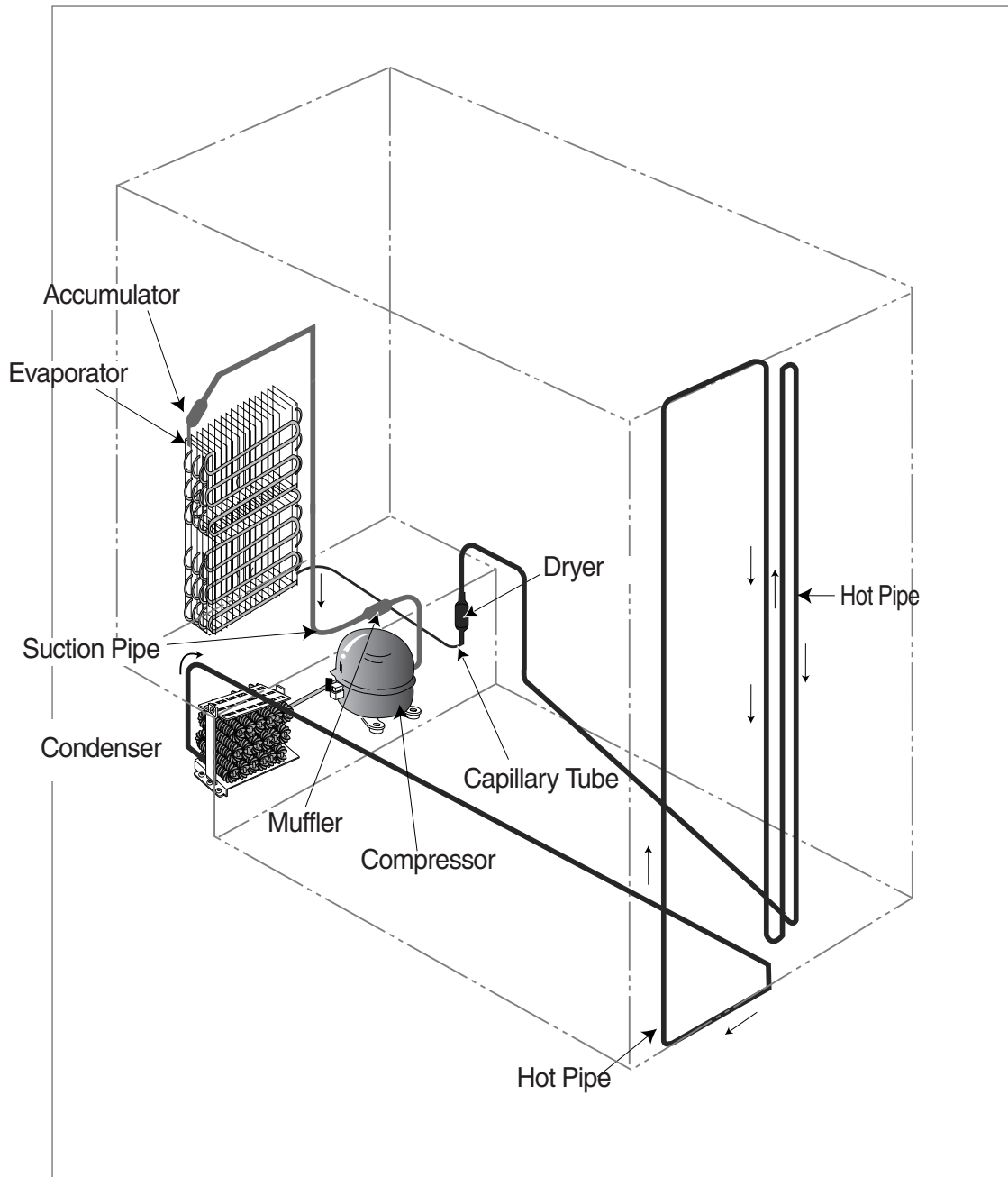
REFERENCE INFORMATION

Problem	Possible Causes	What To Do
Small or hollow cubes	Water filter clogged.	• Replace filter cartridge with new cartridge or with plug.
Slow ice cube freezing	Door left open.	• Check to see if package is holding door open.
	Temperature control not set cold enough.	• See about the controls.
Orange glow in the freezer	Defrost heater is on.	• This is normal.
Cube dispenser does not work(on some models)	Icemaker turned off or water supply turned off.	• Turn on icemaker or water supply.
	Ice cubes are frozen to icemaker feeler arm.	• Remove cubes and move the feeler arm to the ON position.
	Irregular ice clumps in storage container.	• Break up with fingertip pressure and discard remaining clumps. • Freezer may be too warm. Adjust the freezer control to a colder setting, one position at a time, until clumps do not form.
	Dispenser is LOCKED.	• Press and hold the CHILD LOCK for 3 seconds.
Water has poor taste/odor	Water dispenser has not been used for a long time.	• Dispense water until all water in system is replenished.
Water in first glass is warm	Normal when refrigerator is first installed.	• Wait 24 hours for the refrigerator to completely cool down.
	Water dispenser has not been used for a long time.	• Dispense water until all water in system is replenished.
	Water system has been drained.	• Allow several hours for replenished supply to chill.
Water dispenser does not work	Water supply line turned off or not connected.	• See Installing the water line.
	Water filter clogged.	• Replace filter cartridge or remove filter and install plug.
	Air may be trapped in the water system.	• Press the dispenser arm for at least two minutes.
	Dispenser is LOCKED.	• Press and hold the CHILD LOCK pad for 3 seconds.
Water spurting from dispenser Water is not dispensed but icemaker is working	Newly-installed filter cartridge.	• Run water from the dispenser for 3 minutes (about one and a half gallons).
	Water in reservoir is frozen.	• Call for service.
	Refrigerator control setting is too cold.	• Set to a warmer setting.
	Ice cubes stuck in icemaker. (Green power light on icemaker blinking).	• Turn off the icemaker, remove cubes, and turn the icemaker back on.
Water on kitchen floor or on bottom of freezer	Drain in the bottom of the freezer clogged.	• See Care and cleaning. • Check the lock of filter.
	Cubes jammed in chute.	• Poke ice through with a wooden spoon.
No water or ice cube production	Supply line or shutoff valve is clogged.	• Call a plumber.
	Water filter clogged.	• Replace filter cartridge or remove filter and install plug.
	Dispenser is LOCKED.	• Press and hold the CHILD LOCK pad for 3 seconds.

17. Refrigeration Cycle and Cool Air Circulation Route

17-1) Refrigerant Route in Refrigeration cycle

Compressor → Condenser → Hot Pipe → Dryer → Capillary Tube → Evaporator → Suction Pipe → Compressor



Refrigeration Cycle and Cool Air Circulation Route

17-2) Cool Air Circulation

