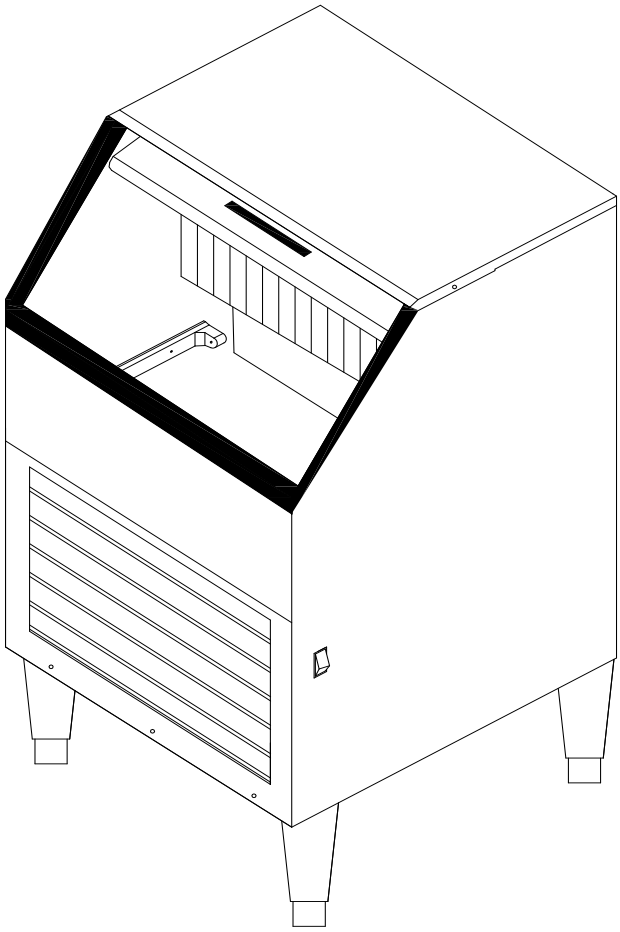
Automatic Ice Maker

Service Manual



Model IM-2840/2841

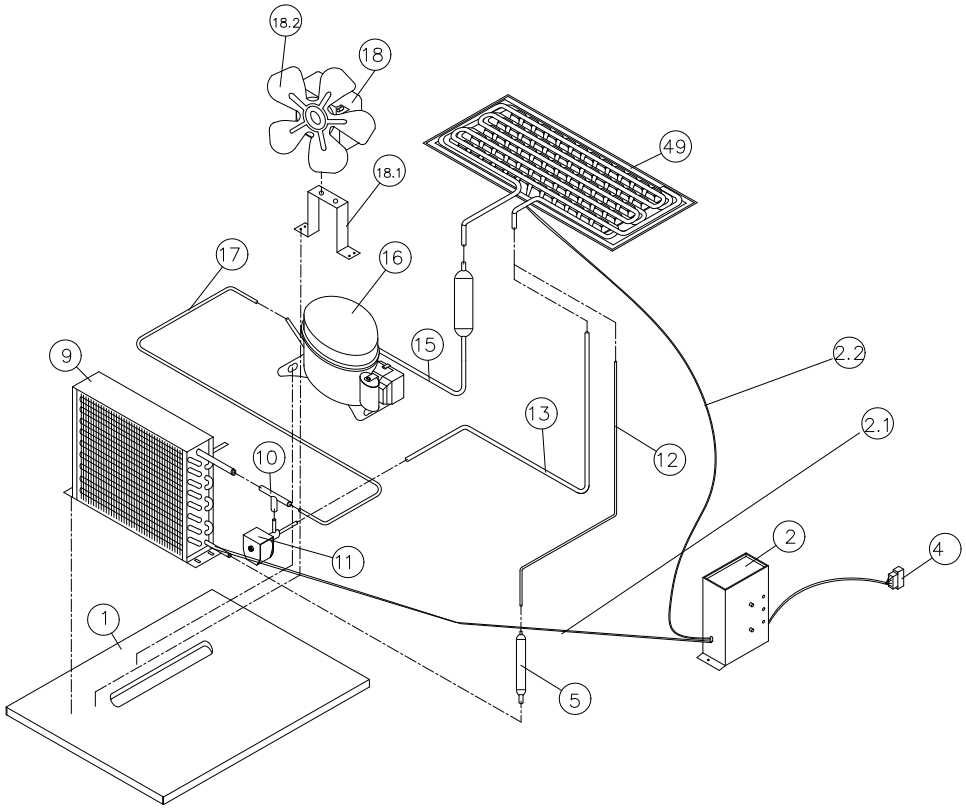
Table of contents

IMPORTANT: The service manual is based on the user manual. Before servicing, please read user manual and service manual carefully. The service operation should be implemented by qualified technician.

How the Icemaker Works

Please refer to the section "**Operation** of user manual" from page 14 to 17 . It describes clear how the icemaker makes ice and uses the water.
There are 3 systems including Cooling System, Water System and Wiring Connection and Controller.

Cooling System



ITEM NO	PART NUMBER(CODE)	DESCRIPTION
2	1854200300	Controller box
2.1	1851700100	Temperature sensor of the condenser
2.2	1851700200	Temperature sensor of the evaporator
4	1853700404	Wiring harness
5	1880007500	Drier & Fliter
9	1880012905 (IM-2840) 1880012204 (IM-2841)	Condenser
10	1861530100	Multi-connection pipe(Copper)
11	1854703320	Hot gas solenoid valve
12	1805000200	Capillary tube
13	1861501900	Hot gas tube
15	1880016501	Suction tube
16	1858400100(IM-2840) 1858400200(IM-2841)	Compressor
17	1861510701	Discharge tube
18	1858200601(IM-2840) 1858201300(IM-2841)	Fan motor
18.1	1860508200	Fan motor support
18.2	1860700100(IM-2840) 1860700400(IM-2841)	Fan blade
49	1880024203 (IM-2840) 1880024501(IM-2841)	Evaporator (Ice Mold)

During the ice-making stage, the hot gas solenoid valve is closed. The hot refrigerant gas is pumped out off compressor to condenser. The hot gas is cooled by fan forced air to warm liquid refrigerant after passing through the condenser. The drier & filter reduces the possible dirty and humidity in the refrigerant. The evaporator is cooled by the refrigerant. So ice can formed on the evaporator during water is sprayed to the evaporator. Low pressure refrigerant gas may go back compressor from the evaporator.

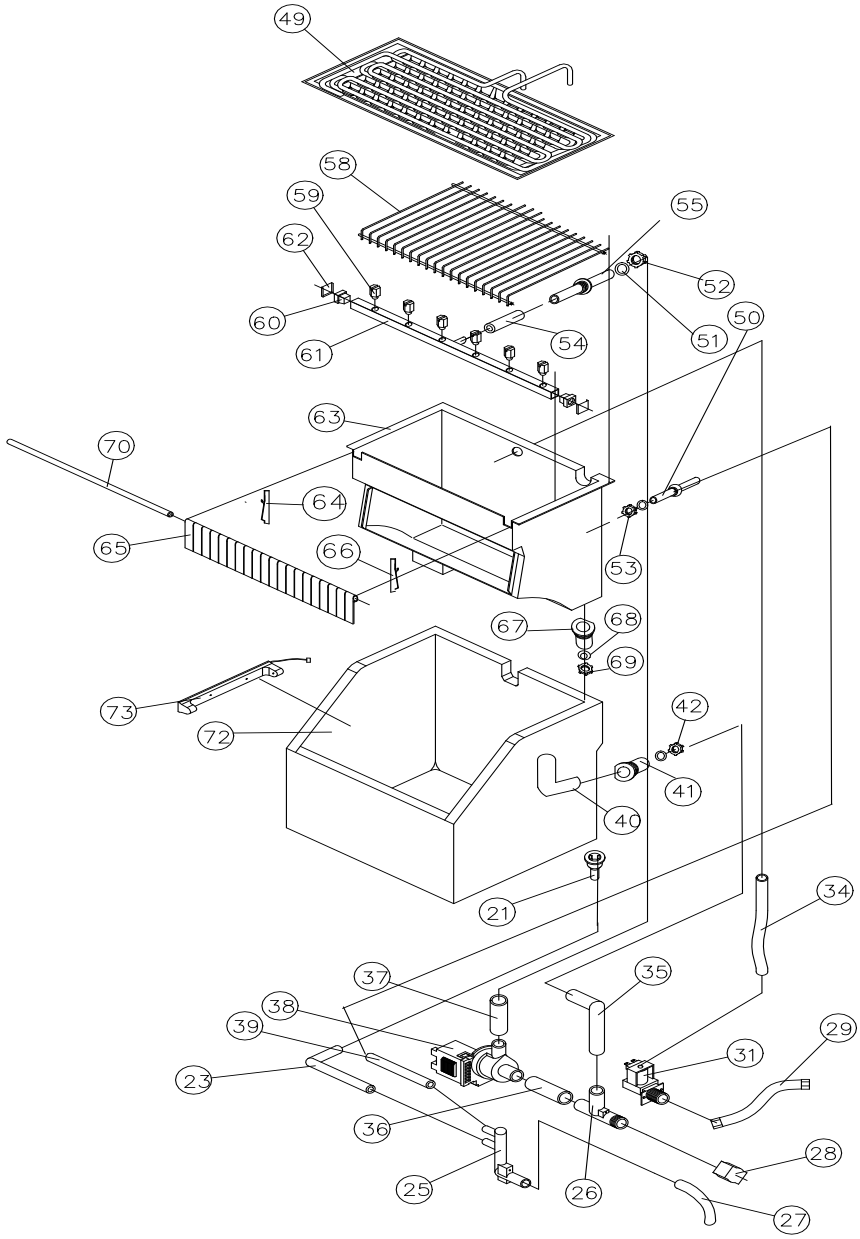
During the ice harvest stage, the solenoid valve is open. The hot refrigerant gas is pumped out off compressor to evaporator through hot gas valve. As the hot gas is not cooled by the condenser, the refrigerant makes the evaporator (ice mold) warm. So some ice touching the evaporator is thawed. All of ice can slide down to the ice storage bin.

Water System

During the ice harvest stage, the water inlet valve will be powered to open. Water pump is powered off. Water is supplied by water supply pressure through Water valve outlet tube (No.34) to Evaporator(No.49). Then, water will fall to Water bin (N0.63). When, the water bin is full, water will overflow through the pipes to the drain pipe.

During the ice-making stage, the water inlet valve will be closed. The water pump is powered on. water is pumped from the water bin to spray to the evaporator through the pipes (No.35, No.37) and pump (No.38). Most of water go back water bin. Some water is frozen on the evaporator step by step..

ITEM NO	PART NUMBER(CODE)	DESCRIPTION
21	1864522100	Downcomer
23	1811306012	Rubber of drain
25	1864523100	Connector of drain
26	1864617100	Multi-connection pipe
27	1864506100	Drain pipe
28	1864538100	Nut of water draining hole
29	1811306100	Water supply pipe
31	1854703200	Water inlet valve
34	1811206006	Water valve outlet tube
35	1864546103	Return pipe of pump
37	1864500302	Water outlet tube of pump
38	1858900600	Water pump
39	1864506700	Rubber of drain
40	1864622101	Syphon
41	1864536300	Tie-in of return pipe 2
42	1864517200	Net of return pipe
49	1880024203(IM-2840) 1880024500 (IM-2841)	Evaporator (Ice Mold)
50	1864536200	Water level pipe
51	1864511100	Rubber gasket
52	1864517200	Net of return pipe
53	1864511100	Rubber gasket
54	1864803400(IM-2840) 1864803500(IM-2841) 1864803600(IM-2841) 1864803700(IM-2841)	Rubber sprinkler Rubber sprinkler 1 Rubber sprinkler 2 Rubber sprinkler 3
55	1864536300	Tie-in of return pipe 2
58	1861700703(IM-2840) 1861700504(IM-2841)	Slide way
59	1864612100	Small nozzle
60	1864603200	Small chock plug of sprinkler
61	1861400700(IM-2840) 1861401100 (IM-2841)	Sprinkler
62	1864007100	Flake of sprinkler
63	1864801701(IM-2840) 1864801404 (IM-2841)	Water bin
64	1861703200(FIM/HDIM70) 1861703400(IM-2841)	Left flake
65	1864600200	Flake cover
66	1861703300(IM-2840) 1861703500(IM-2841)	Right cover
67	1864710100	Tie-in of return pipe 1
68	1864511100	Rubber gasket
69	1864517200	Net of return pipe
70	1861704501(IM-2840) 1861704900(IM-2841)	Pole of flake cover
72	1864701100(IM-2840) 1864700601(IM-2841)	Storage bin
73	1855501200	Ice cube full sensor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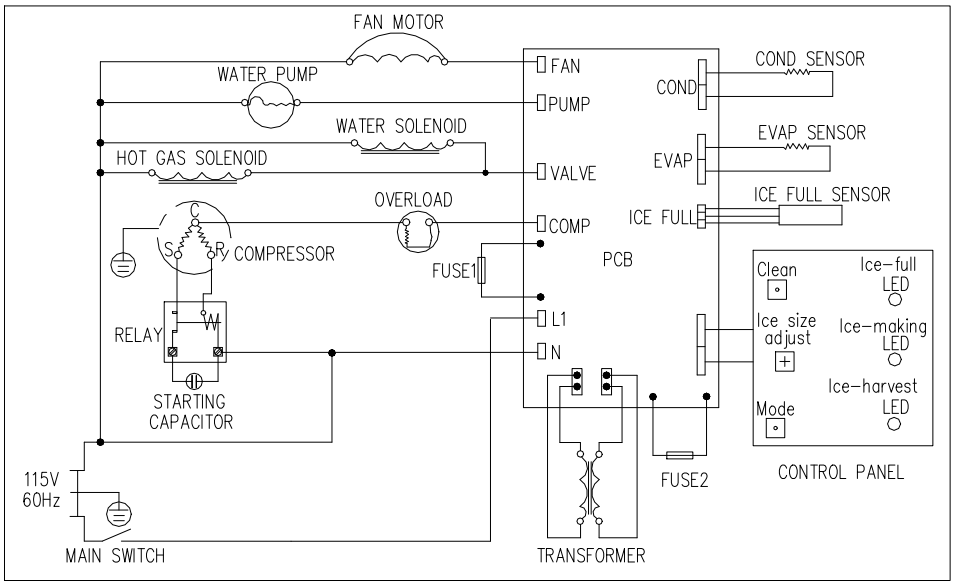
Wiring Connection :

CIRCUIT DIAGRAM



Circuit Description

1. Water Inlet Status

As the icemaker is properly installed. when the machine is powered on, or wake up from Standby Status and Cleaning status, the machine works in the Water Inlet Stage.

In this status, Water inlet valve and hot gas solenoid valve is powered on.. So, water may going inside the water bin preparing for ice-making status.

The time is fixed about 4 minutes. This function is also helpful to protect the compressor avoiding restart within 4 minutes.

At this status, the **Red, Green, Yellow** LEDs are light together.

2. Ice-making Status

The compressor, motor fan and pump are powered on. The water inlet valve and hot gas solenoid valve is powered off.

When this green LED is lit, the unit is working in the ice making mode controlled by a temperature probe on the evaporator. When the green LED is flashing, the unit is working in the ice making mode controlled by a fixed timer.

The fan motor is also controlled by a condenser sensor. When the ambient temperature is too lower, the motor fan stop working for good condensation to refrigerant.

3. Ice Harvest Status

The pump and hot gas solenoid valve are powered off. The water inlet valve, compressor and motor fan is powered of on.

The fan motor is also controlled by a condenser sensor. When the ambient temperature is too lower, the motor fan stop working for good condensation to refrigerant.

The Yellow LED indicates the ice harvest status.

4. Ice Full Status

If the ice bin is fulfilled with ice or the full sensor is covered, the machine may turn to ice full status.

In this status, all the electric components are powered off. The RED LED indicates the status.

5. Cleaning Status

When Clean button of controller is pressed, the machine turn to Cleaning Status. At this status, the pump and water inlet valve are powered on. Compressor, motor fan and solenoid valve are powered off.

The green and yellow LEDs flash together.

To stop the cleaning mode, just press the button again.

Controller box:

Instructions for LEDs and buttons:

1. Red LED: Ice full indicator light.

When this LED is lit, the ice storage bin is full of ice or there is something between the ice-full sensor in the ice storage bin. The unit will stop working. When ice cubes are taken out of the ice storage bin, clearing the sensor, the red LED will keep flashing for 3 minutes. Then the unit will restart and return to the ice making mode.

2. Green LED: Ice making indicator light.

When this LED is lit, the unit is working in the ice making mode controlled by a temperature probe on the evaporator. When the green LED is flashing, the unit is working in the ice making mode controlled by a fixed timer.

3. Yellow LED: Ice harvest indicator light.

When this LED is lit, the unit is working in the ice harvest mode controlled by a temperature probe on the evaporator. When the yellow LED is flashing, the unit is working in the ice harvest mode controlled by a fixed timer.

4. Clean button:

When this button is pressed, the unit enters the cleaning mode. The green and yellow LEDs flash together. To stop the cleaning mode, just press the button again.

5. Mode button:

Mainly for service. When this button is pressed, it can change from ice making mode to ice harvest mode, or from ice harvest mode to ice making mode. You can judge the mode from the status of the green and yellow LEDs.

6. Ice size adjust: Turn the screw clockwise, and the size of individual ice cubes will be larger

in the next cycle; the cycle time will be longer. Turn the screw counter clockwise, and the ice size will be smaller in the next cycle.

NOTE: *It is not a good idea to adjust the ice size often or for no good reason, because the controller may damaged.*

IMPORTANT

***1.Avoid water to the controller box.**

***2.If the red LED is lighting, green and yellow LEDs are flashing together, the machine is not working. The ice full sensor is out of function, the icemaker stops suddenly after it work 18 cycles.**

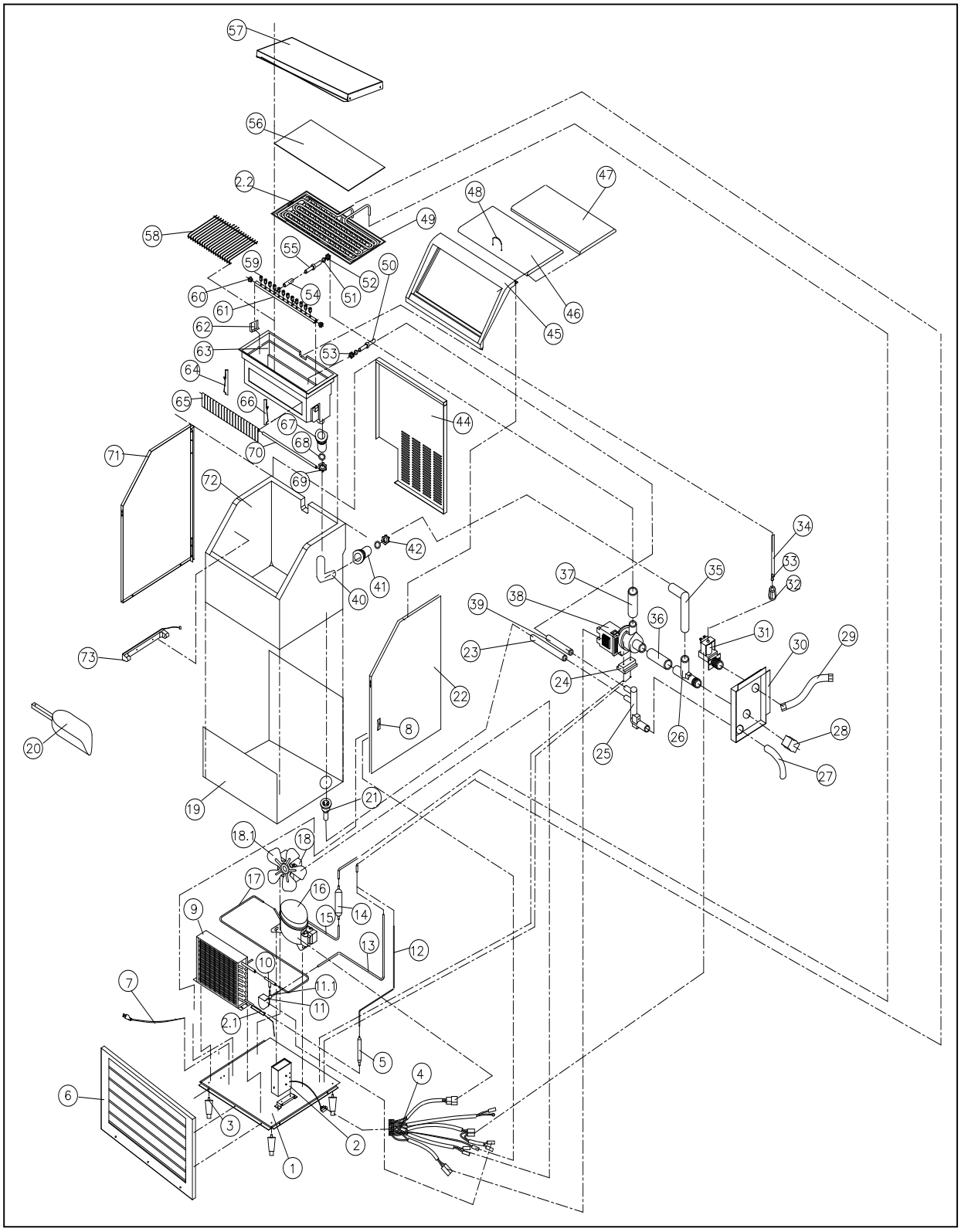
*When the icemaker is switched on, the compressor, motor fan and pump will be delayed 4 minutes to power on to protect compressor. At this moment, the **Red, Green, Yellow** LEDs are light together.

* The green and yellow LEDs flash together when the machine works on Cleaning Mode.

MAJOR FUNCTIONS OF CONTROLLER

1. Completely automatic operation procedure.
2. When the ice storage bin is full of ice cubes, the machine will stop working automatically and start again after the ice cubes are taken out.
3. The different color of LED display different work mode.
4. Major fuse broken indicate, and stop working.
5. The motor fan is submitted to the ambient temperature. If it is cold, the motor will stop working to keep the cooling system working in a good status.
6. Smart control method. A probe and timer make the icemaker working always in a good status.
7. The compressor is protected by being restarted delaying 3 minutes at every moment.

Exploding Drawing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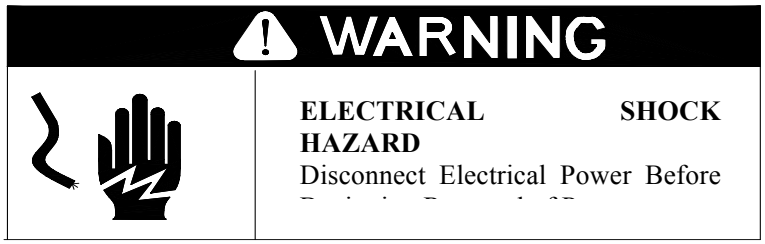
ITEM NO	PART NUMBER(CODE)	DESCRIPTION
1	1860753001 (IM-2840) 1860753104 (IM-2841)	Soleplate
2	1854200302	Controller box
3	1880014901	Foot
4	1853700405	Wiring harness
5	1880007500	Drier & Fliter
6	1860204400 (IM-2840) 1860204500 (IM-2841)	Front cover
7	1853110500	Power supply line
8	1854006100	Power switch
9	1880012905 (IM-2840) 1880012204(IM-2841)	Condenser
10	1861530100	Multi-connection pipe(Copper)
11	1854703320 (IM-2840) 1854703320 (IM-2841)	Hot gas solenoid valve
12	1805000200	Capillary tube
13	1861501900	Hot gas tube
14	1880016501	Suction tube
15	1880016501	Suction tube
16	1858400100(IM-2840) 1858400200 (IM-2841)	Compressor
17	1861510701	Discharge tube
18	1858200601(IM-2840) 1858201300(IM-2841)	Fan motor
19	1860308900	Cover of storage bin
20	1864800100	Ice scoop
21	1864522100	Downcomer
22	1860113601	Right side
23	1811306012	Rubber of drain
24	1864200100	Pump mat
25	1864523100	Connector of drain
26	1864617100	Multi-connection pipe
27	1864506100	Drain pipe
28	1864538100	Nut of water draining hole
29	1811306100	Water supply pipe
30	1860101404	Water panel
31	1854703200	Water inlet valve
32	1864529100	Nut of water valve outlet tube
33	1864515100	Supporting tube
34	1811206006	Water valve outlet tube
35	1864546103	Return pipe of pump
36	1864503400	Water inlet tube of pump
37	1864500302	Water outlet tube of pump
38	1858900600	Water pump
39	1864506700	Rubber of drain
40	1864622101	Syphon
41	1864536300	Tie-in of return pipe 2

42	1864517200	Net of return pipe
44	1860006501	Rear
45	1864806202(IM-2840) 1864806102(IM-2841)	Doorframe
46	1864806600(IM-2840) 1864806501(IM-2841)	Door 1
47	1860103400(IM-2840) 1860103500(IM-2841)	Door 2
48	1861702201	Door handle
49	1880024203(IM-2840) 1880024500 (IM-2841)	Evaporator (Ice Mold)
50	1864536200	Water level pipe
51	1864511100	Rubber gasket
52	1864517200	Net of return pipe
53	1864511100	Rubber gasket
54	1864803400(IM-2840) 1864803500(IM-2841) 1864803600(IM-2841) 1864803700(IM-2841)	Rubber sprinkler Rubber sprinkler 1 Rubber sprinkler 2 Rubber sprinkler 3
55	1864536300	Tie-in of return pipe 2
56	1864204400	Cover of evaporator
57	1860107601	Top cover
58	1861700703(IM-2840) 1861700504(IM-2841)	Slide way
59	1864612100	Small nozzle
60	1864603200	Small chock plug of sprinkler
61	1861400700(IM-2840) 1861401100 (IM-2841)	Sprinkler
62	1864007100	Flake of sprinkler
63	1864801701(IM-2840) 1864801404 (IM-2841)	Water bin
64	1861703200(IM-2840) 1861703400(IM-2841)	Left flake
65	1864600200	Flake cover
66	1861703300(IM-2840) 1861703500(IM-2841)	Right flake
67	1864710100	Tie-in of return pipe 1
68	1864511100	Rubber gasket
69	1864517200	Net of return pipe
70	1861704501(IM-2840) 1861704900(IM-2841)	Pole of flake cover
71	1860114900	Left side
72	1864701100(IM-2840) 1864700601(IM-2841)	Storage bin
73	1855501200	Ice cube full sensor

Troubleshooting



Before Maintenance

1. Check out the user if the user uses a 115 Volt, 60Hz. AC only 15ampere electrical supply, and have properly grounded, ensure the maintainer against electrical shock.
2. Check out the leads loose? Turn off? Short circuit? If have such problems, foreclose in turn.

Basic Checking

The icemaker has some trouble, through the appearance phenomena judges. So the service technician must check it thoroughly, then maintain.

Hearing

- Hearing the user 's depiction about the icemaker at using process and the phenomena. Try to understand what is the defect and how did the user operate the icemaker before calling for service.
- If the running sound is normal?

Looking

- Check the pipe of cooling system, especially the welding point. If there is some oil, the gas is leak out so that no ice making or less ice produced.
- If the cycle of the ice making and harvest is normal?
- Check the water system, especially the connection, nut of water discharging hole. If there is some water leakage.
- Check if the water filter needs to be replaced.
- Check if the icemaker installed according to the user manual.
- Check if the icemaker needs to be cleaned.

Touching

- Touch the hot gas pipe (with the evaporation weld), feeling the temperature. At the ice making stage, feeling cool. At the ice harvest stage, feeling hot.
- Touch the capillary tube (the drier nearby), feeling tepefaction.

Troubleshooting Guide

This troubleshooting guide in the user manual should be read before this guide. Be sure only when the trouble shooting in user manual can’t help you solve the problem, turn to this guide.

Troubleshooting Guide

1.The machine does not make ice

Problem kinds	Check part or point	Possible Cause	Probable Correction
The machine don't operate	Plug	The icemaker is unplugged.	Plug the icemaker in.
	Socket	Socket is damaged	Check and replace
	Power switch	The icemaker power switch turns to OFF.	Turn the icemaker power switch to ON.
	Fuse	The fuse is blown.	Replace fuse.
	Wiring connection	Some wiring connection is incorrect or loosed	Check and re-connect
	Voltage	The voltage of the power supply is low.	Add manostat.
	Ice full sensor	The ice full sensor is out of function(The icemaker will stop after it works 18 cycles)	Replace a new one.
	Ice full sensor	The ice full sensor is covered by something	Clean and clear the sensor
	wiring	Some wiring is damaged	Replace a new one
	Electric component	Some electric component fail	Find the controller, press the mode button to change the mode. It is helpful to judge which part is out of function
	Controller	The controller fail	Replace a new one
Water System	Water supply tap	The water supply tap is turn off.	Turn on the water supply tap.
	Water supply pipe	The water supply pipe is not proper connected or maybe kinked	Reconnect the water supply pipe.
	Water line	Some water line leaks.	Plug into again.
		The water line blocks	Clean it, see user and care manual "ice making system cleaning"
		Water supply pressure is lower.	Adjust the water supply pressure within the range of stated range.
	Water inlet valve	Water inlet valve is loosed	Check and re-connect
	Water pump	Water pump damages	Replace water pump.
		The room temperature is out the stated range, the water pump stop automatically.	Make the temperature returns within the stated range.
		The lines of the water pump loose.	Plug into again
		The housing of water pump leaks.	Replace water pump.

Problem kinds	Check part or point	Possible Cause	Probable Correction
The compressor doesn't start or start frequency	Wiring connects	loose.	Plug tightly, or replace.
	The start relay/thermal protect	Be damaged.	Replace the start relay/thermal protect of the compressor
	The startup coil / running coil	Be turnoff.	Replace the compressor.
		The motor of the compressor is short circuit.	Replace the compressor.
	Condenser	The condenser may be dirty.	Clean the condenser.
	Fan	The fan may be dirty or damaged	Clean or Replace the fan .
	The Electronic controller	The controller is damaged	Replace the Electronic controller.
The compressor run but no ice	Refrigerant	Refrigerant leaks completely	Add low side access valve, locate leak, recover refrigerant, replace drier, evacuate and weigh in the data plate charge.
	Capillary tube	Capillary tube is blocked	Add low side access valve, recover refrigerant, replace hot gas valve, replace drier, evacuate and weigh in the nameplate charge.
	Vent	The vent is obstructed around the ice machine	Clean the vent
	Hot gas valve	Hot gas valve damaged	Replace
	The Electronic controller	The model of making ice doesn't turn to harvest. vice versa.	Replace the Electronic controller.

2.Low production

Problem kinds	Check part or point	Possible Cause	Probable Correction
Cooling System	Refrigerant	Refrigerant leaks partially	Recharge.
	Condenser	The condenser may be dirty.	Clean the condenser.
	The ambient temperature	The ambient temperature is high or too low	Check the ambient and air flow
	Fan	The fan is dirty or damaged	Clean or replace
	Hot gas valve	Hot gas valve performance poor, leads to few ice is produced.	Replace the hot gas valve

Problem kinds	Check part or point	Possible Cause	Probable Correction
Water System	Bin drain	The bin drain may be partially restricted.	Clean out the drain, check the installation.
	Water line	The water quality is too poor. The water line blocks	Using a filter apparatus installed in front of the water inlet valve.
	Silica gel tubes	The silica gel tubes distort, lead to block.	Make the silica gel tubes resile
	Tie-in return pipe	The tie-in return pipe blocks.	Clean screen, see user's manual "interior cleaning",

3. Ice Cube is not OK

Problem kinds	Check part or point	Possible Cause	Probable Correction
Cubes are too small	Condenser	The condenser is dirty or the air grills are covered	Clean the condenser. Leave space around the machine
	The ambient temperature	The ambient temperature is too high.	Adjust the ambient temperature.
	Electronic controller	The setting temperature is high.	See the service manual "adjust the size of ice cubes"
	Refrigerant	Refrigerant leaks	Recharge.
Cubes are too big	Electronic controller	The setting temperature of Electronic controller is low.	See the service manual "adjust the size of ice cubes"
	Sensor	The sensor of temperature damages	Replace the sensor of temperature.
	The ambient and water temperature	The ambient temperature and water temperature is too low.	Adjust the temperature.
The cubes are partially formed--have ragged sides	Water quality	The water quality is poor	Using a water-soften / filter apparatus installed in front of the water inlet valve.
	Small nozzle	Spraying is blocked by the ice slideway	Adjust the location of the ice slideway.
	The room temperature	The room temperature is out the stated range, the water pump stop	Make the temperature returns within the stated range.
The ice cubes shape deformity	Sprinkler	The sprinkler clogged	Clean the sprinkler, see the user's manual "interior cleaning"
	Small nozzle	the root of the small nozzle have crack.	Replace the small nozzle.

Problem kinds	Check part or point	Possible Cause	Probable Correction
The ice cubes are incomplete while being dumped	Sprinkler	The sprinkler is blocked.	Clean it.
Cubes are partially formed—are white at the bottom	Water bin	Not enough water in the water bin.	Check water supply—filter may be restricted.
	Sprinkler pressure of spray	The sprinkler pressure of spray isn't enough.	The water line may be blocked
			Check the silica gel tubes distort, lead to block.
			Check the tie -in return pipe may be blocked.
	Sprinkler	The sprinkler is blocked.	Clean it.
	The room temperature	The room temperature is out the stated range, the water pump stop automatically.	Make the temperature returns within the stated range.

4.Other problems

Problem kinds	Check part or point	Possible Cause	Probable Correction
The body is electrified	Earth line	The earth line isn't in the socket.	Please use the socket meeting the standard.
	Lines	The lines are creepage.	Adjust, reconnect /replace lines
	Electric component	The electric component is creepage,	Replace this electric component.
Scales occur frequently inside the machine	the water quality	The rigidity of the water quality is too high.	Using a water-soften apparatus installed in front of the water inlet valve.
Noise during operation is big	Water inlet valve	The noise of the water inlet valve	Replace the water inlet valve.
	Spring of the internal compressor	The spring of the internal compressor drops.	Replace the compressor.
	Water pump	The noise of the water pump	Replace the water pump.
	Pipeline system	Pipeline system resonate	Clear pipeline system
	Feet	The feet are not leveled	Level and lock the feet.
	Fan motor	The fan motor loose, the clearance of the rotor is bigger, the fan blade turns back	Relocate the fan motor / replace

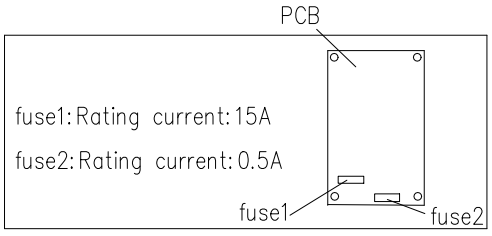
Problem kinds	Check part or point	Possible Cause	Probable Correction
Water is leaking out the unit	The operation	A few water drops to the floor when you open the door to take out ice from ice storage bin.	Normal condensation on the door or some water together with ice. Take care when you take out ice.
	Water supply connection	Water supply connection leaking.	Tighten fitting. See Connecting the water line.
	Nut of the water drain hole	Nut of the water drain hole leaking.	Tighten fitting. See “Connecting the Water Line”
	Drain pipe connection	Drain pipe connection leaking.	Tighten fitting. See connecting the drain.
The sprinkler pressure of spray isn't enough	The water quality	The water quality is too poor. The water line blocks	Using a filter apparatus installed in front of the water inlet valve.
	Silica gel tubes	The silica gel tubes distort, lead to block.	Make the silica gel tubes resile
	Tie-in return pipe	The tie -in return pipe blocks.	Clean screen, see user’s manual "interior cleaning",
The sprinkler doesn't spray	Water pump	The lines of the water pump loose.	Plug into again
	Water pump	Water pump damages	Replace water pump.
	The room temperature	The room temperature is out the stated range, the water pump stop	Make the temperature returns within the stated range.
The downcomer doesn't leak	Water line	The water line blocks	Clean it, see user and care manual "ice making system cleaning"
	Rubber of drain	The rubber of drain distort.	Make the silica gel tube resile.
Harvesting ice is difficult	Hot gas valve	The hot gas valve is poor,	Replace the hot gas valve
		The hot gas valve damage	Replace the hot gas valve
	Ice mold of the evaporator	The ice mold is dirty, or polishing degree is poor.	Clean the ice mold, or replace the evaporator.
	Refrigerant	Refrigerant leaks	Recharge
	The ambient and water temperature	The ambient and water temperature is too low	Adjust the temperature.
	ice cubes size	The size is too big.	See the adjust of ice cube size.

Problem kinds	Check part or point	Possible Cause	Probable Correction
The evaporator is hot more than 5 minutes	Sensor of temperature	Sensor of temperature breaks(damages)	Replace sensor of temperature
	Hot gas valve	Hot gas valve performance poor	Replace the coil of hot gas valve if only because of the coil.
	Refrigerant	Refrigerant leaks	Recharge
	Electric controller	The electric controller is wrong	Check the controller
The evaporator is not hot in the ice harvest mode	Hot gas valve	Hot gas valve performance poor or break	Replace the coil of hot gas valve if only because of the coil.
		The lines of the hot gas valve loose.	Plug into again

Adjustment and Replacement

Replace Controller, fuse and the sensor of temperature

- Remove the front cover, top cover, right side,
- Locate the Electronic controller,
- Unplug the lines with the wiring harness, pull out the sensors of temperature (one at the evaporator, another at the condenser),
- loosen the screws of rooting the Electronic controller, replace a new one. Reverse the above step to replace.
- If you need replace the fuse, open the front cover of the control box, you will find the figure.



According the figure, take out the fuse1, replace a new one.

Reverse the above step to reassemble.

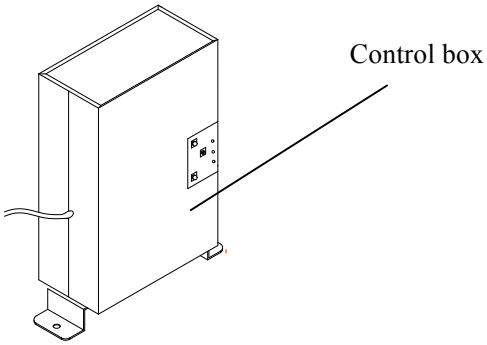
- If you need replace the sensors of temperature, pull out the sensor of temperature, open the

rear of the controller box, pull out the other side, replace a new one. Reverse the above step to reassemble.

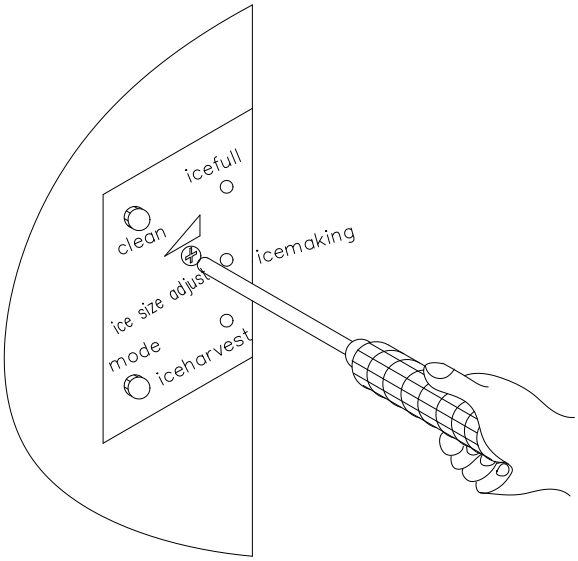
Adjust the size of ice cube

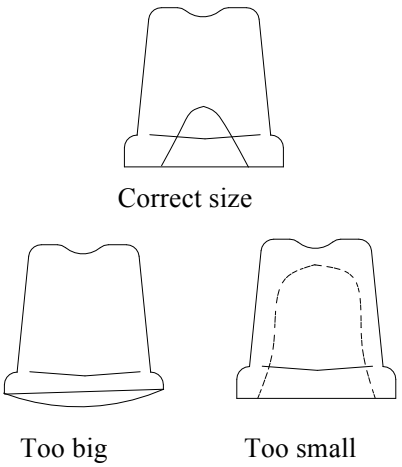
The cube size should only be adjusted to bring the cubes to the correct shape, the overall size can't be adjusted, Try to adjust the cubes size when the ice maker is in the Ice Harvest Status, or in the Water Inlet Status.

1. Power off the icemaker.
2. Remove the 2 screws in the front cover, pull upward to remove the front cover, find the controller box.



3. Locate the cube size adjustment screw, and to make fuller cubes, turn the screw clockwise about 1/36 turn (10°-15°). This will make the freezing cycle longer
4. To shorten the freezing cycle and make cubes that are not as full, turn the adjustment screw 1/36 turn (10°-15°) counter clockwise.
5. After the next freezing cycle, the cubes should have responded to the adjustment, if another adjustment is required, do it early in the freeze cycle.





ADVICE

Expert advises the cube size have been adjusted ok before leave factory, had better not adjust it.

Replace the water system components

Please see the water system drawing. The water leakage should be checked after this kind of operation

NOTICE

Unscrew the nut of the water draining hole, drain off the waste water to some container, then screw the nut on tightly when the waste water is fully drained off.

1. Replace the water pump

- Disconnect electrical power.
- Remove the rear cover
- Unplug the lines connector with the water pump, the water outlet tube of pump and the water inlet tube of pump.
- Loosen the screws, replace a new one.
- Reverse the above step to reassemble.

2.Replace the water inlet valve

If the water inlet valve does not work at all, or does not shut off tightly, it should be replaced.

- Unplug or disconnect electrical power,
- Loosen the water supply pipe, remove the water panel, loosen 2 screws holding the water inlet valve, unplug the lines and loosen the water valve outlet tube,
- Replace a new one, reverse the above step to reassemble.

Replace the cooling system components

Replace the condensing components, See Figure “cooling system”

1.Replace the compressor and the compressor kit (includes relay, thermal protect).

- If only need replace the compressor kit, remove the rear, locate the compressor, take the clip, open the cover, replace the wrong,
- Reverse the above step to reassemble.
- If need replace the compressor, remove the rear cover, and left side, locate the compressor,
- Unplug the lines and taken out the earth line, add low side access valve, open the Process/Suction, evacuate refrigerant, take out the compressor, replace a new one, joint together, then recover refrigerant, weigh in the nameplate charge.
- Reverse the above step to reassemble.

2. Replace the fan motor and fan blade.

- Remove the top cover, rear and left side,
- locate the fan motor, unplug the lines connecting with the fan motor, loosen the screws of holding fan motor bracket,
- Replace a new one, If only need replace the fan blade, loosen the screws holding the fan blade, taken out the damaged, replace a new one,
- Reverse the above step to reassemble.

3. Replace the hot gas valve, drier and evaporator.

- Remove the rear, top cover and the left side
- Locate the drier and hot gas valve, add low side access valve, recover refrigerant, replace the drier and hot gas valve, evacuate and weigh in the nameplate charge.
- Reverse the above step to reassemble.
- If need replace the evaporator,
- Remove the rear, top cover, locate the evaporator, add low side access valve, weld open the two welds, replace a new one. Recover refrigerant, evacuate and weigh in the nameplate charge.
- Reverse the above step to reassemble.