



ICE MAKER

Ice Maker User's Manual (IC/WC-0070-AB, 100-AB, 0200-AB, 0280-AB)

- This product is designed for indoor use only.
- Please read this User's Manual carefully before operating the product, and keep this Manual for future reference





Features of the Product

Thank you very much for purchasing this product. This User's Manual provides the basic instructions for using the product so that the user can prevent accidents or loss which may be caused by a lack of product knowledge or negligence. Please read this Manual carefully for proper use of the product.

New Technologies Developed by Professionals, Fast Freezing through 4 Seasons, Powerful Ice Making Capacity

1. MICOM Controller

The ice making system is optimized using an automatic ice formation control sensor.

2. Integrated ice formation control sensor

When the ice container is full, the automatic sensor stops the ice making system to reduce power and water consumption.

3. Pure, crystal ice

Features a nozzle spray type to form transparent cubic crystals. Pure ice crystals are formed by the freezing point depression principle.

4. Low noise, low vibration

High efficiency, low noise fan provides quiet operation and a pleasant ice making system.

5. Ergonomic design

User convenience implemented by the sliding-slope door designed with human-spatial engineering.



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–Keep this user manual within your reach for your reference.



Safety Warning

Please read and save these instructions. Precautions are marked with symbols to prevent accidents which could be caused by incorrect operation. Failure to comply with instructions could result in personal injury and/or property damage.



Danger

This symbol means that if the user fails to observe the instructions, the danger will cause serious physical injury, death or major property damage.



Warning

This symbol means that if the user fails to observe the instructions, there can be serious physical injury, death or major property damage.



Caution

This symbol means that if the user fails to observe the instructions, there is a possibility of physical injury to the user, or damage to property.

- ※ Injury: A scratch, burn (hot, cold), or electric shock which does not require hospitalization or long-term medical treatment.
- ※ Damage to property: The damages to the house, furniture, livestock, bedding, etc.

The meanings of the symbols are as follows;



Danger, Warning, Caution



The system must be grounded (connected to the earth).



Prohibition of contact



Do not disassemble



General prohibition



Electric shock hazard



Keep fire source away



Burn hazard



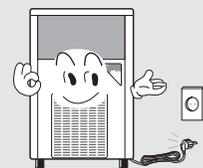
Musts



Warning

◆ Make sure that the power supply conforms to the specifications.

- Check that the supply voltage is in accordance with the voltage specified on the name plate.
- The name plate is attached on the left side of the product.
- Incorrect power supply voltage can cause product failure, fire or an electric shock.
- If the product is relocated, make sure to check the supply voltage.





Warning

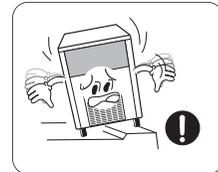
■ Never disassemble, repair or remodel the product.

- Unauthorized disassembling, repairing, or remodelling may deteriorate the safety of the product.
- In case of any failure, please refer to this User's Manual.



■ Install the product on a level, even and strong floor.

- Operation of the product in an unstable condition may cause failure and/or deformation.
- Operation on a moving surface, such as a vehicle or ship, may result in a fall-over accident.



■ Keep away from any source of fire or inflammable material (spray cans, butane container, gas cylinder, oil, etc.).

- Otherwise, an explosion or fire may break out.



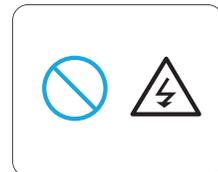
■ Do not spray insecticide or other inflammable sprays, perfume, etc., near the product.

- Otherwise, a fire may break out.



■ Do not store anything other than ice inside the product.

- It may cause unsanitary conditions.
- It may cause product failure or electric shock.



■ Do not place or store heavy items on the top of the product.

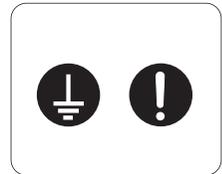
- Excessive weight can cause the unit to overheat and/or a fire.



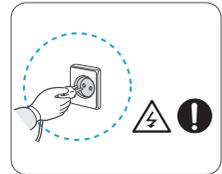


Warning

- The Ice Machine must be plugged into a grounded outlet.
 - Do not use an adapter or an extension cord.
 - Do not remove the grounding prong.
 - The unit must be installed in accordance with the state and local electrical and plumbing codes.



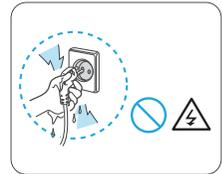
- GFCI/GFI circuit protection is not recommended unless it is required.
 - Rated sensitive current: 30mA.
 - An ungrounded circuit may cause product failure or an electric shock.



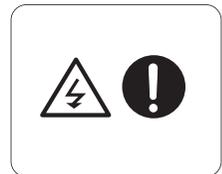
- The power cord should be removed by holding the plug.
 - Do not disconnect power by holding the cord or electric shock may occur.
 - Damage to the power cord could cause fire or electrical shock.



- Do not connect or touch the power cord with a wet hand.
 - Otherwise, the user may get an electric shock.



- Make sure power cord is clean and free from any foreign matter.
 - If the prong of the power plug is dirty, wet or improperly connected to the receptacle, electric shock or fire may occur.



- When reconnecting the power cord after disconnection, wait for at least three minutes before reconnection.
 - Reconnection within three minutes may cause product failure.





Warning

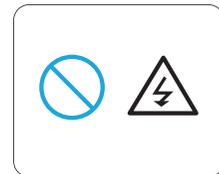
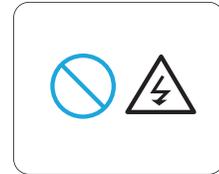
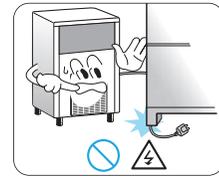
- Do not bend the power cord excessively or allow a heavy object to sit on top of the cord.
 - Otherwise, there is a danger of current leak and/or electric shock.

- Replace damaged power cord and the cord plug when metal part(s) have become loose.
 - A damaged cord or plug can cause an electric shock or fire.

- Do not unplug or move the product during operation.
 - Otherwise, product failure or fire may result.
 - Or a water leak may result.

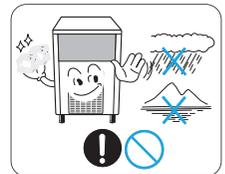
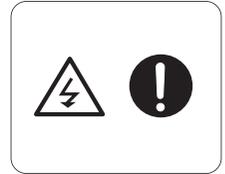
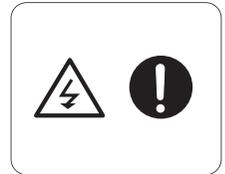
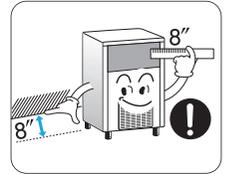
- Troubleshooting
 - In case of an earthquake, fire, abnormal sound or smell from the product, stop operation and unplug the power cord from the receptacle immediately.

- Do not install the product in a wet or humid place.
 - Do not install the product near any hot water tanks.
 - Do not install the product in a bathroom, shower room, or swimming pool
 - If water penetrates into the product, it may cause failure and/or electric shock



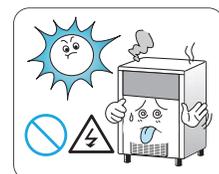
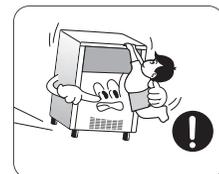
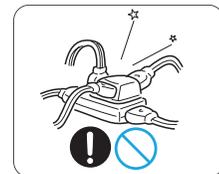
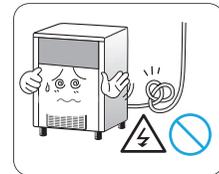
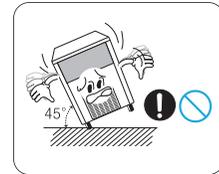
Warning

- Provide at least 8" of space between the product and the wall.
 - Being too close to the wall may cause product failure.
- For cleaning or servicing, unplug the power cord, close the feed water valve, and wait until the product comes to a complete stop.
 - Otherwise, electric shock or physical injury may result.
- Remove the dust on the Condenser, which is on the front or side of the product, at least once a month.
 - Heavy dust on the Condenser prevents heat dissipation and deteriorates the product performance, leading to excessive power consumption and/or product failure.
- The ambient temperature range must be between 50°F to 104°F
 - If installing in a cold place 32°F or below, freeze break may occur.
 - If installing in a hot place 104°F or over, product failure may occur.
- The pressure and temperature of the supply water must be 20 ~ 80 psi, and 50°F ~ 90°F, respectively.
 - If the pressure or temperature of the supply water exceeds the above specified ranges, the ice quality may deteriorate and/or product failure may occur.
- Make sure to connect the product with a cold water line.
 - Connection to a hot water line may cause product failure.
- The supply water must come from the tap water.



Warning

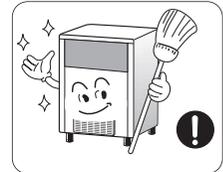
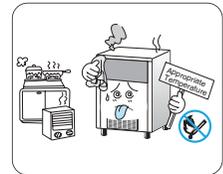
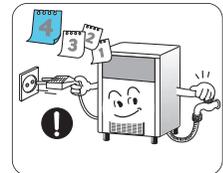
- Do not tilt the product by more than 45 degrees during transportation.
 - Otherwise, product failure may result.
- Protect the connection hose from being twisted or folded.
 - Otherwise, water leak, product failure, or water feed failure may result.
- Make sure that the power receptacle is for the exclusive use of the product.
 - Connecting multiple plugs with a multi-tap may cause a fire.
- Do not allow children to hang on the product door.
 - Otherwise, the product can twist and fall over, resulting in possible injury.
- Do not use the product outdoors.
 - This product is for indoor use only. (50 ~ 104°F)
 - Using outdoors may result in deformation, discoloration, or electric shock.



Safety Cautions

Caution

- Please observe the instructions provided in this User's Manual.
 - Usage not in accordance with intentions may result in electric shock or physical injury.
 - Please transfer this User's Manual together with the product when transferring the product to a third party.
- If an extended period of non operation is planned, close the water supply valve, remove the ice from the product, and unplug the power cord.
- Do not use the product near a fire source.
 - Otherwise, a fire may break out.
- Install the product in a clean and sanitary place.
 - Ice is food. For safety and hygiene, install the product in a clean and hygienic place.





Caution

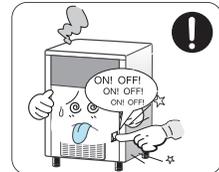
■ To store the ice for a longer period of time, put it in a separate freezer.

- The temperature inside the ice storage is maintained by the coldness of the ice, not by any additional freezing function.
- Therefore, the ice can melt down after a long time, unless stored in a separate freezer.



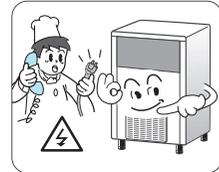
■ Do not operate the switches too frequently.

- Otherwise, product failure may result.



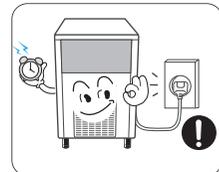
■ If water leakage is identified, immediately unplug the power cord and close the water supply valve.

- Check water connections.
- Unplugging the power cord with wet hands may cause electric shock.



■ After the product transportation and installation, wait for at least two (2) hours before starting operation.

- Two (2) hour is the minimum time required to stabilize the refrigerant system inside the product.



Attention

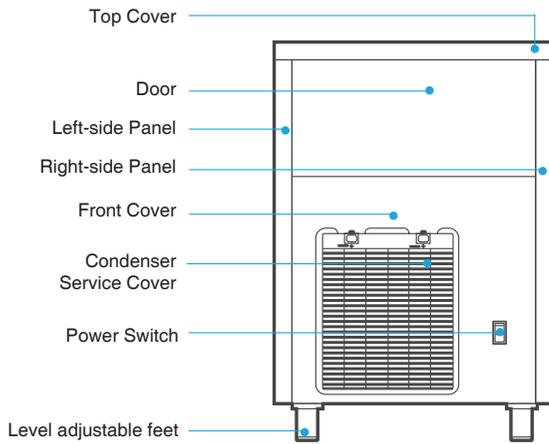


Clean the ice storage of the product frequently for hygiene.

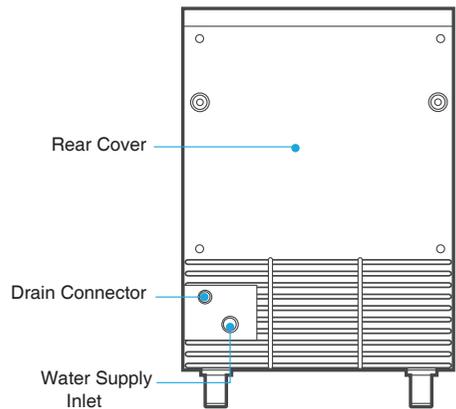


Major Components (IC/WC-0070-AB, 100-AB)

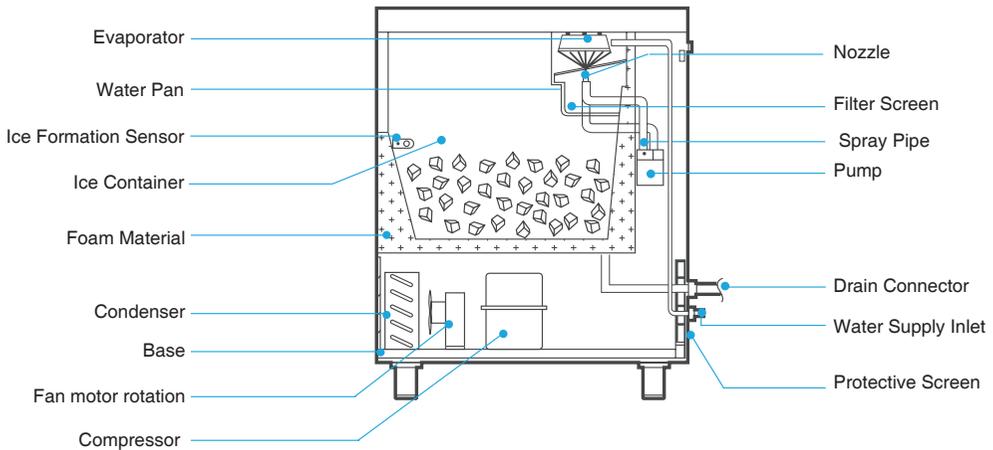
Front View



Rear View

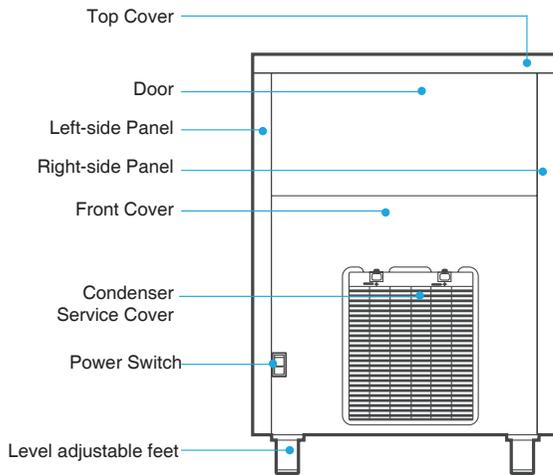


Side View

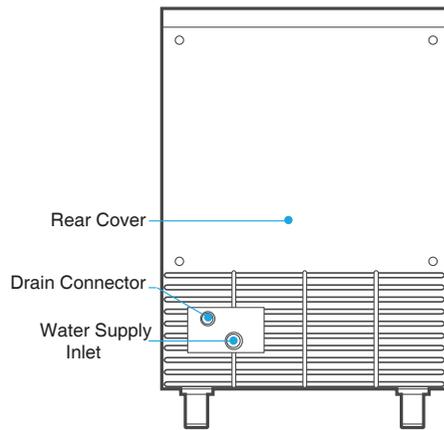


Major Components (IC/WC-0200-AB)

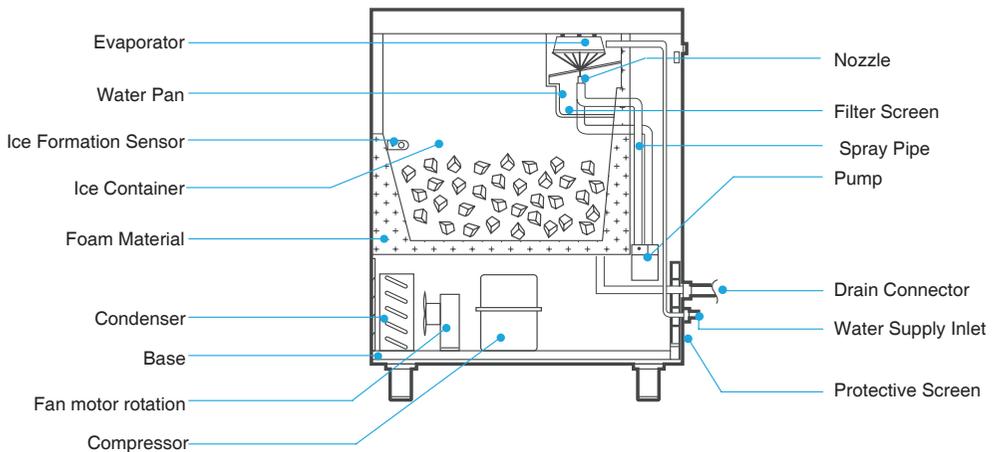
Front View



Rear View

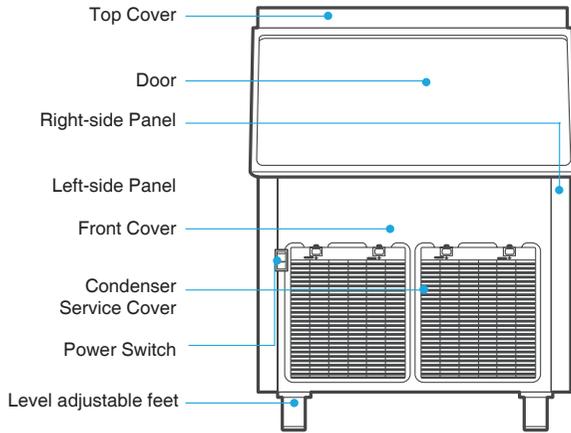


Side View

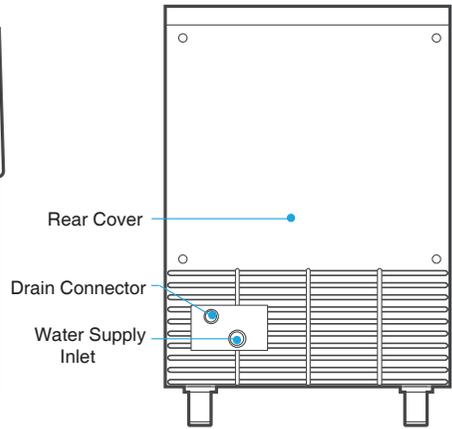


Major Components (IC/WC-0280-AB)

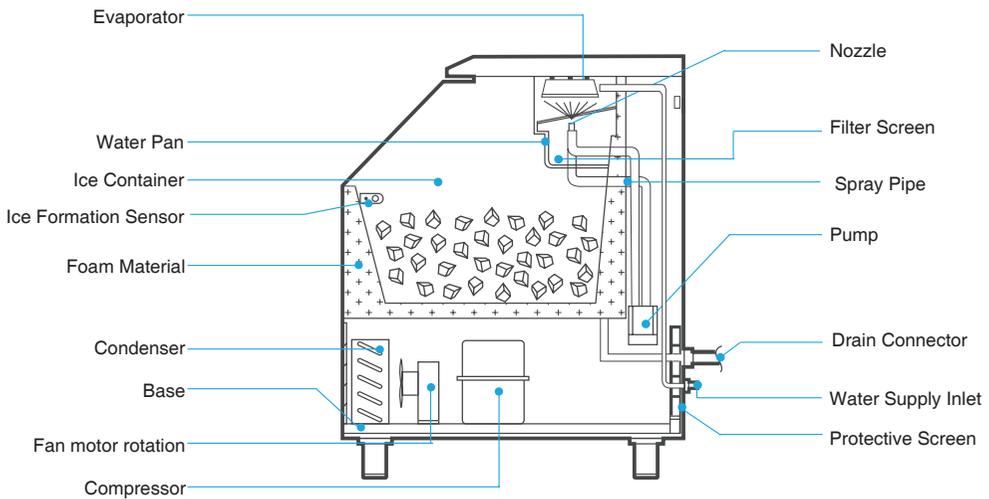
Front View



Rear View



Side View

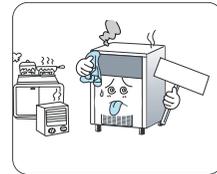


Cautions for Installation

Location

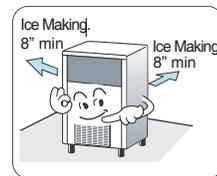
Away from a fire source.....

- There must be no fire source, such as a furnace or gas cooker, in the vicinity, and the ambient temperature range must be between 50~104 °F



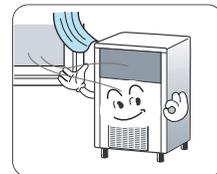
Secure sufficient spacing between the wall.....

- For satisfactory performance and operation, secure at least 8" of space from the wall.



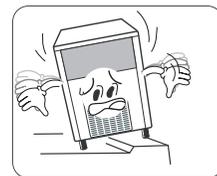
Well-ventilated place.....

- Insufficient ventilation may deteriorate the ice making performance.



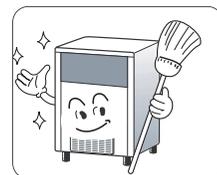
On a flat, even floor.....

- Unstable floor may result in noise and/or vibration
(The slope of the floor must not exceed a one degree slope)



In a hygienic place.....

- Since the ice is for human consumption, install the product in a clean and hygienic place.



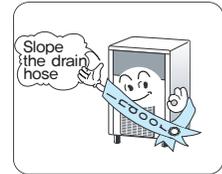
Cautions for Installation

[Location]

Indoor use.....

-Do not install outdoors

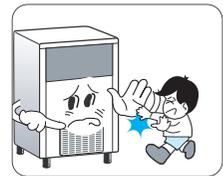
-Lay the drain hose with an appropriate slope for smooth draining.



Away from children's hands.....

-Do not allow a child to take out ice without supervision.

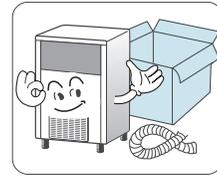
-Do not allow children to play around the ice machine.



Installation

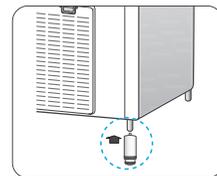
1. Unpacking the product

- Unpack the product and take out the parts packed inside the product.



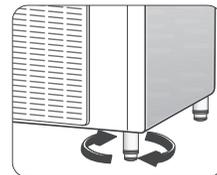
2. Assembling the feet

- Assemble the 4 height adjustable feet on the bottom of the Ice Maker.



3. Level Adjustment

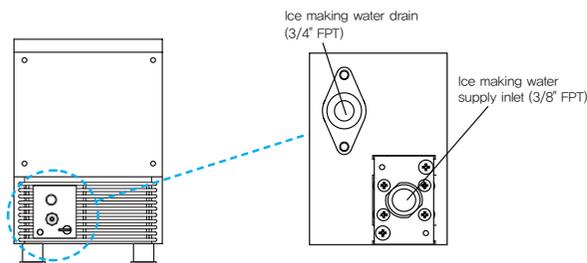
- Adjust the level of the machine with the height adjustable feet. Lift the front side with the front feet so that the machine is inclined backwards a little. (Make the front side higher than the rear side by 1/4-3/8")



4. Connecting water piping

	Appropriate water temperature	Water pressure	Appropriate piping /hose size
Ice making water supply	50 ~ 90 °F	20 ~ 80 psi	3/8" FPT(NPT)
Ice making water drain	-	-	3/4" FPT(NPT)

- Too high temperature of the ice-making water will decrease the amount of ice produced; too low pressure will prevent ice from being made at all. Install an auxiliary pressure pump in this case.



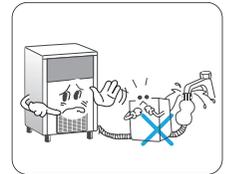
1. Use filtered water or tap water to supply the ice maker.
2. The pressure and temperature of the supply water must be 20 ~ 80 psi, and 50°F ~ 70°F, respectively.
3. Please be reminded that condensation may form on the door or on the drain hose and flow down to the floor.
4. Connect the water supply and drain hoses tightly to prevent unwanted separation.



Correct Operation

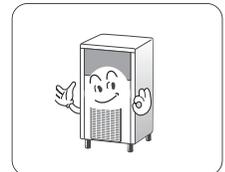
Protecting the water supply hose

- Do not put heavy objects on top of the water supply hose



Operate at appropriate water pressure and temperature, and ambient temperature;

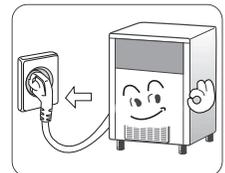
- The pressure and temperature of the supply water must be 20 ~ 80 psi, and 50 °F - 90 °F, respectively, and the ambient temperature must be between 50 ~ 104°F.



Operating Procedures

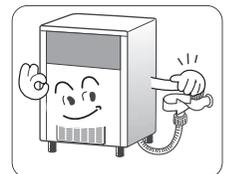
1. Power Supply

- This Ice Maker is designed for indoor use only.



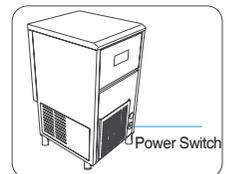
2. Water Supply

- Open the water supply valve to feed water.



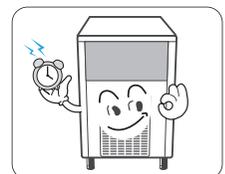
3. Ice Making Operation

- Turn on the power switch located on the front panel.



4. Completing Ice Making Operation

- Operating at appropriate conditions, the first ice making cycle will complete in 20-30 minutes.
- Discard the first batch of ice and consume ice starting from the second ice making cycle.

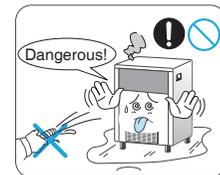


Disassembling, Cleaning

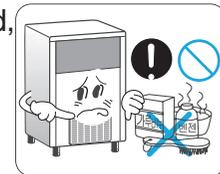
▮ Please read and observe the following instructions ▮

Warning : Unplug the power cord before cleaning the Ice Maker or replacing a part.

Do not spray water on the Ice Maker.
Otherwise, there is danger of current leak, electric shock
and/or fire.

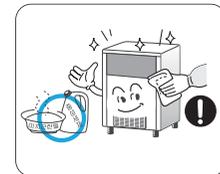


Do not use powder soap, benzene, thinner, hydrochloric acid,
oil, hot water, or wire brush which may damage the product
for cleaning.
Otherwise, the product can be corroded or damaged.



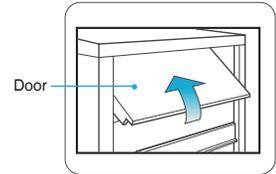
Proper cleaning

- Clean the product with a soft cloth soaked in warm water and/
or a neutral detergent.
- When cleaning with a neutral detergent, wipe the product again with a clean,
wet cloth.

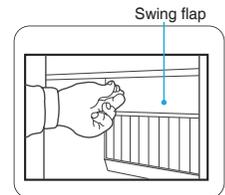


How to clean

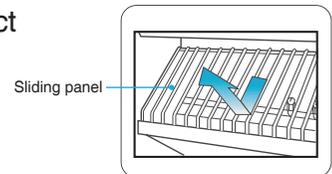
1. Open the door of bin storage



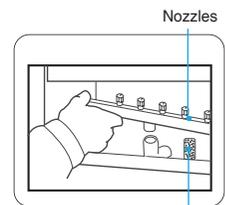
2. Loosen and remove the screws on both sides of the panel, and remove the swing flap.



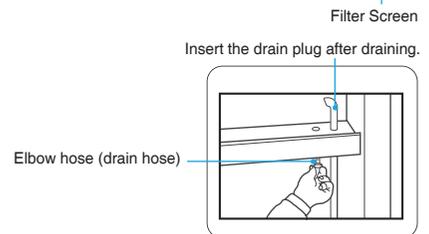
3. Remove the sliding panel and clean-up the product



4. Remove the nozzle assembly and clean the part.



5. To clean-up the water pan, unplug outward.
The water in the pan will drain by itself.



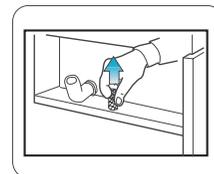
6. Using a sponge block, clean up the dirt in the water pan.

How to clean

7. Remove and clean-up the filter screen.

Caution:

Make sure to reinstall the filter screen. Otherwise, the nozzles may get clogged.



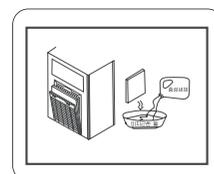
8. As illustrated in the figure on the right, open the Condenser cover; clean the filter with warm water (77°F) and/or a neutral detergent.

Dry the filter element before reinstallation.

※ Clean the filter element at least once a month.

Caution:

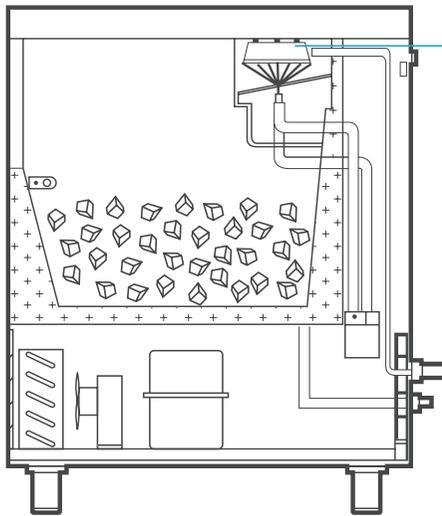
Take care of the sharp fins during cleaning work.



9. Clean-up the evaporator before starting operation.
10. For cleaning, use a kitchenware-grade detergent or other agents that are easily dissolved in water or vinegar. Clean-up the outer surface of the Ice Maker using a soft plastic brush or sponge block and rinse well with clean water.
11. Do not use any detergent or powder which may damage the Ice Maker.
12. For thorough cleaning, repeat the above described cleaning process using an appropriate detergent.
13. After cleaning and/or sterilization, discard the first batch of ice and consume the ice starting from the second cycle.
14. The ice storage must be cleaned at least once a month.



Ice Making and Separation



Evaporator

- ◆ When the ice cubes are completely formed in the Evaporator, the temperature controller is activated and the ice separation process begins.
- ◆ As the Evaporator is inclined, the ice cubes separated by hot gas are dropped and gathered in the ice storage.

| Restarting Procedure |



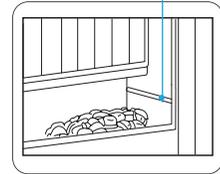
- ◆ Wait for at least 3 minutes before restarting the Ice Maker after shutdown. Restarting the Ice Maker right after shutdown may damage the Ice Maker. 

Checkpoints

| Sensor System |

1. The Ice Maker is designed to include an ice storage container.
2. When the volume of the ice reaches the preset limit, ice formation is automatically stopped by a detector sensor.
3. When the ice cubes are taken out from the machine, the ice detector sensor automatically restarts a new ice making cycle to produce new ice cubes.
4. The Ice Maker operates as a fixed system.

Ice Volume Detector Sensor



Maintenance

1. General Maintenance and Check Procedure

- ① Please observe the installation and operation instructions provided in this User's Manual.
- ② To maintain the proper condition of the Ice Maker and long-term operation without failure, perform the maintenance procedures provided below;

2. Inspection of the Ice Maker

- Make sure to cut-off the main power supply before servicing the machine.
- Check all the lines and joints to prevent leakage.
- Protect the cooling plate from rubbing against another plate and/or vibrating.
- Do not obstruct air way. Allow sufficient ventilation to the Ice Maker.
- Clean the filter installed on the front side of the product at least once a month.



Product specification

ITEMS	UNIT		SPECIFICATIONS			
			IC/WC-0070 -AB	IC/WC-100 -AB	IC/WC-0200 -AB	IC/WC-0280 -AB
Maximum Production Capacity	Lbs/24hour	50°F	63.9	110.2	185.1	209.4
Cooling Capacity	-		Ice generation 30 minutes after the start up.			
Size (without legs)	Width		15.8	20.5	29.3	29.7
	Depth	inch	24.8	24.8	25.3	25.7
	Hight		34.6	30.9	39.7	40.1
Power Supply	V		115V/60Hz			
Weight	Before packaging	lb	110.2	132.2	198.4	242.5
	After packaging	lb	114.6	138.8	205	242.5
Cooling unit	Compressor	HP	0.3	0.44	0.75	1.1
	Refrigerator	Type	R134a	R134a	R404A	R404A
	Condensor	Air	Fin Tube			
	Shape of ice	-	Cubic			
Power consumption	W		280	800	1100	1400
Temp. Control	-		MICOM CONTROL			
Timer Control	-		MICOM CONTROL			
Water Supply Temperature	-		50 ~ 90 °F			

Troubleshooting Chart

Please check the following points before calling for service.

Operating Condition	Check Points	Corrective Action
1. The machine does not run	<ol style="list-style-type: none"> 1. Power supply 2. Power switch position 3. Power supply voltage (115V) 4. After power on and water feed, does the ice sensor work? 	<ol style="list-style-type: none"> 1. Connect power supply 2. Turn on the power switch 3. Check the voltage. Use an exclusive receptacle. 4. Remove the ice.
2. Water supply failure	<ol style="list-style-type: none"> 1. Position of the water supply valve 2. Water supply hose connection 3. Water service condition 	<ol style="list-style-type: none"> 1. Open the water supply valve. 2. Check the joint, and take necessary action 3. If the water service has been cut-off, wait until the service resumes.
3. The machine runs but ice is not formed. (Ice quality or cone-shaped ice cubes)	<ol style="list-style-type: none"> 1. Spray nozzle clogged 2. Water supply condition 3. Compressor function 4. Dust on the front filter- ventilation through the filter 5. Condenser fan motor operation 6. Any heat source near-by 7. Drain hose is too low feeding less water than needed 	<ol style="list-style-type: none"> 1. Clean the nozzle 2. See "Water supply failure." Clean the filter element and water supply valve 3. Contact a qualified technician. 4. Clean the filter element on the front side 5. Contact a qualified technician. 6. Keep away from heat source 7. Adjust height of drain hose.
4. Normal condition	<ol style="list-style-type: none"> 1. Light water flow is normal to allow for the ice cubes to flow. 2. The Ice Maker may vibrate a little, which is normal 	
5. Over-cooling	<ol style="list-style-type: none"> 1. Ambient temperature lower than 41°F 2. Insufficient water supply 	<ol style="list-style-type: none"> 1. Keep the ambient temperature above 41°F 2. Insufficient water causes over-cooling. Adjust water feed rate
6. Abnormal noise	<ol style="list-style-type: none"> 1. Check the evenness/level of the floor 2. The machine is close to a wall 	<ol style="list-style-type: none"> 1. Adjust the level. 2. Secure about 8" of distance from the wall
7. Water in the ice storage	<ol style="list-style-type: none"> 1. Foreign matter in the drain hose 	<ol style="list-style-type: none"> 1. Remove the foreign matter from the drain hose





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