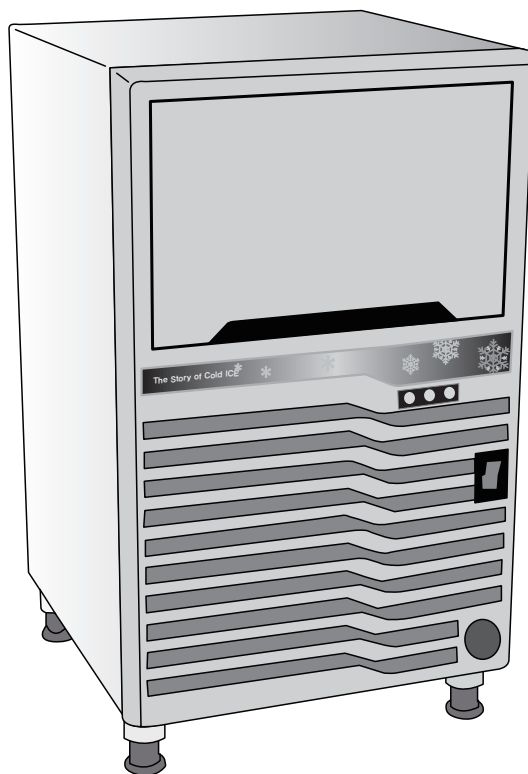


# ICE Maker User's Manual

## WU-0104-AC / AH

- This machine cannot be used in any other country where the electric voltage for its power supply is not available.
- This product is designed for indoor installation. Please be sure to install it indoors.
- The external appearance, design, color, and components of this machine may be changed without prior notice.

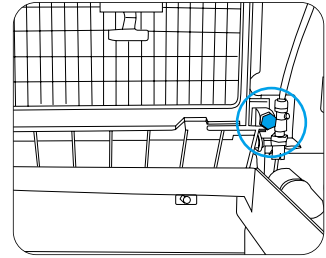


# Inspection Items

## | Sensor system |

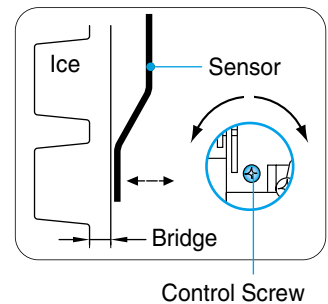
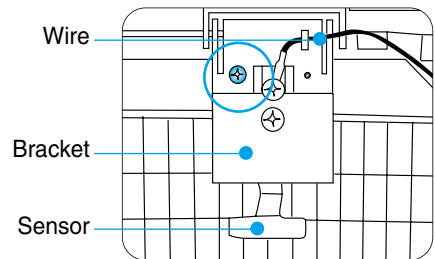
### 1. Ice full sensor

- This ice maker contains the ice box.
- When the ice level reaches the limit, the automatic sensor stops the ice making operation.
- When ice is removed from the ice maker, the automatic sensor starts the ice making operation so new ice can be made.
- This ice maker operates automatically.



### 2. Ice thickness sensor

- To maintain the ice bridge thickness of 3.2 mm(0.12in), the height of the sensor is fixed by factory default.
- When ice is too thick, rotate the control counter-clockwise for adjusting the thickness.
- If you want to make the ice thicker, rotate the control screw clockwise. To make it thinner, rotate the control screw counter-clockwise. If you rotate the control screw one round, as shown in the right figure, the sensor moves in the arrow direction and the ice thickness is adjusted by 0.7mm(0.03in).
- Periodically clean the sensor part. When contaminated, the ice may not be even in thickness.



### Caution

Be careful for the wire and bracket of the ice thickness sensor not to limit the sensor movement.



# Contents

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# Features of the Product

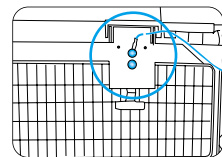
Thank you for purchasing this product.

Read through this manual carefully because it is intended to prevent any loss or accident caused by careless use and let you use the product with convenience and ease.

**New technology from “Craftsmanship,” quick freeze for all seasons, and the best ice making capability in the same class!!!**

## 1. MICOM controller

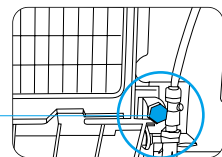
Provides the optimal ice making environment through the automatic ice level control sensor.



## 2. Equipped with the ice level control sensor

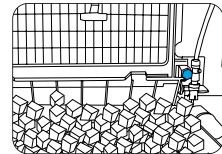
The sensor provides the functions for automatic ice level control when full, power saving, and water saving.

Ice full sensor



## 3. Pure ice crystals

Pure ice crystals are generated using the freezing point depression method.



## 4. Low noise and silent operation

The highly efficient and low noise fan realizes the most silent and comfortable operation in the same class.



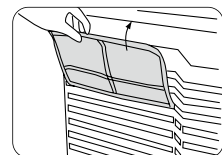
## 5. Ergonomic design

Adoption of the sliding door with an ergonomic design enables convenient use.



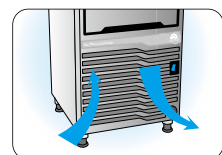
## 6. Convenient cleaning

The condenser filter minimizes dust accumulation.



## 7. Increased usability of open space

It can increase usability of open space during installation of the front paths for inhale and exhale due to the built-in design.



# Safety Warning

In order to prevent accidents caused by wrong use and to conveniently use the product, be cautious of the following: Be sure to understand the following symbols and their descriptions first.



If you neglect this symbol and wrongly use the product, it may cause a fire, serious injury or death.

**Danger**



If you neglect this symbol and wrongly use the product, it may cause a fire or injury.

**Warning**



If you neglect this symbol and wrongly use the product, it may cause a personal injury or a property loss.

**Caution**

- ※ Personal Injury: Minor cuts, burns (high or low temperature) or electric shocks that do not need hospitalization or long-term hospital visiting.
- ※ Property Loss: The loss on houses, household goods, livestock, bedding, and such.

Each symbol has the following meanings:



General danger, warning, and caution



Must be grounded



No contact!



Do not disassemble!



General thing forbidden



Risk of electric shock!



Keep from fire!



Risk of burn!

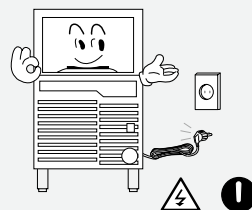


Thing to be followed



**Warning**

- ◆ Make sure that the power supply conforms to the specifications.
  - Check whether the voltage of the power supply matches the value specified on the name panel.
  - The product name panel is located at the right corner.
  - If the voltage of the power supply is not matched, it may cause a product failure, electric shock or fire.
  - When the product is moved, be sure to check whether the supplied power matches the one of the name panel.

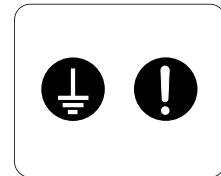




## Warning

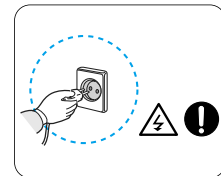
### ■ The Ice Machine must be earthed.

- 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.



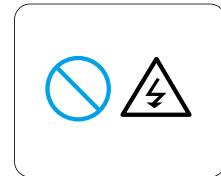
### ■ Use the outlet that is connected to the circuit breaker (sensitivity current: 30 mA or below).

- When a general outlet is used, it may cause a failure or electric shock.



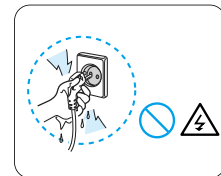
### ■ When removing the power plug, do not hold the power cord.

- If you pulling out the power cord, it may cause damage to the cord, electric shock or fire.
- Hold the body of the plug when removing the power plug.



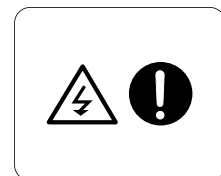
### ■ Do not insert or touch the power plug with wet hands.

- It may cause an electric shock.



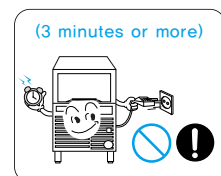
### ■ Check whether any foreign material is covered on the power plug and insert it fully into the outlet.

- When the pin or contact on the power plug has dust or water or bad connection, it may cause an electric shock or fire.



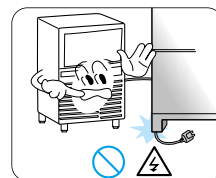
### ■ To connect the power plug again after pulling it off, try after 3 minutes or more elapsed.

- If you connect it with no delay, it may cause a failure due to operation load.

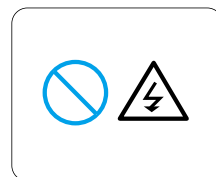


## **Warning**

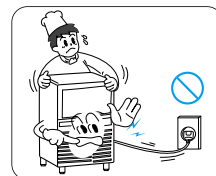
- Do not forcibly bend the power plug or place any heavy material on it. It cause damage to the plug.
  - It may cause an electric leak or electric shock.



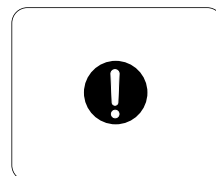
- If the power cord is damaged or the metal part of the power plug is loosely connected, do not use the power cord.
  - It may cause an electric shock or fire. So contact the service agency if required.
  - When the power cord is damaged, do not arbitrarily replace it but contact the service agency for it.



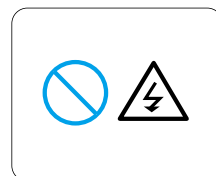
- Do not pull off the power plug nor move the product while operation.
  - It may cause a failure or fire.
  - It may cause a leak of water.



- Handling for abnormal cases
  - When earthquake or fire occurs, or strange sound or smell is detected, stop operation right away and pull off the power plug from the outlet.



- Do not use the product in a humid or damp place.
  - Do not move it to the bathtub or water bin.
  - Do not use it in the bathtub, shower room or swimming pool.
  - When water permeates through the internal part of the product, it may cause a failure or electric shock.



### **Warning**

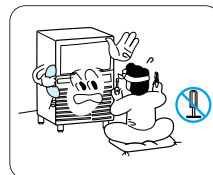
- ◆ This unit contains R-600a which is a flammable hydrocarbon.
  - It is safe for regular use. Do not use sharp objects to expedite defrosting. Do not service without consulting the "R-600a Handling" Ssection included in this user guide. Do not damage the refrigerant circuit.
  - Before you throw away your old appliance, take off the doors and leave cases in place so children may not easily climb inside.
  - This appliance uses flammable gas cyclopentane as a blowing agent for its insulation. Please check and obey all federal, state, and local regulations regarding the environmentally safe disposal of this product.



## Warning

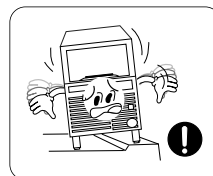
- Do not let the person other than service personnel disassemble, repair or modify the product.

- Arbitrary disassemble, repair or modification may affect the product safety.
- If any failure is detected, refer to this manual or contact the service agency.



- Install the product on an even and solid place.

- When you use the product in unstable status, it may cause a failure or deformation of the product.
- When the product is used in the moving vehicles such as car and ship, it may be turned over.



- Do not place flammable materials (sprays, butane gas cans, LPG, etc.) near the product.

- It may cause an explosion or fire.



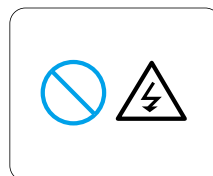
- Do not spray with an insecticide, flammable spray or perfume near the product.

- It may cause a product failure or fire.



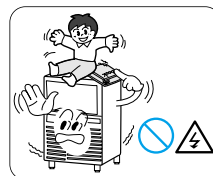
- Do not insert foreign materials such as pins, sticks, coins, and the like inside the product.

- Strongly warn children about its danger.
- It may cause an electric shock or product damage.



- Do not apply excessive force or external load to the product.

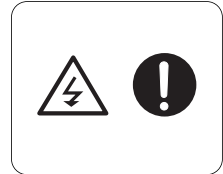
- The resulted damage may cause an overheat or fire.





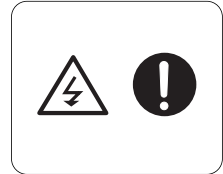
## Warning

- For cleaning and maintenance, pull off the power plug and close the water supply valve. Perform the work after the operation stops.
  - It may cause an electric shock or injury.



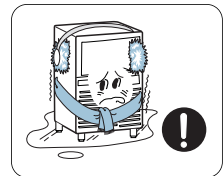
Be sure to clean the condenser filter on the front panel one or more times in a month.

- When dust is accumulated in the condenser filter, ventilation is not made. So it may cause low product performance, excess electric charge, and product failure.



Install the product in the place where the temperature is within 5 to 38°C(41 ~ 100.4°F).

- In case of 5°C(41°F) or below, it may cause winter snowing.
- In case of 38°C(100.4°F) or above, it may cause a product failure.



Use the product while the supply pressure is within 1 to 5 kgf/cm<sup>2</sup> (14.22 ~ 71.12 psig) and the water temperature is within 5 to 32°C(41 ~ 89.6°F).

- It may cause an electric shock or injury.



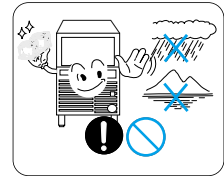
When installing the product, be sure to connect to the cold water pipeline.

- If you connect to the hot water pipeline, it may cause a product failure.
- Connect potable water supply only.
- The new hose-sets supplied with the appliance are to be used and that old hose-sets should not be reused.

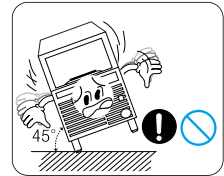


## Warning

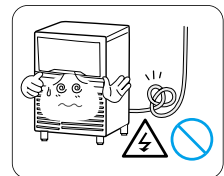
- Be sure to use the drinking water supply.



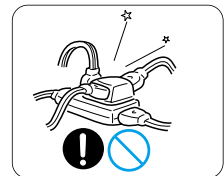
- When moving the product, do not go over 45 degrees on the incline.
  - It may cause a product failure.



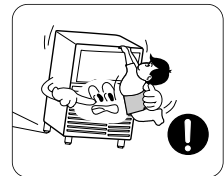
- Do not make the drain hose twisted or kinked.
  - It may cause water leak, failure or no water supply.



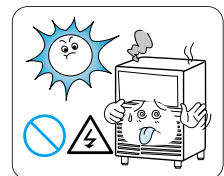
- The outlet must be occupied by this ice maker only.
  - When multiple plugs are connected through the power strip, it may cause a fire.



- Do not let children climb or hang on the ice maker.
  - The ice maker's fall may cause an injury.



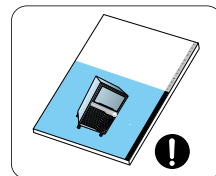
- Do not use the product outdoors.
  - This product is for indoor use (5 to 38°C(41 ~ 100.4°F)).
  - When the product is used outdoors, it may cause a deformation, discoloration or electric shock.



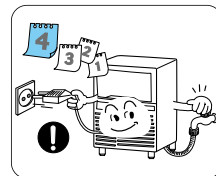
# Safety Cautions

## Caution

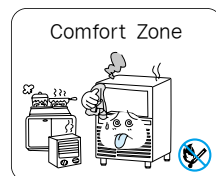
- Use this product as described in the user manual.
  - If you do not follow the instructions, it may cause an electric shock or property loss.
  - When transferring the product to another person, transfer the user manual also.



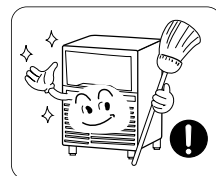
- When the product is not used for a long time (e.g. long-term outing), stop water supply, remove ices from the ice maker, and pull off the power plug.



- Do not use the product near the fireplace.
  - It may cause a fire.



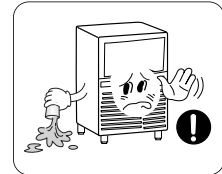
- Install the product in a sanitary place.
  - Because you can eat the ice, install the product in a sanitary and clean place.



## Caution

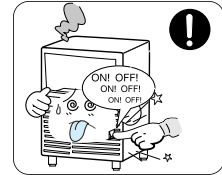
- When storing the ice made for a long time, move it to the refrigerator.

- The ice box in the ice maker has no freezing function except for the coldness of ice.
- If the ice is stored in the ice box for a long time, the ice melts. So store the ice in the refrigerator.



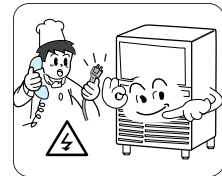
- Do not frequently press the operation switch.

- If you frequently pressed the operation switch, it may cause a product failure.



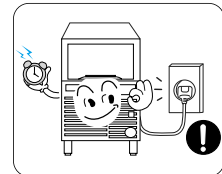
- When water leak happens, pull off the power plug, close the water supply valve, and contact the purchased site or customer center.

- If you pull off the power plug with wet hands, it may cause an electric shock.



- Use the product in two or more hours after installation.

- It takes the time to stabilize the refrigerant in the ice maker.



Note



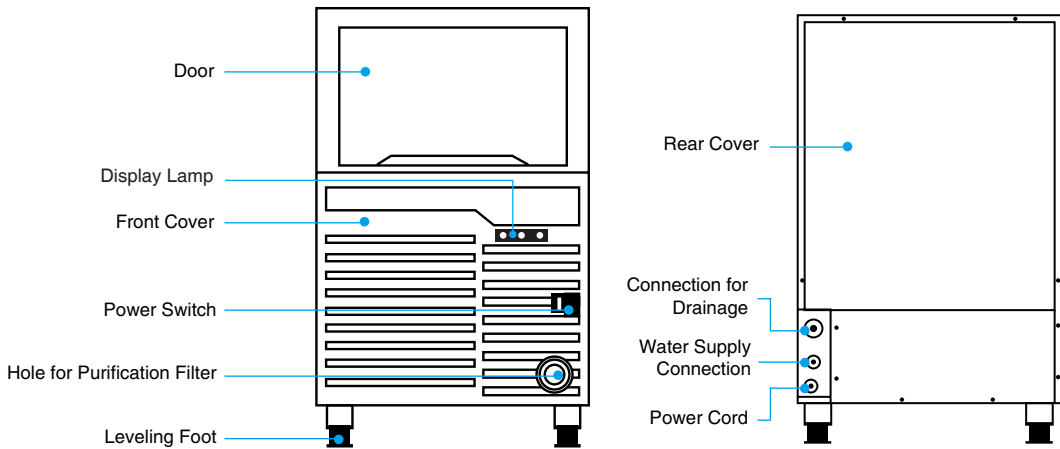
Please frequently clean the ice box in the ice maker for sanitation.



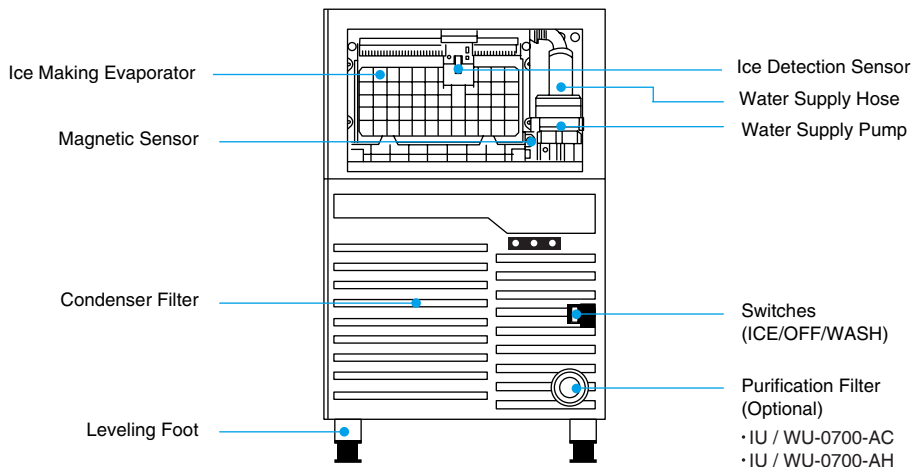
# Part names

## | Front view |

## | Rear view |



## | Detailed drawing |

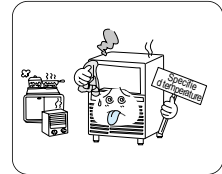


# Cautions for Installation

## Installation place

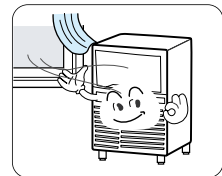
Install the product in the place with no heat generator.....

- Install the product away from the heat generator such as heater and gas stove.  
Do not install it in the place where the ambient temperature is within 5 to 38°C.



Install the product in a place that has good ventilation.....

- Bad ventilation causes a bad ice making performance.



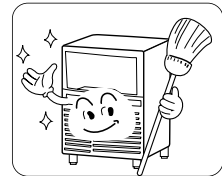
Install the product in an even and flat place.....

- Unstable installation causes vibration, noise, ice non-forming, and low performance. (Recommended incline: within 1 degree)



Install the product in a sanitary place.....

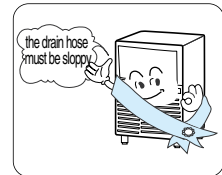
- Because you can eat the ice, install the product in a sanitary and clean place.  
- Be sure to use the drinking water supply.



## Installation place

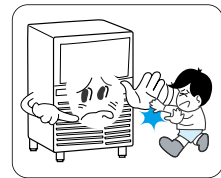
Install the product inside a house.....

- Do not place the product outdoors.
- Place the drain hose to slope downward for better drainage.



Install the product in the place where children cannot access.....

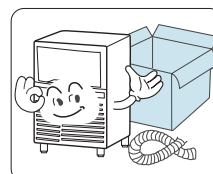
- Be cautious for preventing children's accidents. Especially, keep children from playing with ice in the ice manufacturer.



# Installing the Product

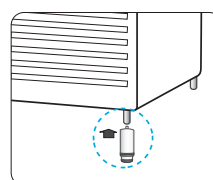
## 1. Removing the packing box

-After removing the packing box of the ice maker, take out the provided parts from the ice maker.



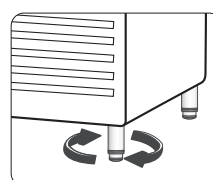
## 2. Attaching the Feet

- Attach four height control stoppers among the provided parts to the bottom of the product.



## 3. Adjusting the horizontal level

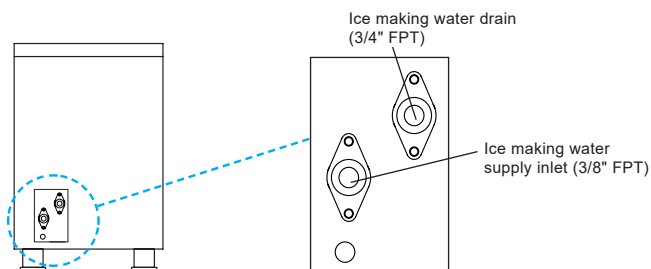
- By rotating the height control stoppers, adjust the horizontal level. (Use the front stoppers)



## 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.



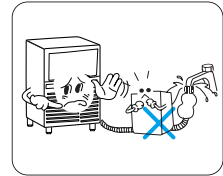
1. Be sure to use the drinking water supply.
2. Use the product while the supply pressure is within 1 to 5 kgf/cm<sup>2</sup>(14.22 ~ 71.12 psig) and the water temperature is within 5 to 32°C(41 ~ 89.6°F)
3. Dews can form and flow down on the product door and drain hose so pay attention to that.
4. Tightly fasten the water supply hose and drain hose not to be pulled out.
5. The equipment is to be installed with adequate backflow protection to comply with applicable federal, state, and local codes.



# Correct Operation

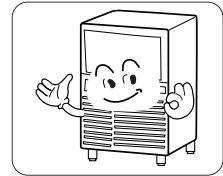
## Protection of the water supply hose

- Do not place any heavy material on the water supply hose or nor walk on it.



## Adequate water pressure, water temperature, and ambient temperature

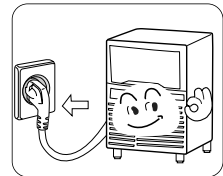
- Use the product while the supply pressure is within 1 to 5 kgf/cm<sup>2</sup> (14.22psig~71.12psig), the water temperature is within 5 to 32°C, and ambient temperature is within 5 to 38°C



## Operation procedure

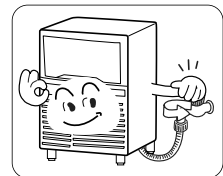
### 1. Connecting power

- This ice maker is designed power supply and using an exclusive receptacle.



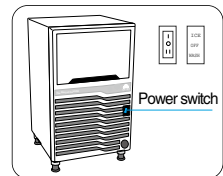
### 2. Supplying water

- Open the faucet to supply water.



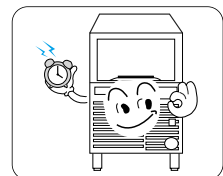
### 3. Starting operation

- Turn off the power switch 'ICE' on the front panel.



### 4. Ending the operation

- According to the ambient temperature and water temperature, it may differ but a round of ice making ends in 20 to 30 minutes after the operation starts.
- In case of initial use or use after cleaning, remove the first made ice and use the ice made from the second time.



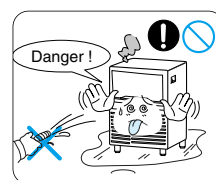
# Cleaning and Disassembling

Read the following carefully for proper handling.!

**Warning :** Pull off the power plug before cleaning the product or replacing the parts of it.

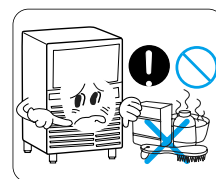
It may cause an electric shock or fire.

- Do not directly spray water on the ice maker. It may cause a product failure, electric leak or electric shock.



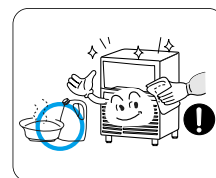
It may cause erosion or damage to the product.

- Do not use the soap powder, benzene, thinner, muriatic acid, petroleum, boiling water, and touch brush because they can cause erosion or damage to the product.



When using the detergent

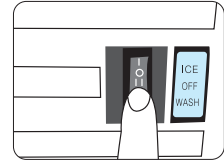
- Wipe the product after soaking the soft cloth with lukewarm water or neutral detergent.
- When using the neutral detergent, be sure to wipe the product with a clean wet towel again



# Cleaning Method

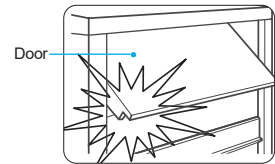
## 【Cleaning the ice box and water tank】

1. Set the position of the power switch (ICE/OFF/WASH) to OFF.
2. Remove the power cord from the outlet.
3. Block the water supply.
4. Open the door of the ice maker.



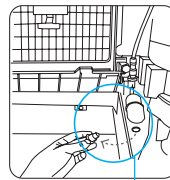
**Caution**

Be careful not to bump your head into the edge of the door while it is open.

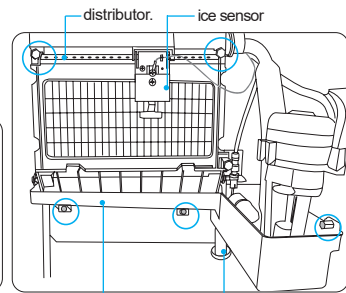


5. Remove the drain plug down from the water tank.
6. Rotate three bolts on the bottom counter clockwise clockwise to release them, pull out the drain hose from the drain hole, and remove the water tank.

- Remove the ice sensor from the distributor.
- Remove two screws on the left and the right of the distributor.



packing down

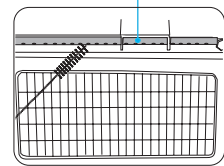


Water tank

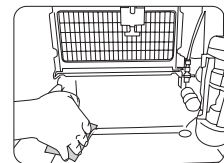
Drain hose

drain plug

7. Dilute 10g (0.35oz) of neutral detergent (baking soda, neutral detergent for dishwashing or as equals to) in 3 liters (0.79gal) of warm water (35 to 45°C (95~113°F)), soak the clean cloth with the cleaning liquid, and wipe the ice tank and water tank.
  - Remove scale from the nozzle hole of the distributor.



8. After cleaning, connect the drain plug and drain hose again and tighten three bolts.
  - Connect the ice sensor again.



※Clean them one or more times every month.



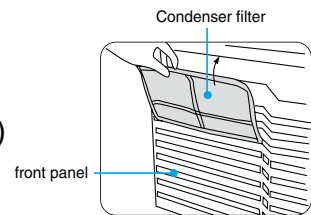
**Caution**



The surface temperature of the pump motor is very hot. So when any part of your body contacts with it, it may cause a burn. When the machine is cooled down enough after turning off the power, start cleaning

## ■ Cleaning the condenser filter ■

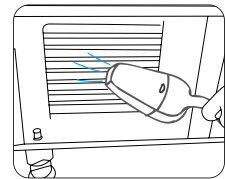
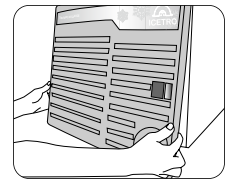
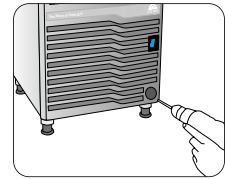
1. After pulling up the condenser filter that is inserted in the front panel, use a vacuum cleaner for removing dust. Wipe the filter with lukewarm water (approx. 25°C(77°F)) and neutral detergent, dry it, and insert it into the front panel.



※ Clean them one or more times every month.

## ■ Cleaning the condenser ■

1. Pulling up the condenser filter that is inserted in the front panel.
2. Release screws (2 EA) at the bottom on the front panel.
3. Separate the front panel by pulling it down.
4. Use a vacuum cleaner or hand cleaner to remove dust from the condenser.
5. After completion, insert the front cover into the upper holes and push it up.
6. Tighten two screws of the panel.



※ Clean the condenser one time every three months.



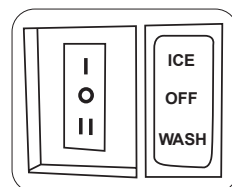
Be careful while cleaning because the pins are very sharp.

**Caution**



## 【Using the WASH mode】

1. Set the position of the switch located at the lower right to OFF.
2. After removing ice, dispose it or store it in the ice box or refrigerator.
3. Dilute 30g(1.058 oz) of neutral detergent in 8 liters(2.11 gal) of warm water (35 to 45°C (95 ~ 113°F)) and pour it into the water tank.
4. Press the switch for WASH. Then the pump motor operates for about one and half minutes and stops for 30 seconds.  
This operation repeats five times.
5. If necessary, perform the above mentioned procedure 2 to 3 times and add more detergent into the water tank, if required.
6. After diluting the cleaner in water, clean the ice box, connection hose, ice dipper, Water pump, Wire and water tank with the mixed solution.
7. After completion, insert the removed ice into the box.



### Caution

- Periodically clean the ice dipper. Do not clean it with other food containers together.
- The handle of the ice dipper is easily contaminated by germs when exposed to hands.



### Warning

- When it comes into contact with the skin, wash it with water.
- For storing detergent, keep out of children's reach.

8. Clean the ice making part before operation.
9. For cleaning, use the dishwash detergent or any material that easily melts in water or vinegar. For removing residual things on the surface of the ice maker, use a soft cloth or sponge and rinse it enough with drinking water.
10. Never use the detergent or powder that can cause damage to the product.
11. For perfect cleaning, use a proper detergent as mentioned above and repeat the procedure.
12. After completion, rinse them with drinking water, dispose the first made ice, and use ice made from the second time
13. For container sterilization, be sure to perform it one or more times every month .

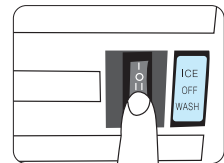
# Sanitizing Procedure

Use a sanitizer to remove algae or sticky substances (sodium hypochlorite or equals to)  
Do not use a Sanitizer to remove calcic substances or other minerals.

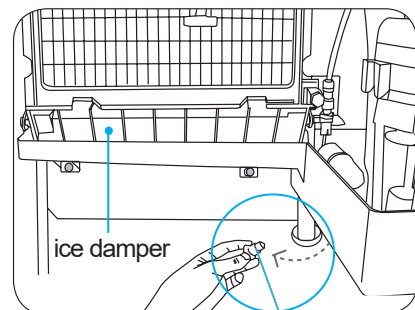
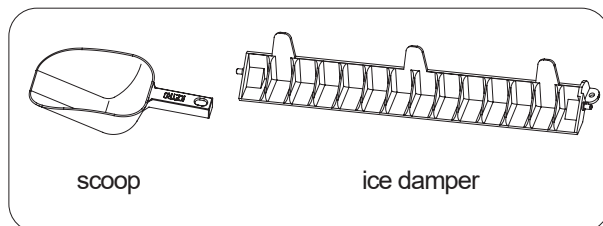
1. When the deicing cycle has been completed and the ice has been fallen off from the Assembly Evaporator, turn off the main switch.



Never apply force to the Assembly Evaporator (it may be broken).



2. Remove ice from the inner case, and close the water supply valve.
3. Put 0.013gal (50ml) of a Sanitizer into vessel sheet. (Approximately 5% of the volume (0.264gal (1l)) of the vessel sheet).
4. To start the first Sanitizing Procedure, set the main switch to "WASH" position. The pump motor will repeat 5 cycles of running for about 90 seconds and being stopped for 30 seconds.
5. The Sanitizing Procedure will take about 10 minutes.
6. After 10 minutes, turn the main switch to OFF position.
7. The ice damper assembly and ice scoop which can be disassembled should be removed and sanitizer with 0.264gal (1l) of sanitizer diluted in 5.4gal (20l) of water.



8. Reassemble the Sanitized components and parts.
9. When the first Sanitizing Procedure has been completed, remove the packing down from the inner vessel sheet downwards, remove the water inside the packing down and insert it back into the vessel sheet.
10. Conduct the second Sanitizing Procedure.
11. Open the water supply valve to pour water into the vessel sheet. Put 0.013gal (50ml) of Sanitizer into the water. Close the water supply valve. Set the main switch to "WASH" position to Sanitization.





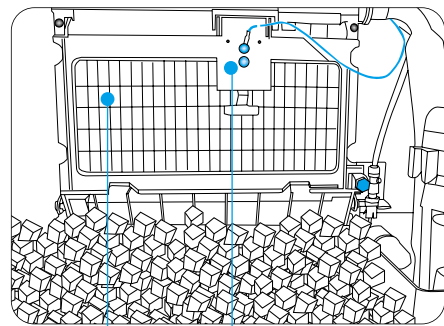
## Sanitizing Procedure

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12. Turn off the main switch after 10 minutes.
13. Remove the packing down from the inner vessel sheet downwards, remove the water inside the packing down and insert it back into the vessel sheet.
14. Proceed with the third Sanitizing Procedure in the same manner as that of the second Sanitizing Procedure (repeat paragraphs 11~13).
15. Proceed with washing process.
16. Open the water supply valve to get water in the vessel sheet. Set the main switch to "WASH" position to execute washing process.
17. After 10 minutes, turn the main switch to OFF position and close the water supply valve.
18. Remove the packing down from the inner vessel sheet downwards, remove the water inside the packing down and insert it back into the vessel sheet.
19. When the Sanitizing Procedure and washing processes have been completed, open the water supply valve and operate the ice maker ("ICE" position). Dispose of the first ice and use the ice from the second icing cycle.

# Ice Making and Detachment Operations

- ◆ When ice is made in the ice making evaporator, the ice thickness sensor operates to start ice detachment.
- ◆ Because the ice making evaporator is sloped in dice shape, ice detachment is performed using a high temperature gas and the ice made is collected in the ice box.



Ice making evaporator

Ice sensor

## Maintenance

### 1. General maintenance and check

- The user must install and use the product as mentioned in this manual.
- If you cannot understand the installation procedure and safety instructions, contact the service agency.
- To use the product for a long time, maintain the product according to the following procedure every month.

### 2. Checking the ice maker

- Be sure to turn off the power first.
- For preventing water leak, check all connection parts and pipelines.
- Be careful not to have vibration caused by rubbing between the cooling plate and other plates.
- For ventilation, do not place any other materials near the ice maker.
- Be sure to clean the condenser filter on the front panel one or more times in a month.

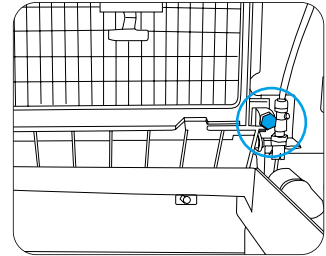


# Inspection Items

## | Sensor system |

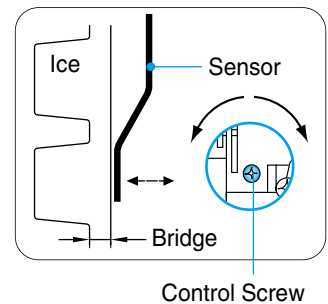
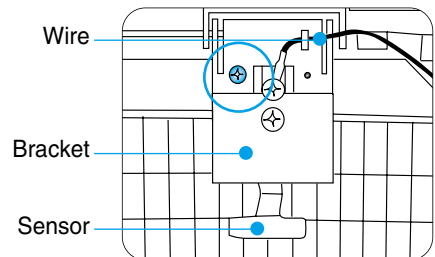
### 1. Ice full sensor

- This ice maker contains the ice box.
- When the ice level reaches the limit, the automatic sensor stops the ice making operation.
- When ice is removed from the ice maker, the automatic sensor starts the ice making operation so new ice can be made.
- This ice maker operates automatically.



### 2. Ice thickness sensor

- To maintain the ice bridge thickness of 3.2 mm(0.12in), the height of the sensor is fixed by factory default.
- When ice is too thick, rotate the control counter-clockwise for adjusting the thickness.
- If you want to make the ice thicker, rotate the control screw clockwise. To make it thinner, rotate the control screw counter-clockwise. If you rotate the control screw one round, as shown in the right figure, the sensor moves in the arrow direction and the ice thickness is adjusted by 0.7mm(0.03in).
- Periodically clean the sensor part. When contaminated, the ice may not be even in thickness.



#### Caution

Be careful for the wire and bracket of the ice thickness sensor not to limit the sensor movement.

# R-600a Handling

## REQUIREMENT FOR SERVICE AND INSTALLATION OF APPLIANCES USING FLAMMABLE REFRIGERANTS



### Danger

- . Never apply a torch to a charged R-600a refrigeration system. R-600a is considered non-toxic but is flammable when mixed with air.
- . Under no circumstances shall the potential sources of ignition be used in the searching for or detection of refrigerant leaks. Do not pierce or burn.
- . The appliance shall be stored in a room without continuously operating ignition sources.



### Warning

- . Only skilled and well-trained service technicians permitted to service R-600a equipped products.
- . Replace components only with parts specified by the manufacturer. Other parts can result in the ignition of refrigerant in the atmosphere from a leak.
- . Prior to beginning work on systems containing FLAMMABLE REFRIGERANTS, safety checks are necessary to ensure that the risk of ignition is minimized.
- . Work shall be undertaken under a controlled procedure to minimize the risk of a flammable gas or vapor being present while the work is being performed.
- . If any hot work is to be conducted on the refrigerating equipment or any associated parts, appropriate fire extinguishing equipment shall be available on hand. A dry chemical or CO2 fire extinguisher should be adjacent to the charging area.
- . Gloves and Eye Protection must be used.
- . Use only a refrigerant grade R-600a from a properly labeled container.
- . Do not remove or alter any R-600a labeling on the product.
- . During repairs to sealed components, all electrical supplies shall be disconnected from the equipment being worked upon prior to any removal of sealed covers, etc.
- . If the evaporator is cold prior to service, it must be thawed prior to service.
- . When using a vacuum pump, start pump before opening refrigeration system. Vacuum pump and recovery equipment should be at least 10 feet from the work area.



A3

Warning sign: Risk of fire / Flammable material

This warning sign indicates the presence of flammable materials.

It alerts users to the risk of fire or explosion.

Avoid open flames, sparks, and smoking near this area or equipment.

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## R-600a SPECIFICATION

R-600a is considered non-toxic but is flammable when mixed with air.

R-600a is heavier than air, do not allow any leakage/migration to low areas such as basements and stairs. Work in confined spaces shall be avoided.

Be aware that refrigerants may not contain an odor and color.

## LEAK DETECTION

The area shall be checked with an appropriate refrigerant detector prior to and during work, to ensure the technician is aware of potentially toxic or flammable atmospheres.

Ensure that the detector is not a potential source of ignition and is suitable for the refrigerant used.

Electronic leak detection or soap solution can be used to check for nitrogen/helium leaks.

If a leak is suspected, all naked flames shall be removed/extinguished.

If a leakage of refrigerant is found which requires brazing, all of the refrigerant shall be recovered from the system, or isolated (by means of shut off valves) in a part of the system remote from the leak.

The high side of the refrigeration system (compressor discharge to outlet of drier) must be leak tested with the compressor running.

The low side of the refrigeration system (evaporator, compressor and suction line) must be leak tested with the compressor off (equalized pressure).



**Warning**

• Only skilled and well-trained service technicians permitted to service R-600a equipped products.



## NO IGNITION SOURCES

All possible ignition sources, including cigarette smoking, should be kept sufficiently far away from the site of installation, repairing, removing and disposal, during which refrigerant can possibly be released to the surrounding space.

Prior to work taking place, the area around the equipment shall be surveyed to make sure that there are no flammable hazards or ignition risks. “No Smoking” signs shall be displayed.

## VENTILATED AREA

A degree of ventilation shall continue during the period that the work is carried out. The ventilation should safely disperse any released refrigerant and preferably expel it externally into the atmosphere.

## CHECKS TO THE REFRIGERATING EQUIPMENT

Where electrical components are being changed, they shall be fit for the purpose and to the correct specification. At all times, the manufacturer’s maintenance and service guidelines shall be followed. If in doubt, consult the manufacturer’s technical department for assistance.

## CHECKS TO ELECTRICAL DEVICES

Repair and maintenance to electrical components shall include initial safety checks and component inspection procedures.

If a fault exists that could compromise safety, then no electrical supply shall be connected to the circuit until it is satisfactorily dealt with.

Initial safety checks shall include:

- that capacitors are discharged: this shall be done in a safe manner to avoid possibility of sparking;
- that no live electrical components and wiring are exposed while charging, recovering or purging the system;
- that there is continuity of earth bonding.



**Warning** . Only skilled and well-trained service technicians permitted to service R-600a equipped products.

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## REFRIGERANT CHARGING

No air is ever to be allowed inside the refrigeration system (R-600a refrigerant or dry nitrogen only).

Ensure that contamination of different refrigerants does not occur when using charging equipment. Hoses or lines shall be as short as possible to minimize the amount of refrigerant contained in them.

Cylinders shall be kept in an appropriate position according to the instructions.

Ensure that the REFRIGERATING SYSTEM is earthed prior to charging the system with refrigerant.

Prior to recharging the system, it shall be pressure-tested with the appropriate purging gas.

The system shall be leak-tested on completion of charging but prior to commissioning.

A follow up leak test shall be carried out prior to leaving the site.

## REFRIGERANT RECOVERY

R-600a has been exempted from recovery/reclaiming requirements by the US EPA.

Recovery/Reclaiming equipment must be approved for use with R-600a.

When transferring refrigerant into cylinders, ensure that only appropriate refrigerant recovery cylinders are employed.

Do not mix refrigerants in recovery units and especially not in cylinders.

Do not overfill cylinders (no more than 80 % volume liquid charge).



**Warning**

• Only skilled and well-trained service technicians permitted to service R-600a equipped products.



## SYSTEM REPAIR

Be aware that malfunction of the equipment can be caused by refrigerant loss and a refrigerant leak is possible.

Discharge capacitors in a way that won't cause any spark.

When brazing is required, Safely remove the refrigerant following local and national regulations. Take care that the drained refrigerant will not cause any danger. Take special care that drained refrigerant will not float back into the building.


Carry out a leak test before charging with refrigerant.

## DECOMMISSIONING / DISPOSAL


If the unit is being removed from service for disposal, check and obey all federal, state, and local regulations regarding the disposal and recycling of refrigeration appliances, and follow these steps completely:

- Remove all consumable contents from the unit. Unplug the electrical cord from its socket.
- Remove the door(s)/drawer(s).
- The REFRIGERANT CHARGE is to be removed before decommissioning.
- Ensure sufficient ventilation at the equipment location.
- Discharge capacitors in a way that will not cause any spark.
- Put a label on the equipment that the refrigerant is removed.
- Cut out the compressor and drain the oil.

## COMPRESSOR REPAIR

 **Danger** . Failure to follow electrical safety measures may result in serious injury, fire or death.

- . Never handle the unit in wet conditions as this can pose a severe danger of electric shock.
- . Burns from hot or cold surfaces can cause serious injury.

 **Warning** . Only skilled and well-trained service technicians permitted to service R-600a equipped products.

# Before Calling Service

If the ice maker operation is not in good status, check the following items.  
If the symptom still persists, contact the purchased site.

Operation Status	Check Item	Solution
1. The ice maker does not operate.	<ol style="list-style-type: none"> <li>1. Power is supplied?</li> <li>2. The power switch is turned off?</li> <li>3. The supplied power is within 115 V <math>\pm</math> 10%.</li> <li>4. After power and water supply, the ice detection sensor operates?</li> <li>5. The ice damper is open?</li> <li>6. The ambient temperature of the ice maker decreases.</li> <li>7. The ice making level is appropriate?</li> <li>8. The ice maker is contaminated?</li> </ol>	<ol style="list-style-type: none"> <li>1. Supply power.</li> <li>2. Set the toggle switch to "ICE."</li> <li>3. Check the power and use the dedicated outlet.</li> <li>4. Remove ice.</li> <li>5. Let the damper freely rotate for vertical movement.</li> <li>6. The ambient temperature must be 5°C or above.</li> <li>7. Adjust the plotter level.</li> <li>8. Perform cleaning and sterilization.</li> </ol>
2. Water is not supplied.	<ol style="list-style-type: none"> <li>1. The water supply valve is closed?</li> <li>2. The water supply hose is properly installed?</li> <li>3. The agency blocked water supply?</li> </ol>	<ol style="list-style-type: none"> <li>1. Open the water supply valve.</li> <li>2. Make correction after checking.</li> <li>3. Wait for water supply from the agency.</li> </ol>
3. The ice maker operates but ice is not made well. (Ice non-forming)	<ol style="list-style-type: none"> <li>1. The water supply hose is closed?</li> <li>2. Water is not supplied.</li> <li>3. The compressor properly operates?</li> <li>4. Ventilation is not properly done due to dust in the filter on the front panel?</li> <li>5. The fan motor in the condenser operates?</li> <li>6. Is there any heat generator near the product?</li> <li>7. The position of the drain hose is too low to supply enough water?</li> <li>8. The ice made is too thin or thick?</li> <li>9. The water in the water tank is not sufficient?</li> </ol>	<ol style="list-style-type: none"> <li>1. Remove foreign materials in the water supply hose.</li> <li>2. After checking the pump motor status, contact the after-sales center.</li> <li>3. After checking, contact the a qualified technician.</li> <li>4. Remove dust from the filter on the front panel and perform cleaning.</li> <li>5. After checking, contact the a qualified technician.</li> <li>6. Keep the product away from the heat generator.</li> <li>7. Adjust the height of the drain hose.</li> <li>8. Adjust the control bolt of the ice thickness sensor.</li> <li>9. Adjust the plotter level.</li> </ol>
4. The following cases are not failures.	<ol style="list-style-type: none"> <li>1. Water flows into the ice box in some degree for ice flexibility. So it is not a failure.</li> <li>2. While the ice maker operates, a little vibration can follow. It is not a failure.</li> </ol>	
5. The ice is too much frozen.	<ol style="list-style-type: none"> <li>1. The ambient temperature of the installed place is below 5°C?</li> <li>2. The supplied water is insufficient?</li> </ol>	<ol style="list-style-type: none"> <li>1. Under 5°C or below, do not use the product.</li> <li>2. When water is insufficient, supercooling may follow.</li> </ol>
6. Too big noise or strange sound is heard.	<ol style="list-style-type: none"> <li>1. The installed floor is not stable or weak to stand the product?</li> </ol>	<ol style="list-style-type: none"> <li>1. Adjust the floor level to be even.</li> </ol>
7. Water is not drained in the ice box.	<ol style="list-style-type: none"> <li>1. Any foreign materials are in the drain hose?</li> </ol>	<ol style="list-style-type: none"> <li>1. Remove foreign materials in the drain hose.</li> </ol>
8. The ice making is not performed.	<ol style="list-style-type: none"> <li>1. Water is supplied into the water bowl?</li> </ol>	<ol style="list-style-type: none"> <li>1. After installation, provide water for initial operation.</li> <li>2. After cleaning, provide water for operation.</li> <li>3. To operate the product again after restoring water block, provide water for operation.</li> </ol>

● **Manufacture:**

● **Manufacture:**



# Specifications

Item		Spce		Unit	Specification	
					WU-0104-AC	WU-0104-AH
Maximum Ice Making (Based on 10°C)				Kg /day (Lbs/day)	45(99)	
Freezing Capability					Ice is made after 30 minutes.	
S i z e (Installed Height)	Depth			mm(inch)	574(22.5)	
	Width				520(20.4)	
	Height				862(33.9) (FOOT included)	
Power				Single Phase	115V / 60Hz	
Package	Before	Weight			Kg(lb)	50(110.2)
	After					52(114.6)
Freezing capability	Compressor			kcal/h	227	
	Refrigerant			GAS	R-600a	
	Condenser			Air cooling	Pin tube type	
	Shape of Ice				Full Cube	Half
Rated Current				A	3.0	
Temperature Control					MICOM	
Time Control					MICOM	
Accessories					Ice Scoop - 1EA	
					User Manual - 1EA	
					Elbow Fitting (Ø6.35) - 1EA	
					Drain Hose - 1EA	
					Leveling Foot - 4EA	
					Clamp Drain Hose - 1EA	
Operation Temperature				°C(°F)	5 to 38(41~100.4)	

※ The maximum amount of ice-making may vary depending on various conditions such as ambient temperature, voltage, and water temperature.

※ In the case of water-cooled model, the amount of ice-making may vary depending on the cooled water quantity.

# Product Warranty

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If you lost or did not receive the product warranty card, the warrant period starts after 6months from the manufactured date.

## [ Free service ]

1. Failures caused by normal operation during the warranty period.

## [ Charged service ]

1. When the product warranty has been expired.
2. Reinstallation due to wrong installation by the purchased site.
3. In case of reinstallation due to product movement.
4. A failure caused by a fault of other company's product.
5. A failure caused by a wrong electric capacity.
6. A failure caused by expandables or optional products that were not provided by the company.
7. A failure or damage caused by external shock or fall.
8. A failure caused by a natural disaster (thunderbolt, fire, earthquake, storm & flood, tsunami, etc.)
9. When an expandable has been expired. (packing, cutter knife, cleaning brush, etc.)
10. A failure caused by inserting foreign materials (water, beverage, coffee, toys, etc.) into the product.
11. A product damage or failure caused by external shock during installation and use.
12. A failure caused by using the parts or expandables manufactured from other companies.
13. A failure caused by not following the installation instructions in this manual.
14. A part is lost or damaged by arbitrarily disassembling the product.
15. A failure caused by repairing or modifying the product by the person other than the engineer from the company.
16. A failure caused by not following the safety instructions in this manual.
17. A failure caused by winter-snowing or closeness of water supply pipeline and drain pipeline.



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