

INSTALLATION AND USER'S MANUAL



SIM-100A / SIM-75A/SIM-50A

REFRIGERATOR MANUFACTURER
Turbo air

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ACCESSORIES

- Please make sure the following items are included with your ICE MACHINE.
If any items are missing, contact your dealer.
- The items' color and shape may vary, depending on the model.

Included



Water Inlet Hose
1EA



Drain Hose
1EA



Ice Scoop
(1EA)



Drain Hose Joint
(Each 1EA)



User Manual
(1EA)

Not included

Purifying filter

Encourage the use of filters to improve quality.

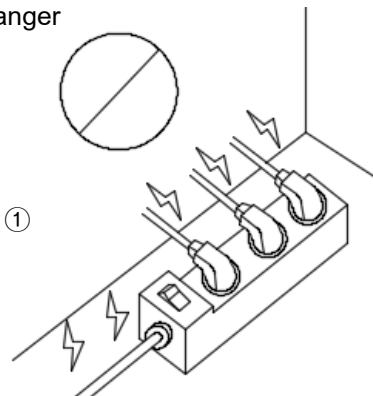
Filter is buy your Self or
Contact Your dealer.



1. GENERAL INFORMATION

1) How to use Power Cord ?

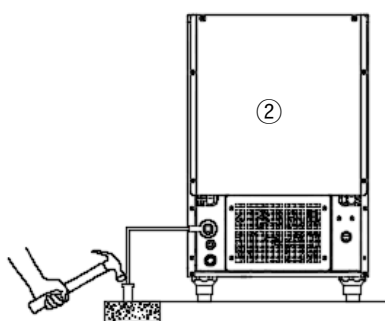
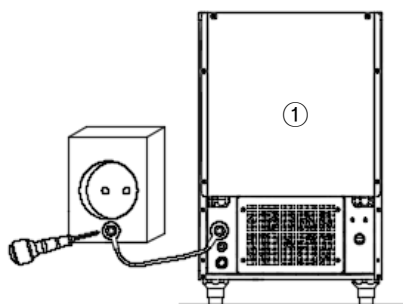
- ① Be sure not put more plug in the socket. Please use the dedicated outlet.
 - Overheated wire, which will cause fire or start malfunction
- ② Wet hands off the power.
 - Life is in danger



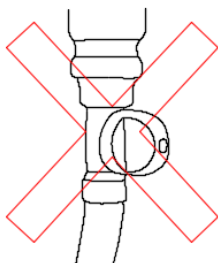
2) How to disconnect the power cord?

To prohibit leakage or electric shock, please use the prescript method to connect ground.

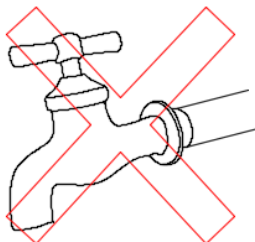
- ① If there are grounds connectors for 220v units, units don't need ground while outlet is for AC 220v.
(Please make sure that there are grounds in buildings, then units can use AC 220v outlets with grounds connectors.)
- ② The power is 220v without ground connector, use dedicated outlet to ground.
 - A. Please connect earth wire to copper, which will be covered under moisture ground.
(The depth is more than 17cm)
copper item : thickness : >0.7mm square: >900cm²
 - B. Please connect the dedicated ground outlet.



③. Prohibition ground places



Gas pipe



Water-pipe

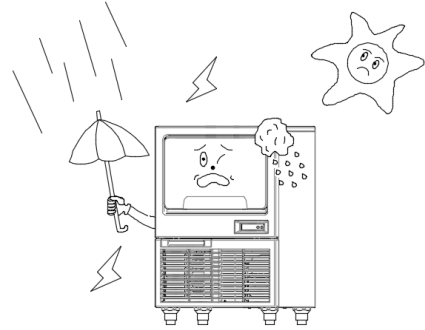


Telephone lines

1. GENERAL INFORMATION

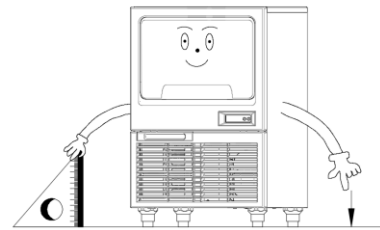
3) Location Product

- 1 Be sure to set the unit in door!
To prevent damage, leakage!



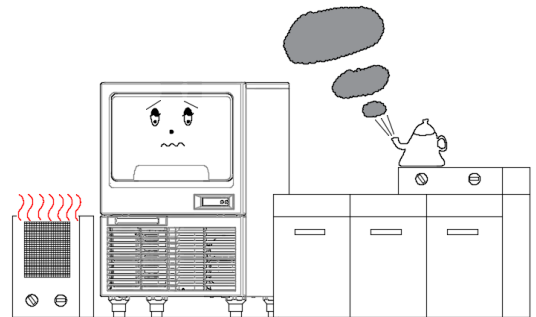
- 2 Be sure that the location be chosen
has a strong enough
floor to support total weight of the
cabinet and any other contents.

The uneven will make noise and
shake!



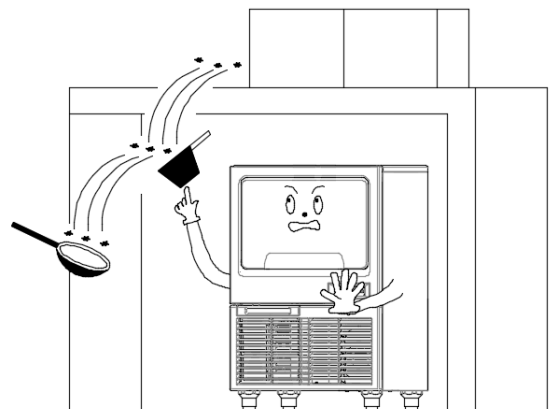
- 3 Be sure to avoid corrosive
environment!

It will shorten the life of the unit



- 4 Be sure no object is on top of the
product!

The objects will fall to hit the unit!

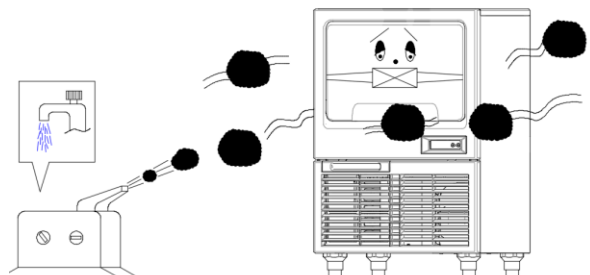


1. GENERAL INFORMATION

5

Be sure to avoid damp and dusty environment!

Electric shock



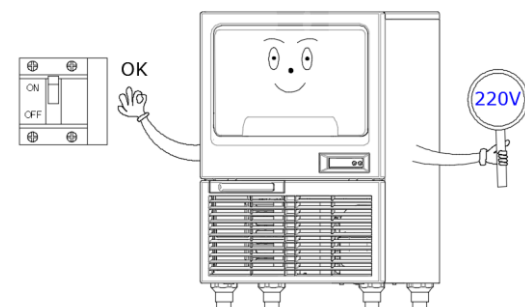
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Be sure the power cord is connected to the proper voltage!

The Product is special for 220V

It can't be used with the voltage of 110V

Please connect the power with leakage protector!

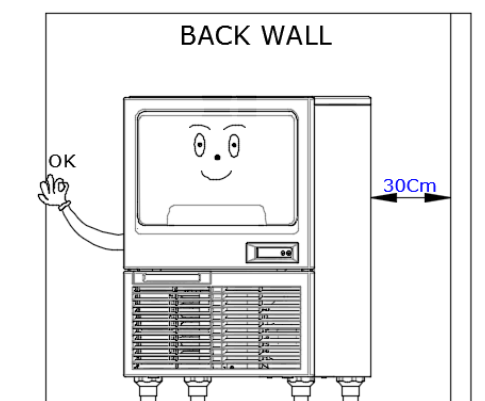


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Be sure the unit is away from the Back wall at least 30cm for good air circulation!

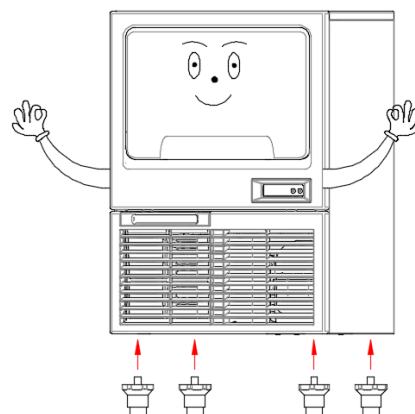
Caution

When Piping hits the back wall ,
The unit is not working properly.
(It is possible that the unit be
damaged by vibration)



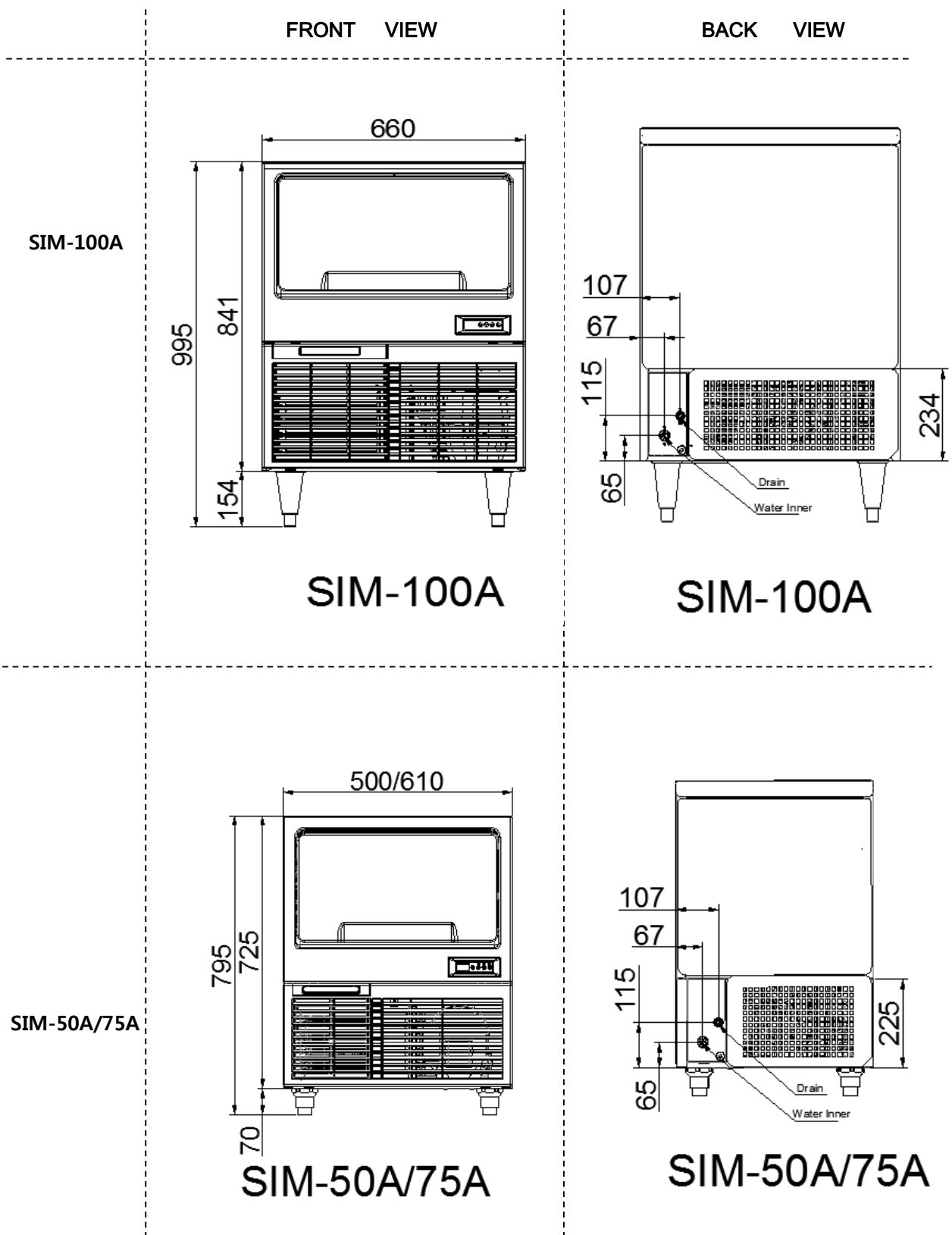
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Please use the casters or legs.



2. 规格

1) Drawing & dimensions



3. INSTALLATION

1) Check List Before Installation

- Removal of Tapes before Operation
- Where water pressure is very low

2) Right Place for Installation

Caution :

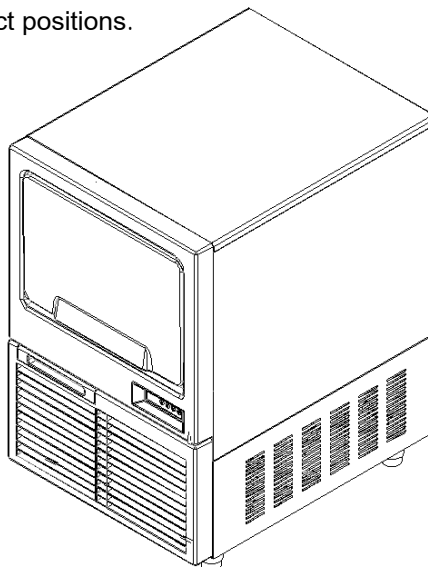
1. This icemaker is not recommended for indoor use. Average operation ambient temperature is to be maintained between 7°C and 38°C Average operation water temperature is to be maintained between 7°C and 38°C. Operating the unit, for extended periods, outside of these specified temperature ranges may affect performance.
2. This icemaker will not operate at sub-freezing temperatures. In order to prevent damage to the water supply line, make sure to drain the icemaker if the air temperature is likely to drop below 0°C.

For best operating results:

- The icemaker should not be installed/placed next to ovens, grills, or other high heat cooking equipment.
- A firm and level foundation should be provided for proper installation.
- Make sure to allow 15cm clearance at rear, sides, and top to secure proper air circulation and ease of maintenance and service.

3) Setup

- A. Place the dispensing unit in the selected location.
- B. Make sure to level the icemaker and dispensing unit in every direction.
adjust legs to make the whole unit balanced.
- C. Place the panels in the correct positions.



3. INSTALLATION

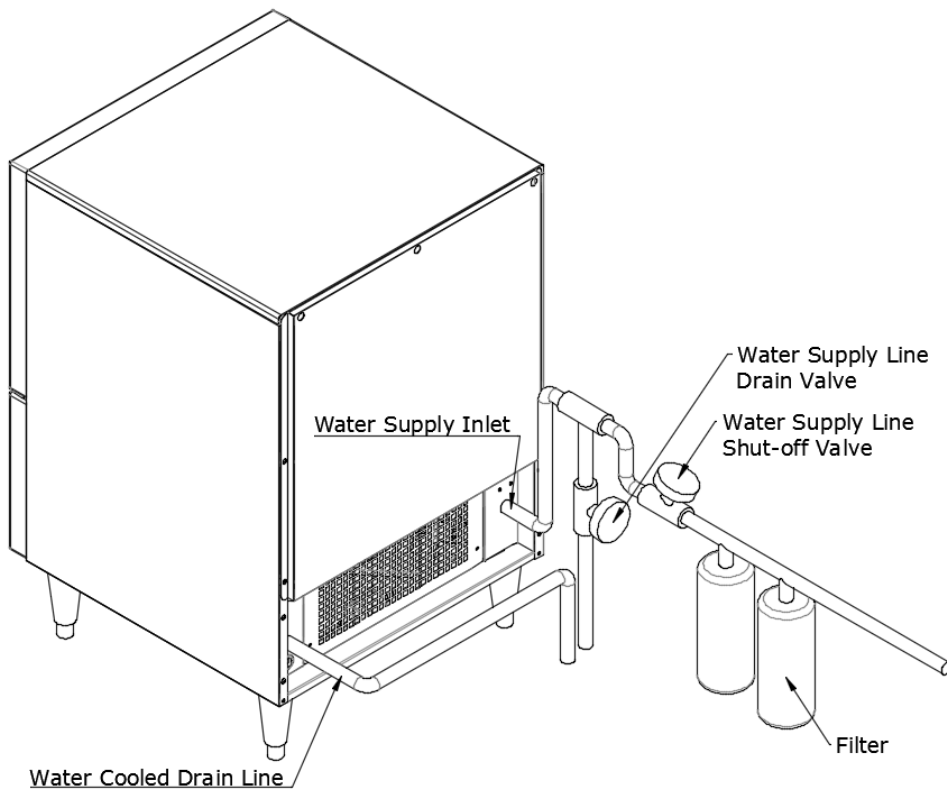
4) Electrical Connection

Caution :

1. Electrical connection must be hard-wired and must satisfy the local standards of electrical code requirements. Death, electric shock, serious injury, fire, or severe damage to equipment could occur due to failure to meet those code requirements.
2. This unit must operate on an independent power supply. Find the nameplate for voltage and breaker/fuse size information. Using an incorrect breaker or fuse can cause a tripped breaker, blown fuse, or damage to existing wiring. This may even lead to a fire.
3. This unit must be installed/placed on the ground. Failure to properly ground this unit may result in death or serious injury.

- In most cases, an electrical permit and services of a licensed electrician are required.
- The maximum voltage variation allowed is ± 10 percent of the rating shown on the nameplate.

5) Water Supply and Drain Connections



3. INSTALLATION

Caution :

1. Installation of water supply and drain connections must be carried out based on applicable national, state, and local regulations.
2. Average operation water temperature should be maintained between 7°C and 32°C. Operating the icemaker, for extended periods, outside of this normal temperature range may affect performance of the unit.
3. In order to avoid damage to equipment, do not operate the icemaker when the water supply is off, or if the pressure is below 10PSIG. Do not operate the icemaker until the proper water pressure is secured.

- Services of a licensed plumber and a plumbing permit may be required in some regions.
- External filters, strainers, or softeners may be needed when water quality is poor.
- A minimum of 10PSIG and a maximum of 110PSIG of water supply pressure should be maintained. If the pressure exceeds 110PSIG, a pressure reducing valve is to be used.
- The drain line, dispenser unit/storage bin drain line must be used separately.
- Drain lines must come with 6.35mm fall per foot (2cm per 1m) on horizontal runs to make sure of a good flow. A vented tee connection is also required in order for enhanced flow
- Drain lines are not to be connected directly to the sewer system. An air gap, a minimum of 5 vertical centimeter, should take place between the end of the drain pipes from the icemaker, dispenser unit/storage bin, and the floor drain.
- Icemaker water supply inlet consists of **3/8 "** female pipe thread (FPT).
A minimum of 14.9mm OD copper tubing may be required for the icemaker water supply line.
- Make sure to install an icemaker water supply line shut-off valve and drain valve.
- Icemaker drain outlet is **3/4 "** FPT.
A minimum of 26mm OD hard pipe is most suitable for the icemaker drain line.

Follow all applicable codes Water Cooled Shown, Air Cooled Similar

4. OPERATION INSTRUCTIONS

1) Startup

A. Remove front panel. Check machine to see if any packing or wires are touching moving parts.

Note: Control board is located in upper left corner of the machine's front.

B. Remove tape used for securing curtain to evaporator.

C. Turn on/off the electrical power to the machine. Make sure that some of the control's indicator lights glow and its display indicates "OF"

D. Open the water supply valve.

E. Press the ON/OFF button. The code display will start to blink "Fc" then power LED goes on.

F. After the purge valve opens, the water pump begins to run and the inlet water valve opens to supply water into the reservoir. The purge valve closes in a few seconds and the water pump stops running. Water will flow into the machine until the reservoir is full. The hot gas valve and harvest assist device will be on, then the compressor and water pump will start to run. Motors will start to run a few moments after the compressor starts. The display will continue to indicate "Fc" Five seconds later, the hot gas valve will close and the harvest assist device will turn back to its standby mode.

G. The display indicates an "Hc" The hot gas valve opens, the air cooled fan motor stops and the harvest assist mechanism starts to work. The purge valve opens for drainage of some water when the inlet water valve opens to refill the reservoir. After a few seconds the purge valve closes but the inlet water valve keeps on filling the reservoir. Harvest keeps on until the ice is released as a unit and forces the curtain to open. When the curtain opens, the controller receives signal which turns the unit back to a freeze cycle.

H. Check the ice made to see if proper bridge thickness is achieved.

The ice bridge is set at 3.175mm by factory default. Adjust bridge thickness if needed. Avoid making it too thin.

I. Put the front panel to its normal position and keep it attached to the machine.

J. Give Instructions to the user in the operation of the machine and its maintenance requirements.

4. OPERATION INSTRUCTIONS

2) Control Panel

A. POWER (ON/OFF) BUTTON

Four buttons are seen on the control panel –POWER(on/off button),SANITIZE,TIMER and CUBE SIZE.

Cube transparency improving mode Indicator

TIMER BUTTON (To be used when the display indicates "OF")
Setting time ranges from 1 hour to 24 hours. The unit will turn on and start to operate automatically once the setting time has passed.

Service Alert



Power Button

Sanitize Button

Display

Cube Size Button

1) Cube size can be adjusted by pushing this button

Setting number (1-7). * 1 = Min.Size / 7 = Max.Size

2) Push and hold 5 sec, then cube transparency improving mode is started

-CONTROL OPERATION



POWER ON/OFF

- Power on : To switch the machine OFF, push and release the ON/OFF button.
- Power off : To switch the machine ON , push and release the ON/OFF button

* Power light is on when the display indicates "Fc"



SELF CLEANING

- Push and release the Sanitize button.
- The machine will go through a start up process and then resume cleaning.



MANUAL HARVEST

- Push the SANITIZE button for 5 seconds

-DISPLAY CODE DETAIL

Operation Code

<i>Fc</i>	Freeze Cycle
<i>Hc</i>	Harvest Cycle
<i>OF</i>	Power Off

<i>Hh</i>	Manual Harvest
<i>Sc</i>	Sanitize
<i>bF</i>	Bin is Full

5. CLEANING AND MAINTENANCE

Caution :

Only qualified service technicians should cleaning, service and maintain the product.

1) Instructions for Cleaning and Sanitizing

A. Cleaning Procedure

- i . When the sanitize button is pressed, sanitizing LED turns on and the display will indicate “Sc” to show that the machine will be on its cleaning mode.
- ii . Once cleaning mode is on, the water pump starts and the purge valve opens to drain water for 2 minutes.
- iii . Once drainage is finished, the inlet water valve opens and continues to supply water until the reservoir is full.
- iv . Once water supply is finished, the water pump keeps operating for water circulation.

B. Sanitizing Procedure – Following Cleaning Procedure

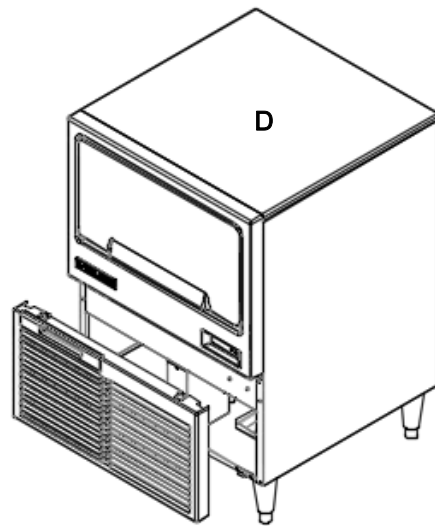
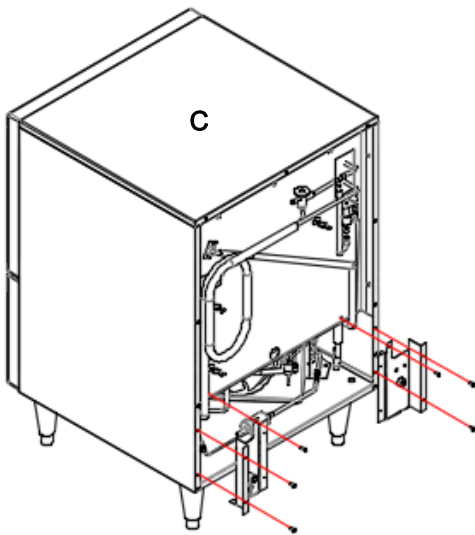
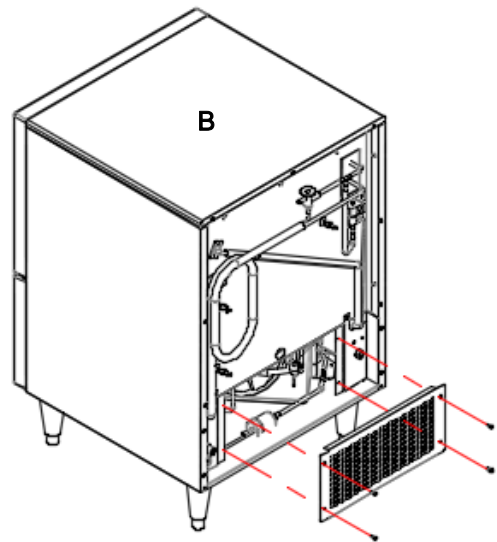
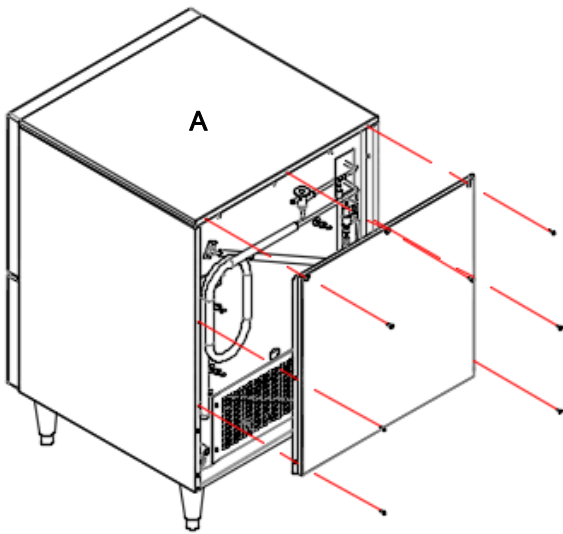
- i . While the machine is in operation, if the sanitize button is pressed, “Sc” will appear on the display. After the water valve shuts off, the purge valve closes for 20 seconds then opens for 30 seconds.
- ii . Pressing the On/Off button will automatically deactivate the sanitizing mode.



5. CLEANING AND MAINTENANCE

2) Panel Removal

- A. Remove the 7 screws at the Back of the Cabinet Assembly and Pulling Out Cabinet Back Out Cover
- B. Remove the 4 screws each at the Drain Hose Guide and Pulling Out Unit Back Cover
- C. Remove the 3 screws at the Back of the Cabinet Assembly and Pulling Out Drain Hose Guide (Drain Hose Guide LEFT/RIGHT Same)
- D. Push down the Bottom Grille Top and Pulling Out Bottom Grille Assembly



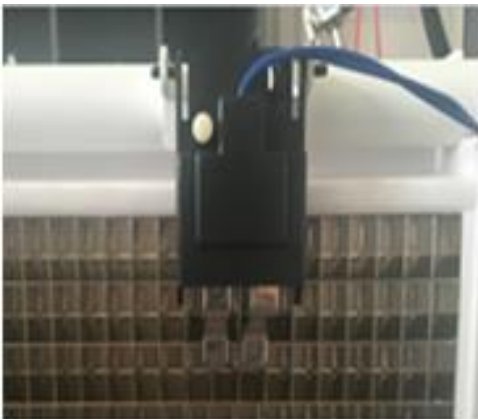
5. CLEANING AND MAINTENANCE

Caution :

Routine adjustments and maintenance Procedures are not covered by the warranty.

3) Adjustment

- A. Push and wait till the machine stops.
- B. Rotate the bridge thickness adjustment screw
- C. Turn the screw CW to increase bridge thickness. Turn CCW to decrease bridge thickness.
- D. Properly place curtain and evaporator cover back to their normal positions.
- E. Press and release the On/Off button. Check next harvest of ice for bridge thickness.
Repeat steps A-F if needed.
- F. Gap is 3mm~5mm



4) Air cooled condenser filter

- A. Pull up air filter(s) out from the Bottom Grille.
- B. Remove the dust and grease off the filter.
- C. Place it back to its original position.



5. CLEANING AND MAINTENANCE

5) The ice machine's water system is be cleaned and sanitized at least twice per year.



- A. If the machine is in operation, press and release the **Sanitize button**
After completing the harvest cycle, the machine will stop. If the storage bin is full
(**"bf" shows in display**) / push and release the Off button.

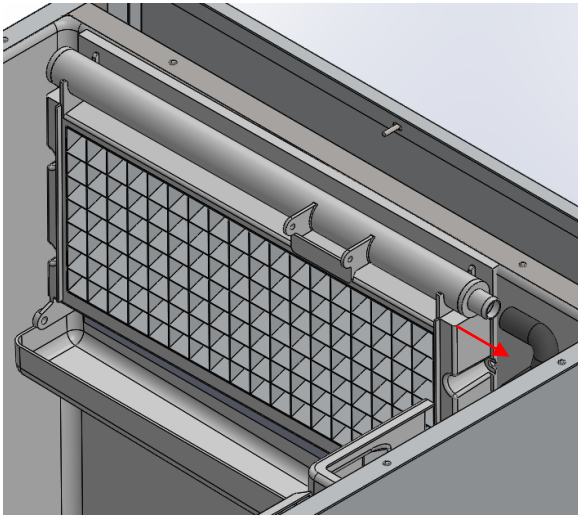


- B. Empty the storage bin.
- C. Press and release the SANITIZE button. The Blue SANITIZE light will flash and the display will indicates on to the next step when the reservoir is filled.
- D. Pour 8 ounces of Clear 1 ice machine scale remover into the reservoir.
- E. Wait for at least 10 minutes until the ice machine scale remover completes circulation in the water system.
- F. Press and release the SANITIZE button again. The Blue SANITIZE light will continue to flash and the machine will keep on draining and refilling the reservoir several times until the ice machine scale remover and residue is completely washed out.
- G. Allow at least 20 minutes for the drain and refill process.

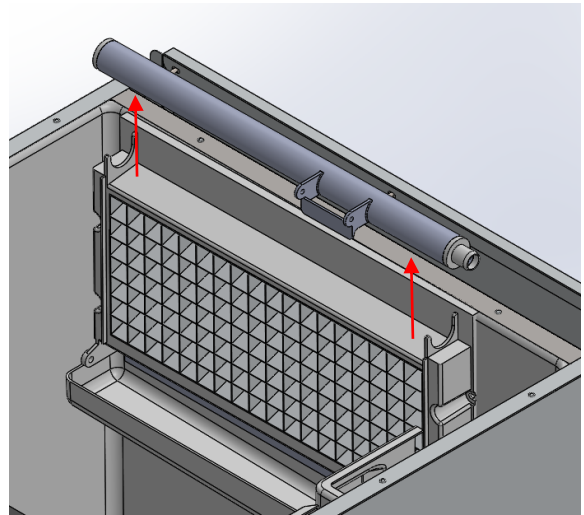
5. CLEANING AND MAINTENANCE

H. Press and release the ON/OFF button. The clean cycle will stop and the display will all Lamp's shut down

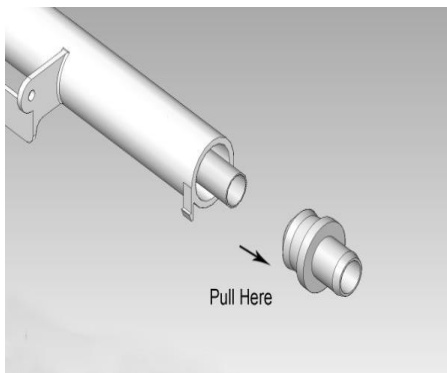
I. Mix a cleaning solution of 1 ounce of ice machine scale remover to 12 ounces of water



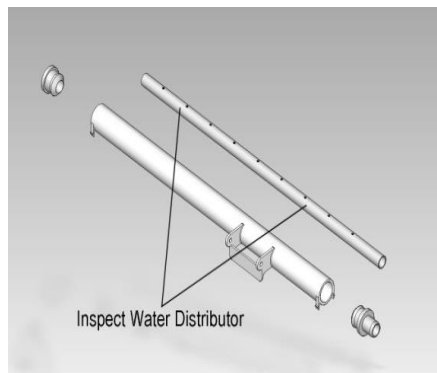
J. Pull out remove the Water Inlet Hose from the water distributor



K. Pull out water distributor from the evaporator



M. Remove the water distributor cap by pulling it out as shown in the picture



O. Remove the water inner distributor by pulling it out in the same direction



P. Disassembly completed
For cleaning the water level sensor separately, Pull the edge of the hook by a screw driver and lift the sensor pin up as shown in the picture
The 3 sensor pins are to be cleaned in the same way

6. TROUBLESHOOTING CHART

Operating Condition	Check Points	Measures
Machine not working	1) Is electric power being supplied to the machine? 2) Is the machine properly plugged into the electrical outlet? 3) Is the machine running on 220V $\pm$ 10%?	1) Plug the machine into the outlet properly. 2) Check the power supply.
delays in ice-making	1) The machine's not clean. 2) Poor water supply. 3) The ambient temperature is too low. 4) The ice thickness sensor is too wide	1) Turn up the water supply pressure. Clean the filtering device (strainer) at the back 2) Keep the ambient temperature above 10°C 3) Adjust the thickness to 6~8mm
Poor ice formation or poor water Freezing	1) Failure of the ice thickness sensor. 2) Water level is too high or too low. 3) Operation pressure is too high	1) Use the adjusting crew to keep it 6~8mm wide 2) Adjust the water level sensor higher or lower 3) Check if the machine is working normally
Low quantity of ice	1) Water is too dirty. 2) Not enough water supply. 3) The condenser is not clean. 4) The ambient temperature is too high.	1) Check the water supply pressure and see if water supply has been disconnected or suspended 2) If the air-cooled type condenser, clean the aluminum fins at the back 3) Keep the ambient temperature below 38°C
Water stagnating in the storage bin	1) The drain outlet is placed higher than the container 2) The drain opening is clogged up.	1) Re-install the drain outlet lower than the container 2) Unclog the hose

