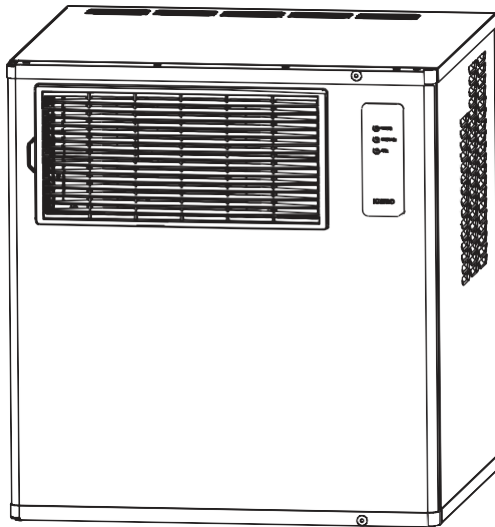


ICE MAKER USER MANUAL

MODEL : IM-0485-AQ

-
- ※ This machine can only be used in countries where the required power supply is available.
 - ※ This product is designed for indoor installation only.
 - ※ The manufacturer may change the machine's appearance, design, color, and/or components without prior notice.
 - ※ For maximum hygiene, please clean and sterilize the product on a daily basis.





FOLLETT®

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- Keep this user manual within your reach and view at all times -

1. Safety Precautions

 Warning	Failure to follow these instructions may result in severe personal injury or death.
 Caution	Failure to follow these instructions may result in parts replacement expense and / or service repair expense.



SHOULD BE DONE



PROHIBITED



DO NOT
DISASSEMBLE



DO NOT
TOUCH



DISCONNECT
POWER PLUG

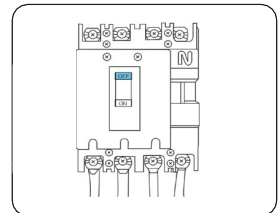


GROUNDED

Warning

Use a dedicated outlet for the ice machine

- ◆ An electrical fire may be caused by an outlet with more than one device connected.
- ◆ Do not use an adapter or an extension cord.



Clean the plug

If the plug is dirty or has dust/debris on it, wipe it off with a clean, dry towel.

- ◆ A dirty plug can overheat and may cause a fire.

All wiring must conform to local, state and national codes.

The wire size (or gauge) is dependent upon location, materials used, length of run, etc., so it must be determined by a qualified electrician.

MINIMUM POWER CORD SPECIFICATIONS

Maximum Breaker Size	Minimum Wire Size	Maximum Length of Power Cord
15 amp	14 gauge	6 feet (1.83 m)
20 amp	12 gauge	6 feet (1.83 m)
30 amp	10 gauge	6 feet (1.83 m)



Warning

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

- ◆ **Damage by excessive weight can cause the unit to overheat and could create a fire.**

Do not install the machine in humid area or near an area where water could spatter.

- ◆ **Lack of insulation can cause electric leakage, shock, and fire.**

Stop operation

If a burning smell or smoke is emitted from the machine, or if the product malfunctions, immediately unplug the product and stop operation.

- ◆ **Operating the product under bad conditions may cause fire or electric shock.**

Prohibited use:

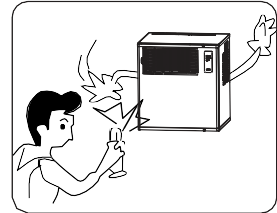
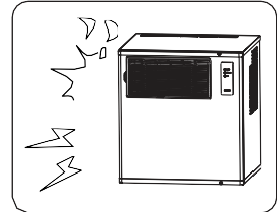
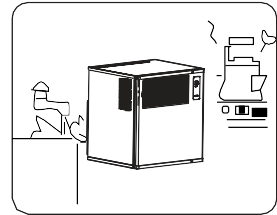
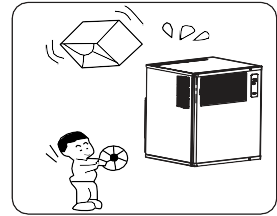
Do not use flammable gas near the icemaker.

- ◆ **It may cause explosion and fire.**

Prohibited Use:

Replace or tighten the receptacle if it is loose.

- ◆ **An electric short or fire can occur.**





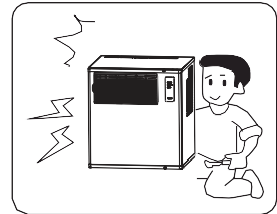
Warning

Do not disassemble the machine.

Do not modify the parts of the icemaker.

Do not repair without an authorized servicer.

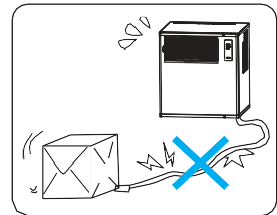
- ◆ It may cause the fire or abnormal operation which could result in serious damage or injury.



Prohibited

Do not sharply bend the power cord, or allow heavy objects to pinch or crush it as this can damage the cord.

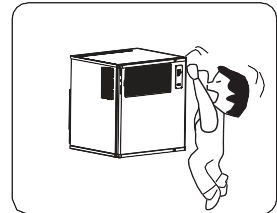
- ◆ There is a danger of a electrical leak, electric shock and/or fire
- ◆ Be sure to contact the manufacturer if the power cord or plug gets peeled or damaged.



Prohibited

Do not let children hang on the door of the icemaker.

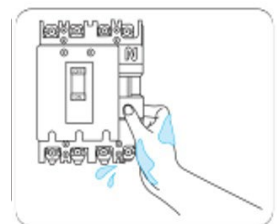
- ◆ Injury to the child or damage to the icemaker may occur.
- ◆ Let them avoid hanging onto the front door of the model when it is open.



Do not touch

Do not touch or disconnect the Ground Fault Circuit Interrupter (GFCI) with wet hands.

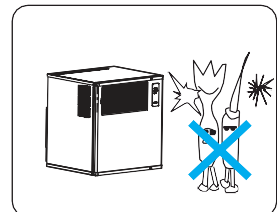
- ◆ It may cause an electric shock.



Do not touch

Do not clean the inside the ice maker with sharp tools.

- ◆ It may cause the damage to the refrigeration system, ice storage bin, or electrocution.

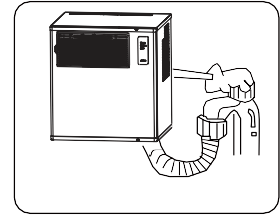




Warning

Disconnect power plug

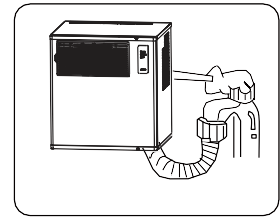
For long term shutdown or extended non-use, close the water supply valve, remove any ice from the product and unplug the power cord.



Disconnect power plug

Unplug the power cord first when cleaning or servicing.

- ◆ It may cause electric shock, fire, or injury.



Disconnect power plug

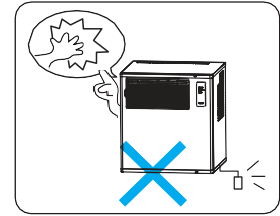
Unplug the power cord by gripping the plug-body from outlet.

- ◆ Pulling the power cord or using a screwdriver to unplug may cause damage, injury, or fire.

Grounding

The Ice Machine must be connected to a GFCI receptacle or a GFCI circuit

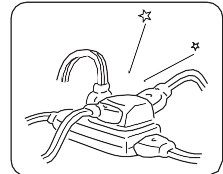
- ◆ An ungrounded circuit may cause product failure or an electric shock.



Power strip use

Make sure the power strip is rated for at least 250V and 16A (or higher)

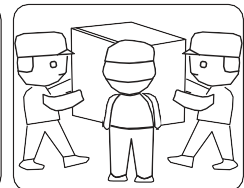
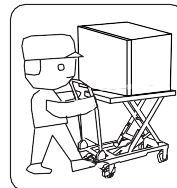
- ◆ Using multiple appliances on one power strip may cause fire. Thus, be sure to plug only one appliance especially when using this product.



Installing the product

When installing the product on the storage bin, use an appropriate lifting system or 2~3 men to lift the product.

- ◆ Depending on the product installation space, service may not be available incurring additional costs.





Warning

If the Ground Fault Circuit Interrupter (GFCI) is in the "OFF" position do not turn it to the "On" position by force.

- ◆ If you turn it 'ON' while the machine is defective, fire or electric shock may occur.

If the power cord needs replacement or repair, call a service technician.

If the unit will be out of use for a significant amount of time, then close the water supply valve and turn off the GFCI

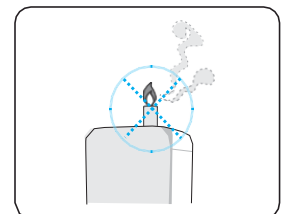
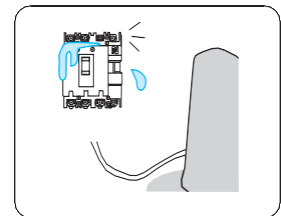
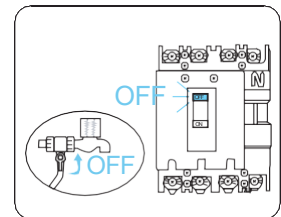
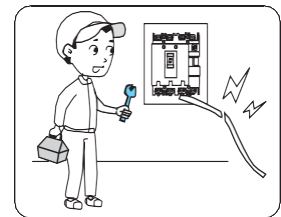
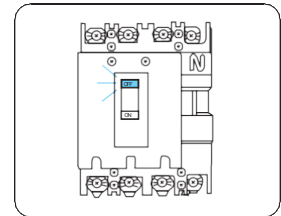
- ◆ Injury may occur if it falls over.

If there is water inside the power supply, turn off the GFCI and dry it before use.

- ◆ It can cause electrical shocks or fire.

Do not place flammable objects or open flames on top of the product

- ◆ It can cause fire.

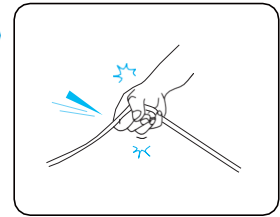




Warning

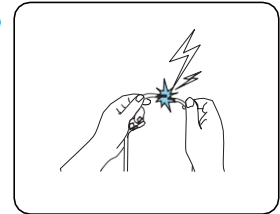
Do not put anything on the product.

- ◆ Injury may cause the product to tip or fall over.



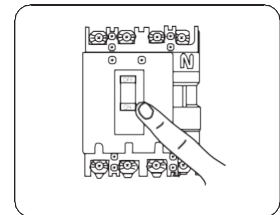
Do not alter or splice the power cord.

- ◆ It can cause fire.



Do not turn the power ON/OFF with the circuit breaker continuously.

- ◆ It can cause electrical shocks or fire.





Warning

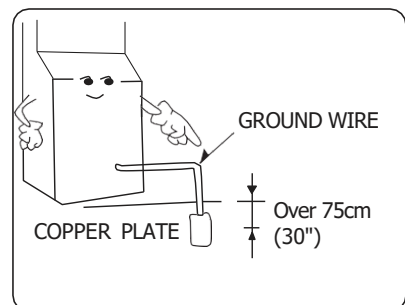
The ice machine must be grounded in accordance with national and local electrical codes.

About Grounding

※ Be sure to ground the product to prevent electric shock.

● Grounding method - When there is a grounded outlet
If the icemaker is plugged into a properly grounded outlet, no additional grounding is required.

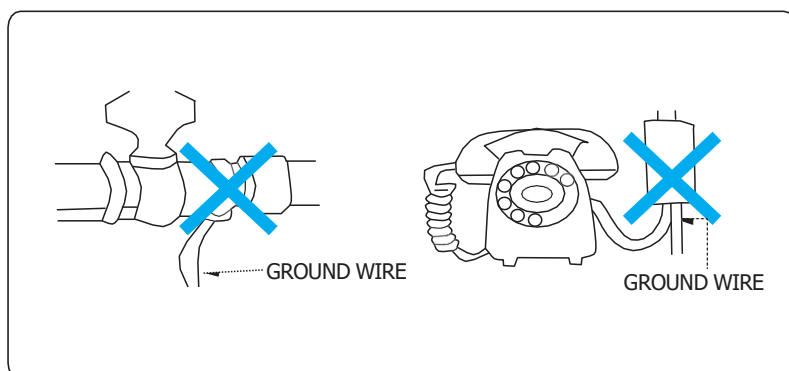
● Grounding method - When there is no grounded outlet
If the icemaker is plugged into a power outlet without a ground terminal, connect the ground wire to the copper plate and then bury the plate in the ground.



Do not ground the product with the following:

Gas piping, water supply, lightning rod, telephone line, or any connection part

※ Plastic water piping or insulated material will not provide a grounding effect.





Warning

Electrical Connection (Junction box type)

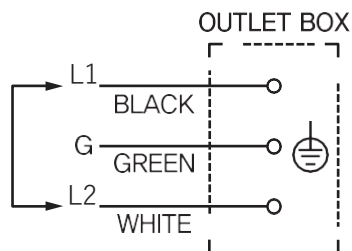
- Electrical connection must be hard-wired and must meet national, state, and local electrical code requirements. Failure to meet these code requirements could result in death, electric shock, serious injury, fire, or damage.
 - The icemaker requires a dedicated power supply of proper capacity. See the dataplate for electrical specifications. Failure to use an dedicated power supply of proper capacity can result in a tripped breaker, blown fuse, damage to existing wiring, or component failure. This could lead to overheating or fire.
 - **THE ICEMAKER MUST BE GROUNDED.** Failure to properly ground the icemaker could result in death or serious injury.
 - Electrical connection must be made in accordance with the instructions on the "WARNING" tag.
- Usually, an electrical permit and services of a licensed electrician are required.
 - The maximum allowable voltage variation is ± 10 percent of the nameplate rating.
 - On single phase models, the green/yellow lead must be connected to the neutral conductor of the power source. **NOTICE!** Miswiring may result in damage to the icemaker.
 - The opening for the power supply connection is 7/8" DIA to fit a 1/2" trade size conduit.



Warning

ELECTRICAL CONNECTION THIS UNIT MUST BE GROUNDED

Failure to properly ground or wire this unit could result in death, serious injury, or severe damage to the icemaker. The white lead must be connected to the L2 of the power source. See diagram below.





Warning

- This unit contains R-290 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-290 Handling" Section included in the User Guide. Do not damage the refrigeration 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

Service must be done by factory authorized service personnel. Any parts shall be replaced with like components. Failure to comply could increase the risk of possible ignition due to incorrect parts or improper service

This appliance is not intended for use by persons (including children) with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instruction concerning use of the appliance by a person responsible for their safety.

Children should be supervised to ensure that they do not play with the appliance.

The new hose-sets supplied with the appliance are to be used and old hose-sets should not be reused.

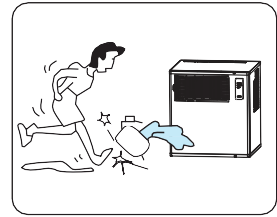


Caution

Caution

Remove any moisture, oil, and/or other substances that may cause slipping on the ground near the product.

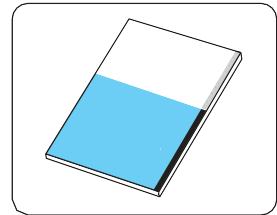
- ◆ Slipping and falling into the ice maker or getting a hand or foot caught underneath can cause injury.



Hand over

As you turn over the icemaker to the user, please turn over the operation manual.

- ◆ Be sure to refer to the user manual for the safest usage by users who are not familiar with the product.



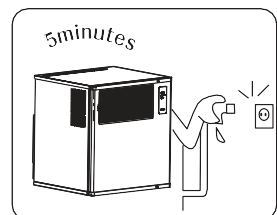
Do not slide hands or feet underneath the icemaker.

- ◆ The bottom of this product has various parts including a metal sheet, which may cause injury.



When reconnecting the power cord after, wait at least 5 minutes before reconnecting.

- ◆ Plugging in right away may cause overload and malfunction.



External filters, strainers, or softeners may be required depending on water quality.

Contact your local Certified Service Representative or local distributor for recommendations.

2. Specifications

ITEM		UNIT	SPECIFICATONS
Model			IM-0485-AQ
Shape of ice			SquareCube
Size	inch		1.26 x 1.26 x 1.26
	mm		32 x 32 x 32
Number		ea	108
※ Maximum manufacturing capacitor	lb/day		480 ± 10%
	kg/day		217 ± 10%
Storage capacity (option)		lb	IB033 : 330, IB044 : 440
		kg	IB033 : 160, IB044 : 200
※※ Size (WxDxH)		inch	Ice Maker : 30 x 28.1 x 31.9 Ice Maker + Bin(IB-033) : 30 x 33.1 x 76.4 Ice Maker + Bin(IB-044) : 30 x 33.1 x 84.3
		mm	Ice Maker : 762 x 714 x 810 Ice Maker + Bin(IB-033) : 763 x 870 x 1,940 Ice Maker + Bin(IB-044) : 763 x 870 x 2,140
Power Supply			AC 115V 60HZ 1PH
Current consumption		A	13.1A
Weight	Before packing	lb(kg)	210±1 ₁ (95±5)
	After packing	lb(kg)	258±1 ₁ (117±5)
Compressor			1 HP
Condenser			Air-cooled
Refrigerant			R-290
Installation environment standard	Temperature of supplied water	°F	50~ 90
		°C	10~ 32
	Ambient temperature	°F	50~ 100
		°C	10~ 38
	Water pressure	psi	29~71
		Mpa	0.2~0.5

※ The maximum production calculated is based on ambient temperature of 21°C(70°F) and water temperature of 10°C (50°F).

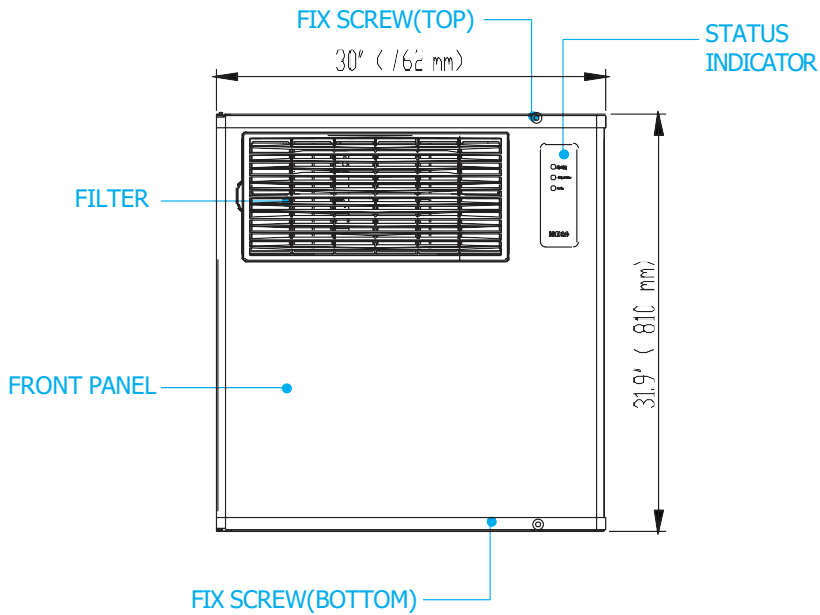
There may be deviations depending on the installation conditions, which may get severe during high temperature periods such as summer.

※※ Be sure to check the specifications before purchasing the product since the dimensions may vary depending on the specifications of the storage bin.

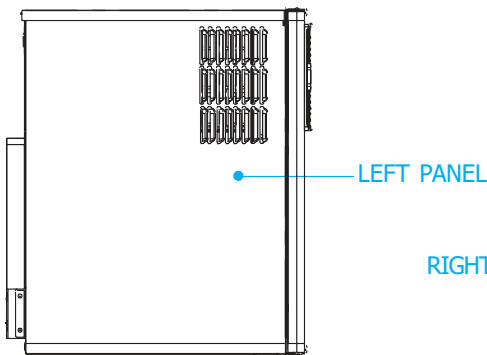
※※※ If the drain time is lengthened, the amount of ice is reduced, but clear ice can be obtained.

3. Parts Breakdown – Air Cooled

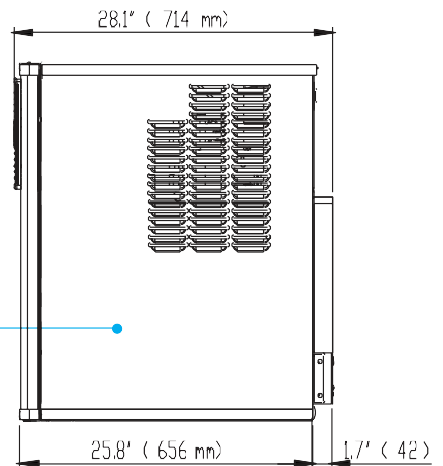
FRONT

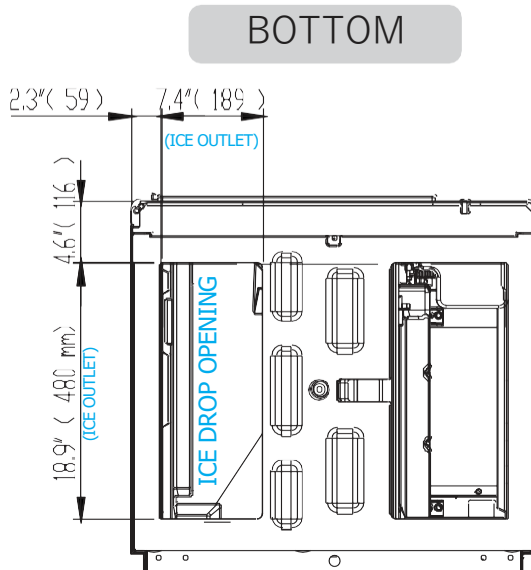
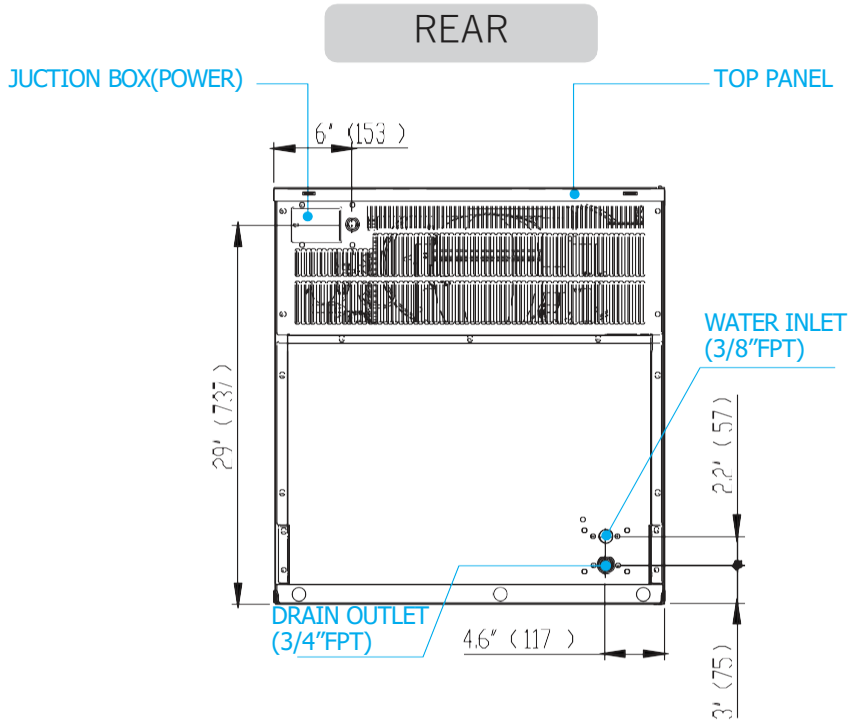


LEFT SIDE



RIGHT SIDE

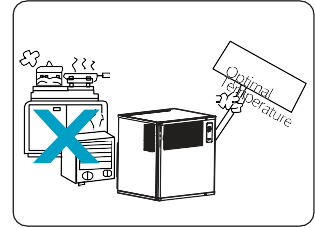




4. How to Install

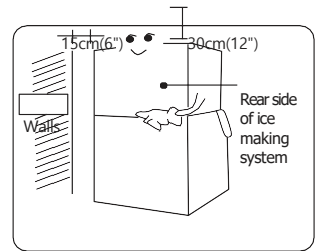
Suitable installation location

- Places without heat sources
 - The product must be installed away from heat sources such as stove or gas range. Ensure the installation area stays within an ambient temperature 50~100°F. (10 ~ 38°C).

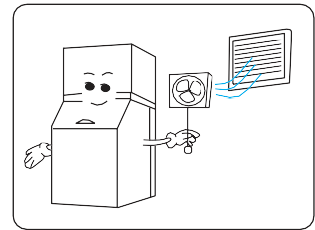


- Ensure proper clearances from walls and other equipment.

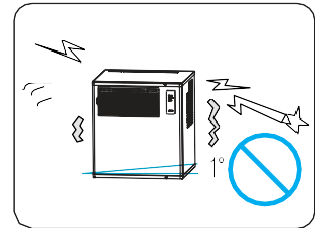
Top	Back	Sides
30cm (12")	20cm (8")	15cm (6")



- Ensure proper ventilation
 - Inadequate ventilation will lead to poor efficiency and ice quality.



- On even surfaces
 - Uneven surface can cause vibration or noise. (The surface angle must be less than 1°)
 - Installing the product on an uneven surface may cause the unit to slip and/or tip over, which could cause injury. Make sure that the product is installed on an even surface.

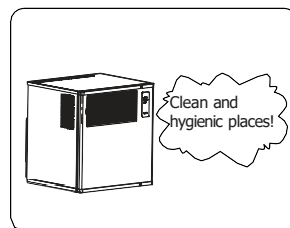


Warning *Keep all machine ventilation openings clear from obstruction to prevent abnormal function.

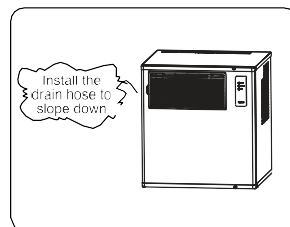
- Do not use mechanical devices or other means to accelerate the defrosting process, other than those recommended by the manufacturer.
- Do not use any accessories inside the food/ice storage compartments unless they are of the type recommended by the manufacturer.

Suitable Installation Location

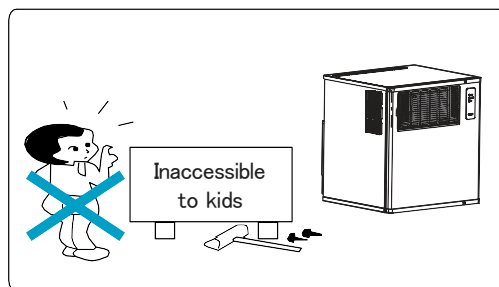
- Be sure to install the product in a clean location.
 - ◆ Because the ice will be used for food or human consumption, install the ice maker in a clean, sanitary location.



- The product must be installed indoors.
 - ◆ The outlet of the drain hose must face downward to enable smooth draining.
 - ◆ The product must not be installed outside.



- In a place inaccessible to children.
 - ◆ Please pay proper attention to the safety of children; make sure that no one plays with the blade of the ice making part.



- ◆ Make sure to observe the following.
 - Since the product makes use of water, proper water supply and draining facility are required.
 - Water may leak during installation or operation. Proper draining must be prepared.

Since there is danger of electric shock due to moisture from leak, be sure to observe the following:

 1. When installing the product indoors, be sure to have a natural drainage facility and make the floor waterproof, especially if the floor may get damaged due to leak.
 2. A draining outlet must be available at the installation site; be sure to connect the drain hose.
 3. Make sure that the floor is sloped so that any leaked water gets drained away even if the drain hose gets dislodged or damaged. Install a water overflow prevention wall to prevent damage.

- ※ Adjust the height by turning the footing if the floor is sloped to set it stably.
- ※ The manufacturer will not be liable for any problem arising from failure to comply with the warnings above, dislodged / damaged water supply hose, or inappropriate drain facility.

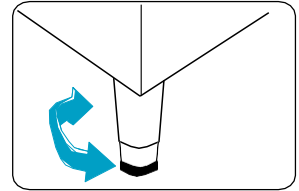
How to Install the Storage Bin

1. Unpack the ice storage bin and make sure that it will not be moved after installation.
2. Connect the drain hose at the bottom outlet part and fully tighten the joints at the connections to minimize leaks.



Tighten the joints at the connections, face the outlet of the hose upward, and pour some water into the bin to check for leaks.

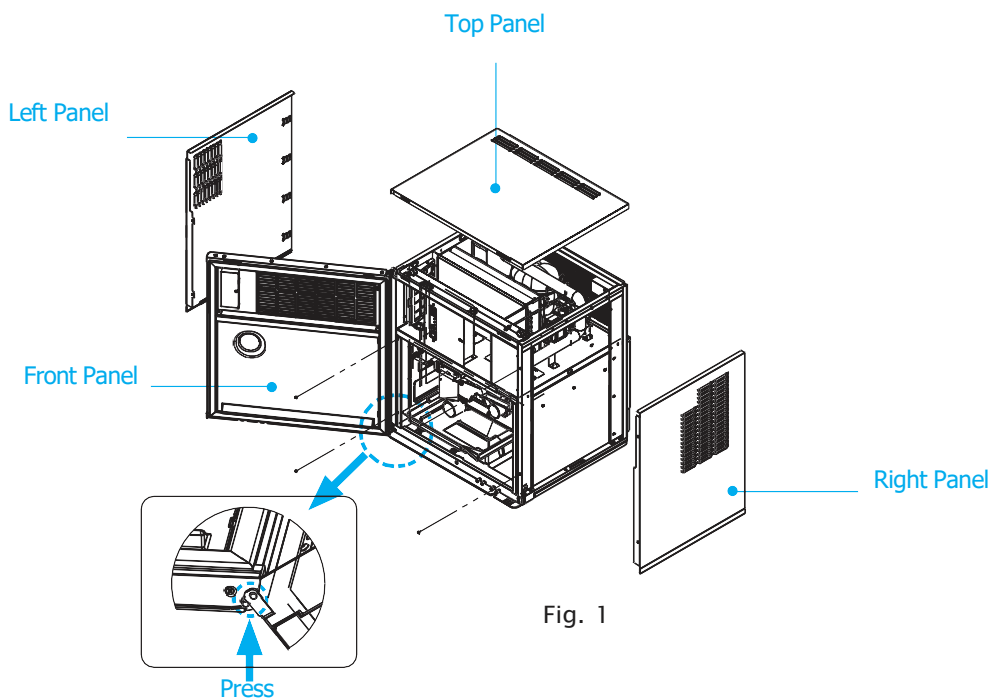
3. Adjust the 4 adjustment feet of the storage bin to level it.
(Adjustment must be less than 1 ° for all 4 feet)



How to Remove Panels

1. Front Panel: Loosen the top and bottom screws on the front panel and open the front panel.
2. Top Panel: Lift up the front side of the top panel slightly and push toward the rear side to remove.
3. Side Panel (Right): Loosen the screw on the front side, and remove the panel by pulling to the front and pushing upward a little.
4. Side Panel (Left): Press the pin on the bottom left side of the front panel and open the panel completely (180°)
Loosen the screw on the front side, and remove the panel by pulling to the front and pushing upward a little.

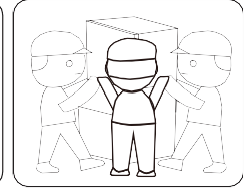
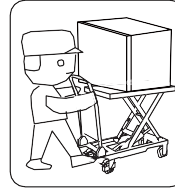
※ Assembly in the reverse order of disassembly.



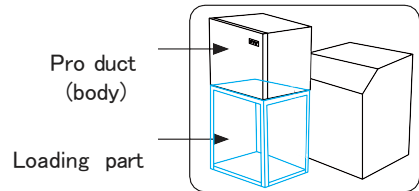
Installing Ice Maker and Connecting Storage Bin

1. Use a lifting device to put the ice maker on top of the bin. If a lifting device is not available, at least 2 to 3 persons must be available to place the ice maker on the bin.

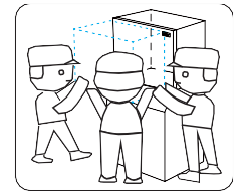
◆ Be sure to apply more support to the area of the ice maker where the compressor is located.



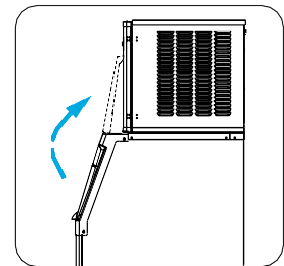
2. First, put the ice maker on a loading platform. (Height of loading platform: Minimum of 1m(39.4") is recommended)



3. Second,, move the ice maker from the platform to the top of the bin.



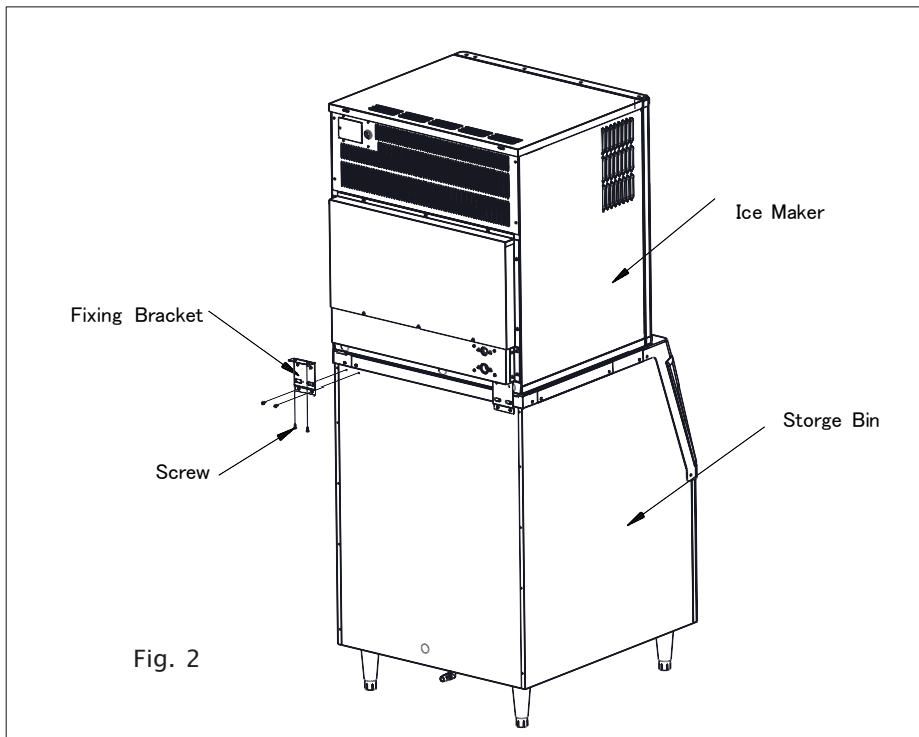
4. Once the icemaker is on top of the bin, move it backward little by little until the bin and the front door can open safely. (Align back and side.)



5. Secure the main body using the bracket on the rear side of the main body so that the it will not fall. (The fixing bracket is supplied separately.)



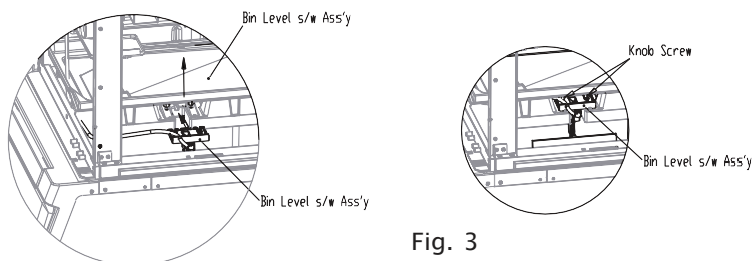
Place the ice maker on top of the bin and ensure it is secured. The manufacturer is not responsible for any damage and/or injury from accidents resulting from the ice maker not being properly secured.



6. Remove the tape from the bin control assembly, slightly raise the drain pan, then insert as shown in Figure 3, and secure it by tightening the two knob screws.



If you want to move the ice maker, be sure to disassemble the bin control assembly and move it over the drain pan to avoid damage.



How to Connect Water Supply and Drain

Water Supply and Drain Hoses Connection

Division	Appropriate Water Temperature	Water Pressure	Hose Used
Ice making Water Supply	50 ~ 90 °F(10 ~ 32 °C)	29 ~ 71 psi(0.2~0.5MPa)	3/8" FPT(NPT)
Ice Making Drain	-	-	3/4" FPT(NPT)

* Use a water filter with a flow rate of 7 L/min or higher when selecting a water filter for the product.

- An icemaker has a 1" air gap built into the machine which eliminates the requirement for a backflow preventer
- An icemaker water supply line shut-off valve and drain valve must be installed.
- Be sure there is sufficient extra water supply line and drain line for the appliance to be pulled out for service.
- Please connect a T-drain pipe to allow air to enter to ensure smooth drainage.

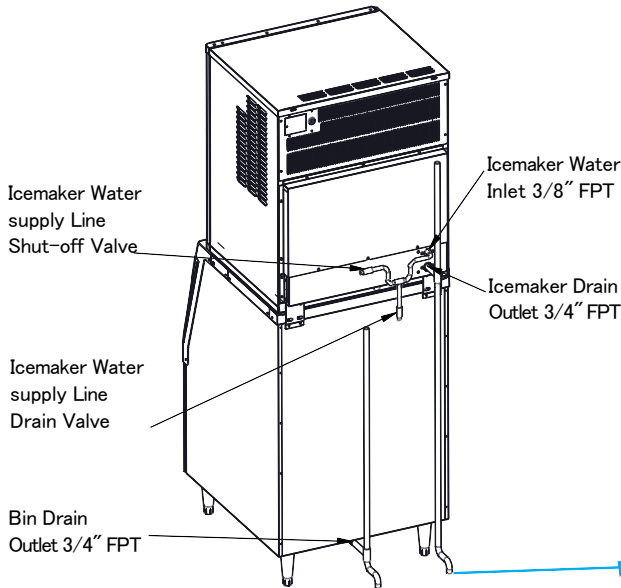
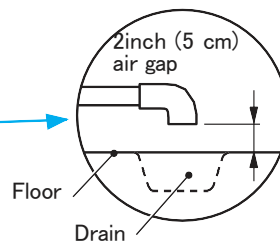


Fig.4

Be sure there is sufficient extra water supply line and drain line for the appliance to be pulled out for service.

Separate piping to approved drain. Leave a 2-inch (5-cm) vertical air gap between the end of each pipe and the drain.



Warning

About water supply and drain connections

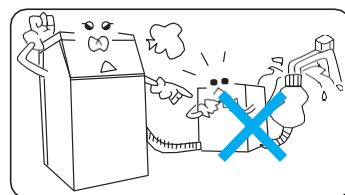
After connecting the product water supply and drain, do not allow water droplets (condensate) to fall on the floor.

Please cover it sufficiently with insulation material to prevent damage.

If water falls on the floor and causes damage, the manufacturer is not responsible.

After Installation

- Protection of the water supply hose
Do not step on or put heavy object on the water supply hose.

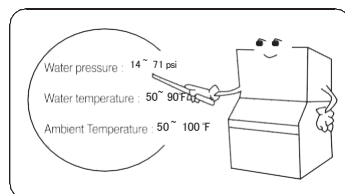


- Ensure the following

Water Pressure: 14~71 psi,
Water Supply Temperature: 10~32 °C(50~90 °F),
Ambient Temperature: 10~38 °C(50~100 °F).

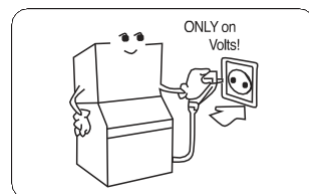


Connect potable water supply only.



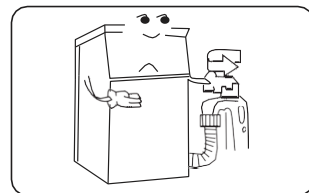
1. Plugging into the Power Supply.

- ◆ This icemaker is rated operate only on volts. Plug it into a volt rated outlet only.



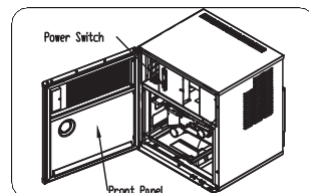
2. Supplying Water to the Icemaker.

- ◆ Open the valve to supply water to the icemaker.



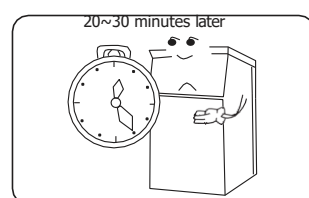
3. Ice making

- ◆ Open the Front panel and then Turn on the power switch to start ice maker.



4. Ice Making Operation.

- ◆ Although the operation time varies depending on the ambient temperature and or the water temperature, one (1) cycle of ice-making operation is completed 20~30 minutes after the operation starts.

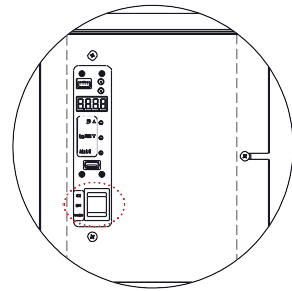


5. Operation Guide

ICE MAKING

1. Place the power switch on the panel to ICE to run the machine.

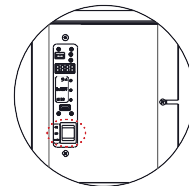
- ◆ When the product begins to run, the water will be supplied to water vessel, and the condenser and water pump will begin to run. (Approximately 20~30 seconds)



WASH

1. Place the power switch on the panel to WASH to run the wash cycle.

- ◆ The washing process will automatically wash the water vessel, water pump, connecting hose, water distributor, and evaporator.
- ◆ When you place the power switch from 'ICE' → 'WASH', it will begin washing after making and harvesting ice.



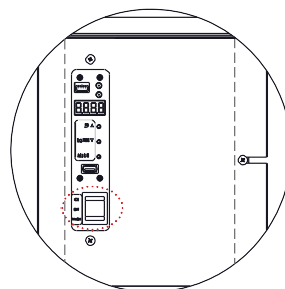
[Wash Cycle]

- ① The water plate is down and waits for 1 minute → The water plate rises. (allowing the cleaner and sanitizer to enter) → 1minute → Pump will run for 5 minutes
- ② Rinse # 1: After the water plate is down and the water supply operation starts → After 1 minute, the water plate rises → Pump will run for 5 minutes, and at the time of pump operation, the water supply valve will run for 20 more seconds and stop
- ③ Rinse #2, # 3: The operation is the same as Rinse #1 and only the pump operation time is different (3 minutes)

- ※ For details of washing and sanitizing processes, please refer to 'Cleaning and Disinfection' of section 8 - 'Maintenance, Repair, and Disinfection'.

OFF

1. Place the power switch on the panel to OFF to shut the machine down.



- ◆ When you place the power switch from 'ICE' → 'OFF', the machine will stop immediately.
- ◆ When you place the power switch from 'WASH' → 'OFF', the machine will stop after the washing cycle ends.

Adjusting Ice Thickness

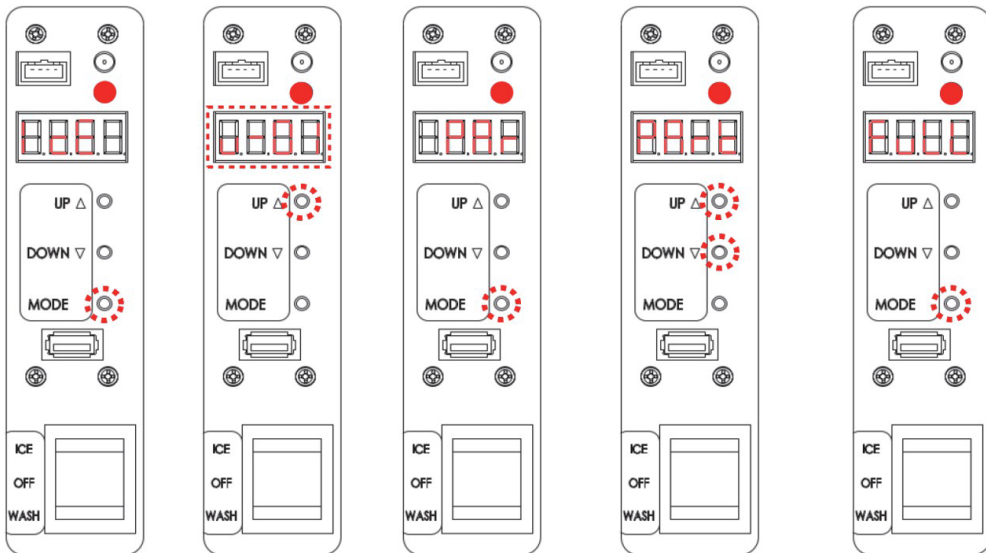
1. Press the 'Settings' button with the FND screen off.
2. When the version is displayed, press the 'Up' button three times.
(Show Main Version → Show FND Version → Show Date → Show Ice Thickness Settings)
3. When the ice thickness setting value is displayed, the number blinks when the 'setting' button is pressed. In this case, it is possible to change to a desired value by touching the 'up' and 'down' buttons.
4. After changing the setting value, press the 'setting' button to complete the setting.
(Confirmation of setting completion: Flashing number → Turn on number)

A diagram illustrating the steps to adjust ice thickness settings. On the left, a control panel is shown with a red box around the 'UP' and 'DOWN' buttons, labeled 'Button section', and another red box around the four-digit display, labeled 'Display section'. On the right, three sequential screenshots of the display are shown:
1. '1. Displays the Version' shows the display '0000'. An arrow points to the next state where the display shows 'MAIN (u-0.1) FND (d-0.1)'.
2. '2. Displays the date' shows the display '2024 11 15 FRI 02:40'. Below the display, the labels 'Year', 'Month', 'date', 'day', and 'time(hour - minute)' are shown. Below the display, the text '202x-xx-xx_Fri_02-xx' is shown.
3. '3. Set the ice-making completion energy value' shows the display '1500'. Below the display, the text 'value range : 0-3000 (Current Settings : 1500)' is shown.

Function Change of Partial Drain and Full Drain

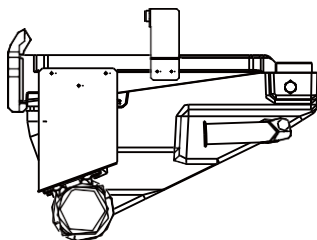
- In hard water conditions, white ice may form. Adjusting the setting to "Full Drain" can improve ice clarity.

1. Open the door and press the [MODE] button.
2. When the version appears on the FND Display, press the [UP] button.
3. Press the [MODE] button again to enter 'Partial Drain' setting.
4. Use the [UP] or [DOWN] button to switch 'PART (Partial)' to 'FULL' (Full).
5. Press the [MODE] button to confirm and save setting.

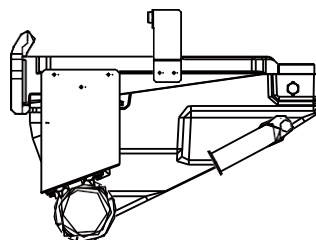


6. Loosen the knob screw shown in the picture below, change the tank drain pipe to the full drain position, and then tighten the knob screw again .



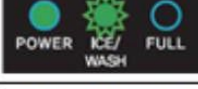






[Partial Drain]



[Full Drain]



6. Operating Status Display

Item	Display	Front Indicator Lamp	Action
Power on			Normal status
Ice Making			Normal operation
Wash		Blinking 0.8 sec	Normal operation
Full bin			Stop
Power on and booting up		Blinking 0.2 sec	Normal status
The program is being updated		Blinking 0.2 sec Sequential lighting	Normal status
USB is detected			Normal status
USB writing is completed		Blinking 0.8 sec	Normal status
Cleaning Alarm		Blinking twice Sequential lighting	Stop



If the Cleaning Alarm is displayed, please clean the product by referring to Clause 8.

Display of Flexible Numeric Display (FND) Module

※ Attention: FND module is an optional feature.

This is applied to only the models to which FND module is mounted.

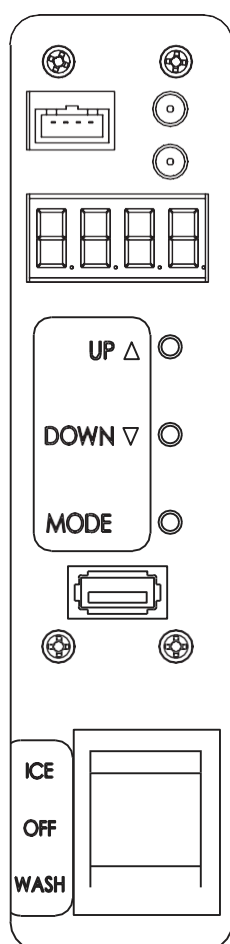


Fig. 5

● Operating Order

1. In standby mode, FND is off.
2. When you press "MODE" button, FND will turn on and show the program version.
3. While FND is on, press "UP" or "DOWN" button to move to the previous or next item.
4. Move to each item and press "MODE" button to see the default value on FND.
5. Change setting with "UP" or "DOWN" button, and press "MODE" button to save to move to upper item.
6. Press "MODE" button on simple display item to display the corresponding value and press "MODE" button again to move to upper item.
7. It will turn off automatically when it has no input for 30 seconds. Or press " M O D E " button for more than 3 seconds to turn it off.

● Forced Harvest








1. Set ICE/OFF/WASH Switch to the "OFF" position
2. Press "UP" + "DOWN" buttons simultaneous for 3 seconds to perform forced harvest.
※ Please avoid using this function unless repair service is needed.

● Water plate forced open/close

1. In standby mode, FND is off
2. Press the "DOWN" button for 3 seconds to open the water plate downwards.
3. Press the "UP" button for 3 seconds to close the water plate upwards.

Display and How to Use

※ When the Sensor is Open, it displays 'nonE'.

Item	Display
Displays the ambient temperature	
Displays the eva. temperature	
Displays the discharge Temperature	
Displays the condenser out temperature	
Displays the eva. in temperature	
Displays the eva. out temperature	
Displays the suction temperature	

7. Removal from Service/Winterization

Air-Cooled ICE MACHINES

General

Special precautions must be taken if the ice machine is to be removed from service for an extended period of time or exposed to ambient temperatures of 32° F (0° C) or below.

Caution

If water is allowed to remain in the ice machine in freezing temperatures, severe damage to some components could result. Damage of this nature is not covered by the warranty.

1. Remove the water from the icemaker water supply line:

- 1) Turn off the power supply, then Please open the front panel
- 2) Move the control switch on the control box to the “OFF” position.
- 3) Close the icemaker water supply line shut-off valve, then open the icemaker water supply line drain valve.
- 4) Allow the line to drain by gravity.
- 5) Attach compressed air or carbon dioxide supply to the icemaker water supply line drain valve.
- 6) Move the control switch to the “ICE” position.
- 7) Close the front panel in its correct position, then turn on the power supply.
- 8) Blow the icemaker water supply line out using compressed air or carbon dioxide.

2. Drain the water tank:

- 1) Turn off the power supply, then Please open the front panel
- 2) Remove the knob screw, and move the tank drain pipe to the drain position. See Fig. 6.
- 3) Close the icemaker water supply line.
- 4) Turn on the power supply.
- 5) Move the control switch to the “OFF” position.
- 6) Please press the 'Down' button for more than 3 seconds.
See Fig. 5. The water tank will start to open.
Note: This procedure is necessary to protect the icemaker from freezing up at sub-freezing temperatures.
- 7) Turn off the power supply when the water tank has fully opened.
- 8) Move the tank drain pipe to the normal position, and secure it with the knob screw.
See Fig. 6.
- 9) Close the front panel and tighten the two screws on the top and bottom of the panel.

8. Maintenance, Cleaning, and Sanitizing

※ Make sure that the product is maintained in accordance with the label and the user manual included in the package.



- Make sure that only a qualified technician service the product.
- In order to minimize the risk of electric shocks, do not touch or disassemble the electrical components of the product.
- Before servicing the product
 - Turn off the power and the circuit breaker('OFF') and unplug the power cord from the power outlet.
- Risk of suffocation
 - After maintenance works, make sure that all parts(fixing parts, screws, bolts) are in place.
 - Make sure that no parts falls into the ice maker or the ice storage bin.

Maintenance schedule

※ Following maintenance schedule is for reference.

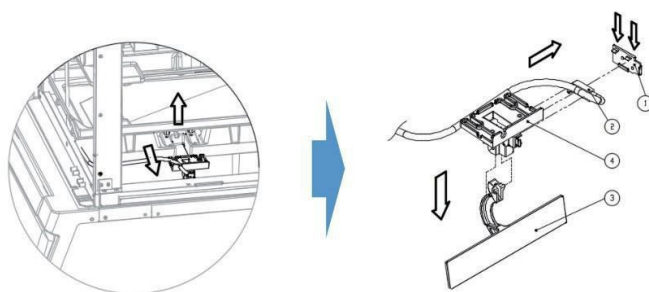
※ More frequent maintenance will be needed in accordance with the local hygiene regulations, water quality, and conditions of the site.

Maintenance Schedule		
Frequency	Area	Task
Daily	Scoop	Clean the ice scoop using a neutral cleaner. Rinse thoroughly after cleaning.
Bi-Weekly	Air Filters	Inspect. Wash with warm water and neutral cleaner if dirty.
Monthly	External Water Filters	Check for proper pressure and change if necessary.
	Icemaker Exterior	Wipe down with a clean, soft cloth. Use a damp cloth containing a neutral cleaner to wipe off oil or dirt build up. Clean any chlorine staining (rust colored spots) using a non-abrasive cleanser.
	Underside of Icemaker and Top Kits; Bin Door and Snout	Wipe down with a clean cloth and warm water.
Yearly	Icemaker and Ice Storage Bin	Clean and sanitize per the cleaning and sanitizing instructions provided in this manual. See " Cleaning and Sanitizing Instructions."
	Water Supply Inlet	Close the icemaker water supply line shut-off valve and drain the water system. Clean the water supply inlet screen.
	Condenser	Inspect. Clean if necessary by using a brush or vacuum cleaner. More frequent cleaning may be required depending on location.
	Water Hoses	Inspect the water hoses and clean/replace if necessary.

Disassembling Parts for Cleaning and Sanitizing

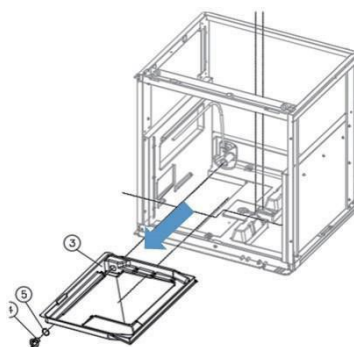
1. Disassembling of the Bin Control Assembly

- © Open the front panel
- © Unscrew the two knob screws bottom and pull the Bin Level Switch upward.
- © Disconnect the micro switch from the Bin Level Switch.



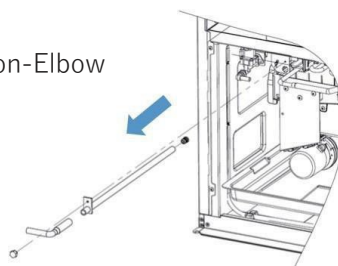
2. Disassembling of the Drain Pan

- © Open the front panel
- © Unscrew the Drain Flange on the Drain Pan
- © Pull the drain Pan forward.




3. Disassembling of the Water Supply Pipe

- © Open the front panel
- © Unscrew the knob screw on the Eva. Frame
- © Pull the Water Supply Pipe and disconnect the Silicon-Elbow



Cleaning / Sanitizing Instructions

※ The ice maker requires cleaning and sterilizing at least twice a year.
It may need more frequent cleaning and sterilizing based on water quality/

 **Warning**

- ◆ Make sure to comply with the following.
 - Do not use ammonia-based detergents to prevent damage to the personnel or the ice maker itself.
 - Cleaning and sterilizing must be conducted in accordance with the instructions on the user manual.
 - Always wear protective gloves and goggles to prevent skin or eye from coming into contact with the sterilizing solution.
 - Do not use the ice made with the cleaning or sterilizing solution after cleaning and sterilizing.
- Make sure that no sterilizing solution is left on any part of the ice maker and the ice storage bin.
- To prevent damage to the water pump, do not leave the control switch in the "WASH" position for extended periods of time when the water tank is empty.

1. Cleaning Procedure

1) Ice maker cleaning agent is used to remove lime scale and other mineral sediments. It is not designed for removing fur or sticky mucous substance. Refer to "Sanitizing" section in the next page about removing fur or sticky mucous substance. Mix 150ml of cleaning agent and 4 liters of water in a plastic or stainless storage bin.

Cleaning Agent (Nickel Safe Cleaner)	Water
150 ml (16 oz)	4 Liters
Disinfectant (5.25% Sodium Hypochlorite)	Water
160 ml	4 Liters

- 2) Move the control switch to the "OFF" position. The unit will stop after the ice-making cycle.
- 3) Remove all ice from the storage bin.
- 4) Unscrew the two screws on the top and bottom of the front panel and open the front panel.
- 5) Disassemble the Bin Level Switch, the Drain Pan and Water Supply Pipe.

For disassembling, please refer to page 29. Put all components in 3 liter of cleaning agent-water mixture and clean with soft nylon brush.

If there is a thick build up of lime, soak them in the mixture for 15~20 minutes. Shake the parts from time-to-time use warm water for better results.

After cleaning, rinse all parts with clean water.

* If you want to sanitize, you should use diluted sodium hypochlorite with water instead the cleaning agent. For more detail, please see the Sanitizing Procedure.

- 6) Move the control switch to the "ICE" position for 3 minutes and drain water in the water tank.
- 7) Move the control switch to the "OFF" position.
- 8) Open the front panel.
- 9) Move the control switch to the "WASH" position.
- 10) When the water table returns to the 'up' position as the machine is filling with water, slowly pour the 38 ml cleaning solution over the top of the evaporator and into the water tank. When pouring the cleaning agent, it is recommended to use a funnel as shown in Fig. 7. Do not splash or spill the solution onto other parts.
- 11) Close the front panel.
- 12) Move the control switch to the "OFF" position after 30 minutes.
- 13) Open the front panel.

- 14) Move the control switch to the "ICE" position for 3 minutes and drain the water tank.
- 15) Move the control switch to the "OFF" position.
- 16) Repeat steps 14 and 15 three more times to rinse thoroughly.

Note: If not sanitizing the icemaker, go to step 19 in " 2. Sanitizing Procedure."

2. Sanitizing Procedure – Following Cleaning Procedure

- 1) Dilute a 5.25% sodium hypochlorite solution (chlorine bleach) with water (add approximately 5.4 fl. oz. (160 ml) to 1.1 gal. (4.0 l) of water).
- 2) Move the control switch to the "ICE" position for 3 minutes and drain the water in the water tank. Turn on the power supply for 3 minutes. The water tank drains.
- 3) Move the control switch to the "OFF" position.
- 4) Open the front panel.
- 5) Move the control switch to the "WASH" position.
- 6) When the water table returns to the 'up' position as the machine is filling with water, slowly pour the 40 ml of the sanitizing agent over the top of the evaporator and into the water tank. When pouring the sanitizing agent, it is recommended to use a funnel as shown in Fig. 7. Do not splash or spill the solution onto other parts.
- 7) Close the front panel.
- 8) Move the control switch to the "OFF" position after 30 minutes.
- 9) Open the front panel.
- 10) Move the control switch to the "ICE" position for 3 minutes and drain the water tank.
- 11) Move the control switch to the "OFF" position.
- 12) Repeat steps 10 and 11 three more times to rinse thoroughly.
- 13) Repeat steps 1 through 12 one more time.
- 14) Open the front panel.
- 15) Remove the screw, then move the water tank drain pipe to the normal position. See Fig. 6. Use the screw to secure the water tank drain pipe in the normal position.
- 16) Close the front panel.
- 17) Clean the storage bin liner using a neutral cleaner. Rinse thoroughly after cleaning.
- 18) Turn on the power supply to start the automatic icemaking process.

Note: After cleaning and sanitizing, please throw away the first batch of ice and use the ice from the next cycle.

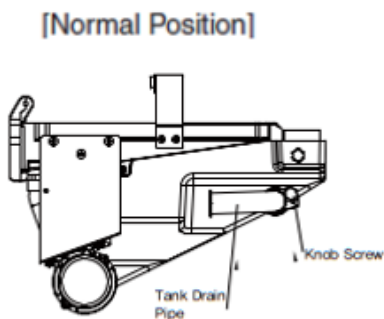


Fig. 6

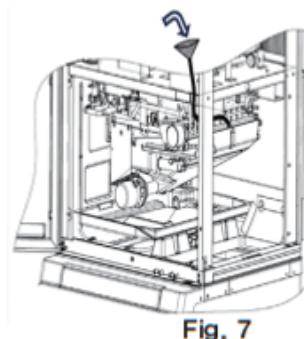
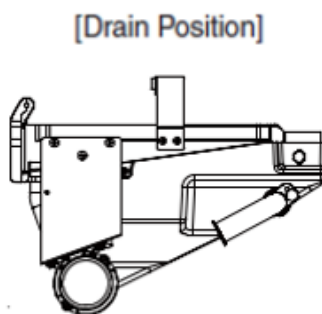


Fig. 7

Cleaning Air Filter

Clean with warm water (approximately 25°C) or the water mixed with neutral cleaning agent at least once a month, dry fully, and reassemble again.

※ **Warning:** When the filter is covered with dust and does not ventilate well, it may become difficult to make ice or may cause malfunction.



Caution



Warning

- Clean the ice scooper regularly. Clean it with other food storage bins.
- The handle of the ice scooper can be easily exposed to germs by hands.
- The cleaning agent can cause burns.
- If accidentally ingested, seek medical advice/attention immediately.
- If your skin comes in contact with the cleaning agent, clean with water.
- Keep the cleaning agent out of the reach of children.

Caution for Cleaning the External Panel (Stainless Steel)

Regular washing for stainless steel helps prevent rust.

※ How to remove rust

1. Rust spots in early stage
 - Rust spots in early stage mean that the stainless steel itself is not severely affected, thus mild detergent or any commercially available cleaning agent will restore original state. Rust will be removed with ease and at low cost if regular cleaning is done at appropriate intervals.
2. Red rust
 - Rust spots that are not removed after a short period of time will turn into thick reddish brown rust and will damage the surface of the stainless steel. This is much harder to remove and the surface will not be fully restored; thus, it is important to remove rust spots early on.
If commercially available cleaning agents do not work, use sandpaper or a stainless steel brush to remove the rust before applying the agent for easier removal. This process requires treatment, such as refurbishment after cleaning.
3. Rust from iron
 - Rust from coming into contact with welding spatter, rust from the metal bar above the stainless steel part, or contact between the stainless steel parts and general metal parts are caused galvanic corrosion. This causes the metal to rust first, and it will eventually cause the stainless steel to rust too if it is not removed. As such, make sure to clean and remove rust immediately with a mild detergent. However, when the rust has become significant, it must be removed with 15% nitric acid solution or commercially available stainless steel cleaner.
4. Rust from exhaust gas or acid rain
 - In environments, such as a factory complex or heavy transport sites, the product will become contaminated in a short amount of time due to exhaust fumes or acid rain and rust spots will quickly form. Light rust can be washed off with a mild detergent or soapy water, but heavy rust will require 15% nitric acid solution or commercially available stainless steel cleaner.
5. Rust from salt deposit
 - In environments, such as windowsills or pipes on the porches of an apartment complex, that are close to the seashore where the product may be directly exposed to the sea winds, STS304 or STS316 will get rusted in no time, and this will occur much faster than in other types of environments. These cases require special treatment, such as using painted stainless steel or regular cleaning.
6. Rusts from disinfectants or cleaning agents
 - Sites, such as pools or public baths, that use chlorine-based agents to sterilize the water, especially those for cleaning bathrooms, contain chlorine content that attaches to and rusts the stainless steel surface. Thus, it is important to thoroughly wash off such agents after using them, and a 15% nitric acid solution or commercially available stainless steel cleaner are required for removing this type of rust.

9. Type of Product Error

Type of Error	Display		Cause	What to do	Release	Action
	Front Indicator Lamp	Error Code				
Full Bin		—	The bin is filled with ice	Use fo ice	Automatically release when the bin is emptied.	Stop
Water Supply Trouble		Er06	Evaporate sensor failure (Open/Short)	Confirm the evaporate sensor	It automatically returns when it is recognized as a normal temperature range.	Stop
Drainage Error		Er07	Air sensor failure (Open/Short)	Confirm the air sensor	It automatically returns when it is recognized as a normal temperature range.	Stop
Trouble in Ice Making		Er01	This error occurs when the evaporator temperature is above 0°C (32°F) 3 times in a row after 60 minutes of ice making.	Check cooling unit (Inquiry Service Center when there is a problem)	Reconnect power after resolving cooling problem	Stop
Poor Ice Making		Er03	This error occurs when the evaporator temperature is above -5°C (-42°F) 3 times in a row after 10 minutes of ice making.		Even if an error occurs, ice making will operate normally	Run
Ice Making Delay		Er11	It flickers when the maximum ice-making time is exceeded.		The mode switch must be turned off and then switch to ice-making. Reconnect power after resolving cooling problem	Auto restart after 1 hr after stop
Ice Harvest Delay		Er12	It flickers when temperature is below the set temperature until the set maximum harvest time has elapsed.		The mode switch must be turned off and then switch to ice-making. Reconnect power after resolving cooling problem	Auto restart after 1 hr after stop
High Pressure Detection		Er13	Fan motor failure Condenser clogged	Check fan motor and condenser. Check water supply line of the cooling unit(Inquiry Service Center when there is a problem)	Reconnect power after resolving the cooling water supply problem.	Auto restart after 1 hr after stop

10. Before Contacting Service Center

If the machine is not operating as it is expected to, please check the following.

If the machine does not operate properly afterwards, please contact the retailer you purchased the product from or the service center.

When you contact the retailer or service center, please inform them the following thoroughly.

(Model name, manufacturer's serial, agency that sold the machine, date of purchase and the detailed description of the current state)

Operating Status	Checklist	What to do
1. Machine is Not Working	1. Is the power supplied?	1. Supply power.
	2. Is the power supply of the machine using correctly?	2. Check power and use exclusive outlet.
	3. Is the 3-step switch turned to ice?	3. If on 'OFF' or 'WASH', turn to 'ICE'.
	4. Is the water curtain open?	4. Eliminate the cause and close.
2. Takes Too Long to Make Ice	1. Machine is too dirty.	1. Clean as indicated in 'Clause 6'.
	2. Ambient temperature is too low.	2. Adjust ambient temperature to 50 °F or greater.
	3. Dregs remaining in the coolant flow control valve.	3. Clean the valve as indicated in 'Clause 6'.
	4. Ice thickness is too widely set.	4. Adjust to 0.23~0.31 inches.
3. Ice is Too Small or Dirty.	1. Water supply pressure is too weak.	1. Raise the supply pressure. Clean the strainer on the back.
	2. Machine is too dirty.	2. Clean as indicated in 'Clause 6'.
4. Does Not Form or Make Easily.	1. Ice thickness adjustment sensor is malfunctioning.	1. Maintain at around 0.23~0.31 inches by adjusting the sensor screw.
	2. Water supply level is too low or high.	2. Adjust water supply delay time.
	3. Water supply valve failure.	3. Check normal operation.
	4. Strainer is blocked.	4. Disassemble and clean the strainer on the back.
	5. Water supply temperature and pressure are high.	5. Refer to '3-2'.
5. Ice Producing Amount is Too Small	1. Supplied water is dirty.	1. Clean as indicated in 'Clause 6'.
	2. Insufficient water supply.	2. Check water pressure or water outage.
	3. Condenser is dirty.	3. Clean the filter on the back for air-cooled condenser.
	4. Ambient temperature is too high.	4. Ambient temperature should be less than 100 °F.
6. Water Standing inside Bin	1. Drain is higher than bin.	1. Ensure that the drain is lower than bin.
	2. Drain is clogged.	2. Clean the hose.

11. R-290 Handling

REQUIREMENT FOR SERVICE AND INSTALLATION OF APPLIANCES USING FLAMMABLE REFRIGERANTS



Danger

- Never apply a torch to a charged R-290 refrigeration system. R-290 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-290 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 - 2 9 0 from a properly labeled container.
- Do not remove or alter any R-290 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: 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.

R-290 SPECIFICATION

R-290 is considered non-toxic but is flammable when mixed with air.

R-290 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/gas 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 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-290 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 AREAS

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-290 equipped products.

REFRIGERANT CHARGING

No air is ever to be allowed inside the refrigeration system (R-290 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-290 has been exempted from recovery/reclaiming requirements by the US EPA.

Recovery/Reclaiming equipment must be approved for use with R-290.

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 certified and/or authorized service technicians permitted to service R-290 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-290 equipped products.

Memo

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