

Commercial Kitchen Equipment Manufacturer

Ice Maker

Consumer Service Information

If you have any questions, contact us by any of these methods:

EMAIL

Email to service@coolakeus.com

ONLINE Go to www.coolakeus.com



INSTRUCTION SAVE THESE INSTRUCTIONS

DOE/CEC

The Picture of Exterior Used is For Reference Only



Welcome to Coolake

Please read it before using your equipment. Keep it handy for quick reference. If something goes wrong, the troubleshooting section will help you with common issues. Email us and provide us with your phone number, and our technician will call you in 24H if you need help.

Be sure to register your product. Keep your product information here so it's easy to find.

Purchase Date	
Order Number	
Model Number	
Serial Number	

COOLAKE Limited Warranty

(Applies only for original purchaser)

This quality COOLAKE ice machine is designed and built to provide many years of satisfactory performance under normal commercial use.

COOLAKE warrants equipment manufactured by it as follows:

- a) All commercial refrigeration equipment 2-year parts and lifetime technician support.
- b) Electronic circuit and/or control boards 3-year parts and lifetime technician support.

c) Compressors on refrigeration equipment - 5 years parts.

These warranty periods run from the date of installation COOLAKE warrants that the equipment manufactured by it will be commercially free of defects in material and workmanship existing at the time of manufacture and appearing within the applicable warranty period.

This warranty does not apply to any equipment, component, or part that was not manufactured by COOLAKE or that, in COOLAKE's judgment, has been affected by misuse, neglect, alteration, improper installation or operation, improper maintenance or repair, non-periodic cleaning and descaling, equipment failures related to poor water quality, damage or casualty.

To obtain service under the warranty, please email us and provide us with your phone number. When mail us, please include your order number, model number, serial number, and the date you purchased the appliance as well as a description of the problem you are encountering with the appliance.

We want you to obtain maximum enjoyment from using this COOLAKE appliance and ask that you read and follow the instructions enclosed.

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IMPORTANT

Please read the warnings and guidelines contained in this manual carefully before the appliance is installed and operated as they provide essential information for the continued safe use and maintenance of the appliance. Retain this manual for any further reference that may be necessary.

IMPORTANT

WARNING

Please note any caution or warning symbols when they appear on the product or in this manual. They indicate potential hazards.

1 Product Inspection & Acceptance

Thank you for purchasing the COOLAKE commercial ice machine. Please follow the below advice to check the equipment when the carrier delivers the equipment:

- 1. Intact Package: Check if the outer packaging is in good condition and there is no damage.
- 2. Accessories: Check these accessories or parts attached are all in the package.
- 3. Intact machine: Check if the machine is in good condition and there is no dent or damage.







Due to various reasons during transportation, the lubricating oil in the compressor may backflow into the copper pipe, which may cause possible malfunction of the machine, e.g. the lack of compressor oil will cause burning out. It is strongly recommended you that upright the machine for at least 24 hours before connecting it to an electric net and using it.



Placed horizontally evenly



Good Ventilation



Avoid direct exposure to wind and sun

Important Safety Information



WARNING

In this manual, notices appear to bring your attention to situations that could result in serious injury, damage to the appliance, or property damage.

Follow basic precautions to reduce the risk of electric shock, serious injury, or fire.

- 1. The power connection should be applied to the nameplate, the specified power supply should be used, and the specifications of the wires used to connect circuit 3 should be determined to meet the requirements.
- 2. The machine must be reliably grounded.
- 3. It is strictly forbidden to operate the power plug when your hands are wet, and you must unplug the power plug before maintenance.
- 4. The electrical control system voltage is greater than 36V, non-professionals are not allowed to open and touch casually.
- 5. When the ice machine is out of use, unplug the power plug or cut off the power supply.



NOTICE

The correct installation, usage and maintenance of the ice maker is very important to the output of the ice maker and reduce the failure rate. Please read and understand this manual, which contains valuable information on installation, usage and maintenance. If you encounter problems not covered in this manual, you may contact our company or our service provider at any time.

★ IMPORTANT

The adjustment, maintenance and cleaning contents in this manual are not covered by the warranty.



Water fileter element must be regularly replaced.

Fin of condenser is sharp, be careful

Ensure the cut-off of water and power before maintenance.

3 Introduction

Features

- 1. IM series ice maker has a number of patented control systems, simple operation and precise control, suitable for different water quality conditions;
- 2. The key components are all internationally renowned brands to ensure reliable work in harsh environments;
- 3. The parts in contact with water are made of food-grade plastic material, and the shell is made of stainless steel to ensure food safety and excellent rust resistance.



Size List(unit: mm)									
	А	В	С	D	Е				
IM180S	660	830	110	940	695				
IM210S	660	830	110	940	695				
IM280S	660	830	110	940	695				

Appearance



- - 1. Door
 - 2. Decorative Plates
 - 3. Ventilation Window
 - 4. Top Cover
 - 5. Display Screen
 - 6. Right Plate
 - 7. Height Adjustable Foot



- 11. Power cord connector
- 12. Bottom plate

Size

Unpacking

- 1. Before unpacking, check whether the anti-tilting signs (if any) are intact, whether the outer packaging of the machine is intact, and whether the model of the machine is consistent with your purchase;
- 2. Open the package to check whether the appearance of the machine is in good condition, take out the accessories and random documents, and check whether it matches the packing list;
- 3. Remove the protective film on the shell (recommended)
- 4. If there is any discrepancy or damage, please contact our company/dealer directly.

Installation Location



The installation of the ice machine should comply with safety standards, and the ice machine should not be installed in the aisles of public buildings.

- This ice machine is not suitable for outdoor use, Do not install it near a heat source or direct sunlight;
- The normal working environment temperature is 10°C ~ 38°C, and the water temperature is 5°C ~ 32°C. If the ice maker works outside the above normal temperature range for a long time, it may affect the ice making capacity;
- The ice maker should be installed on a solid, flat ground;
- The ice maker should be placed close to the source of drinking water, and it is recommended to be within one meter of the ice maker;
- Do not block the ventilation windows of the ice machine, and there should be enough air convection space around the ice machine;
- The ice machine cannot work at sub-zero temperatures. In order to prevent the water supply pipeline from malfunctioning, when the temperature is below zero, please drain the water in the ice maker (see "Preparations for long-term storage of the ice maker")

Level Adjustment



When adjusting the level of the ice machine, do not use the method of putting hard objects under the feet to adjust the level. It is necessary to ensure that the four feet of the ice maker are in stable contact with the ground to prevent the machine from vibration.

- Screw the adjustable parts of the 4 adjusting feet to the end, and then rotate the adjusting feet into the corresponding mounting holes at the four corners of the bottom plate of the ice machine;
- Move the ice maker to the installation location. Use a spirit level to level the ice maker

5 Installation Instructions

Water Supply

 According to the local water supply, determine whether it is necessary to install a water treatment system to prevent the formation of sediments, filter out impurities, and remove the smell of bleaching powder;

• Please follow the guidelines below to install the water supply pipe:

a. Do not connect the ice maker to a hot water source;

b. If the water pressure exceeds the maximum allowable water inlet pressure (1~5bar), please purchase a water pressure regulating valve;

c. A manual water supply valve must be installed before all water supply pipes of the ice machine.

Water Drainage

- When installing the drain pipe, to prevent water from flowing into the ice machine bin, please follow the following guidelines;
- The main drainage pipe should be able to drain the water in all drainage branches:
 - a. The drain pipe of the storage bin should be covered with insulation material to prevent condensation;
 - b. The drain pipe of the water-cooled condenser and the storage bin should be placed separately;
 - c. Every additional meter of drain pipe must have a drop of 2.5 cm and no bends.

Power Supply

- The power supply voltage, frequency and power supply capacity must be consistent with those marked on the machine nameplate;
 Allowable voltage fluctuation managing | 100/ of rated
 WARNING
- Allowable voltage fluctuation range is ±10% of rated voltage;
- The ice machine must be equipped with a circuit breaker separately.

Cleaning After Installation

• After the ice maker is installed, clean the shell, inner container and ice shovel of the ice maker with a clean damp cloth/sponge

Check After Installation

After the ice maker is installed, check the following contents before running

- Is the ice machine even? Have all the inner packaging been removed?
- Are all the water and electricity connected? Does the supply voltage match the rated voltage on the nameplate?
- Is there a proper space around the ice machine for air circulation?
- Is the inlet water temperature at the installation point of the ice maker maintained between 5°C and 32°C?
- Is the ambient temperature of the ice maker between 10°C and 38°C?



The power supply must be grounded reliably,

and the wiring used must comply with the laws and regulations of the country and region in USA.

WARNING

The ice maker must be connected to a

source of potable water.

Power Supply

• Power on: Connect water supply and drainage, plug in power plug, press power switch, touch screen start to light up.



• Power off: In ice making, press "o" once, the ice maker stops making ice (standby state), the screen shows" OFF", press the power switch, then pull out the power plug.

Ice Making

- a. After the ice maker is power on, the ice maker automatically enters the ice making preparation work. The preparation process includes water pump start, hot valve open, compressor start, fan start, etc. Under normal circumstances, after the preparation work is finished, the ice maker start automatic ice making, no need to do any more operation until the ice machine stops making ice; when the ice is removed, the ice machine begins to make ice;
- b. In standby state, press "once, start making ice.

NOTICE

The ice maker has been tested and debugged in the factory before shipment. The new machine can make ice without any debugging.

Forced De-icing

Press " 🔄 " to force deicing under ice-making condition.

Ice Thickness Adjustment

In the ice-making state, press " 2 " or " 2 " can see the screen " 2 " count display number start flashing, each press " 2 " can increase the ice-making time for 1 minute, each press " 3 " can reduce the ice-making time for 1 minute; after adjustment, stop operation, " 2 " the number no longer flashes, the ice thickness setting is complete (Note: before and after the ice thickness adjustment, the ice maker has been making ice);

Manual Cleaning

Press "eea" in standby state, enter manual cleaning state, cleaning icon flicker, water inlet valve open, screen display start timing, about 15 minutes later, cleaning stop, start drainage,30s after drainage, enter automatic rinsing stage, Clean for 3 mins, drain for 30s, and recycle for 5 times, the whole cleaning process and the screen shows "OFF", enter standby state;

Note: if you need quick cleaning, enter the rinsing stage, rinse if you do not need to cycle many times, press "**O**" stop rinsing, into standby state;

Reserve Ice Making

Standby state (display "OFF"), press "22" enter time settings first, increase 10 mins each time by pressing "22"; reduce 10 mins each time by pressing "22"; after setting up, press "20", the screen shows the countdown of the set time, when the countdown is 00:00, the ice maker begins to make ice.

Set Up Function

Standby state (display "OFF"), press " """ until the screen "OFF" disappear and jump into the parameter setting state, """ " through """ to control the addition and subtraction operation, set the state of light point """ switch the next setting, parameter switch round, from the first parameter cycle again.

*" Setup function " is recommended to be operated under the guidance of professionals.

Ice-Making Workflow

- The display is all on after power-on, and all off after 1 second. Then enter the power-on balance state. The hot valve opens, and the water valve and fan are controlled. After 30 seconds, the press opens, and after another 5s, the hot valve closes to start ice making.
- 2. During the ice making process. The compressor continues to open, the hot valve and the drain valve are closed, the fan is controlled, the water pump opens after 30 seconds, the water valve is controlled within the first 5 minutes, and it is forced to close after 5 minutes. When the time exceeds 23 minutes or it is detected that the water temperature is lower than 3°C, the set ice-making time will be delayed. When the delay time expires, the ice-making ends. If water is needed, open the drain valve 30 seconds before the end of ice making.
- 3. After the ice making is over, it enters the deicing state. The compressor continues to open, the hot valve opens, the water valve is controlled, and the water pump, fan and drain valve are closed. The maximum time for deicing is limited to 6 mins. If the ice does not come off in 5 mins, turn on the water pump for 1 minute. If the ice is still not removed, switch to ice making. Three times in a row for more than 6 mins, switch to de-icing overtime shutdown.
- 4. After the ice is taken off, if the ice in the storage ice bin is not full, it will enter the ice making state and start a new cycle. If the storage ice bin is full of ice, it will enter the ice-full shut down state. The water pump, compressor, hot valve, water supply valve, fan and drain valve are all closed. If the ice is taken away, the ice full indicator will flash within 180s after the ice is full. After the ice is full for 180s, turn on the power and start a new cycle. If the ice is not taken away, it will always be full of ice.

Operation Inspection

- · Make sure the water inlet tap is turned on
- Confirm that the water inlet valve has been opened
- The ice machine is powered on
- Check all water pipes and pipe joints to ensure that there are no leaks

NOTICE

The ice machine has been tested and debugged at the factory before shipment. Generally speaking, the newly installed machine does not need any debugging. In order to ensure the normal operation of the ice machine, an operation inspection is required under the following conditions;

- Initial start
- · Restart after long downtime
- · After cleaning and disinfection

Routine Cleaning

Working Environment: Clean the surroundings of the ice machine frequently to keep the environment clean and the equipment operate more efficiently.

Clean the Shell: Use a sponge dipped in neutral cleaning fluid to clean the ice machine and dry it with a clean soft cloth. Stainless steel cleaner can be used when necessary.

Clean the Air filter: The filter is used to filter out dirt or dust in the air and prevent the condenser from clogging. If the filter is clogged, the working performance of the ice maker will decrease. It is recommended to clean the air filter once or twice a month.

Routine Cleaning

NOTICE

- It is strictly forbidden to flush the ice maker with a water jet. Do not use any alcohol-containing liquid to clean or disinfect the ice machine, otherwise it may cause cracks in the plastic parts;
- Remove the top plate and back plate, but should be disassembled by maintenance personnel with appropriate knowledge;
- Do not put plastic parts in water or dishwasher with a temperature of over 40°C to avoid damage to the parts.

Remove the Top Cover

There are two screws on the top cover and the back of the ice maker. Use a Phillips screwdriver to remove them.



Lift the top cover slightly upwards first, and then gently pull back to pull out the top cover.



Remove the Back Plate

Use a Phillips screwdriver to remove the two screws on the upper part of the back plate. Lift the back plate upwards slightly to remove the back plate (Note: the drain pipe is placed on the back plate, be careful)



★ IMPORTANT

It is not recommended to remove the top cover, please have the corresponding knowledge or under the guidance of professionals.

Clean Evaporator

Use a brush or sponge dipped in descaling agent or vinegar to scrub the surface of the evaporator.



Use nylon brush dipped in descaling agent or vinegar to scrub the plastic parts around the evaporator.



9 Routine Cleaning

Clean Sink





Use a soft material such as a brush or sponge dipped in descaling agent or vinegar to scrub the sink.



WARNING

To clean the condenser, the ice maker must be disconnected from the power supply. The edge of the condenser is sharp, be careful of cuts when cleaning.

★IMPORTANT

Dirty condensers will block the air circulation, causing the ice maker to operate at an excessively high temperature, reducing ice production and shortening the service life of parts.

Clean Condenser

It is recommended to clean the condenser every six months, and follow the steps below:

Push the two clips shown in the figure below toward the middle, then remove the front panel backwards.



The filter shown in the picture below is magnetic and can be removed directly.



Use a nylon brush to clean the dust on the filter or rinse the filter with water and dry it.





Brush the condenser fins up and down with nylon brushes to remove dust;



★IMPORTANT

After cleaning, please reinstall the top cover and install it correctly.

Cleaning and Disinfection

NOTICE

Do not mix disinfectant and cleaning solution; Do not use sharp objects to clean the surface of the evaporator;

It is recommended to perform this process once at least within 3 months.

WARNING

Before cleaning and disinfecting, please wear protective equipment such as rubber gloves, masks and protective glasses.

Removal and installation of parts must be carried out under power-off conditions.

Ice cubes during the cleaning and disinfection process must be discarded.

To keep the ice machine work stably and efficiently, the user is responsible for operating in accordance with the requirements of cleaning and disinfection (the operation of cleaning and disinfection is not covered by the warranty).

Cleaning Process

1. Open the door of the ice maker and check if the ice maker evaporator is making ice. If ice is being made, the forced de-icing procedure can be executed (see the above operating instructions "10.4 Forced De-icing"), press " to standby state, the screen will display "OFF";



- 2. Take out all ice cubes in the bin with ice scoop;
- 3. Press the "Second states of the second states and the second states of the second states o



When water starts to flow on the evaporator;



Add 2 packs of cleaning agent (KAY DELIMER, 56.7g/pack) or mixed containing cleaning liquid to thewater tank;



11 Cleaning And Disinfection

The water from the sink to the evaporator has been circulated for cleaning. After about 15 mins, the cleaning process stops and starts to drain;



Drainage process is completed after 30s;



Enter the automatic clean phase to clean for 3 mins, then drain for 30s. After the cleaning process is recirculated 5 times, the entire cleaning process ends and the screen displays "OFF";



Enter the standby state, the whole process takes about 37 mins.

- 4. Unplug the power plug.
- Remove the water pipe, water baffle, take out the water pump, float ball, ice shovel (refer to the parts removal/installation process for the removal method)
- 6. Mix 8L hot water (45 ~ 50°C) and 4 packs of cleaning agent (KAY DELIMER, 56.7g/pack) into a cleaning solution (the amount of cleaning solution needs to be adjusted appropriately for the amount of cleaning parts).
- 7. Soak the parts in the cleaning solution for more than 5 mins (for heavy scale, it is recommended to soak for more than 10 mins).



8. While soaking these parts, use a nylon brush or soft cloth dipped in cleaning fluid to wipe the surface of these parts, such as evaporator ice trays, ice shields, ice storage buckets, etc. The damp cloth wrapped disposable chopsticks to clean up. Then clean with fresh water for 5 times.



Scrubbing the ice guard.



Scrubbing the ice bin.



Brush the water pipe core rod.



Brush the bottom of the water pump.



Brush the plastic parts around the evaporator.



Brush evaporator.



Brush water tank.



Flush the evaporator.



Clean the sprinkler pipe and core rod.

9. Take out the soaked parts and rinse them with clean water (rinse 5 times).

Disinfection Process

- 1. Mix 8 warming water $(45 \sim 50^{\circ}C)$ and 2 packs of disinfectant (KAY5, 28.4/package) into a disinfectant (the amount of disinfectant is adjusted according to the amount of parts).
- 2. Soak the cleaned parts in the prepared disinfectant.



Use a spray can to evenly and completely spray the disinfectant on the surface of these parts that are in contact with the ice, such as the evaporator ice tray, ice shield, ice storage bucket, etc. (the corners can be wetted with disinfectant disposable chopsticks wrapped in a rag to clean)



After 20 minutes, take out the soaked parts and clean the sterilized parts with clean water. Install the removed parts back(refer to 15.3 Parts removal/installation process for installation methods) and follow thses steps strictly.

- 3. Use 1L of water and 1/2 pack of disinfectant (KAY5, 28.4/package) to make a disinfectant.

13 Cleaning And Disinfection

At the same time, use a watering can with disinfectant to spray the outer surface of the tank to the evaporator. Wait a minute, the cleaning process stops and the drainage starts;



Flush evaporator.



5. Drainage process is completed after 30s.



6. Enter the automatic cleaning process to clean for 3 mins, then drain for 30 seconds, after the cleaning process cycle 2 times, then clean with fresh water for 3 times, and the entire cleaning process ends, the screen displays "OFF". Note: Ice making starts after cleaning and disinfection. The first 5 plates of ice are discarded and do not eat.

Parts Removal/Installation Process

 a. When removing the water pipe, please pull out the clamp and the top water pipe (as shown in the picture)



Unplug the water pipe.

b. Remove the two screws



Unscrew the plastic cover and take out the plastic core rod.



Note: When assembling the flow pipe, the hole position of the flow pipe must be opposite to the direction of the mandrel hole position, and the direction must not be the same.

Disassembly and assembly of the water baffle: grasp the middle position of the water baffle, use a flat-head screwdriver to apply force from one side to the other, until one side of the water baffle comes out of the pin hole.

Deactivation/Overwintering of Ice Machine

NOTE: In an environment below 0° C, it may cause serious damage to the machine parts if water is left in the machine. Failures caused by this reason are not covered by the warranty.

If the ice machine is out of service for a long time or is exposed to an environment of 0° C or below, special protective measures are required. Please follow the steps below:

- Disconnect the power supply of the ice maker.
- Disconnect the water source of the ice maker.
- Drain the water in the sink.
- Disconnect the water inlet pipe from the back of the ice machine to empty the water in the water inlet pipe.
- Ensure that no water remains in the water inlet pipe, drain pipe, and water distribution pipe.

WARNING

Danger - There is a risk of fire or explosion. The refrigerant is a flammable refrigerant. Do not use mechanical equipment to disassemble the ice maker, and do not damage the refrigeration pipelines.

Deactivation/Overwintering of Ice Machine

WARNING

Danger - There is a risk of fire or explosion. The refrigerant is a flammable refrigerant. Only trained service personnel can carry out repair work. Do not damage the refrigeration piping.

WARNING

Danger - There is a risk of fire or explosion. The refrigerant is a flammable refrigerant. Please read the service manual before using this product. All safety measures must be taken.

WARNING

-There is a risk of fire or explosion. Properly dispose of in accordance with federal or local regulations. -There is a risk of fire or explosion if the pipeline is damaged. Follow the instructions carefully.

Before requesting repairs, please consider the following aspects to solve faults quickly and improve the efficiency of the recovery machine.

- a. Check if the water supply is normal, the faucet is open, the inlet valve is blocked, and the water pressure is too low or too high.
- b. Check if the power supply is normal, the voltage is too low, the switch is turned on, the fuse is burned out, and the plug is pulled out.
- c. Check if the ambient temperature is too high or too low (the working environment temperature range of the ice maker is $10^{\circ}C \sim 38^{\circ}C$), and if the water temperature is too high or too low (the water temperature range is $5^{\circ}C \sim 32^{\circ}C$).
- d. Check if the storage bin is full and if it can work after cleaning.

15 Circuit Diagram

Circuit Diagram



Explosive View 16

Explosive View



Serial	Figure	IM180S	IM210S	IM280S	Serial	Figure	IM180S	IM210S	IM280S
1	Bottom plate	1	1	1	14	Top cover plate	1	1	1
2	Adjustable foot	4	4	4	15	Water inlet valve	1	1	1
3	Condenser	1	1	1	16	Back plate	1	1	1
4	Ventilation window	1	1	1	17	Power cord	1	1	1
5	Decorative sheet	1	1	1	18	Scupper pipe	1	1	1
6	Display screen	1	1	1	19	Hot valve	1	1	1
7	Door frame	1	1	1	20	Electric control box	1	1	1
8	Water tank	1	1	1	21	Box body	1	1	1
9	Water level and temperature sensor	1	1	1	22	Dust net	1	1	1
10	Water pump	1	1	1	23	Fan components	1	1	1
11	Blue LED light	1	1	1	24	Compressor	1	1	1
12	Silicone water supply pipe	1	1	1	25	Water inlet tap	1	1	1
13	Ice grid	1	1	1	26	water inlet pipe	1	1	1





EMAIL: service@coolakeus.com ONLINE: www.coolakeus.com