Icechef 3
USER MANUAL



Read this manual carefully before operating the machine.

Caution: Do not add water to test the machine!

(Water may be used to clean the machine, but not for cooling purposes.)

After moving the machine, it must remain upright for 8–12 hours before being switched on for testing or operation. Failure to do so may shorten the service life of the machine.

1. Product Overview

Thank you for choosing our ice cream machine. It features a stylish and modern design. All compressors are sourced from leading international brands. The brand-new digital control system is easy to operate and ensures reliable performance.

1.1 Application

Producing ice cream with this machine requires a low investment and offers an attractive return. This series is suitable for restaurants, hotels, ice cream parlours, beverage outlets, internet cafés, dance venues, coffee shops, resorts and other leisure and entertainment venues.

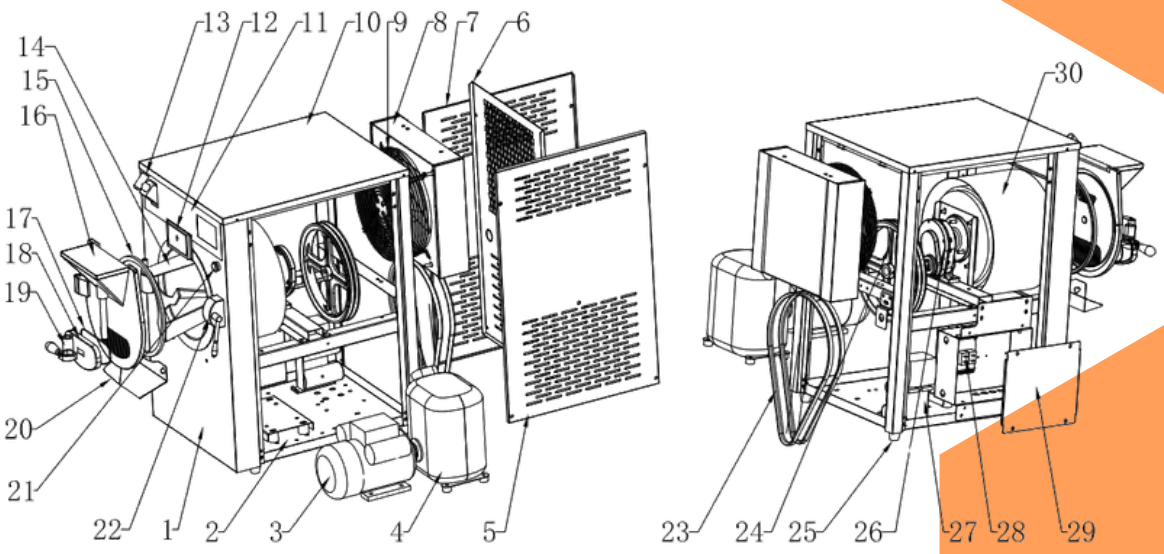
1.2 Features

The Icechef 3 is manufactured using imported stainless steel panels and features a dedicated digital control system and a digital display. It is also equipped with a compressor from a globally recognised brand, ensuring stable and reliable operation, high production capacity and low energy consumption.

1.3 Technical Specifications

Model	Power	Voltage	Production Capacity	RPM	Refrigerant	Capacity per Batch	Net Weight
Icechef 3	1,1 kW	230 50Hz 1Ph	16 L/u	50 → 140	R290	1 → 2,5 L	108 kg

Model: Icehef 3



No.	Spare Part	No.	Spare Part	No.	Spare Part
10	Rear Panel	20	Lid	30	Caster
9	Fan Blade	19	Mixing Rod	29	Power Supply Cord
8	Condenser	18	Mixing Blade	28	Main Circuit Board
7	Expansion Valve	17	Ice Cream Discharge Door	27	Contactor
6	Left Side Panel	16	Hopper	26	Mixing Motor
5	Right Side Panel	15	Ice Cream Discharge Handle	25	Discharge Door Rubber
4	Compressor	14	Stainless Steel Body	24	Bearing
3	Mixer	13	Motor	23	Fan Motor
2	Frame	12	Control Panel Assembly	22	Temperature Sensor
1	Front Panel	11	PVC Pipe	21	Pressure Switch

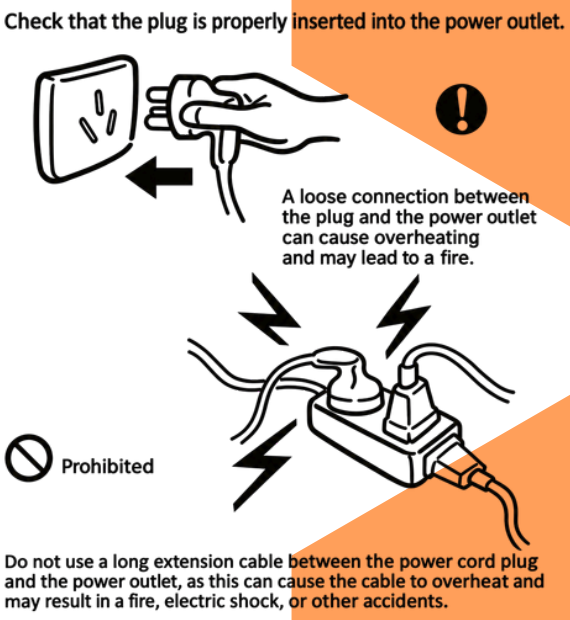
2. Warning

2.1 Electricity

Install the earthing system in accordance with national safety standards for electrical equipment.

Only use power cables, wiring and equipment that comply with national safety standards for electrical equipment.

Ensure that the power supply line is equipped with short-circuit and earth leakage protection.

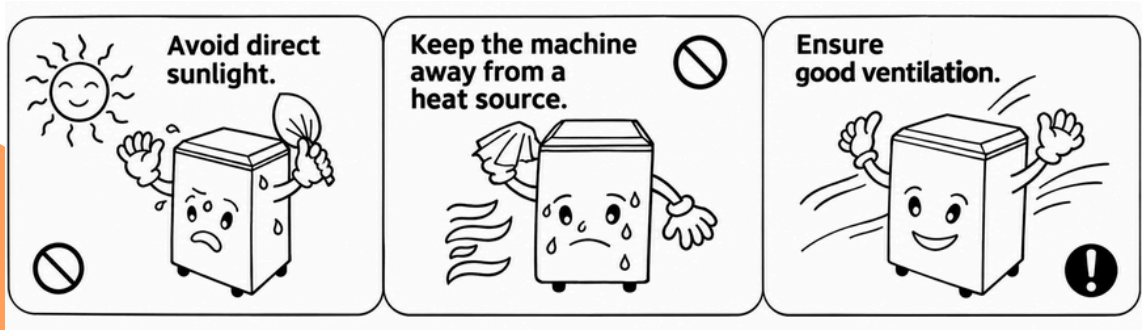


2.2 Hygiene

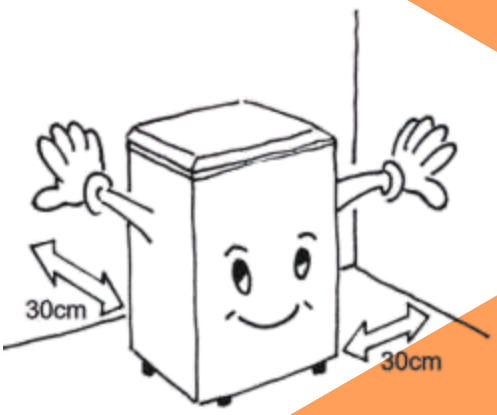
Operating the machine without thorough disinfection may contaminate food and pose a risk to your health. Always keep the machine clean. Immediately remove any spoiled materials from the vicinity of the machine. Strictly follow the cleaning and disinfection instructions provided in this manual.

2.3 Installation

Place the machine on a dry, stable and level surface. Do not tilt the machine. Keep any heat source exceeding 70°C at least 50 cm away from all sides of the machine. Protect the machine from rain and direct sunlight.



Maintain a clearance of at least 30 cm on both sides of the machine to ensure adequate ventilation. Allow at least 1.5 m of clearance from the hot air outlet to ensure proper heat dissipation. Do not place any objects that could be drawn in by the airflow, such as plastic bags, near the hot air outlet.



2.4 Connection to the Mains Power Supply

The power socket must be earthed, or the metal housing of the machine must be connected to a protective earth.

Power Supply Specifications:

Voltage: 230 V / 50 Hz / 1 Ph

The cross-sectional area of the power supply cable must be at least 2.5 mm². Otherwise, the cable may become overloaded and cause a voltage drop, which may affect the machine's performance or even damage it.

2.5 Warnings:

To prevent the adverse effects of vibrations (which are unavoidable during transport), allow the machine to stand for 24 hours after arrival before operating it for the first time.

The temperature of the ice cream mixture must be between 7°C and 40°C. Temperatures outside this range may damage the machine. To prevent any adverse effects on the refrigeration system, regularly remove dust from the hot air outlet.

2.5 Cleaning:

Pour the cleaning solution into the hopper and allow it to flow into the cylinder. Then activate the “Wash” function for 1–2 minutes. Operating the wash function for more than 3 minutes may damage the mixer.

3. Touch Panel Operation

Model	Screen Size	Ingredient Volume Range	Adjustable Time	Time Range (Minutes)	Adjustable Speed	Speed Range (RPM)
Icechef 3	5 inch	Min.: 1 L, max.: 2,5 L	Ja	Min.: 1, max.: 60	Ja	1-2000 rpm

Control Panel



① Adjustable speed: tap “+” or “−” to adjust the rotational speed from 0 to 2,000 RPM.

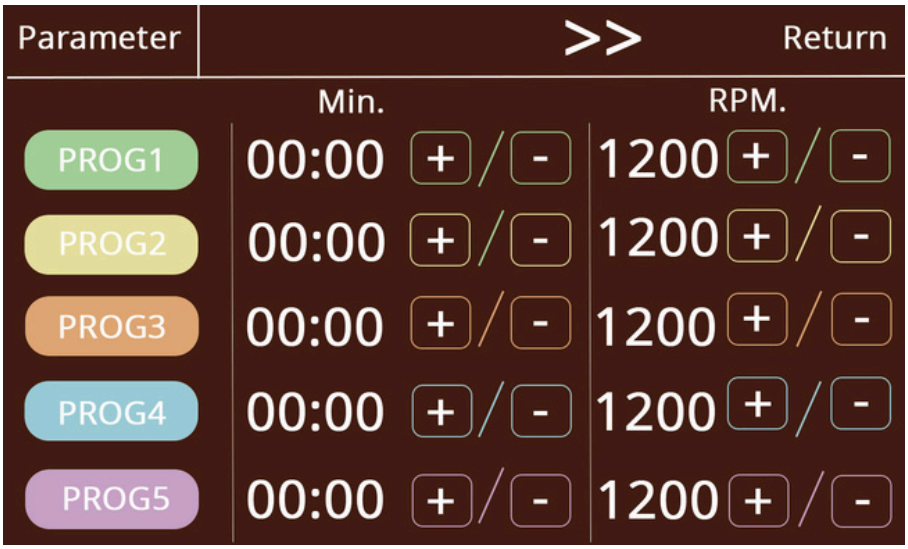
② Tap “+” or “−” to adjust the cooling time.

③ Tap “Settings” to open the settings panel.

④ Tap the function button once to start production and twice to stop production.

⑤ Tap “Wash” once to start cleaning or discharge and twice to stop.

Settings Page:



① Tap “Min” and “+” or “−” to increase or decrease the mixing speed of the stirring blade.

② Tap “RPM” and “+” or “−” to increase or decrease the production time.

③ Tap the “Return” button to go back; the system automatically saves the settings.

4. Operating Conditions

As commercial refrigeration equipment, the hard ice cream machine operates optimally under the following conditions:

Ambient Temperature	5-40°C
Inlet Temperature	2-35°C
Frequency Range	50±1 Hz
Supply Voltage	230 50Hz 1Ph
Pasteuriser Temperature	70-80°C

Please note: the ambient temperature and the temperature of the mixture directly affect the cooling capacity and production output.

5. Troubleshooting

Symptom	Possible Cause	Corrective Action
The machine does not start.	Power cable disconnected.	Check the power supply and connect the power cable.
	Circuit breaker switched off.	Wait for the circuit breaker to switch back on after a manual reset.
	Protection circuit malfunction.	Restart the machine after resolving the fault.
Cleaning mode does not work.	Loose electrical connection.	Check the connection and reconnect it.
	Defective agitator motor.	Repair or replace the motor.
Automatic mode does not work.	Loose function switch connection.	Check the connections and ensure everything is securely connected.
	Control board malfunction.	Replace the control board.
The compressor does not work.	Supply voltage too low.	Resolve the voltage issues.
	Defective contactor.	Replace the contactor.
	Control board malfunction.	Replace the control board.
	Compressor overload protection has been triggered.	Identify the cause and resolve the issue.
	Defective compressor.	Replace the compressor.
The machine does not cool.	Refrigerant leak.	Locate the leak and then recharge the refrigerant.
	The fan does not run.	Repair or replace the fan.
	Defective fan capacitor.	Replace the fan capacitor.
The ice cream is too soft or too hard.	Incorrect ice cream mixture ratio.	Prepare a new mixture using the correct ingredient ratio.
	The cooling time is set too long.	Adjust the cooling time.
Leakage of ice cream mixture.	Leakage at the discharge outlet.	Fit or replace the discharge outlet seal.
	Leakage at the plastic head.	Check whether the seal kit of the plastic head is in good condition.
	Leakage at the rear seat.	Check whether the sealing ring is damaged. Replace it if necessary.
The machine makes excessive noise.	Uneven surface.	Fit or replace the discharge outlet seal.
	Chassis deformation.	Straighten the chassis.
	Loose screws on the bracket and column.	Resolve the underlying issue and tighten the screws.
	The casing is not evenly fitted.	Apply more foam and reshape.

Automatic shutdown after switching on.	Low voltage.	Adjust the voltage or replace the power cord or its plug.
	Defective sensor.	Replace the sensor.
Excessive noise from the agitator motor.	Low or unstable voltage.	Check the voltage; use a power supply cable with a cross-sectional area of at least 2.5 mm² and ensure that the voltage is not below 198 V.
	Screw not tightened.	Fastening screw.
Slow ice cream formation.	Dirty condenser.	Clean the condenser.
	Poor heat dissipation from the machine.	Ensure adequate ventilation around the machine.
“E2” / “EF” protection: speed too low.	Minor leak in the refrigeration system.	Locate and repair the leak.
	The mixture is too hard.	Adjust the cooling time.

6. Ice Cream Production Steps

1. First, prepare the ice cream mixture and ensure that it contains no lumps.
2. Pour the prepared ice cream mixture into the machine through the filling inlet and select the desired programme.
3. Press the “+” and “−” buttons to adjust the production time and the mixing speed of the beater.
4. The machine automatically stops operating once the set time has elapsed.
5. Press the “Wash” button to discharge the ice cream.

7. Daily Maintenance and Care

A. Cleaning the Freezing Cylinder

To ensure the health and safety of ice cream consumers and extend the service life of the machine components, the freezing cylinder must be cleaned once a day.

1) Press the “Wash” button to discharge all remaining mixture from the tank. Press “Wash” again to stop.

2) Add disinfectant to warm water and pour the solution into the cylinder (do not overfill).

3) Press “Wash” and allow the machine to rinse for approximately 3 minutes. Then drain the cleaning solution.

4) Rinse with clean water 3–5 times, then stop the machine.

5) Switch off the power supply, disassemble and clean all components. If the machine is not used for an extended period, keep the power supply switched off until the machine is ready to be used again.

a. Loosen the four screws on the side of the plastic head and remove the complete plastic head assembly.

b. Remove the screws from the plastic head and take out the pressure plate and sealing ring.

c. Pull the agitator out of the freezing cylinder and remove the seal. Wash and disinfect all disassembled components that have come into contact with ice cream. Replace any damaged components promptly. Reassemble all components in the reverse order of disassembly.

B. Cleaning the Housing

Always keep the machine housing clean. Wipe the housing with a warm cloth to remove stains. Do not rinse the control panel or internal components directly with water, as this may cause malfunctions.

C. Cleaning the Condenser

After a period of use, dust accumulates on the condenser, reducing heat dissipation and cooling efficiency. This may result in reduced ice cream production or difficulty achieving the desired consistency within the same production time.

Therefore, clean the condenser once every three months. (In dusty or unfavourable environments, clean it once a month.)

It is recommended to have this procedure carried out by a qualified technician. Switch off the power supply before cleaning and take care not to damage the condenser fins.

D. Adjusting the Drive Belt

After prolonged use, the drive belt of the mixing system may stretch and require adjustment. It is recommended to have a qualified technician adjust the belt and replace it if necessary.

Always switch off the power supply before making any adjustments and ensure that the belt is properly tensioned.

8. Precautions

1. This appliance is not intended for use by children or persons with reduced physical or mental capabilities or slower reaction times, unless they are supervised or assisted by a responsible person to ensure safe operation.
2. Warning: Ensure adequate ventilation. Keep ventilation openings in the appliance housing or built-in structure clear of obstructions. Clean the appliance every three months, preferably by a qualified professional. Switch off the power supply before cleaning.

3. Do not damage the refrigerant piping.
4. If the power cord is damaged, it must be replaced by the manufacturer, its service agent or a similarly qualified professional to avoid any hazards.
5. When the machine is empty (with no water in the cylinder), do not operate it for more than two minutes.

Troubleshooting Sheet

Symptom	Causes	Analysis	Solution
The machine does not start.		1. Faulty power supply. 2. No power supply to the control circuit. 3. No 12 V DC power supply. 4. Overload protection activated.	1. No power supply or power interruption. 2. Control circuit transformer burned out. 3. Rectifier circuit damaged. Check the circuit. 4. Check the circuit.
The refrigeration system does not work.	The compressor does not work. Leak in the refrigerant piping.	1. The temperature has reached the set value. 2. The supply voltage is too low. 3. The cross-sectional area of the power cord is too small. 4. The compressor start capacitor is defective. 5. The compressor is defective. 6. The overload protection has been triggered. 7. Leak in the refrigerant piping.	1. Wait until the temperature rises by a few degrees, then restart the machine. 2. Contact the electricity supplier. 3. Replace the power cable with one with a larger cross-sectional area. 4. Replace the defective components. 5. Same as point 4. 6. Check the overload protection circuit. 7. Seal the cracks in the refrigerant piping by brazing and recharge the refrigerant.

The mixer does not work.	The mixer motor does not work.	1. The motor capacitor is defective. 2. The motor is defective. 3. The overload protection has been activated.	1. Replace the defective components. 2. Replace the defective components. 3. Check the overload protection circuit.

Error Code Table

ERR01-H	Motor current overload.
ERR02	The lid is open.
ERR03	Overpressure.