TRUFROST & BUTLER

USER MANUAL

ICE MAKING MACHINE:
IC-25 Premia

IC-25 Premia

Contents

Safety information

Before using your ice machine, please read this manual thoroughly to ensure that you know how to operate the features and functions that the equipment offers safely and efficiently.

Important safety symbols and precautions:

Please read and always follow all safety instructions in this manual.

This is the safety alert symbol.

This symbol alerts you to potential hazards that can kill or hurt you and others.

All safety messages will follow the safety alert symbol and either the word " DANGER" or "WARNING"

Hazard or unsafe practices that may result in severe personal injury,property damage or death.

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The warning signs are here to prevent injury to you and others, please follow them explicitly. After reading this manual, keep it in a safe place for further reference.

Warning information

1- Read this instructions carefully before operating, installation or maintenance. Failure to follow instruction can cause your personal injury, and property damage,injury or death.

2- The installation instructions shall indicate the ice maker is to be installed in accordance with the Safety Standard for Refrigeration Systems, ASHRAE 15. In addition, the instructions shall indicate the ice maker shall not be installed in corridors or hallways of public buildings.

3- The installation and operating instructions shall indicate that component parts shall be replaced with like components and that servicing shall be done by factory authorized service personnel, so as to minimize the risk of possible ignition due to incorrect parts or improper service.

4- Installation and operating instructions shall be provided with cautionary statements concerning the handling, moving, and use of the ice maker to avoid either damaging the refrigerant tubing, or increasing the risk of a leak.

5- At least three person are required to lift this ice machine or it is recommended that a lifting device is used to avoid injury.

6- When moving this ice machine, please keep the unit upright with inclination not exceeding 45° degrees. Do not invert the unit or lay it horizontally.

7- Allow sufficient space (minimum clearance of 15mm) around the ice maker and install it on a flat,firm surface to support the full weight of the ice machine when load with ice and water.

8- Do not keep volatile, flammable objects or liquids in or near to the ice machine.

9- Do not use high-pressure water cleaning devices to clean the ice machine.

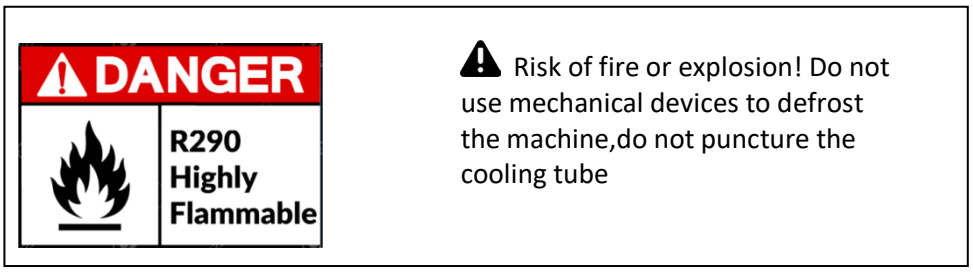
10- Do not install the ice machine in a damp location where it may come in contact. Deteriorated insulation on electrical parts may cause an electric shock or fire.

11- In order to keep the lubricant be fully precipitated before start up, please keep the machine upright for 24hours before plugging, otherwise compressor may damaged.

Danger information

1-The Ice machine may contains flammable refrigerant R-290 that risk of fire, explosion, contact your local authority in regard to safe disposal of this product. please check the nameplate on the rear panel of machine to identify the type of refrigerants to confirm the refrigerant type, amount.

2-To minimize the risk of ignition due to improper installation, replacement part or service procedures, only certified and properly trained refrigerator technicians are allowed to work on these ice machine.



3-Do not operate the ice machine if there are any unauthorized change to the original manufactures specifications or if the machine has been misused,abused or neglected.

4-All replacement parts must be use obtained from the equipment manufacturer.

5-Due to potential safety hazard risk, make sure that the power plug is not crushed or damaged; do not use the ice machine if any extension lead.

Installation information

Unpacking

- Carefully remove all shipping material such as wrapping,tape and packing, if any left in the ice machine it will causing machine work improperly. (Make sure the packing is in good condition before unpacking.)

- After remove the packing make sure the machine and all components are good condition. If doubt, do not install or use the ice machine and reported to your supplier immediately.

- Put the ice machine on the floor and screw the four adjustable fee of the attachment into the bin completely for leveling. A spirit level should be use to check the machine is perfectly level.

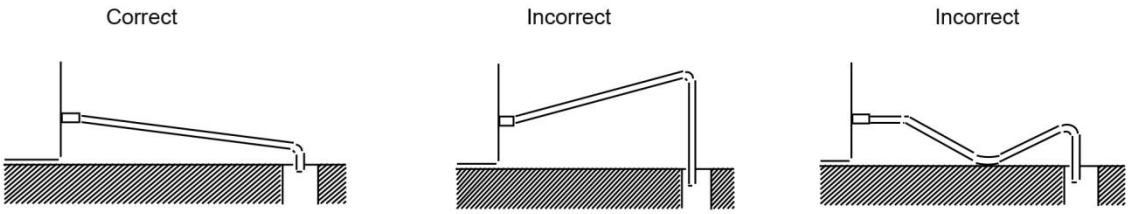
Water supply and ambient temperature

1- The water used for ice machine must be in accordance with local drinking water quality standards. We recommend installation of an incline water filter to the ice machine, this will reduce limescale build up, improve efficiency and extend the overall lifespan of the machine.

2- Water supply pressure should be between 0.2psi and 0.8psi. If pressure exceed 0.8psi,a pressure reducing level must be used.

3- ⚠ Water inlet temperature should be between 5 ° C and 25 ° C. faults due to low or high water pressure and temperature are not cover under warranty.

4- ⚠ The ice maker drain is gravity flow, make sure the unit is installed above the height of the drain connector and make sure the hose do not bent to allow for easy draining out.



5- Attached one end of the water inlet hose to the rear of the ice machine, attached the other end of the hose to the water supply. It is advisable to have a stop valve close to the ice machine.

6- Check both connector washer whether good fits.

7- Put the flexible drain hose on the drain connector at the rear of the machine and secure with clip provided. The drain pipe can be cut to length to allow drain connection to have a slight fall if necessary.

8- It is recommended that water supply and drain lines be insulated to prevent condensation.

9- ⚠ Ambient temperature for the ice machine operation should between 5~32°C.

water temperature	Water pressure	Internal diameter of water inlet pipe	Drain pile
5 ~25 ° C	0.2psi~0.8psi	Internal diameter 3/4 connector	Internal diameter 3/4 connector

Electrical

1- ⚠ The ice machine must be plugged into an independent power source or an electrical socket of voltage and frequency specified. Electrical rating information can be found on the name plate of the machine. Do not operate this machine above or below the voltage specified limited on the machine name plate.

> ⚠**Warning**
>
> All electrical connections must conform to local regulations and be carried out by a qualified engineer.

> ⚠**Warning**
>
> If the power supply is damaged, do not install or operate the ice machine until the cable has been replaced by an authorized service partner or a qualified electrician.

2-⚠ Due to potential safety hazards this ice machine is not recommended for use with an extension lead.

3-⚠ This ice machine must be connected to the stability power, maximum accept range of the voltage fluctuation is +10%, -5% than the rated voltage.

> ⚠**Warning**
>
> If the ice machine is turned off, please wait for at least 3 minutes before restarting to prevent damage to the compressor.

4- Electric Specification

MODEL	VOLTAGE	POWER	CURRENT
IC 25 Premia	220 /50Hz, 110V/60Hz	180W	2.0A

Pre-start up Check

1- Has the unit been connected to the proper water supply and no leaks? ☐

2- Has the unit been connected to a drain and no leaks? ☐

3- Has the unit connected to the proper electrical supply? ☐

4- Has the unit been leveled? ☐

5- Have all packing materials been removed from the ice machine? ☐

6- Is there proper ventilation around all side of the ice machine? ☐

7- Has the unit correctly earthed? ☐

8- Is the water to ice maker turn on? ☐

9- Is the power to the ice maker switched on? ☐

10- Has the unit located in room that temperature between 05°C AND 32°C? ☐

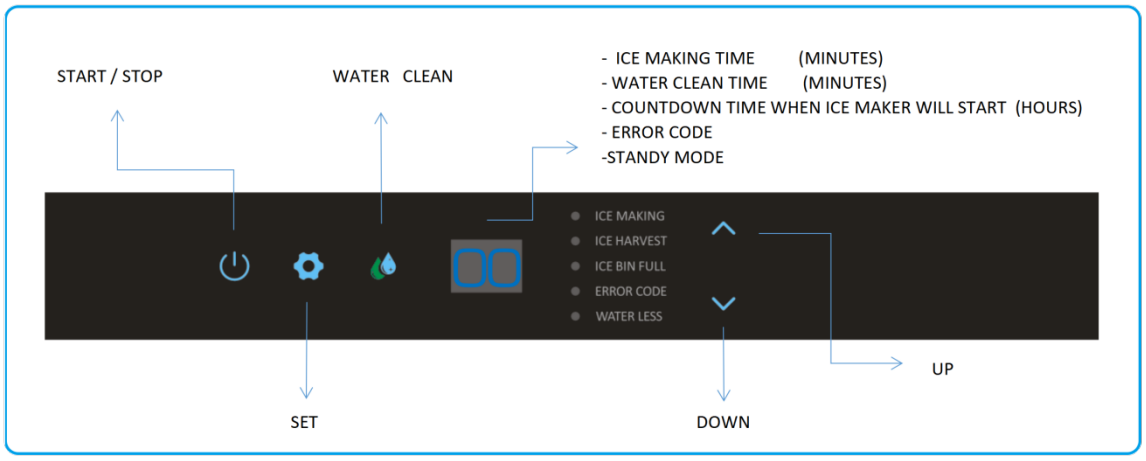
11- Has the water temperature between 05°C AND 25°C? ☐

12- Has the user been fully trained in the operation of the ice machine? ☐

Operating instruction

Your ice machine features a touch control to operate the controls, please lightly tap the control button with your finger tip. The control panel also feature an easy read display which showing the status of the ice machine all times.

Digital& indicator display and controller



Display	Per Ice making cycle time / Water clean on / Error code / Delay time of resume ice production / Water inlet / Panel locked / Standby status
Indicators	Start & Standby / Set / Water clean / Ice making / Ice harvest / Ice bin full / Error code / water less / Up / Down
Button	Start & standby / Set / Water clean / Up / Down

⚠Warning

After turning off your ice maker, please wait at least 3 minutes before restarting to avoid damage to the compressor.

Noted: If a "**.**" appeared on the button right coroner of the display window, the ice machine was under locked status.

Noted: The ice machine will auto-locked if no tap or operate in 30 seconds!

Un-lock: tap the "power" key for 3 seconds to un-lock the control panel before operate the desired button.

Ice production

Tap the start/standby button or 3 seconds to start ice making, The button ll illuminated green and the ice making indicator will illuminated green, ice making time will be display in the digital window too.

Water inlet valve,compressor, water pump will started and work step by step to cooling the evaporator to making ice.

Noted: the ice machine will automatic execute the ice making cycle after plugging and power on.

Noted: The display window will appear "Co" while water inlet starting by water valve

Noted: During the ice making cycle, Pressing the set button 5 second, the ice machine will enforce the harvest cycle immediately.

Ice harvest

Once the ice production cycle has completed the machine will switch into ice harvest cycle, the ice harvest indicator will illuminated blue,then water pump will stop and the hot gas bypass valve will energize to release ice from the evaporator. Once the ice harvest cycle has completed the hot gas bypass valve will turn off and ice harvest indicator will off.

If the ice bin is not full the next ice making cycle will begin until icebin full.

Standby

To stop the ice production cycle tap the start/ standby button the ice machine will return to standby status, the display window will show " Of" and the button flashed .

If the ice machine has execute the program of "countdown time of delay of resume ice production", tap the start/ standby button to revert from other program to standby mode , the display window will show the countdown time, set button illuminated white d button flashed

Noted: Tap the start/ standby button does not turn off the power of the ice machine. The ice machine must be unplug and isolated from the mains electricity before any service or cleaning is undertaken.

Ice full

When the ice bin is full, the ice maker will stop ice production automatically.
The ice full indicator will illuminated yellow and button illuminated green.
"FL" will also be display in the digital window.

Water clean

Tap the clean button for 3 seconds to start a water clean cycle ,the clean indicator will illuminated white and "CN" will be display in the digital window. Once the clean cycle has finished, the ice maker will revert to standby mode.
Alternately, Press button 3 second again or tap tton during the water cleaning cycle, the cycle will finished and return to standby mode or countdown mode immediately.

Noted: When first start ice maker, the system will rinse itself before start making ice. The rinsing process takes about 5 minute.

Noted: During the ice making cycle or ice harvest cycle, Tap water clean button does not work, clean indicator quick flash.

How set the delay of resume ice production

The delay is a key feature that allows operator to set 0-24hours delay in ice production.

This makes it possible better manage ice production and lower costs. After the set delay time passed, the machine will automatically resume ice production.

Tap the set button for 3 second, the set button will illuminated white and the start/standby button flashed，the countdown time will be flash in the digital window too. You can touch up/down to increase or decrease the countdown time.

Noted: Select ”00” will not execute the delay program.

After settings has been done , the set button illuminated white and the start/standby button flashed. The display window will show the countdown time.

Noted: The set button is not able to set up the countdown time of delay of resume ice production during the ice making cycle.

Noted: If the ice machine is power off or disconnected, the countdown time of how long ice maker start ice making will cleared.

How set up per ice making cycle time

Tap the up / down button , the display window will show the time of per ice making cycle, the time is between 0~45minutes, default time is 16 minutes that can make maximum ice produce.

Noted: The ice machine is only able to set up the time of ice making cycle during the ice making cycle.

Please do not set the ice making time out of our suggest set time of ice making in different ambient temperature, otherwise, may cause ice machine not work properly.

Recommended ice production time in diffirent ambient temperatue	
Ambient air temperature	Recommended cycle length
<10℃	8 ~12minutes
10 ~14℃	10~15minuts
15 ~24℃	12~20minuts
25 ~34℃	14~25minuts
35 ~42℃	20~30minuts

Maintenance & Cleaning

Periodic cleaning and proper maintenance will extend the life of your ice machine, ensure maximum efficiency and delivery better ice to your customer.

> ⚠ **Warning:** Disconnect the ice machine from the mains electricity and water source before performing and cleaning or maintenance.

> ⚠ **Warning:** Inspection,descaling and servicing should only be undertaken by a qualified technicians.

> ⚠ **Warning:** Never clean the ice machine with a pressure washer or by spraying water, never use acidic or abrasive detergents as well.

Exterior cleaning

Always clean the exterior stainless steel surface of the ice machine with a micro-fibre cloth or a sponge. Make sure clean in the direction of the grain of the stainless steel.

> ⚠ **Warning:** Do not use abrasive or metallic products such as wire wool which could cause corrosion of the stainless steel finish.

> ⚠ **Warning:** Do not clean plastic components with alcohol or disinfectants as this could cause damage to the plastic components.

Air filter clean

The ice machine is equipped with a condenser dust filter to prevent dirt and dust entering the condenser. It is important that the condenser and air filter is cleaned routinely to ensure efficient operation of the machine. We recommend this procedure is carried out every 30days.

> **Noted:** Push down the buckle at the rear panel of the machine to lift out the panel and remove air filter from the medial side of the rear panel. Clean with soft brush and vacuum cleaner and replace back.

Condenser clean

Dirty or clogged condenser will prevent proper air flow. This will lead to reduced efficiency, reduce ice production performance and increase in operation temperature which may lead components failure. We recommend the condenser is cleaned every six month by a qualified technicians. To clean the condenser disconnect the ice machine from the main electricity. Push down the buckle at the rear panel of the machine and remove out. Remove dirty and dust from the condenser with soft brush and vacuum cleaner. Reattached the rear panel and reconnect the power to the machine after clean.

> ⚠**Warning:** Failure to clean the condenser could cause component failure and will invalidate your warranty.

> ⚠**Warning:** Be careful when doing the condenser cleaning as the edge of the condenser and pin are sharp.

Water distributor, water tank and float switch cleaning

Mineral,Dirty and lime scale that are present in the water during the freezing cycle and will build up in the water distributor, water tank and others, clean such part routinely will help to remove the lime scale build up and clean.

We recommend a cleaning such parts every three month with a citric acid,soda power solution.

We recommend user implement our water clean program to clean the ice machine every three days.

> ⚠**Warning:** Dirty,lime scale build up will reduce the efficiency of the ice machine and could lead to the component failure which invalidate your warranty.

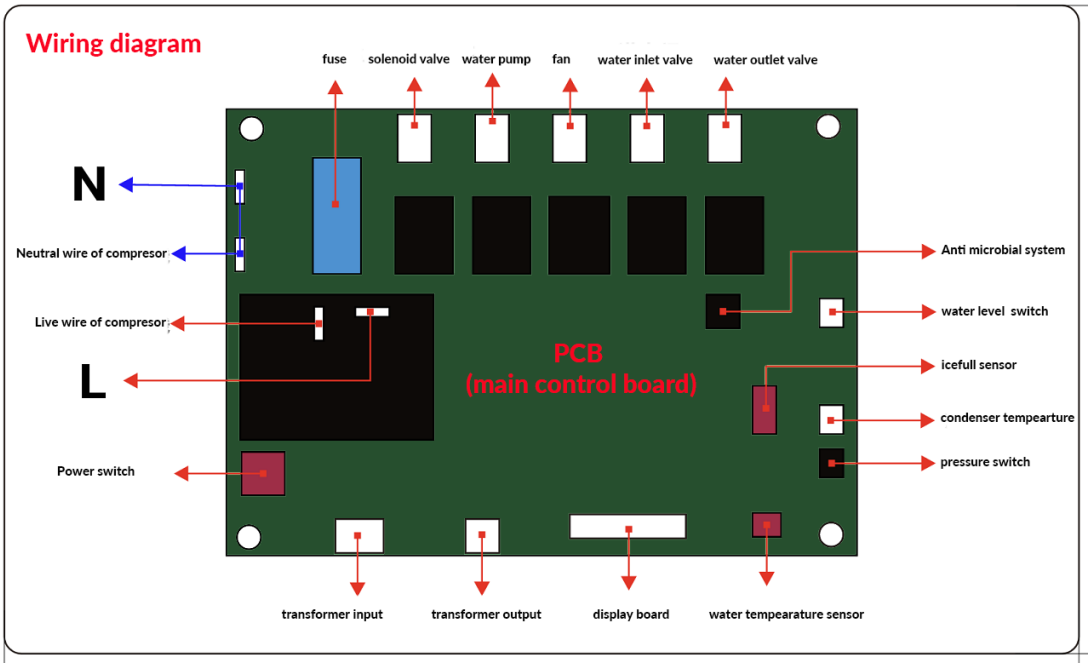
Trouble shooting

Before calling for service, review the error code, symptoms and recommended solution below, if none of the suggested solution resolve your problem, please contact your local distributor or authorized service company.

Error code	Symptom	Possible cause	Solution
E1	Ice damper or ice full sensor fault	Ice damper dislocation	Check ice damper and ice full sensor, replaced if necessary
		Ice full sensor defective	
Eb	Poor cooling performance	High ambient temperature	Wait until ambient temperature meets requirement
		Poor ventilation	Ensure the sufficient clearance for proper air circulation
		Shortage of refrigerant, inefficient compressor	Check for leak & recharge refrigerant, replace compressor if necessary
		Shortage of water	Check or replace water system components of ice machine and water supply.
		Water temperature sensor inoperative or disconnect.	Check and replace if necessary
		Inefficient compressor	Check the compressor, replace if necessary
E3	Ice harvest overtime	solenoid valve not opening	Check and replace valve if necessary
		Ice making time set too short (ice too thin)	Make sure the set time of ice making cycle is comply with the suggest set time range by manufacturer
		In-sufficient water or water less in water tank	See remedies for shortage of water
E4	Ambient temperature too high	ambient temperature too high	Wait until ambient temperature meets requirement
		Poor ventilation	Make sure the sufficient clearance for air circulation
		Condenser dirty	Clean the condenser

		Condenser fun faulty	Check the condenser fun, replace if necessary
E5	Shortage of Water	Water supply is turn off or no water	Make sure the water supply is turn on and good connect.
		Water pressure too low or water leak	Make sure the water pressure is between 0.2psi to 0.8psi
		Water inlet valve not opening	Check the water inlet valve, replace if necessary
		Water tank leak	Check the water tank, replace if necessary
		Water pump fault	Check the pump, replace if necessary
		Leak of water drain valve	Check the valve, replace if necessary
E6	Out of the pressure limit	Condenser temperature too high	Make sure the sufficient clearance for proper air circulation, Check the pressure of refrigeration system
		Blockage of cooling system	Check the condenser and clean
		Pressure switch fault	Check the switch, replace if necessary
E7	open circuit fail of the condenser sensor	Condenser sensor defective	Check related parts, replace if necessary
		Connector lose or disconnect	
E8	short circuit fault of the condenser sensor	Condenser sensor defective	
		Connector lose or disconnect	
E9	open circuit fault of water temperature	Water temperature sensor defective	Check the water temperature sensor, replace if necessary
		Connector lose or disconnect	
EA	short circuit fault of water temperature	Water temperature sensor defective	
		Connector lose or disconnect	

Wiring diagram



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