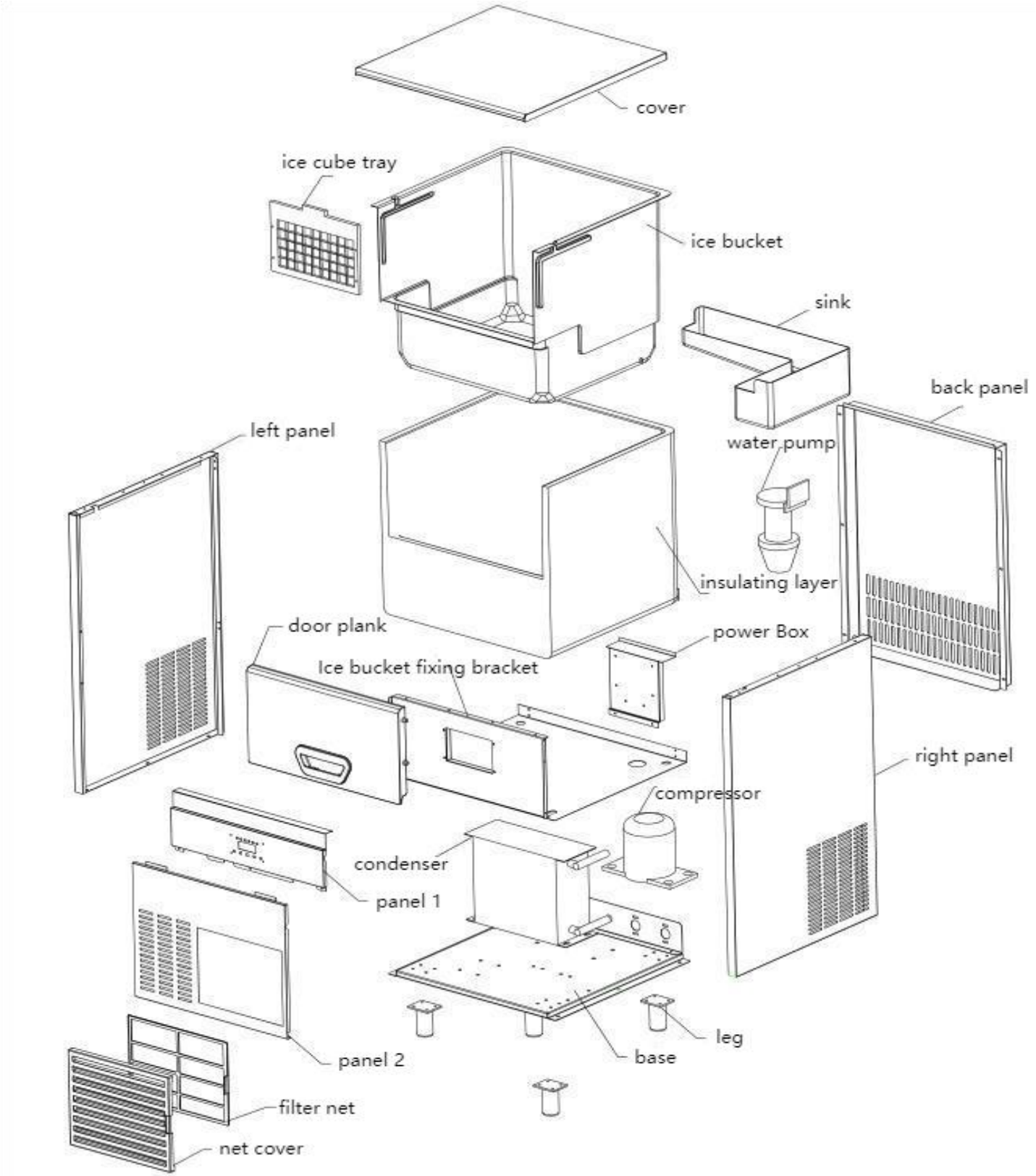
ICE CUBE MACHINE MANUAL





Remind

This machine is only for indoor installation

Please do not install the machine in a place that may be drench with water. This may cause severe electric shock.

Electrical connections

Each machine needs a power outlet. Please check the electrical specifications on the machine label.

Caution: This machine must be properly grounded! Otherwise it will lead to electric shock and cause serious personal injury!

Pay attention

Do not operate the machine without reading this manual.

Proper installation, use and maintenance of ice machines are very important for maintaining the normal operation of ice machines and reducing the failure rate.

Please read this manual carefully. If you have a problem that is not covered in this manual, please contact our company or our authorized repairman.

Faults caused by failure to comply with the requirements of this manual in installation, operation, and maintenance are not covered by the warranty.

1.INSTALLATION

1.Condition：

*Indoor only, do not run the machine when ambient temperature is below zero.

*Appropriate ambient temperature： 10°~38°C

check the distance of the surrounding:（Water cooling can be reduced appropriately）

Machine	Away from the surrounding
Side	≥15cm
Back	≥20cm
Front	≥30cm

*Adjust the feet of the machine to make sure it is in good balance.

2.OPERATION

1.Check before turn-on：

- Take out all accessories！
- Check water supply！
- Check whether power supply connected to ground！
- Check whether outer power supply connected to ground！
- Check voltage and hertz with the nameplate！

Attention：

- Make sure the ice machine is placed horizontally.
- Make sure the rear side is at least 20cm away from wall for good ventilation.
- Please wash the condenser and water supply line once a month for durability and better performance, wash ice mould every 3 months。
- Please install a water filter and replace the filter core regularly for better sanitary.
- Ice may form in the water tank as the ambient temperature changes, in serious cases, please restart the machine.

①.Operation and Status:



Power Mode Sterilize Up Down

This control system has one digital display, 5 buttons, and 6 lights.

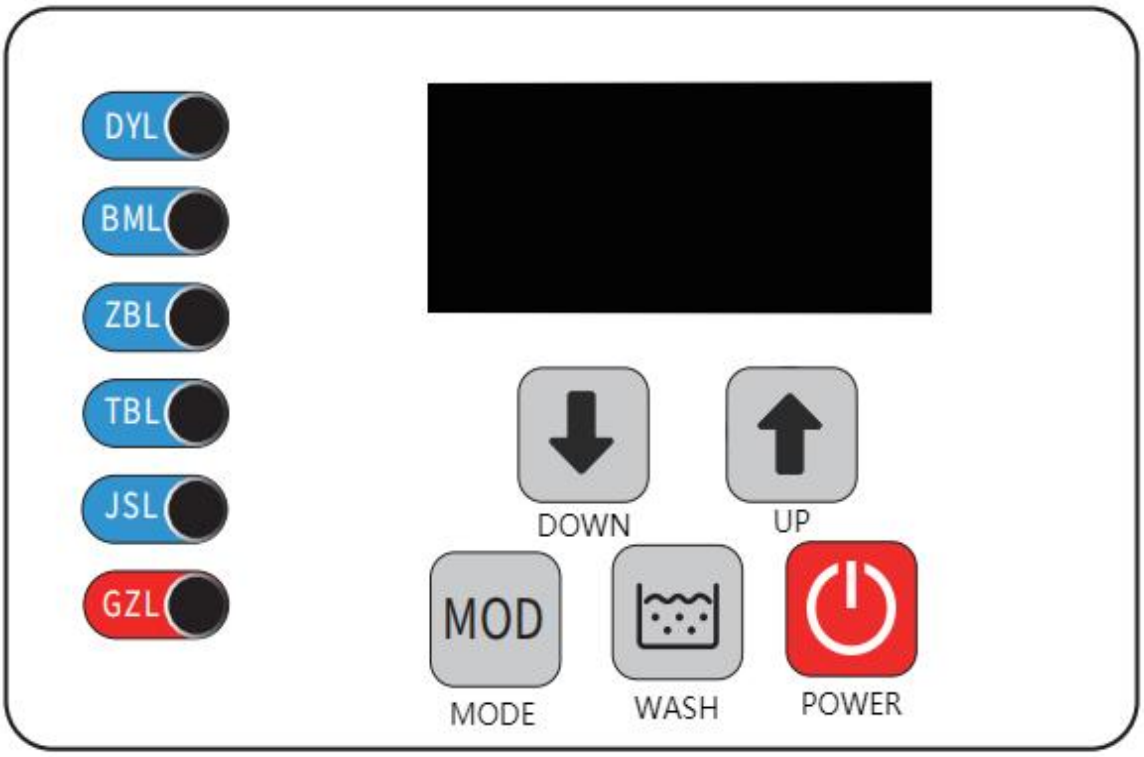
Power button Is used to turn on or off the machine. Other buttons do not work in the off state.
Sterilization For turning on or off the blue sterilization light.
Check the temperature Normal display state press the UP button to view the temperature of the condenser. After a delay of 10 seconds, it will automatically return to the normal display state.
Manually switch the working state Non-setting state. Press the mode button to switch between the states of the ice making process.
Cleaning Can be repeatedly manually switch the working state into the cleaning state, cleaning state cleaning indicator light on.
Parameter When in normal display state, long press mode button for 5 seconds to enter a state of parameter settings, then press the UP or DOWN button to adjust parameters (support according to the rapid adjustment), parameter setting mode button to switch to the next menu, the last one in press mode button to exit the settings menu, arbitrary parameter set state wait 10 seconds will automatically quit setup status.

ZBL: In ice making process.
TBL: In ice detaching process.
BML: When the ice bin is full, the light will be contagiously on. When the ice is taken, the light will flash.
QXL: In wash mode, this light will be on.
SJL: when the blue light is on, this light will be on.
SWL: the light will shine when water is added over time, otherwise it will be on when water is being added.

Table 1 Parameter setting

Prefix characters	Parameter description	Adjust range and default values	Marks
/	Ice making countdown time	5-40 minutes, default 11 minutes	The actual countdown time will be automatically corrected according to the temperature of the condenser, and an additional 3 minutes will be added to the first plate ice
P	The number of ice making times required for automatic drainage	1-30 times, default 4times	This parameter is available only on models that support drainage. Default is no drainage.
J	Time of adding water	5-90s，default 50s	This parameter is available only for models that are not configured with the float switch. By default, the float switch is not required

②.Operation and Status:



Operation

1.Open the inlet valve
Turn on the power switch, and the display is on.
If the power supply is turned off, it will show "OFF".
When the power is on, it will automatically enter the ice-making state and show "C00". At the same time, the state indicator on the left side respectively shows the power supply, water adding, ice-making, ice-filling and ice-removing processes. It also shows the ice making time.

When press the power button again, the machine will stop working and show "OFF".
If the power button is not turned off when the machine is turned off last time, the power switch will be switched on automatically when the machine is powered on.

2.Adjustment
Ice thickness setting:
Long press the "UP +" or "DOWN -" button for more than 3 seconds, then the first two digits of the digital tube will show C1, and the last two digits will start to flash to enter the ice thickness setting state.
Each press of the "UP +" (or "DOWN -") button will increase (or decrease) the number shown on the digital tube by 1, indicating that the ice making time will increase (or decrease) by 1 minute. The adjustment range is 0 to 35.
If no operation within 10 seconds, the nixie tube stops flashing and enters the normal running state, and the set parameter is saved.
If you press the WASH button, the parameter is directly saved and the system automatically enters the normal running mode.

3.Wash
In the state of turning on the ice machine, press the WASH button, the ice machine stops making ice, enters the washing, and cleans the ice cube tray. In the washing state, the ice-making and ice-detaching indicators shine together.

4.Forced to detach the ice
In the ice making process, press the mode button, then the machine will enter the ice detaching state. After the end of detaching, the normal ice making process will be resumed automatically.

5.Set other parameters
Long press the cleaning button for more than 10 seconds, the first two digits of the digital tube will display the channel number, and the last two digits will flash. Press the mode button to switch and adjust the parameter channel number (C2-C9), and press the UP + and DOWN - buttons to adjust the parameters. If there is no operation within 10 seconds, the digital tube will stop flashing and enter the normal operation state. At the same time, the set parameters will be saved. If you directly press the clean button, the set parameters are directly saved and the system automatically enters the normal running mode.

DYL: Power
BML: When the ice bin is full, the light will be contagiously on. When the ice is taken, the light will flash.
ZBL: In ice making process.
TBL: In ice detaching process.
JSL: Adding water process
GZL: Error

Table 1 Parameter setting

Chanel	Name	Adjustment value	Range	Default value	
C1	Ice thickness time	0-35	0-35min	12	12min
C2	Water temperature of start making ice	0-50	0-5℃	10	1℃
C3	Ice making period	5-60	5-60min	40	40min
C4	Ice detaching period	1-9	1-9min	05	5min
C5	Pre cooling time	0-12	0-120s	03	30s
C6	Ice full determination time	10-90	10-90s	40	40s
C7	Adding water time	1-45	1-45min	05	5min
C8	Drainage time	0-60	0-60s	20	20s
C9	Ice making drainage cycle	0-20	0-20 times	05	5 times

3.Working process

1. After the device is powered on, if the water is not full, the water valve will be opened, and the rest of the output will be closed. When the water is full, the water valve will be closed. If the device is not equipped with the float switch, skip the water adding step. If the ice is not full, it will enter the pressure balance (that is, the heat valve is opened, the rest of the output continues to close); If full ice is detected, wait to take ice.

2. After the pressure balance is over, it enters the preheating state, that is, the compressor and heat valve are opened.

3. After preheating, enter the precooling state, that is, the heat valve is closed, the compressor continues to turn on, and the fan also turn on.

4. After the end of the precooling state, it enters the positive timing state of ice making, that is, the compressor, water pump and fan are turned on. After a delay of 7 minutes, the countdown state of ice making will be automatically transferred. The countdown time of ice making will be automatically corrected according to the temperature of the condenser on the basis of the set ice making time.

5. After the countdown of ice making is completed, for the models that support drainage, a drainage will be automatically performed when the continuous ice making reaches the set number of times, otherwise, the drainage will be skipped and the gelatinized ice will be entered.

6. The compressor and heat valve are open when in ice detachment state. If no ice detach is detected within the set time, turn on the water pump to flush the ice. If no detaching is detected after the set time, it will be judged as detaching timeout, and the detaching timeout fault state will be transferred after the set number of detaching timeout times. If detaching is detected successfully or the number of timeout times is not enough, it will enter the next round of ice making.

7. After the ice is detached, if the ice in the refrigerator is not full, it will enter the next round of ice making. If the ice in the ice bin is full, it will enter the state of full ice. If the ice is not detached, the ice is always in the full state. After the ice is detached, the ice is restarted after the set time.

Adding water process

For the model equipped with float switch, the controller will automatically add water as long as it detects water shortage during the whole ice making process. However, the addition of water will be limited after a certain amount of time in the ice-making state. If the water can not be filled up after the set time of continuous water adding, it will enter the water adding timeout fault shutdown state. After the set time, try to add water for a certain period of time. If the water can be filled after the attempt, it will start to make ice again. Otherwise, it will cycle between the failure of adding water timeout and the state of trying to add water.

For the model equipped with float switch, the time for adding water will be automatically forced after entering the ice making state. If it is the first time to make ice, 30 seconds will be added to the time for adding water.

Fan control

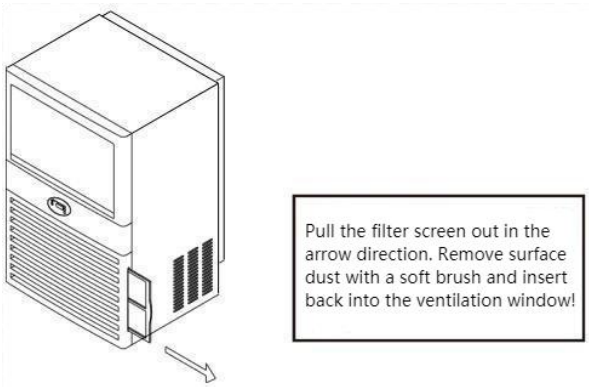
During the whole ice making process, the fan automatically starts or stops according to the temperature of the condenser, and the fan is always turned on during pre-cooling and ice making.

4.Maintenance and Errors.

Maintenance：

- Disconnect power before checking!
- Hire a professional technician.
- Please read this manual carefully before checking.
- Producer will not take any responsibilities related to
- water sanitary or wrong operations.
- Clean the dust on the machine regularly.
- Clean the filter net regularly (once a month is recommended).

- Clean the fin of the condenser (at least once every half year) use a soft brush to brush away the dust along the fin, do not move in a left and right manner or else the fin will be damaged, and affect the ventilation.



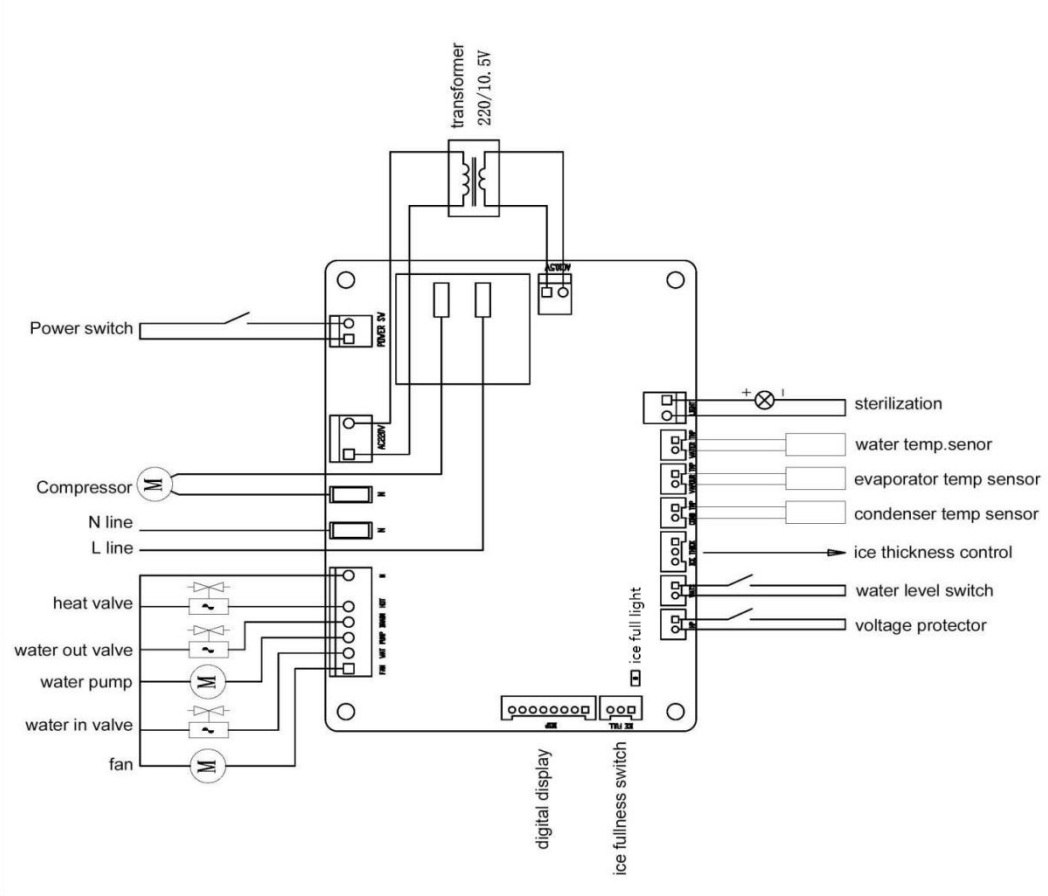
Common Errors & Solutions：

CODE	MEANING	CAUSE	SOLUTION
E01	The ice full switch is broken	The ice full switch is stuck and the ice making state is detected until the ice is full	Take out the ice or replace the ice full switch
E02	The ice making time exceeds the maximum set time for 10 consecutive times, resulting in a timeout ice making fault	The cause may be high ambient temperature, poor condensation effect, refrigerant leakage, or not enough water	Check whether the cooling system or cooling system leaks, whether the pool leaks, and the sprinkler outlet hole
E03	ice detachment overtime	1. the probe for ice fullness broken (for cube ice model) 2. the sensor for evaporator temperature misplaced(for cube ice model) 3.refrigeration system problem	1.replace the probe 2.place the sensor correctly 3.contact the supplier
E04	temperature over high	Water or condenser temperature over high	2 temperature sensor reversed or condenser poor ventilation
E05	lack of water	1. water supply not connected or not open 2. water inlet valve broken 3. float switch broken	1. check water supply 2.replace the valve 3. replace the switch
E06	voltage overload	1. volt protector broken or not well installed 2. refrigeration system problem	1. check volt protector 2. contact the supplier
E07	the temperature sensor on the condenser is off	the sensor is not well connected	check the connection or replace the sensor
E08	the temperature sensor on the condenser is shorted	the sensor is broken	replace the sensor
E09	the temperature sensor on the evaporator is off	the sensor is not well connected	check the connection or replace the sensor
E10	the temperature sensor on the evaporator is shorted.	the sensor is broken	replace the sensor
E11	water temperature sensor is open	the sensor is not well connected	the sensor is not well connected
E12	water temperature sensor is shorted.	the sensor is broken	the sensor is broken

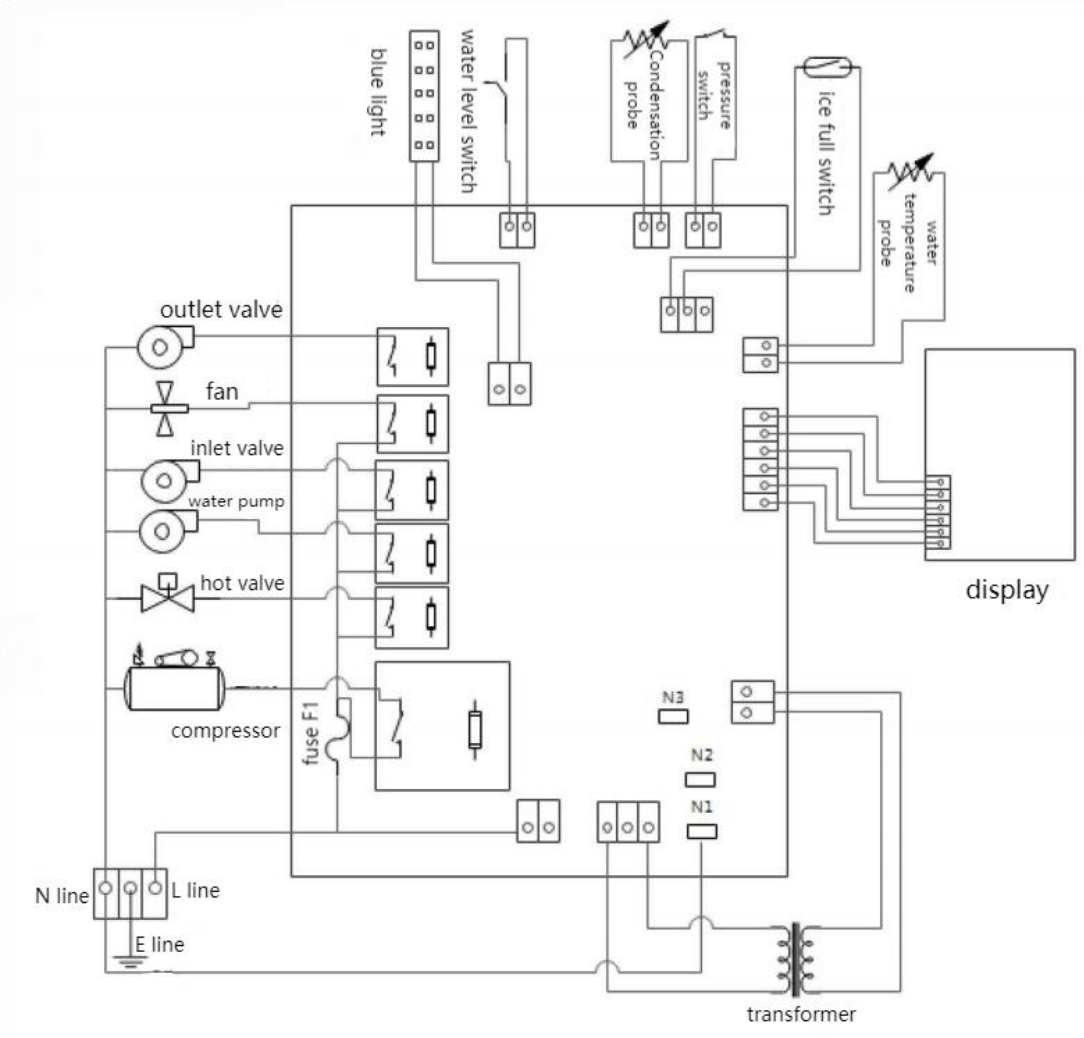
Warranty Exceptions：

1. Daily cleaning, washing, checking。
2. Change the components without our authorization.
3. Damages caused by bad ventilation, wrong installation, power supply, water supply and draining。
4. Additional labor charge on holiday, overtime, travel are not included in warranty. Additional charge for inconvenient installation is not included either.
5. Wrong operation or abuse causing components damages。
6. Not fixing, washing, maintaining the machines according to the manual and result in damage.
7. Not above stated man-made damage！

5. Wring diagram (① digital display):



Wring diagram (② digital display):



LCD ICE CUBE MACHINE MANUAL

1.Display button

POWER：Control the switch of the machine。

WASH / SET：Under the shutdown state, press the key to enter the washing state mode.

Switch mode.

Reservation / UP：

1. Enter the reservation mode;
2. Set the status and execute the "+" function; Light/- key:
1. In the setting state, execute the - function.
2. non-setting state, control the switch of blue light.

2. Display the status

1. Power-on: The LCD is on, and the four-digit version is displayed.
2. Water in: time display C00, ice making, deicing, ice full light.
3. Pressure balance: cleaning, ice making, deicing, ice full light.
4. Ice making: The ice making icon lights up, and the time is displayed as the ice making time
5. Detaching: The detaching icon is on, and the time is displayed as detaching time.
6. Ice full: ice full icon light, display ice full time.
7. Error: The error icon is shine, and the corresponding error character is light.
8. Shutdown: display OFF.
9. Set the reservation time: The reservation icon lights up, and the time is displayed as the scheduled startup time.
10. Reservation status: The reservation icon shines, displaying the reservation time countdown.
11. Setting status: the left side of the time display digital tube display is the setting parameter number, long light. The last two or three digits are parameter values, shining.

Number	Setting	Setting range	Default Value	Reamrks
1	Fan control temperature	01-35	25	If the condensing temperature is less than 25°C, the fan turn off.If the condensing temperature is greater than 26°C, the fan turn on.
2	Pre-cooling time	00-120s	60s	
3	Limit time for adding water	01-45min	05min	more than 5 mins will not adding water
4	Cleaning Set	00/01	01	′00′ power on, stop cleaning; ′01′ is powered on for cleaning
5	Drain Time	00-60s	20s	
6	Drainage Period	00-20	01	Discharge water every ice-making period
7	Pressure test	00/01	01	′01′ On pressure test, ′00′ off pressure test

8	Water temperature set	01-06	02	Water temperature drops to 2 degrees to enter the ice making countdown
9	Water cooling option	00/01	00	′00′ Air cooling; ′01′ Water Cooling
10	Ice full error set	00-06	00	When the skating board fails, this setting value is not 0, it can work in an emergency. It will automatically shut down after opening the mechanism for 10 boards of ice each time. If you want to continue making ice, click the power button to make 10 boards of ice. If this value is not 0, the skate board error is no longer reported.

3.Set the item

In the DC shutdown state, that is, the nixie tube displays OFF, continue to hold down the setting button for 15 seconds to enter the setting option, continue to press the setting button to switch setting parameters, + or - button to adjust the value.

4.Separate drainage function:

In the shutdown state, press the Mode key to enter.

The water pump and drain valve are opened at the same time and automatically shut down after 90 seconds.

5.LCD Wring diagram

