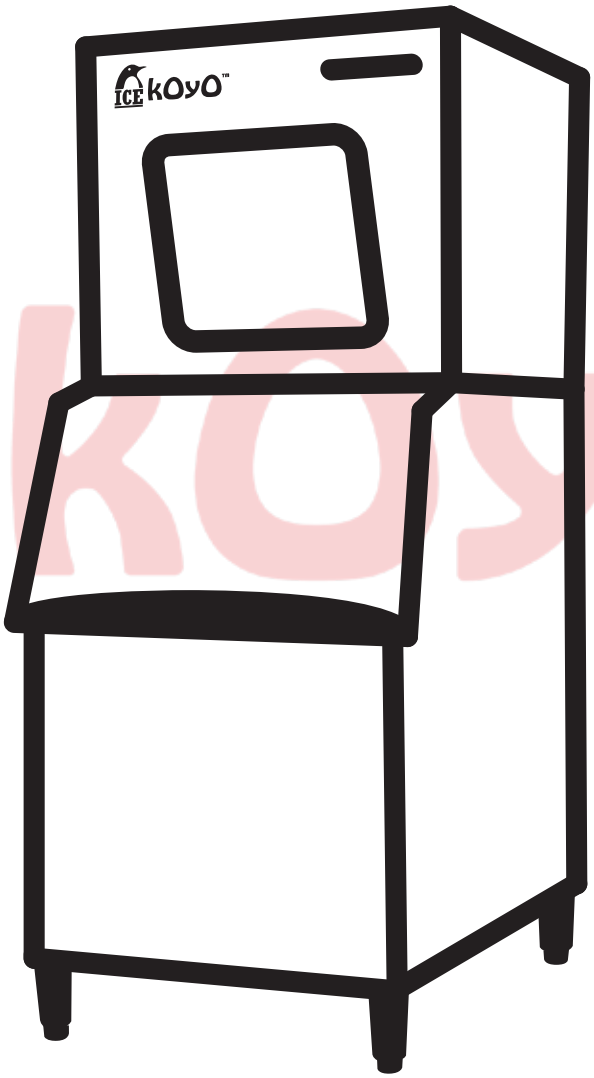
Welcome to use our machine!



Ice machine maintenance and operation manual

Please read this carefully before installation.

Table of Contents

Contents in this manual is subject to change without notice.

ICE MACHINE OPERATION AND MAINTENANCE MANUAL

1. INSTALLATION

a. CAUTIONS:

i. Please check the model number before opening the carton box.
ii. Please check the intactness of the carton box.
iii. Please check the intactness of the machine and accessories.

b. CONDITIONS:

i. For indoor use only, please don't run the machine when ambient temperature is below zero.
ii. Ambient temperature: Max <43℃, Min>3℃
iii. Surrounding: ensure enough space for ventilation (Less strict for water-cool), refer to below table:

Machine	Distance (CM)
Side	15
Rear	20
Front	30

iv. Place horizontally; adjust the legs to ensure the machine is placed horizontally.

c. WATER SUPPLY INSTALLATION:

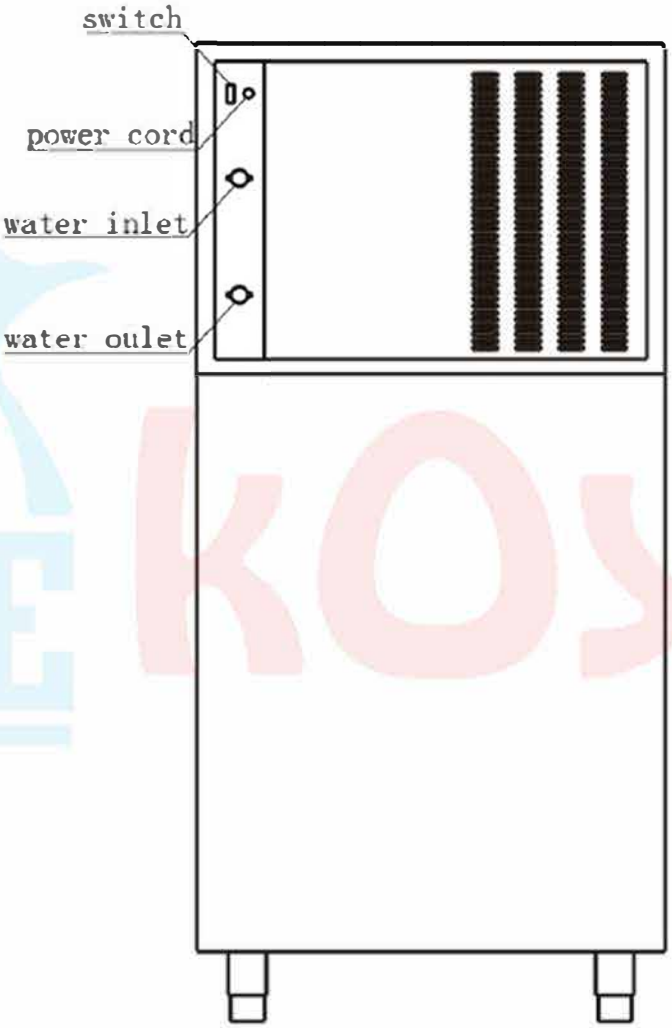
i. Water quality must reach drinkable standard.
ii. Water may need processing before supply to the machine (please check water quality carefully, hot water shall not connect to the machines!⚠
iii. Water supply tube configuration:

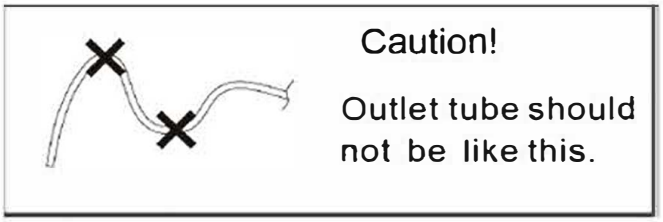
Water Temp(℃)	Water Pressure (Mpa)	Inlet Tube Diameter (mm)	Outlet Tube Diameter (mm)
>0.6	>0.13	>9.5 (3/8'')	>15.8 (5/8'')
<32	<0.55		Gap per every meter >3cm

Outlet tube should comply to below (refer to below picture):⚠

1. Outlet tube shall not higher than the outlet.
2. Every point on outlet tube must be lower than their previous points.

Pictures (for reference)"





d. Power supply:

i. Power supply voltage, hertz, power must follow on the nameplate accordingly.

ii. Power must be connected to ground firmly.

iii. Power cord must meet local standard requirement.

iv. Voltage fluctuation must not exceed ±10%.

2. OPERATION

a. Check before turn-on:

i. Clear all temporary fixing tape from the machine!

ii. Take out all accessories!

iii. Check horizontal placement!

iv. Check water supply

v. Check whether power supply connected to ground! ⚠

vi. Check whether outer power supply connected to ground.

vii. Check voltage and hertz with the nameplate!

viii. Check ambient and water supply temperature!

ATTENTIONS!

(1) Make sure the machine is placed horizontally.

(2) Please do not adjust the thickness control casually, gap between thickness control and cube mould should be within 2-5CM.

(3) Make sure the rear side is at least 30CM away from wall for good ventilation.

(4) Please wash the condenser and water supply once a month for durability and better performance wash. Wash cube mould every 3 months.

(5) Please install a water filter and replace the filter core regularly for better sanitary.

(6) Ice phenomenon may occur in the water tank, in this case, please restart the machine.

⚠ CAUTIONS

(1) **Power**: Make sure the voltage fluctuation should be within ±10%, power cord should not over 10m, section area should not smaller than 2.Sm², please hire a technician for power connection.

(2) **Connect to ground**: Ground line must be in accordance with standards.

(3) **Ambient temperature**: Over high ambient temperature will affect the capacity.

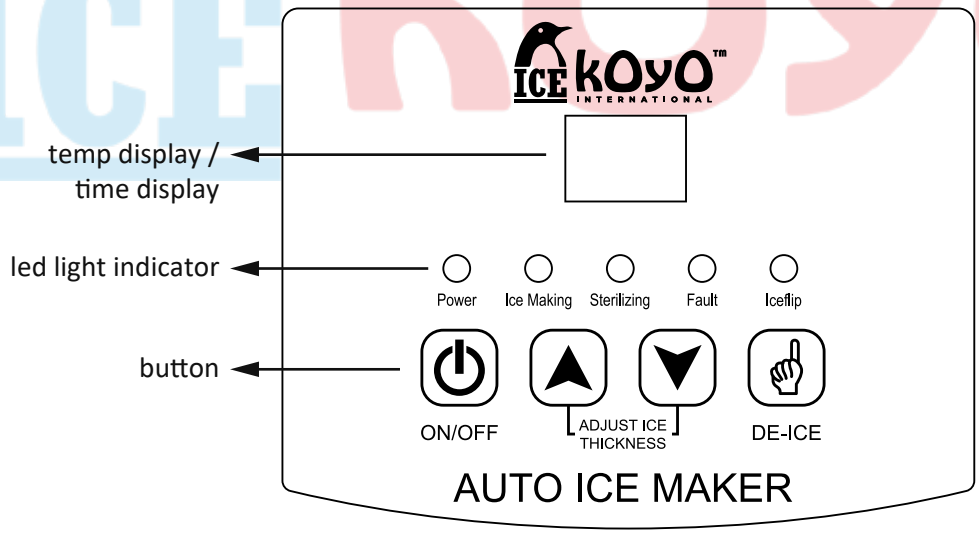
(4) **Water supply pressure**: Must within the pressure range list in the manual.

(5) **Maintenance**: Disconnect from power supply.

(6) **Conditions**: Machine must not be exposed to freezing temperature, or else can result in serious malfunction.

Operation panel and process:

KR SERIES:



(Operational Panel)

Process & Status:

- Turn-on: after connect it to power supply, turn on power, power light is on, in timing status, deicing light blinks, the machine is in automatic mode (in case of thunder occurs or stop using for a long time, please disconnect from power).

- **Pre-cool:** When power is on, the water inlet will be opened, the "make ice" light is on, evaporator will pre-cool 30 seconds before water pump is on. Compressor will be on, water pump stop working, inlet valve will let the water goes in, until it reach a certain level(float-ball will cut off the water supply)
- **De-icing:** when ice making has reach a set time, the de-ice light will be on, water pump will be off, defrost valve will open, allows hot air flows into the evaporator, about 1-2 minutes, ice cube will slip down to the ice cube cabinet. (Do not put hands into the cabinet when ice is falling down, or else, the ice may hurt your hand.)
- **Ice thickness adjustment**: if you want to adjust the ice thickness, you may long press the ⇧ or ⇩ for 5 seconds, you will see the manual for thickness adjustment, then press ( ) or ( ) to adjust the thickness. (Each time you press, the ice making time increases or decreases by 1 minute.)
- **Standby:** when machine is running, please press ( ) to stop the machine, back to standby mode.
- **Hand Wash:** When machine is in standby mode, press ( ) button. Release it when see the blink, the machine will be in hand wash mode. When machine is in making ice, de-ice, ice full status, press ( ) button to shift to hand wash mode.
- **Other special stop status:**
  - Continuous 10 times make ice overtime, ice making overtime button is on, error sign blinks.
  - Continuous 3 times de-ice overtime, de-ice overtime button is on, error sign blinks.
  - Ambient temperature exceed set value, machine stop automatically.
  - For water cool models, machines stop when condenser out of water supply. (If no operation after 60 seconds, the display will be locked, and lock sign will be on, you can press any key to unlock it.)

3. MAINTENANCE AND ERRORS

A. Maintenance:

i. Disconnect power before checking!

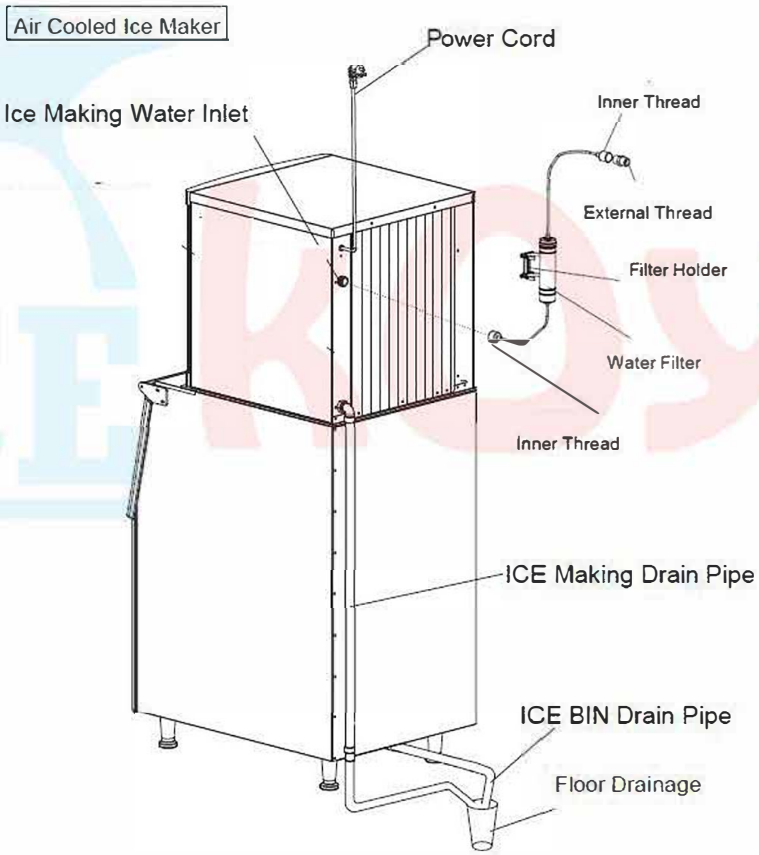
ii. Hire a professional technician.

iii. Please read this manual carefully before checking.

iv. Manufacturer or supplier will not take any responsibilities related to water sanitary or wrong operations.

v. Clean the dust on the machine regularly.

vi. Clean the filter net regularly (once a month is recommended)



vii. 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 effect the ventilation.

B. Common Errors & Solutions:

ERRORS	POSSIBLE CAUSE	CHECK AND SOLVE
Not Start	no power	power supply
Stop in every 3 minutes	high voltage	Temperature too high, too dirty
Stop in every cycle	ice full	Check return plate
Ice doesn't fall	too dirty, too cold	Check the clean and environmental temperature
Ice too thick or too thin	water level too low, pump not working, water pressure too low, water supply off	Check valve, water level.
Ice making too slow	condenser too dirty, ventilation not good	Clean filter, condenser, check machine surrounding

C. Warranty Exceptions:

Below are not included in the warranty range:

i. Daily cleaning, washing, and checking.

ii. Change the components without our authorization.

iii. Damages caused by bad ventilation, wrong installation, power supply, water supply and draining.

iv. Additional labor charge on holiday, overtime, travel are not included in warranty. Additional charge for inconvenient installation is not included either.

v. Wrong operation or abuse causing components damages.

vi. Not fixing, washing, and maintaining the machines according to the manual and result in damage.

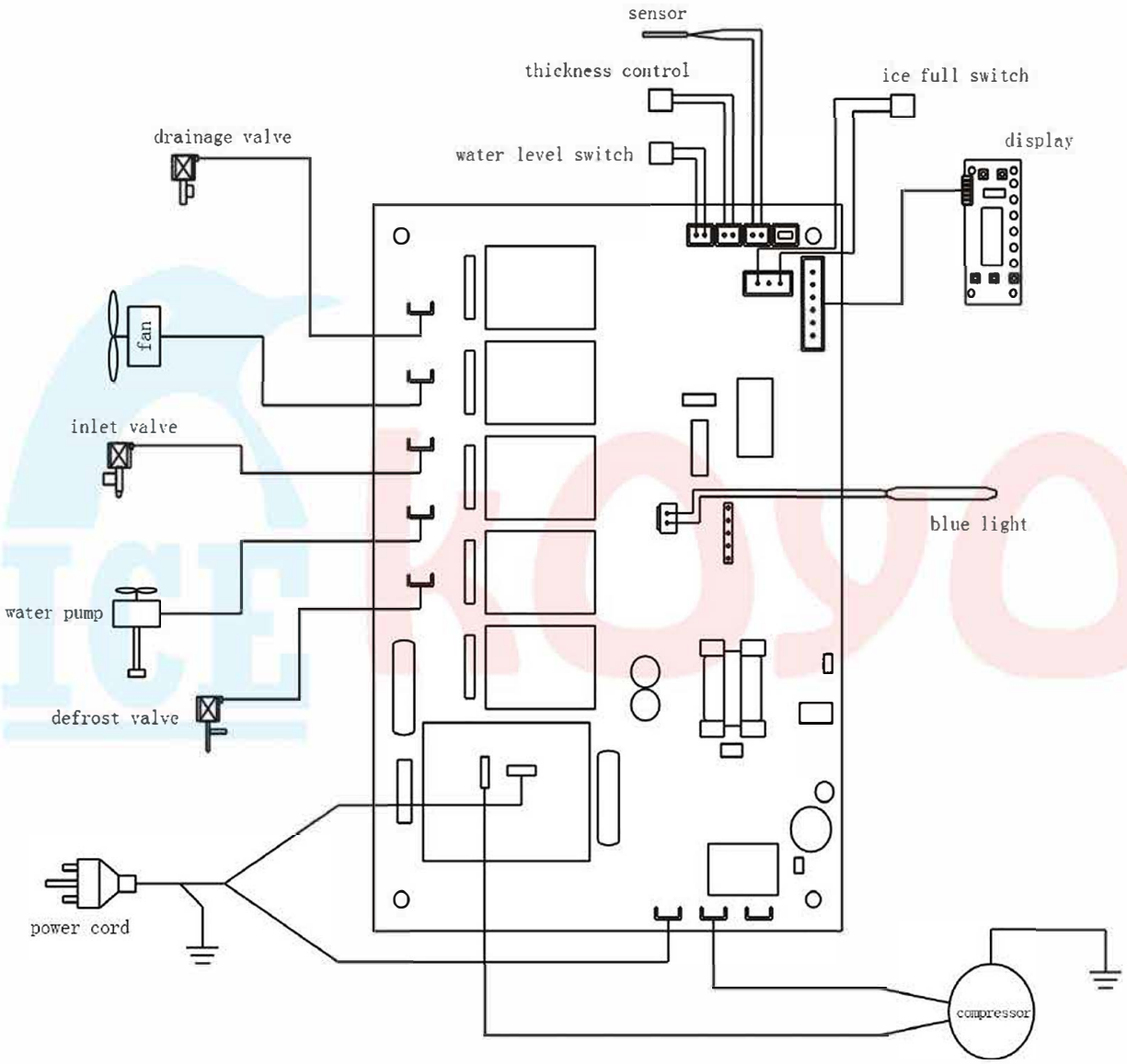
vii. Malicious damage is not covered by the warranty.

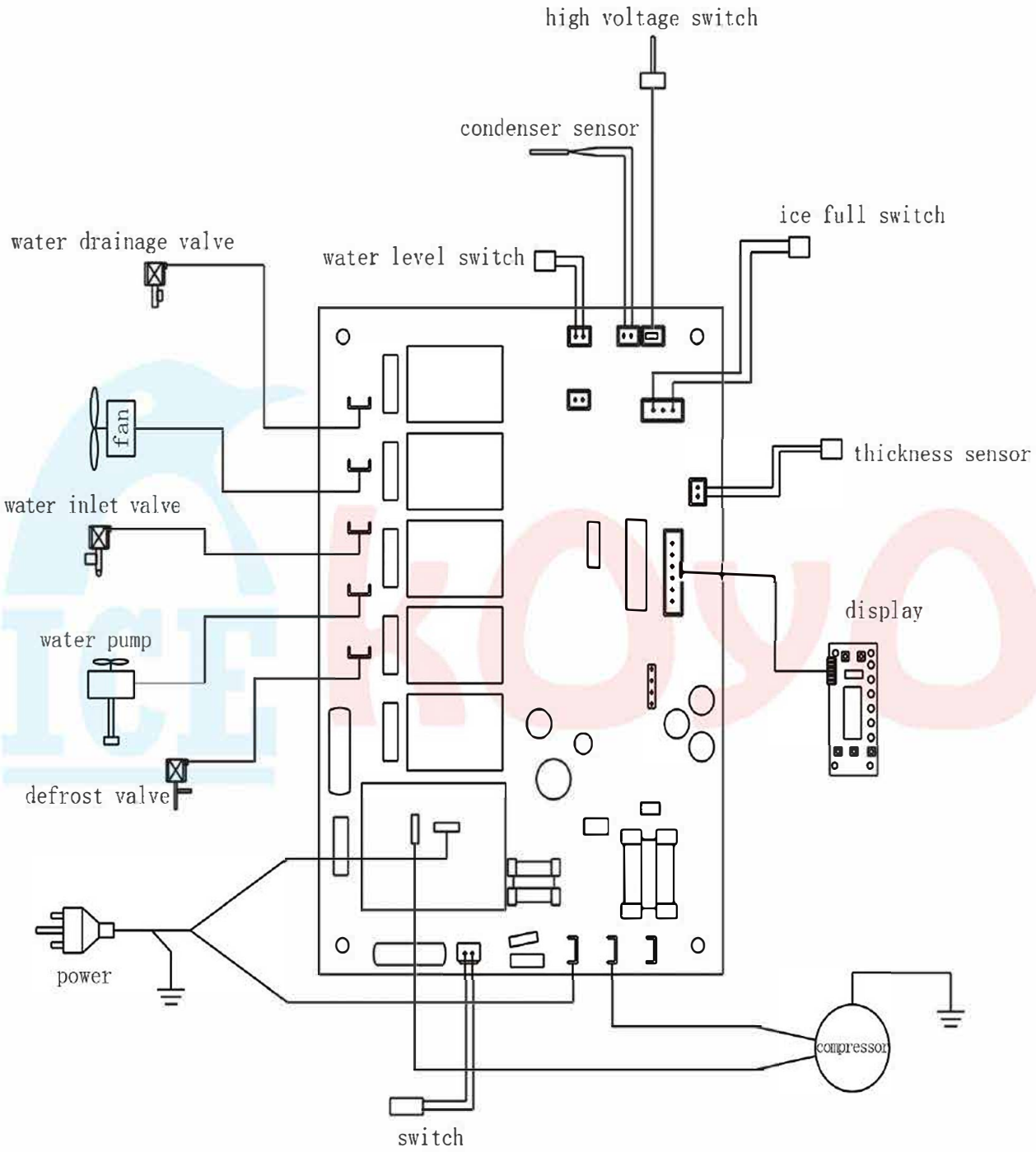
4. Attachment

See attached list

5. Appendix

1. Circuit Diagram




high voltage switch
condenser sensor
ice full switch
water drainage valve
water level switch
fan
thickness sensor
water inlet valve
display
water pump
defrost valve
power
compressor
switch

2. Main board adjust and setting:

KR mainboard setting:

	Name	Adjustment Value	Mapped Range	Default
C1	Time	0-35	0-35 min	12 min
C2	Ice Water Temp.	0-50	0-5℃	1℃
C3	Time Limit	5-60	5-60 min	40 min
C4	Deice Time	1-9	1-9 min	5 min
C5	Precool Time	0-12	0-120s	30s
C6	Ice Full Time	10-90	10-90s	40s
C7	Water Supply Time	1-45	1-45 min	5min
C8	Drain Time	0-60	0-60s	20s
C9	Drain Cycle	0-20	0-20 times	5

BSF series mainboard setting:

Serial Number	1	2	3	4	5	6	7	8
Set Project	Sensitivity	Precool Time	Add Water Time	Drain Selection	Drain Time	High Pressure Alert	Ice Making Mode	Time Compensation
Set Data	1-18	230	3-15	4-00	5-05	6-00	7-00	
Parameter	18	30s	15min					

The machine is well set in factory, please don't change the setting casually.