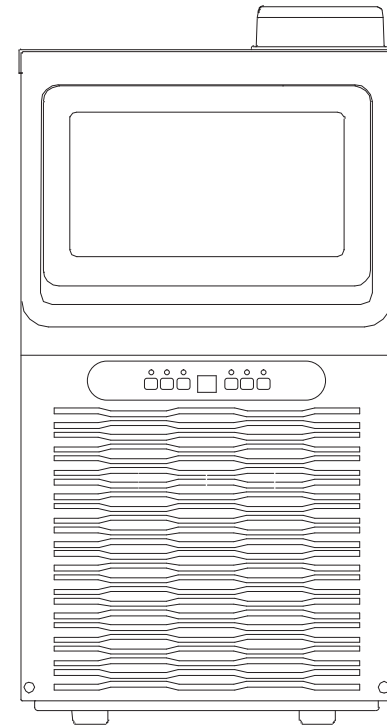


ROVSUN

Instruction Manual

ICE MAKER



You should read this user manual carefully before using the appliance
Physical and photos maybe some differences! Kind prevail.

MADE IN CHINA

Dear Customer,

Thank you for purchasing this ROVSUN appliance. Read this manual carefully, paying particular attention to the safety regulations outlined below, before installing and using this appliance for the first time.

CAUTION: ICE CAN'T BE STORED IN THE ICE BIN DURING NIGHT-TIME, IT'S NOT FRIDGE, ICE WILL BE MELTED TO WATER AND GET OUT OF THE MACHINE. CONNECT THE DRAIN PIPE TO A CONTAINER.

Safety regulations

- This appliance is intended for commercial and household use.
- Only use the appliance for the intended purpose it was designed for as described in this manual.
- The manufacturer is not liable for any damage caused by incorrect operation and improper use.
- Keep the appliance and electrical plug away from water and other liquids. In the event the appliance falls into water, immediately remove the power plug from the socket. Do not use the appliance until it has been checked by a certified technician. Failure to follow these instructions will cause life threatening risks.
- Never attempt to open the housing of the appliance by yourself.
- Do not insert objects into the housing of the appliance.
- Do not touch the plug with wet or damp hands.
- Do not tip the machine over.
- If the ice maker is brought indoors from outdoors during the wintertime, give it a few hours to warm up to room temperature before plugging to a power source.
- **DANGER OF ELECTRIC SHOCK!** Do not attempt to repair the appliance by yourself, repairs are only to be conducted by qualified personnel.
- **WARNING:** The appliance must be grounded and use a 120V~/60Hz power supply.
- Never use a damaged appliance! When it's damaged, disconnect the appliance from the socket and contact the retailer.
- **WARNING!** Do not immerse the electrical parts of the appliance in water or other liquids.
- Never hold the appliance under running water.
- Regularly check the power plug and cord for any damage. When damaged it must be replaced by a service agent or similarly qualified person in order to avoid danger or injury.
- Make sure the cord does not come in contact with sharp or hot objects and keep it away from open fire. Never pull the power cord to unplug it from the socket, always pull the plug instead.
- Make sure that the power cord and/or extension cord do not cause a trip hazard.
- Never leave the appliance unattended during use.
- **WARNING!** As long as the plug is in the socket the appliance is connected to the power source.
- Turn off the appliance before unplugging it from the socket.
- Connect the power plug to an easily accessible electrical socket so that in case of emergency the appliance can be unplugged immediately.
- Never carry the appliance by the cord.
- Do not use any extra devices that are not supplied together with the appliance.
- Only connect the appliance to an electrical outlet with the voltage and frequency mentioned on the appliance label.
- Never use accessories other than those recommended by the manufacturer. Failure to do so could pose a

Discarding & Environment

When decommissioning the appliance, the product must not be disposed of with other household waste. Instead, it is your responsibility to dispose of your waste equipment by handing it over to a designated collection point. Failure to follow this rule may be penalized in accordance with applicable regulations on waste disposal. The separate collection and recycling of your waste equipment at the time of disposal will help conserve natural resources and ensure that it is recycled in a manner that protects human health and the environment.

For more information about where you can drop off your waste for recycling, please contact your local waste collection company. The manufacturers and importers do not take responsibility for recycling, treatment and ecological disposal, either directly or through a public system.

3. QUARTERLY CLEANING

All the components & surfaces exposed to water or ice cubes, like ice storage bin, water tank, door, evaporator, water pump, silicone tube, water dividing pipe, etc. should be cleaned per each 3 months.

Follow the below steps to clean the machine per each 3 months.

1. Add water and vinegar or lemon juice mix (1:1 ratio) or other similar acid detergents into the water tank.

2. Long press "Reservation/Clean" button about 3 seconds under standby mode to make the machine enter Self-clean program. This process takes about 5 minutes. When the Self-Clean program is finished, drain off any remaining water.

NOTE: It is strongly recommended to clean the unit before initial use or after the unit has not been in use for a long period of time.

Trouble Shooting

E1	Ice full indicator is on, and proximity switch didn't react	Ice-harvest detecting plate isn't assemble well	Re-install the ice-harvest detecting plate	
		Proximity switch is not sensitive	Need the technical service person to maintain	
		The ice-harvest detecting plate didn't return to original position	Take away the ice to make the connector return to original position	
E2	Normal to make ice	Stop every 4 cycles, and the process of ice drop continued for 5 min	Need the technical service person to maintain	
		No water supply	The water tank is not plugged	Put the plug back
			Use barreled water as water source	The blue tap didn't rotate to vertical
	Use barreled water as water source, but no water flow down		The water pipe was jammed, disconnect and clean it.	
	Water flows out from the water tank	Use tap water as water source	Check the water supply	
		Use barreled water as water source	Check whether the water pipe was inserted well or not	
Use tap water as water source		The blue tap didn't rotate to horizontal		
E3	Water in the tank	No water or low flow	Pump is badly blocked, replace or clean it Clean the water dividing pipe	
		Water flow and water get cool	Thin ice on the evaporator	Increase the making time through "+"
	Thick solid ice on the evaporator		Reduce the making time through "-"	
	Some water sprayed to ice storage cabinet		Adjust the water dividing pipe	
	Water flow down but water is not cool	The water leak from the back of water tank	The tank need to be adjusted.	
		The main board didn't supply electricity to compressor	Replace by a new main board	
		Compressor didn't work	Check the starter, replace by a new one if needed	
		Cooling system tube is clogged	Need the technical serviceman to maintain	
Refrigerant leakage		Need the technical serviceman to maintain		
E4	The fan is not work	The condenser prob is not sensitive	Unplug the prob or replace by a new one	
		The fan is jammed	Adjust the fan	
		Fan is broken	Replace by a new fan	
E4	Ice full	The ice storage bin is full of the ice cube.	Take out some ice cube	

safety risk to the user and could damage the appliance. Only use original parts and accessories.

- This appliance should not be operated by persons with reduced physical, sensory or mental capabilities, or persons that have a lack of experience and knowledge.
- This appliance should, under any circumstances, not be used by children.
- Keep the appliance and its power cord out of reach of children.
- **WARNING: ALWAYS** switch off the appliance and unplug from power socket before cleaning, maintenance or storage.

Special Safety Regulations

- This appliance is intended to be used in household and similar applications such as

- 1) Staff kitchen areas in shops, offices and other working environments;
- 2) Farm houses and by clients in hotels, motels and other residential type environment;
- 3) Bed and breakfast type environments;
- 4) Catering and similar non-retail applications.

- This appliance should be operated by trained personnel in kitchen of the restaurant, canteens or bar staff, etc.
- **CAUTION! Hot surface!** The surface is hot when in use. Touch the control panel only.



- **CAUTION! Risk of fire!** The refrigerant used is R290 in this appliance. It is a highly flammable refrigerant. The foam blowing agent used is Cyclopentane in this appliance. They are highly flammable.

- Do not place the appliance on a heating object (gasoline, electric, charcoal cooker, etc.) Keep the appliance away from any hot surfaces and open flames. Always operate the appliance on a level, stable, clean, heat-resistant and dry surface.

- This appliance is not intended to be operated by means of an external timer or separate remote-control system.

CAUTION: Moving parts. Do Not Operate Unit with Back Cover Removed.

CAUTION: Hot Parts. Do Not Operate Unit with Back Cover Removed.

CAUTION: Risk of Electric Shock. Disconnect Power Before Servicing Unit.

- **WARNING:** Keep all ventilation openings in the appliance enclosure clear of obstruction.
- **WARNING:** Do not use mechanical devices or other means to accelerate the defrosting process, other than those recommended by the manufacturer.
- **WARNING:** Do not damage the refrigerant circuit.
- **WARNING:** Connect to potable water supply only.
- Do not store explosive substances such as aerosol cans with a flammable propellant in this appliance.
- Allow at least 50 cm spacing around the appliance for ventilation purpose during use.
- Do not use hard utensils to hit the outer surface. Do not use water jet, flush directly with water or steam cleaner as the parts will get wet and electric shock might be resulted.
- Do not expose it to direct sunlight. Avoid mechanical shocks and vibrations.
- Always move or transport the appliance in an upright position or it may damage the appliance.
- **CAUTION!** Securely route the power cord if necessary in order to prevent unintentional pulling or contact with the heating surface.
- Do not clean or store the appliance unless it is completely cooled down.
- No any parts are dishwasher safe.

NOTE: Created ice cubes are joined together and still need to be broken apart before use.

Intended use

- This appliance is intended for buffet and house- hold use.
 - The appliance is designed only for making ice cubes. Any other use may lead to damage to the appliance or personal injury.
 - Operating the appliance for any other purpose shall be deemed as misuse of the device. The user shall be solely liable for the improper use of the device.
-

Grounding installation

- This appliance is classified as **protection class I** and must be connected to a protective ground. Grounding reduces the risk of electric shock by providing an escape wire for the electric current.
 - This appliance is fitted with a power cord that has a grounding wire and grounded plug. The plug must be plugged into an outlet that is properly installed and grounded.
-

Technical Specifications

Item No	BT-70	BT-90	BT-90S
Operating voltage and frequency	120V 60Hz	120V 60Hz	120V 60Hz
Power	220W	235W	235W
Refrigerant used & injection quantity	R290	R290	R290
Climate class	SN-T	SN-T	SN-T
Foam blowing agent	Cyclopentane	Cyclopentane	Cyclopentane
Protection class	Class I	Class I	Class I
Running conditions	Room temp : 10°C - 32 °C (50-90°F) Water supply temp: 5°C - 25°C (41-77°F) Water Supply pressure: 0.1 - 0.4Mpa (14.5-58PSI)		
Drain type	Gravity drain		
Dimension	340x345x690mm		

Remark: Technical specification is subjected to change without prior notification.

Unpacking your ice maker

1. Remove the exterior and interior packaging. Check if all the accessories which was listed as below are inside or not. If any parts are missing, please contact our customer service.
2. Keep the packaging if you intend to store your appliance in the future.
3. Remove the tapes for fixing the door, roughly clean the Inner cabinet & ice scoop with wet cloth.
4. Put the ice maker on a level & flat floor, without direct sunlight and other sources of heat (i.e.: stove, furnace, radiator). Make sure that there is at least 50cm gap between the air outlet and the obstacles, and at least 20 cm between Left/ Right side and the wall.
5. Allow 24 hours for the refrigerant fluid to settle before plugging the ice maker in if the unit may be fall upside down during shipping or transportation.
6. The appliance must be positioned so that the plug is accessible.

WARNING: Only use drinking water to make ice.

Cleaning & Maintenance

WARNING: Do not use any alcohol or fume for cleaning/sanitization of the ice maker. It may cause cracks on the plastic parts. Ask a trained service person to check and clean the condenser at least once a year, in order to let the unit work properly. This appliance must be cleaned by use of a water jet.

CAUTION: If the ice maker has been left unused for a long time, before the next use it must be thoroughly cleaned. Follow carefully any instructions provided for cleaning or use of sanitizing solution.

Do not leave any solution inside the ice maker after cleaning.

Periodic cleaning and proper maintenance will ensure efficiency, top performance, hygienic, and long life. The maintenance intervals listed are based on normal conditions. You may want to shorten the intervals if you have pets, or the unit is used outdoors, or there are other special considerations.

What shouldn't be done

Never keep anything in the ice storage bin that is not ice: objects like wine and beer bottles are not only unsanitary, but also it's labels may slip off and obstruct the drain pipe.

Exterior Cleaning

The door and cabinet may be cleaned with a mild detergent and warm water. Do not use solvent-based or abrasive cleaners. Use a soft sponge and rinse with clean water. Wipe dry with a soft clean towel to prevent water spotting.

NOTE: Stainless steel models exposed to chlorine gas and moisture, such as in areas with spas or swimming pools, may have some discoloration of stainless steel. Discoloration from chlorine gas is normal.

Interior Cleaning

For Ice Storage Bin

The ice storage bin should be sanitized occasionally. Clean the bin before the ice maker is used for the first time and reused after stopping for an extended period of time. It is usually convenient to sanitize the bin after the outside, the storage bin must be empty.

1. Disconnect power to the unit.
2. Open the door and with a clean cloth, wipe down the interior with a sanitizing solution made of 28g of household bleach or chlorine and 7.5L of hot water.
3. Rinse thoroughly with clear water. The waste water will be drained out through the drain pipe.
4. Reconnect power to the unit. The ice scoop should be washed regularly. Wash it just like any other food container.

WARNING: Do not use solvent-based or abrasive cleaners. These may transmit taste to the ice cubes.

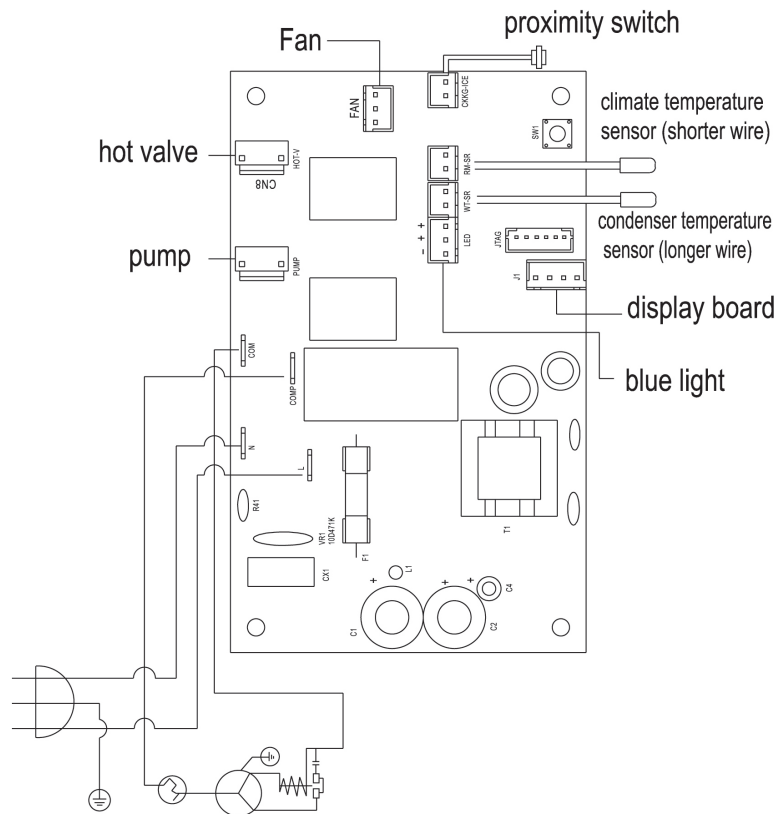
Cleaning Suggestion

1. DAILY CLEANING

The ice shovel, door and the water dividing pipe should be cleaned by yourself per each day. At the end of every day, rinse the ice shovel and wipe the both sides of the door with a clean cloth.

2. SEMI-MONTHLY CLEANING

The ice shovel, ice bin, water tank, the ice-full detecting plate and the surface of the evaporator are to be cleaned by yourself semi-monthly according to interior cleaning program.



(BT-90S)

Preparing the ice maker for long storage

If the ice maker will not be used for a long time, or is to be moved to another place, it will be necessary to drain out all of the water in the system.

1. Turn off the unit, and unplug the power cord.
2. Shut off the water supply at the main water supply.
3. Disconnect the water supply hose from the water inlet valve.
4. Drain out the water in the water tank. When all the water has been drained, remove the water drain.
5. Drain out all the water from the water drain port located at back of the unit.
6. Disconnect the water drain pipe to the main drain pipeline or floor drain.
7. Leave the door open to allow for circulation and prevent mold and mildew.
8. Leave water supply hose and power cord disconnected until ready to reuse.
9. Dry the interior & wipe the outside of the unit.
10. Put a plastic bag on the unit to resist out dust & dirty.

Accessories list (Please be subject to the actual products)				
NO	Description	Picture	Usage	QTY
1	Manual		Operation manual	1PC
2	Filter		Filter water	1PC
3	Drainage pipe		Drain	1PC
4	Ice spoon		Take ice cubes	1PC
5	Nylon cable ties		Fix pipe if needed	2 PCS
6	Hoop		Fasten the outlet and the drainage pipe together if needed	1 PC
7	Seal ring		Do put it in the faucet of the intake pipe, the other one is spare.	2 PCS
8	Spare blue clip		Spare blue clip if needed.	2 PCS
9	Spare plug		Spare plug	1PC

Installation location requirement

- a) Keep the proper room temperature and inlet water temperature according to above specification table. Otherwise it will affect the ice making performance.
- b) This unit should not be located near any heat source.
- c) Do not put anything on the top of the ice maker.
- d) The unit should be located on a firm & level foundation at normal counter top height.
- e) There must be at least 500mm clearance around the appliance and 40mm clearance from the top to keep good air ventilation.

Choose a well-ventilated area with temperatures above 10°C and below 32°C. This unit MUST be installed in an area protected from the elements, such as wind, rain, water spray or drips.

The ice maker requires a continuous water supply with pressure of 0.1-0.4Mpa as required. The temperature of the water feeding into the ice maker should be between 5 °C and 25°C for proper operation.

Electrical requirement & connections

WARNING: THIS UNIT MUST BE EARTHED.

- Before you move your ice maker into its final location, it is important to make sure you have the proper electrical connection.
- It is recommended that a separate circuit, serving only your ice maker, be provided. Use receptacles that cannot be turned off by a switch or pull chain. If the supply cord or plug to be replaced, it should be done by a qualified service engineer.

• This appliance requires a standard 120 Volt, 60Hz electrical outlet with good grounding means.

Cleaning your ice maker before first using

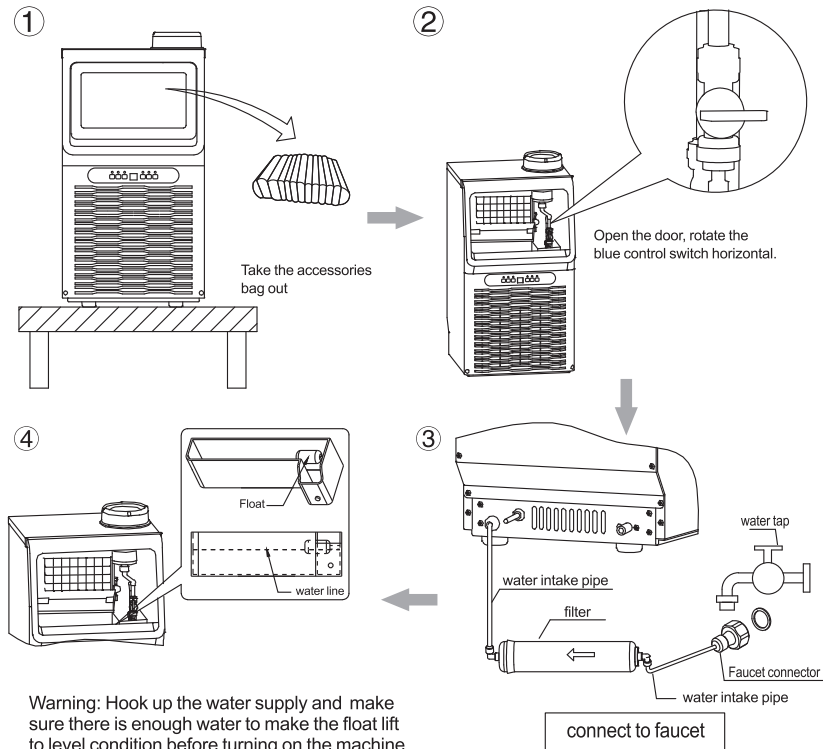
1. Open the door.
2. Clean with diluted detergent, warm water and a soft cloth.
3. Repeatedly clean the water contacting inner parts, next clean the inner ice-storing cabinet. After that drain out all of the cleaning water from the water drain port located at the back of the unit.
Remember to install the water drain pipe to a container or a sewer before cleaning. Discard the first ice-cube after cleaning.
4. The outside of the ice maker should be cleaned regularly with a mild detergent solution and warm water.
5. Dry the interior and exterior with a clean soft cloth.

Water Connection for your ice maker

Important: Be sure to use the new hose-sets supplied with the appliance.

Connect the water supplying hose to the unit.

1) Use pipe water as water source



Clean button:

1. Long press this button for 1s under standby mode to make the enter cleaning mode for 5min and with cleaning indicator is on. And it will enter standby mode after cleaning. Press cleaning button during cleaning mode to make the machine end the cleaning in advance.
2. When the unit is making the ice cube, press this button for more than 3 seconds, the unit will switch to ice harvest process by force. (BT-70/BT-90)

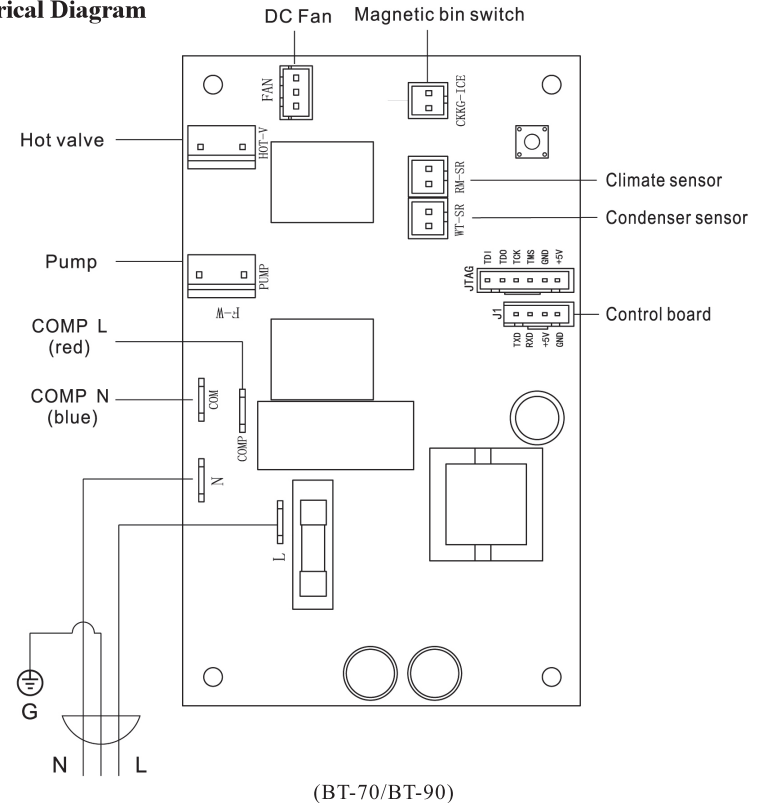
Light button: (BT-70/BT-90)

Press "Light" to turn off the inner blue light, press again to power on the blue light.

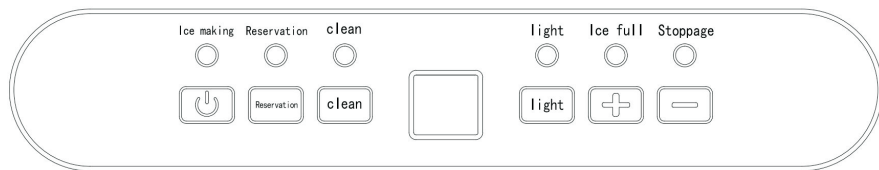
HOT button: (BT-90S)

When the unit is making the ice cube, press this button for more than 5 seconds, the unit will switch to ice harvest process by force. Press "HOT" to turn off the inner blue light, press again to power on the blue light.

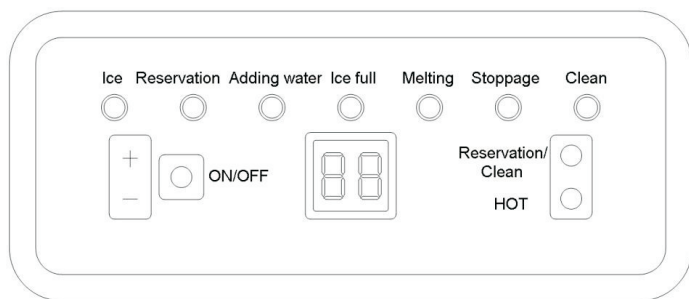
Electrical Diagram



2) Operation Panel



(BT-70/BT-90)



(BT-90S)

ON/OFF BUTTON

When the unit is off, press this button to turn on the unit, and during the normal ice-making state, hold this button for 2s to turn off the unit at once.

“+”/“-” BUTTON

1) Adjust ice making time:

Use to adjust the ice-making process duration period length, the default setting is zero, 1 minute adding or decreasing per each pressing of “+” or “-” button. Time scope is from -5 to 8 min.

2) Set auto-turn-off / auto-turn-on time

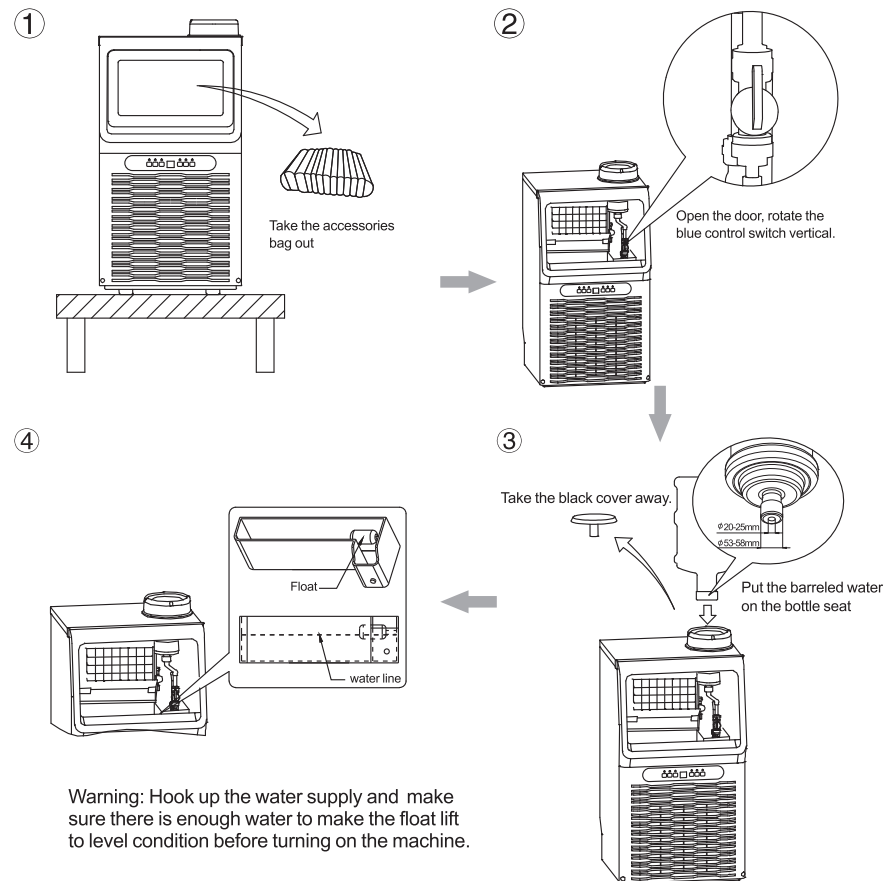
Reservation button:

Press this button under standby mode, to set the auto-turning-on time (in hours from 0-24h), the default setting is zero, 1 hour adding or decreasing per each pressing of “+” or “-” button. The machine will automatically turn on after the countdown is finished.

Press this button during ice -making process, to set the auto-turning-off time (in hours from 0-24h) the default setting is zero, 1 hour adding or decreasing per each pressing of “+” or “-” button. The machine will automatically turn off after the countdown is finished.

If we succeed in reservation, the reservation light will be always on. Press “reservation” button again to cancel the reservation.

2) Use barreled water as water source.

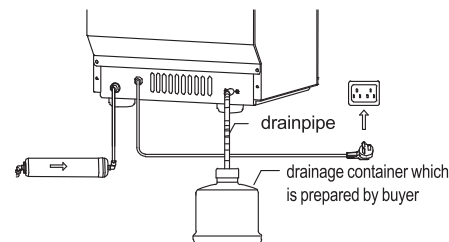


Warning: Hook up the water supply and make sure there is enough water to make the float lift to level condition before turning on the machine.

3) Drainage

Warning: Because the ice in the inner tank will melt, the drainpipe must be connected before using, and insert the drainpipe into a container or into the sewer.

Note: Connect one end of the drainpipe to the machine and the other end to a container or sewer. The other part of the drain pipe must be lower than the drain port of the machine.



4)Electrical connection

WARNING:

- 1) The machine must be grounded and use a 120V~/60Hz power supply.
- 2) The fusing current of the PCB is 15A,If it is to be replaced,must be operated by a technician.
- 3) voltage fluctuation can't exceed $\pm 10\%$ than the rated voltage,or a Voltage stabilizer is needed.
- 4) The blue light installed inside the machine must be replaced by a professional.

Operation the ice-making process

- 1.After all of the water pipe connecting is completed, plug in the main power supply. Then press "ON/OFF" button on the control panel to begin the ice making cycle, and the "Ice making" light will be on at same time.
2. Each ice making cycle will last about 11 to 30 minutes, depending on the ambient and the water temperature.
3. When the ice-making process is over the machine will switch to ice-harvest process.
4. When the "Full" indicator is on, the unit stops running. If you remove enough cubes, the unit will start to work again.
5. During the ice-making process, press the "+" or "-" button to adjust the ice-making process duration period length, this will change the thickness of the ice cube. The default setting is zero, 1 minute will add or decrease to the process per pressing of the "+" or "-" button, the new setting are programmed.
6. Bad water quality will cause bad quality of ice cubes and will reduce the transparency of the ice cube.

NOTE: Created ice cubes are joined together and still need to be broken apart.

Automatic self-cleaning program

Start the self-cleaning program: After connecting all of the water pipe, plug on the main power supply plug press the "Clean" button under standby mode for more than 5 seconds, this starts the cleaning program. The "Clean" light will be on during cleaning, the self-cleaning program takes 5 minutes.

Cancel the self-cleaning program: It takes about 5 minutes to complete one self-cleaning program. When the program is over, the system will be in off-state automatically. And also you can press the "ON/OFF" button on control panel to cancel the self-cleaning program by force.

Reservation setting

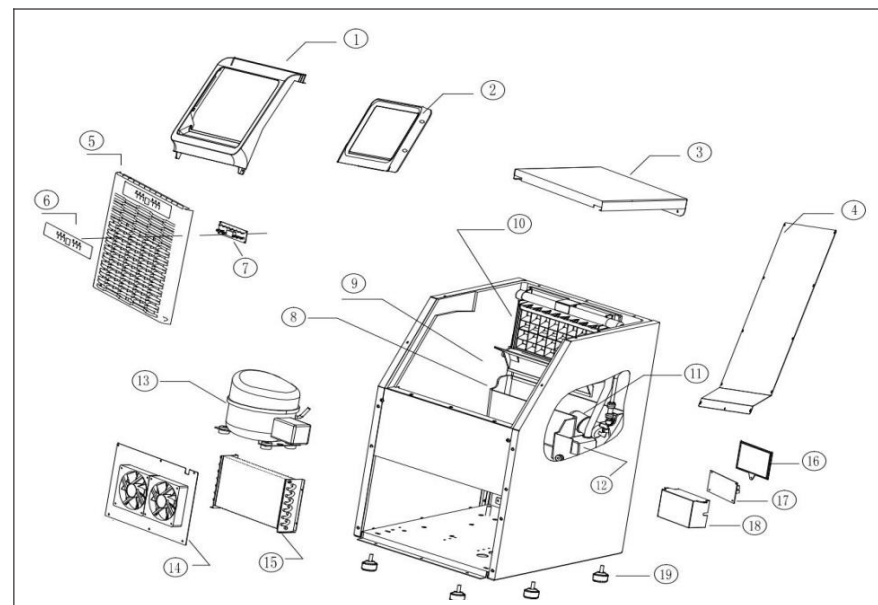
How to set the Reservation: When the machine is off, press the "Reservation" button to set the time when the machine has to turn on. The "Reservation" light will go on, the number in digital window will flash to display in how many hours the machine will go on. During the number flashing, press "+" or "-" button to add or remove hours, the default setting is zero. Five seconds after setting, your desired setting will be programmed.

How to cancel the ON-Timer: Press the "Reservation" button, the number in digital window will flash to display the present delay time of your ON-Reservation, and press the button again to cancel the setting. Pressing the "ON/OFF" button will also cancel the reservation.

How to cancel the OFF-Reservation: This is the same procedure as for canceling the ON-Reservation.

General information

1) Main Unit Construction



1.Door frame	10.Evaporator
2.Door	11.Float
3.Top cover	12.Pump
4.Back panel	13.Compressor
5.Front panel	14.DC fan
6.Front plate	15.Condenser
7.Display board	16.Main board
7.Inner tank	17.Main board box
9.Water tank	18.Rubber feet

Physical and photos maybe some differences! Kind prevail.