# I、 Safety



Danger symbol: This icon reminds the users that this product has dangerous

voltage!



Warning symbol: This icon reminds the users that this product is enclosed with important operating and maintenance instruction!

## [Warning]

- In order to prevent fire or electric shock accident, do not expose the controller to the rain or humid environment. There are dangerous high-tension fittings inside the controller, therefore do not open the cover. Entrust the repairing work only to the qualified professional repairing personnel when repairing is required.
- 2. Without the clear approval from the controller manufacturer or its authorized units, any change or alternation to this controller might bring various inconveniences to the users when in use.

## [ Attention ]

- Please read this operating instruction manual thoroughly, so as to allow you to master the correct use of this controller.
- After reading this operating instruction manual, please keep it safe and for reference in the future. If repairing is required, please contact the local dealer or the technical service center of our company.

## [Notice for use]

- 1. In case this controller is not used for a long time, please remove the power plug from the socket.
- 2. Before switching on the power, please make sure that all wirings and power cord have been connected accurately.
- 3. Please put this controller in a ventilated dry area. Prevent it from getting close to the heat source, put it away from direct sunlight, mechanical vibration, dampness and dusty

environment, and prevent it from getting close to other thermal-radiating objects.

## 【Helpful suggestion】

- 1. In order to prolong the service life of this controller, the time interval for continuously turning on and off the machine must be over 30 seconds.
- 2. Please switch off the power after use.
- 3. The power supply used must be consistent with the voltage specified value indicated on this controller; otherwise it will not work, or even burn out the controller.
- 4. When installing this controller, carefully check if the load parameters are consistent with the parameters required by this controller, otherwise it will not work, or even burn out the controller.
- 5. If it is halted accidentally, please close and restart.

### II Brief Introduction

General Description of Functions

model		PB3133-24
function		42
1.	Lock	$\sqrt{}$
2.	Pump	V
3.	Blower	$\sqrt{}$
4.	Thermostatic	V
	heating	
5.	Temperature sensor	$\sqrt{}$
6.	Lamp	$\sqrt{}$
7.	FM radio	Χ
8.	Bluetooth music	$\sqrt{}$
	play	
9.	Water level sensor	$\sqrt{}$
10.	Ozone	$\sqrt{}$
11.	Cleaning	Х

Remark: "\"stands for function included; "X"stands for function not included; "\*"stands for optional function

- 2. Controller System Including:
  - 1) Control panel (1);

- 2) Control box (1).
- 3. Characteristics of the Controller

: AC220V

1) Rated voltage

2) Working voltage range : AC198V-242V

3) Rated power : 50HZ

4) Power consumption : <10W (all loads OFF)

5) Applied ambient temperature :  $+5^{\circ}$ C ~  $+40^{\circ}$ C

## 4. Devices controlled by the controlling system

1) Water pump surf : AC220V/1.5HP

2) Thermostatic heating : AC220V/2000W

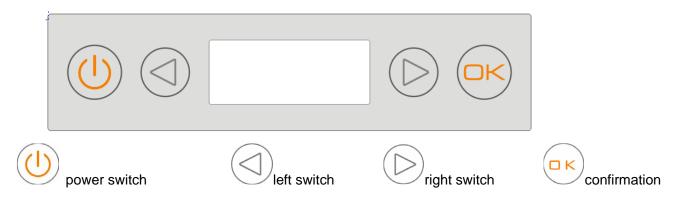
3) Blower : AC220V/300W

4) Bottom lamp : DC12V/2W

5) Ozone : DC12V/6W

6) Loudspeaker :  $8\Omega/15W$ 

## 5. Schematic Diagram of control panel



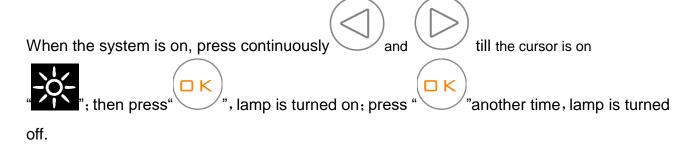
## switch

# **III、Operation of Control Panel**

- 1. When any function button works, there is a sound of "di..."
- 2." " power

Press "for 2 seconds to start the controller, at the same time, the lamp will be turned on; press the button again to stop the controller and all the loads is turned off.

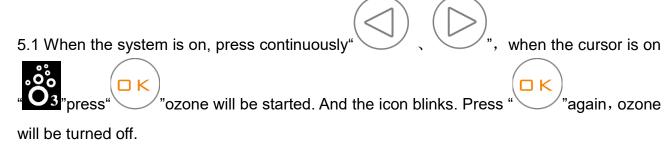
### 3. LAMP



#### 4 Lock

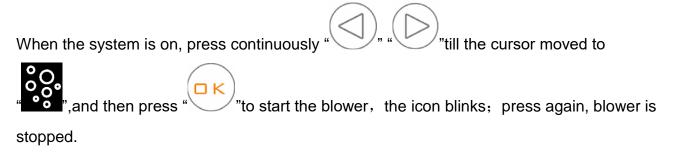
If no operation with the control panel for 3 minutes, all the keys will be locked except "LOCK", LCD displays "LOCK". When the keys were locked, press any key for 3 seconds, the keys will be unlocked after a"di…", and icon "LOCK" disappears.

5 Ozone (when Bluetooth is on, ozone will be turned off automatically)



- 5.2 Ozone will be turned off automatically after being started for 10 minutes.
- 5.3 When the ozone is started, Bluetooth music play will be turned off automatically.

### 6 Blower



### 7 Water pump surf

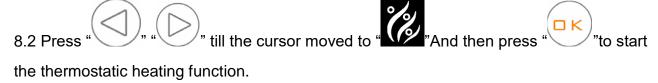
- 7.1 The water checking device of this controller protects the water pump from being burning out.
- 7.2 When the system is on, press "till the cursor moved to "till the cursor moved to ", if the

water level achieves the setting value ,and then press "to start the pump, the icon blinks; press again, Water pump surf is stopped.

- 7.3 When the water level is lower than the setting value, pump can not be started.
- 7.4 When the water surf pump function is on, and the system checks the water level lower than the setting value, water surf pump function stops automatically. At the same time the pump icon blinks. Whenever the system checks the water level achieving the setting value, the icon stops blinking and the pump will start to work.

### 8. Thermostatic heating

8.1 This functions works only when the water pump surf function is on to avoid partial heating for the water.



8.2.1 Thermostatic heating function starts or stops according to the water temperature and set temperature (the temperature that the system defaults is 37°C):

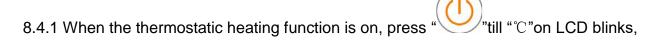
Controlling rule is as follows:

If the temperature≥setting temperature+1 °C , stop heating and LCD heating symbol blinks;

If the temperature≤setting temperature -1 °C, start heating and LCD heating symbol displayed in a dynamic way.



### 8.4 Temperature setting

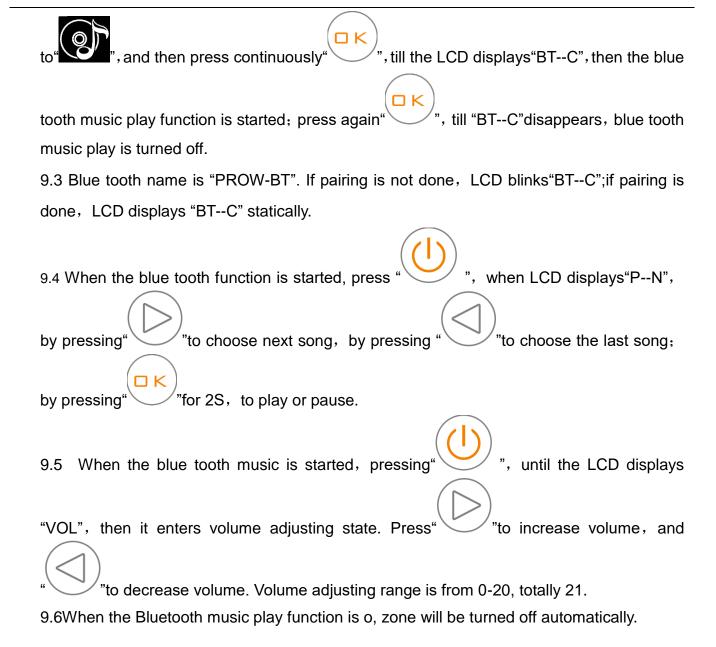


then press "or" to adjust the temperature. During the setting, LCD displays the setting temperature, then the temperature shall be increased /decreased

1 °C after press" "once; When press and hold" or" or" of or more than 2S, the temperature will increase or decrease by 1°C /0.5s"; if no touch to

the "or" or" for 5 seconds, then the last set temperature will be stored. LCD shall display the current water temperature and system exit temperature adjustment.

- 8.5 Temperature setting range: 35℃--45℃
- 8.6 If temperature sensor occurs error, LCD displays "E1" and the controller sounds "di...di...", in this case the heater cannot be started.
- 9. Blue tooth music play (Bluetooth music play can not be started at the same time with ozone)
  - 9.1 When the system is on and FM is off, pressing "for 2Sto disconnect the equipment connected with the blue tooth and enter blue tooth pairing state. LCD displays "PAIR".
  - 9.2 when the system is on, press constantly", to move the cursor



## V. Precautions for Installation and Use

Users must carefully read the following precautions to ensure the normal use of the product, extension of its service life and the personal safety:

- Users must install loads in strict compliance with the circuit diagrams and parameters supplied by our company.
- 2. The ground wire must be connected to the power supply line with good grounding.
- 3. The end user should use power supply cables in 3 x 3mm<sup>2</sup> or wider cable diameter.

According to the National standards (GB). The socket should be of 30A or above according to the National standards (GB).

- 4. The end user should install air-break or leakage switch of 30A or above according to the National standards (GB).
- 5. Strictly check the power supply wiring of the control box. Power on to use only after it is confirmed no errors exist. .
- 6. The electric appliances recommended by illegal manufacturers must not be connected to the controller. Unapproved dismantling and modification of the enclosed internal wiring are strictly prohibited. It is not allowed to connect or plug the wires and plug-in units on the power supply box during the power-on.
- 7. The connecting wires of the power supply box should be connected and plugged correspondingly according to the tags and specifications of the connectors. The output wires can not be short circuited each other.
- 8. After using, please cut off the power to avoid aging of the device.
- 9. The installation of the controller must be performed in strict compliance with the installation instructions by qualified persons.
- 10. No recoverable elements exist in the controller. Don't try to improve it by yourself for the high voltage in the controller can cause dangers. The maintenance and adjustment must be performed by professionals.

For any consequences caused by wrong operation, the user should bear the responsibility.

## **VI**、Declaration

- a) Any maintenance or repairing should be handled by qualified maintenance personal authorized by the manufacturer or agent of this controller. Otherwise, the products cannot enjoy free maintenance and any results will be bore by the customer.
- b) This manual is just for reference. If there are any changes or modifications on the design or explanation, please excuse for no further notice. If there are any mistakes or unclear points, the explaining right belongs to the manufacturer.