

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】

1. 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】

1. Please read this operating instruction manual thoroughly, so as to allow you to master the correct use of this controller.
2. 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

1. General Description of Functions

model		PB3133-24
function		02
1.	Lock	√
2.	Pump	√
3.	Blower	√
4.	Thermostatic heating	√
5.	Temperature sensor	√
6.	Lamp	√
7.	FM radio	√
8.	Bluetooth speaker	√
9.	Water level sensor	√
10.	Ozone	√
11.	Cleaning	X

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) .

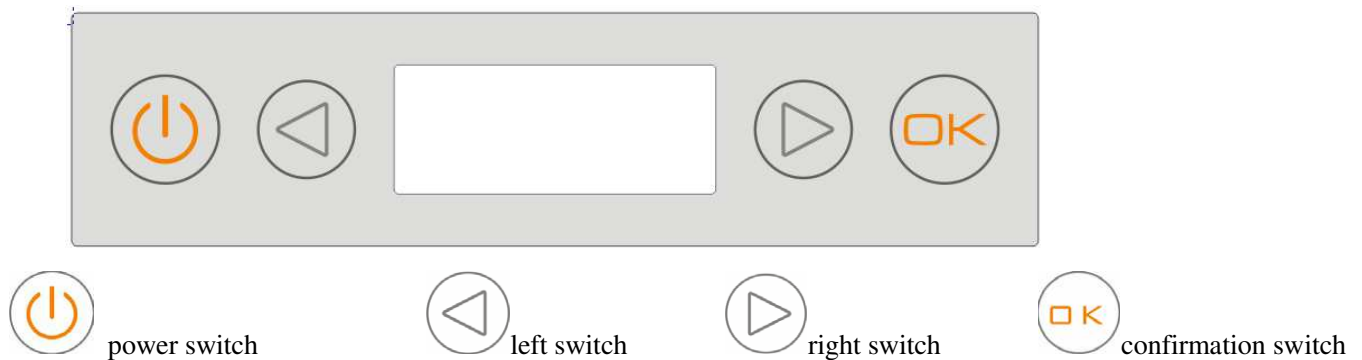
3. Characteristics of the Controller

- 1) Rated voltage : AC220V
- 2) Working voltage range : AC198V ~ AC242V
- 3) Rated power : 50HZ
- 4) Power consumption : <10W (all loads OFF)
- 5) Applied ambient temperature : +5°C ~ +40°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 : 8Ω/15W


5. Schematic Diagram of control panel






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 is turned on ; press the icon again to stop the controller and all the loads is turned off.

3 LAMP

When the system is on, press continuously  and  till the cursor is on “”;

then press “”, lamp is turned on; press “” another time, lamp is turned off.



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...”, icon “LOCK” disappear.





5 Ozone (FM radio on, ozone will be turned off automatically)

5.1 When the system is on, press continuously “ ,  ”, when the cursor is on “ ”

press “ ” ozone will be started. And LCD symbol will be displayed dynamically. Press “ ” again, ozone will be turned off.





5.2 ozone will be turned off automatically after being started 10 minutes.

6 Blower

When the system is on, press continuously “ ” “ ” till the cursor moved to “ ”, and then press “ ” to start the blower, the cursor blinks; press again, blower is stopped.

7 Water pump surf

7.1 The water checking device of this controller protects the water pump from burning out.

7.2 When the system is on, press “ ” “ ” till the cursor moved to “ ”, while the water level achieves the setting value, and then press “ ” to start the pump, the cursor blinks; press again, Water pump surf is stopped.

7.3 When the water level lowers than the setting value, pump stops working.

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. When any time the system checks the water level achieves the setting value, the icon stops blink and the pump starts to work.


8 FM Radio (when the ozone is on, FM will be turned off automatically)


8.1 The FM frequency scope is 87.5MHz—108.0MHz.


8.2 When the system is on, press “” “” till the cursor moved to “”, and



then press “” to turn on the FM Radio Function, at the same time, the LCD displays the


current frequency and “FM”; press the icon “” again ,FM function stops while the current frequency and “FM” disappears.

8.3 When the FM function is on, press “” till the LCD blinks “FM” and “MHZ”, the system enter into the state of adjusting the frequency.

8.3.1 press “” to increase the length of one step (the length of one step =100KHz): Press this button over 2 seconds, the system searches the radio stations of larger frequencies automatically; the digital phase locked loop will lock the FM station automatically and the LCD shows the present frequency, when it reaches to the limit of 108.0MHz, press this button again and the frequency jumps to 87.5MHz.


8.3.2 Press “” to decrease the length of one step (the length of one step =100KHz). Press this button over 2 seconds, the system searches the radio stations of smaller frequencies automatically; the digital phase locked loop will lock the FM station automatically and the liquid crystal shows the frequency of this station; When it reaches to the limit of 87.5MHz, press this button again and the frequency jumps to 108.0MHz.



8.4 When the FM radio is on, press “” till the LCD blinks “VOL”, and then press “”


to increase the volume and press “” to decrease the volume. The volume adjusting range is 0-20, and 21 in total.




8.5 Station storage/select




8.5.1 Station storage: when FM function is on and select the station frequency to be stored,


press “” to select the location for storage “CH” and number below it shall blink, and

press the icon “” “” to choose the location(1-18,all 18); press the icon

“”, the station frequency shall be stored in the selected storage location. And LCD will resume to current frequency.





8.5.2 Station select: When FM function is on, press “” the corresponding stored station can be selected by press “” and “” to choose from (1-18,all 18 stations)

8.5.3 When pressing “” and entering a certain function state, within 5 S without pressing “”, “”, system will automatically exit that function operation state. Or

by pressing “” function choosing key to exit that function.

9 Thermostatic heating

9.1 This functions works only when the water pump surf function is on.

9.2 Press “” “” till the cursor moved to “”, and then press “” to start the thermostatic heating function.


9.2.1 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 \geq setting temperature + 1°C, stop heating and LCD heating symbol blinks;





If the temperature \leq setting temperature - 1°C, start heating and LCD heating symbol displayed in dynamical way.

9.3 Press " " again to stop the function.

9.4 Temperature adjustment

9.4.1 When the thermostatic heating function is on, press " " till "°C" on LCD blinks, then

press " " or " " to adjust the temperature. During the adjusting, LCD displays the setting temperature, then the temperature shall be increased / decreased 1 °C after


press " " " " once; When pressing " " or " " more than 2S, the temperature will increase or decrease by "1°C / 0.5s"; stop adjusting for 5 seconds, LCD shall display the current water temperature and system exit temperature adjustment.



9.5 Temperature setting range: 35°C--45°C



9.6 If the temperature sensor occurs error, LCD displays "E1" and the controller sounds "di...di...", in this case the heater cannot be start.


10 Bluetooth playback function

10.1 When the system is on and the audio is off, the device currently connected to Bluetooth can be


disconnected by touching the " " button for 2 seconds, and the device can re-enter the pairing mode, and the LCD displays "PAIR".



10.2 When the system is on, keep touching the left and right keys " " and " ". When


the cursor on the LCD screen is in the position of "  ", keep touching the "  "confirm key until the LCD displays " BT--C ", and the Bluetooth music player function is turned on;Keep


touching the "  " button until " BT--C " disappears and the Bluetooth music playing function is turned off.



10.3 The name of the Bluetooth device is "PROW-BT". The Bluetooth device is not paired successfully, and the LCD flashes "BT-C";Bluetooth device pairing successfully, LCD fixed display "BT--C".

10.4 When the Bluetooth music playing function is turned on, touch the "  " function selection key. When the LCD displays " P--N ", the next track can be played by touching the "

 " key, and the previous track can be played by touching the "  "key;When the

Bluetooth music player function is turned on, you can touch the "  " button for 2 seconds to perform the play or pause operation.

10.5 When the Bluetooth music player function is turned on, touch the "  " function selection key. When the LCD flashes the word " VOL ", the panel will enter the state of volume adjustment. At

this time, you can increase the volume by touching the "  " key, and reduce the volume by touching the "  "key. Volume adjustment range is 0-20, a total of 21 levels

IV、 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:

1. 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 $3 \times 3\text{mm}^2$ 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 no errors confirmed.
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.

V、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.