

Electric Control System PR9984 Function Instruction

Introduction to Function

| Function | | Model | |
|----------|---|-----------|-------------|
| | | PR9984-03 | PR9984-03-0 |
| 1. | Time Display/ Time set | ✓ | ✓ |
| 2. | TV Function | × | × |
| 3. | AV Function | × | × |
| 4. | Surfing Pump | ✓ | ✓ |
| 5. | Bubble Bath (speed adjustable) | ✓ | × |
| 6. | Heating Thermostat /temperature adjustment | ✓ | ✓ |
| 7. | Temperature Sensor | ✓ | ✓ |
| 8. | Underwater Lights | ✓ | ✓ |
| 9. | FM Digital Radio | ✓ | ✓ |
| 10. | CD function | ✓ | ✓ |
| 11. | Water Level Detection | ✓ | ✓ |
| 12. | Waterfall Function | ✓ | ✓ |
| 13. | Shower Function | ✓ | ✓ |
| 14. | Phone Answering | ✓ | ✓ |
| 15. | Phone Calling | ✓ | ✓ |
| 16. | Cleaning Function | ✓ | ✓ |
| 17. | Ozone Function | ✓ | ✓ |
| 18. | Skirt Light | * | * |
| 19. | Spot Light | * | * |
| 20. | Remote Control Function | ✓ | ✓ |

Note: X stands for no such function; ✓ stands for function available; * stands for optional function.

Controller system includes:

- (1) Hand-held infrared remote control (one piece) (3) Control electric box (one set)
 (2) Electric panel (one set)

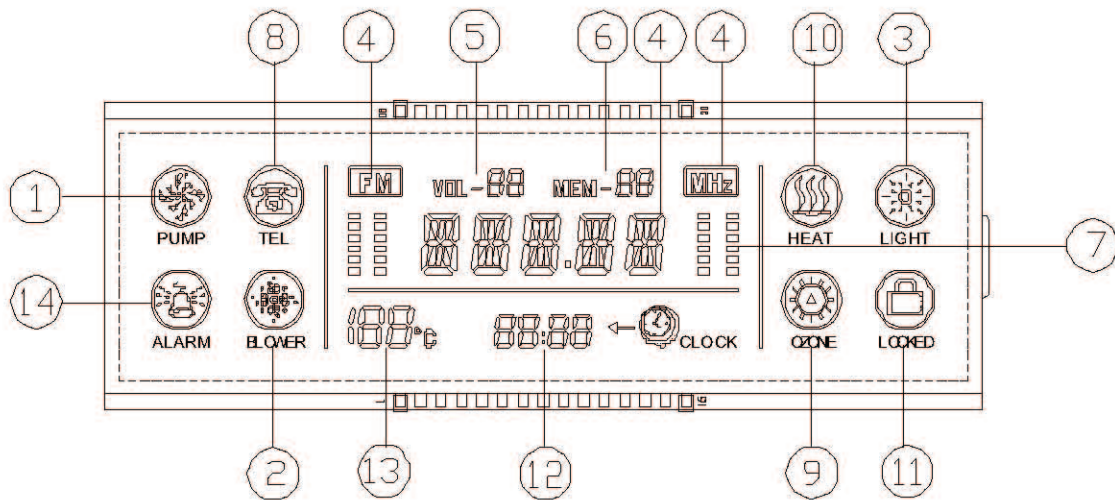
Features of Controller

- (1) Rated voltage: AC220V-240V (4) controllable current: < 20A
 (2) Usage voltage range: AC180V-248V (5) Standby power: <10W (all loads off)
 (3) Rated frequency: 50HZ/60HZ
 (6) Temperature range for use of product: +0℃ ~ +40℃

Features for remote control

- (1) Working voltage: 3.0VDC
- (2) Electric supply: 7 batteries (2)
- (3) The expected life span of the battery: above one year
- (4) Launching range: the distance between the reception and the infrared sensor should be at least 5 meters.
- (5) Launching angle: 60 degrees as usual
- (6) Launching agent: infrared ray

The following information is displayed on LCD screen

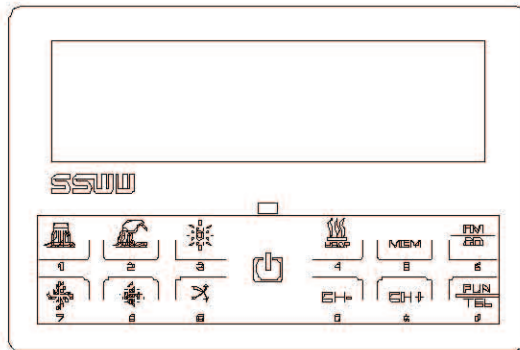


- (1) The surfing pump icon and its working state
- (2) Bubble bath icon and its working state
- (3) The lighting icon and its working state
- (4) FM in English and the reception frequency of FM and its unit
- (5) The sound volume in English and its value
- (6) English icon of frequency storage and channels
- (7) The hopping state of frequency
- (8) Phone icon
- (9) Ozone icon
- (10) Icon for thermostat
- (11) The key-clock icon
- (12) Clock
- (13) Temperature
- (14) Alarm

Devices controlled by the controller system

- (1) Surfing pump: AC220V/1.2HP
- (2) Thermostat: AC220V/2000W
- (3) Air pump: AC220V/200W
- (4) Underwater light: AC12V/1W
- (5) Spot light: DC12V/3W
- (6) Skirt light: 220V/7.5W
- (7) Ozone generator: AC12V/5W
- (8) Solenoid valve: DC12V/5W
- (9) loudspeaker: 8Ω /10W

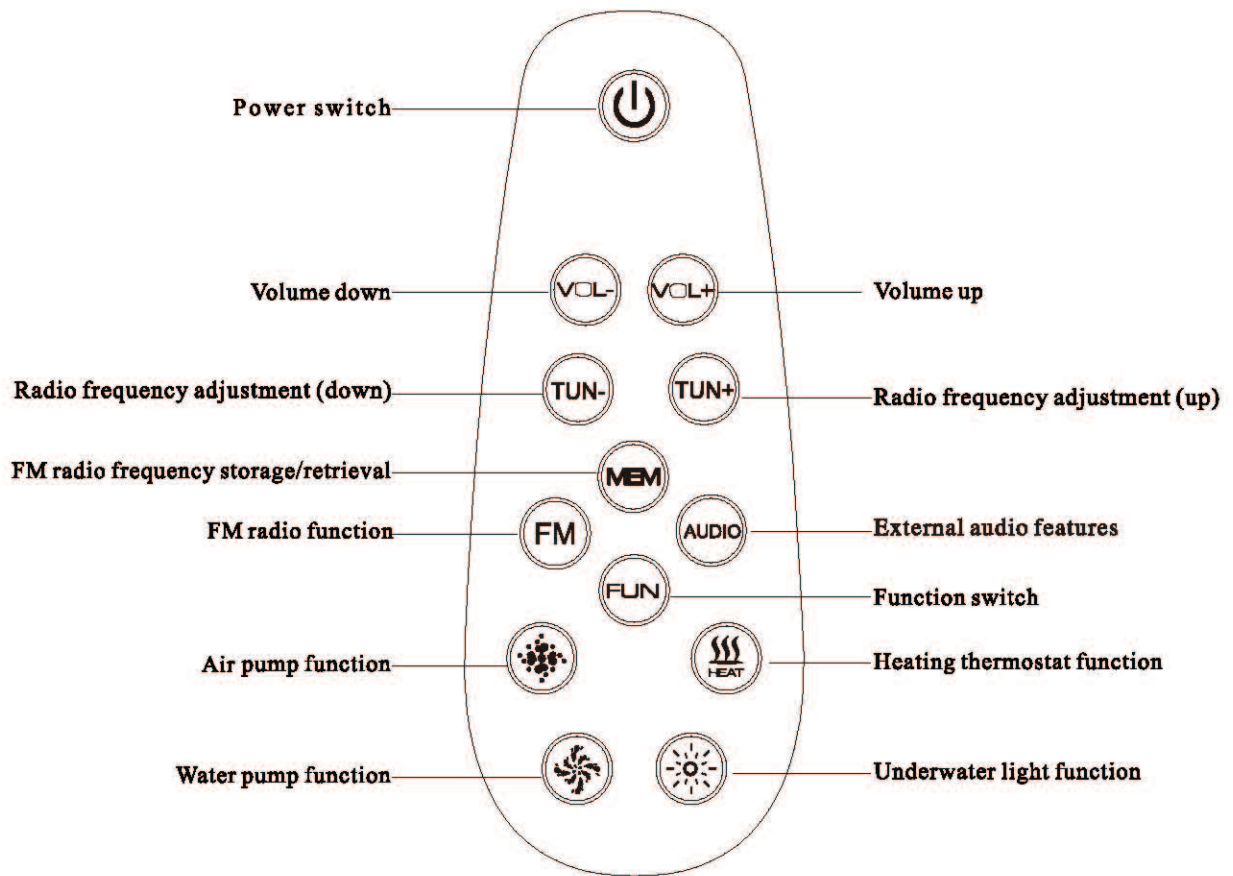
Picture of control panel



- Number button for waterfall function 1
- Number button for shower 2
- Number button for underwater lights 3
- Number button for heating thermostat function: 4
- Number button for radio program-storage:program-retrieval 5
- Number button for FM digital radio/CD function 6
- Number button for wind pump function 7
- Number button for wind pump adjustment function 9
- Number button for parameter decrease setting 0
- Number button for parameter increase setting: *
- Number button for function switch/telephone answering and calling #
- Power Switch
- Remote control reception hole

PR9984-03、PR9984-03-0 panel

Picture of remote control



PR9984-03、PR9984-03-0 remote control



Operation of control panel

1. The start of any function button is usually accompanied by a buzzer sound.


2.  Power



2.1. Touching the button will start the controller system; another touch of the button will shut the system

3.  Waterfall


3.1. When the water level in the massage tub is lower than the set value (decided by the position of water level sensor), a touch of the button will start the bubble bath function and meanwhile the  ON icon will appear on the LCD screen ; another touch of the button will shut down the bubble bath and the  OFF icon will also disappear.



3.2. When the water level in the massage tub reaches the set value (decided by the position of water level probe), the waterfall function will be shut and not to be started again.

4.  Shower function


4.1. When the water level in the massage tub is lower than the set value (decided by the position of water level sensor), a slight touch of the button will start the shower function and meanwhile the  ON will appear on the LCD screen for 5 seconds after which it will disappear automatically; another slight touch of the button will shut down the shower function with the  OFF icon coming out on the LCD screen which will disappear in 5 seconds.

4.2. When the water level in the massage tub reaches the set value (decided by the position of water level probe), the waterfall function can be turned on or shut off. Under such conditions, the shower function is not related to water level sensor.

5.  Bubble bath



5.1 When the water level in the massage tub reaches the set value (decided by the position of water level probe), a long touching of bubble pump  for two seconds will start pump function and meanwhile, the  icon will appear on LCD screen. Pump will work at full speed each time as pump function is started. Another long touching of the button for two seconds, pump function will be shut off.

5.2. When the bubble bath function is on, if the water level in the massage tub is lower than the set value (decided by the position of water level probe), the bubble function will be shut off

5.3 Under normal work conditions of pump, long pressing of  button for two seconds will start pump adjustment function. Pressing it longer timer, wind speed of pump will be less by a scale. Total 6 scales. When reducing to the last scale, another long pressing of the button, the wind speed of the pump will increase by a scale.




5.4. When the water level in the massage tub is lower than the set value (decided by the position of water level probed), after a long pressing of the button for two seconds to start the bubble bath function, the wind pump will get started to blow the pipes dry (under such conditions, speed can't be adjusted. The wind speed at this time is the maximum). The automatic timing will have the wind pump shut off within 10 minutes or another long pressing of the button for two seconds will also shut down the air pump.

6. Underwater light


6.1. A press of the power button will turn on the underwater lights, spot light and skirt light at the same time and meanwhile the  icon will appear on LCD screen, and then if you press the button, the underwater light will be all off. Another press of the  button, the underwater light will be all off. Another press of the button will turn on underwater light while spot light and skirt light will be off, and then press of the button will turn off underwater light. (spot light and skirt light are optional functions)

7. Surfing pump

7.1 the system is equipped with a water level detection device for prevention of the circulating pumps from being damaged in case of no water or water shortage.

7.2 when the water detection probe detects that the water level reaches the preset level, a touch of the  button will start the water pump and the  icon will appear on the LCD screen; another touch of the button will stop the pump with the  icon disappearing.




7.3 When the water level detection probe detects that the water level is lower than the preset value, the water pump can't be started.

7.4 When the water pump is on, if the water level detection probe detects that the water level is lower than the preset level, the pump will stop running automatically and the icon  will be displayed on LCD screen, but if the water level detection probe senses that the water level reaches the preset level again, the water pump will be started again.


8. FM digital tuning radio and external audio function

8.1 The reception range of the FM radio: 87.5MHz--108.0MHz


8.2 Power button for radio.

8.2.1 (PR9984_03 operation method) When the system is turned on, a press of  button will turn on FM radio; press of the button again will switch to CD program and meanwhile  icon will be displayed on LCD screen; another press of the button will shut down CD program playing with disappearance of  icon.

8.3 The button to turn the frequency up

8.3.1 Every touch of the  button will add a step length (one step length=50KHz) of the FM frequency. A touch of over 2 seconds will have the radio searching for FM stations automatically and the number lock will automatically lock the program searched with the frequency of the station appearing on the LCD screen; when the frequency reaches the highest frequency, 108.0MHz, a further touch will have the frequency returned to 87.5MHz.

8.4 The frequency-down button

8.4.1 Every touch of the  button will decrease a step length (one step length=50KHz) of the FM frequency. A touch of over 2seconds will have the radio searching for FM stations automatically and the number lock will automatically lock the program searched with the frequency of the station appearing on the LCD screen; when the frequency reaches the lowest floor, 87.5MHz, a further touch will have the frequency returned to 108.0MHz.

8.5 Volume-up



8.5.1 There are 40 grades for the volume with a grade equaling 2 dB. So the volume range is from -80dB to 0dB. In the course of adjustment, the LCD screen will flash showing the volume value and have the adjusted value as its set value.


8.5.2 Under the state of radio and CD, press  till the VOL icon flashes, and every touch of the button  will increase the volume by 2 dB and when the time of one touch is over 2 seconds, the volume will increase quickly at the speed of 10dB/second.

8.6. Volume-down

8.6.1 Under the state of radio and CD, press  till the VOL icon flashes, and every touch of the button  will decrease the volume by 2 dB and when the time of one touch is over 2 seconds, the volume will decrease quickly at the speed of 10dB/second.



8.7 Button for radio program-storage/ program-retrieval

8.7.1 radio program storage: when the frequency of the intended radio program is decided, a slight press of the  for 2 seconds will make the  icon and figure of the frequency flashing on the LCD. At this time, press the button again and then after you have chosen a storage position for the program, just give another 2-second press of the button. In this way you can have the chosen program stored in the intended position.

8.7.2 Program-retrieval: pressing the storage position button  will call the stored program out and at the same time the LCD will present the related storage position and the frequency of the program to you.

9. Heating thermostat function

9.1. In order to prevent local heating in bathtub, only when the surfing pump is started, can the heating thermostat function be started.


9.2. Press of the  button for the heating thermostat function will start the function with the  icon appearing on the LCD.

9.2.1 After 2 sends, the controller will start or stop the heating pipe in accordance with the water temperature in the massage bathtub comparing the preset temperature (40°C when power is on) so as to control the water temperature automatically

The rule of temperature-control is like the following:

When the temperature is 1°C higher than the preset temperature, the heating will be stopped;

When the temperature is 1°C lower than the preset temperature, the heating will be started

9.3 A further press of the  key will shut the heating function down.

9.4 Set a temperature

9.4.1 When the system is on and the heating thermostat function is working, for the setting of the temperature, just press the function key $\frac{\text{FUN}}{\text{TEL}}$ constantly till the LCD displays a flashing sign of °C at the left bottom corner for temperature setting. In such a condition, a further press of the CH- or CH+ key will have the temperature turned up or down by 1°C.

9.4.2 If there is something wrong with temperature sensor, the E1 will be displayed on the temperature display area of LCD and meanwhile, the buzzer will give off alarm sound. Under such conditions, the heating thermostat function can not be turned on.

9.4.3. Set range of temperature: 30°C --45°C

10. Clock function

10.1 when the system is on, press the $\frac{\text{FUN}}{\text{TEL}}$ key for several times till the LCD screen displays the flashing numerical clock, you could press CH+ to adjust the minute. One press will have the time added with 1s, the adjusting range is 0-59. When you adjust to the maximum value 59, it will return to 0 again. You could press the CH- button to adjust the hour. One press will have the time added with 1 hour, the adjusting range is 0-23. When you adjust to the maximum value 23, it will return to 00 again.

11. Telephone system

11.1 The phone system has the basic functions such as calling out and hands - free answering

11.2 In the state where the phone function is at work, all the number buttons will only work for the phone function but for other functions these number buttons will be out of work.

11.3 In the state where the phone function is at work, the phone icon will appear on the LCD. At this time the started surfing function, bubble bath and heating function will be stopped until the phone function is over. As soon as the phone function is over, the other functions will be at work again.

11.4 Calling out with the phone: a long press of the phone key $\frac{\text{FUN}}{\text{TEL}}$ for two seconds will turn the system into the state of calling. After the phone function is started, click in the phone number you intend to call and the LCD will display the last 5 numbers of the phone number and then the system will call the intended phone. If the intended phone is not able to be connected or busy, the loudspeaker will give off buzzer sounds. At this time if you press the button for two seconds, the system will come out of the calling state.

11.5 Phone answering: only when the controller system is on, the phone answering function can be effective. When there is a call in, the loudspeaker will give off the ring of buzzer. At this time a long press of the phone button $\frac{\text{FUN}}{\text{TEL}}$ for two seconds will get the call coming through; After the call is over, a further press of the button for two seconds will have the system getting out of the state of phone function.

12. Cleaning function

12.1 Under the closedown conditions of the system, in 10 minutes after the water draining off the bathtub (with the standard of the water level detection probe not detecting the water level for 10 minutes), the cleaning function will work for 2 minutes before it is shut down on an automatic timing of working.

12.2. When cleaning starts, ozone will also start and after 3 minutes, it will be shut off automatically.

Notes on the installation and use of the products



For a normal use of the products and an extension of the life spent of the products as well as for your safety, you should read the following notes which you should pay enough attention to:

- 1, the customers should install the products strictly in accordance with the wire diagrams and the parameters our company offers in this manual.**
 - 2, the external cabled audio signal should not be too strong, to burn to the amplifier of the system.**
 - 3, when an external video cable is linked in, the customers should install at its front an extra signal isolator (connecting in series) to prevent disturbing signals from getting in to disturb the normal work of the system, especially the disturbance of telephone signals and the disturbing signals from heating systems.**
 - 4, the grounding line should be connected to electric circuit which is well grounded.**
 - 5, the customers should use the 3 x2.5mm²electric supply wires or thicker wires that meet the national standard (GB) and the sockets used to power the controller should be 30A or above that meet the national standard (GB) . And they should be safely installed.**
 - 6, the customers should install an air switch or extra leakage protection switch which bears 30A or above which meets the national standard (GB) well and it should also be safely installed.**
 - 7, a careful and thorough examination should be done on the power line in the control box and make sure there is no mistake before use it.**
 - 8, electrical appliances recommended by unlawful manufacturers should not be installed to this controller; any disassembly or reassembly of the sealed inner lines or the wires or accessories of the powered electric supply box are prohibited.**
 - 9, the wires or accessories of the electric supply box should be connected in right circuit in light of the specifications and codes; and the outlet wires should not faultily connected.**
 - 10After the use of the products, the power for the whole machine should be cut off to prevent an inner powering of the machine to accelerate the aging of the machine.**
 - 11. the installation of the controller should be done by a qualified person strictly in accordance with the installation notes in this manual.**
 - 12. there are no repairable components in the controller, so do not try to update it. The high voltage in the controller is dangerous, so its maintenance and adjustment should be done by professionals.**
- Our company is not liable for any bad results caused by the violation of any of the above rules**

Remote Controller Operation Instruction

- 1. Any function key of this system will act with a sound of “du” from buzzer.**
- 2. Other function keys on remote controller should be operated in the same way with the corresponding function keys on control panel.**

Repairing tips

| Minor failure | Failure cause | Processing method |
|--|---|---|
| Power failure or power broken | Residual current circuit breaker is power off, power supply is not connected, electric cabinet power supply is abnormal | Check and turn on the power |
| | The connection between the electric cabinet and the control panel not well connected | Check and connect |
| | Electric cabinet fuse burn-out | Replace the fuse and try again |
| | The Control panel is damaged | Replace the control panel and try again |
| Function is available, but no display | The connection between the electric cabinet and the Control panel are not well connected | Check and connect |
| | The Control panel is poor | Replace the new control panel and try again |
| No light | The connection between the electric cabinet and the under water lamp are not well connected | Check and connect |
| | The under water lamp load has fault | Replace the lamp bulb |
| Out of control | Disconnection between the control panel and the electric cabinet has occurred under the "ON" position | Check the connection between the control panel and the electric cabinet and restart |
| | The connection between the electric cabinet and the control panel has poor contact | Firmly connect the electric cabinet and the control panel |
| Water pump not working | The water pump has no power supply | Check the water pump motor for power supply connection |
| | In lacking of water, the water pump does not run | Check the connection of the water level probe |
| | Blocked impeller | Cleaning or changing the impeller |
| | The control of the push keys on the control panel fails | Replace the new control panel and try again |
| Radio Soundless | The function is not open or circuit failure | Turn on and check the circuit |
| | The channel or volume adjustment button is not on | Turn on the channel and adjusting the volume |
| | No signal | Poor receiving condition or strong interfere, pull out the antenna |
| CD player has no voice | The controlling status does not change to CD status | The controlling status changes to CD status |
| | The CD player has no power supply. | Check the power supply of the CD player |
| Telephone no function | Loose connection to the telephone line | Checking the wires and fixing it |
| | Blocked speaker | Removing the stems |
| Remote controller failure | Big remote control sending angle | Aiming the remote control to the receiving window |
| | There is strong electromagnetic interference nearby | Change to manual operation |
| | The battery capacity of the remote controller is insufficient | Replace the battery |
| Water pump starting failure or spraying no water | The power supply plug is loose. | Check and tighten the plug |
| | The pump impeller is damaged or there's air in the pump | Replace the impeller or extrude the air |
| No light flashes after pressing  button and the water pump doesn't start | The fuse in the power supply box of the protection in case of lack of water is broken | Replacing the fuse |
| The light flashes after pressing  button but the water pump doesn't start | The water level detection line is broken. (For example, cut by mouse and ants.) | Check and connect the water level control |
| Water leakage | Loose joint or without sealing cushion. | Check and repair. |
| | The switch valve core is loose or damaged. | Replace the valve core |
| Small water flow out of the hand shower or water fall | The Change-over switch isn't in position | Replace the change-over switch |
| | Blocked water pipe | Remove the obstruction |

Note: If problems are founded in the electric cabinet or the control panel or the remote controller after the inspection, please write down the failure phenomena and attach to the failure box, then return to us for treatment.