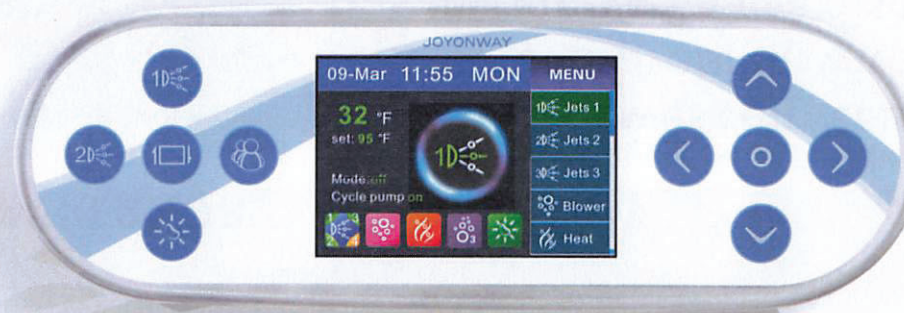


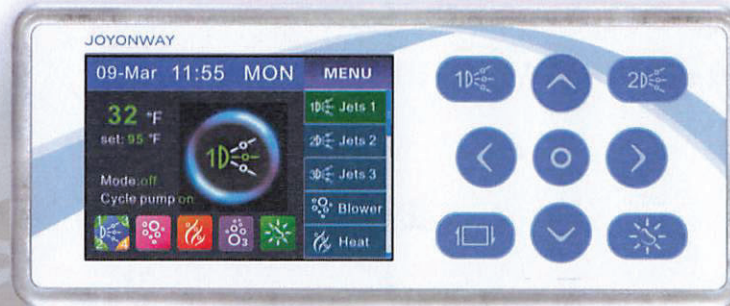
# Control panel operation instruction

PB553/PB555control panel image

## PB553 panel image



## PB555 panel image



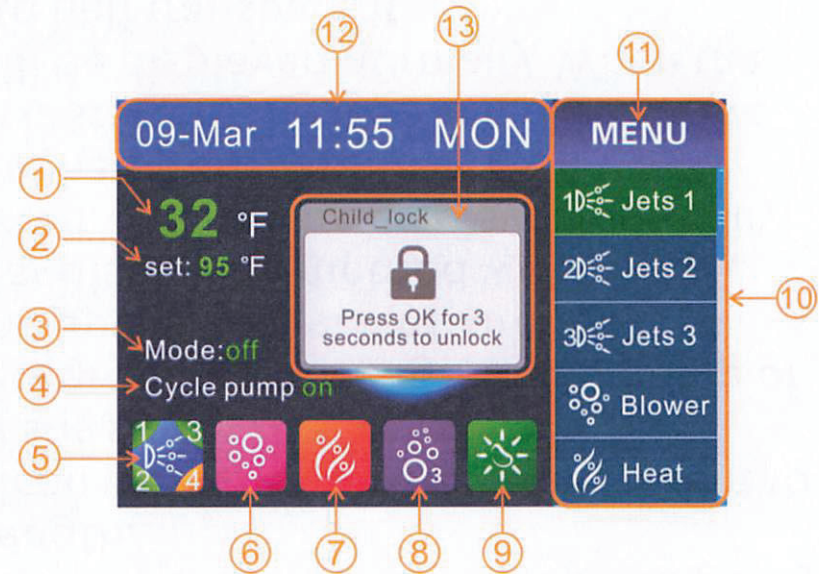
# Control panel operation instruction

PB553/PB555 control panel main interface

Below are control panel interfaces of PB553 and PB555. Both control panel PB553 and PB555 can match P20B29, P23B32 and P25B37. And they will real time display the control system state.



Main interface image



Left side is state display area  
Right side is menu display area

## State display area:

When control panel and control system are connected, control panel screen can display every function's state of the whole system. User can easily learn the control system condition with the icons and words.

# Control panel operation instruction

PB553/PB555 control panel main interface

- 1):The current water temperature and the value changes with the water temperature. Temperature unit can be set as ( °F ) or ( °C )
- 2):Temperature unit setting. According to user's need options of ( °F ) or ( °C ) are available.
- 3):Display mode: the system can store four different displaying modes. Users can switch to different display mode they need. And user can set the mode.
- 4):Cycle filtration state: cycle filtration can remove the dirt inside the tub and purify the water. User can set cycle filtration time length.
- 5):Pump state : when the pump is started, the icon will turn from half transparent to full lighting. If low speed pump of (pump)jet 1 is started, there will be a "1" displayed in the up left corner with green background. If the high speed pump of pump 1 is started, "1" will be displayed in the up left corner with orange background. Other pumps are with the similar displaying method with pump1.
- 6):Blower state display: when the blower is started, icon will be displayed normally. When the blower is off, the icon will change to half transparent.
- 7):Heating display : when the heating function is started, the icon will blink. If the heating pipe begins to work then the icon will be displayed normally. When the heating function is off, the icon will change to half transparent.
- 8):Ozone state display : ozone can disinfect. When ozone function is started, the icon will be displayed normally. If it is turned off, the icon will change to half transparent.
- 9):Lamp state display : when the lamp is on, the icon will be displayed normally. If it is off, the icon will change to half transparent.

# Control panel operation instruction

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PB553/PB555 control panel main interface

## Menu displaying area:

- 10): Press up and down navigation key to move the cursor. The item chosen by cursor will have green background for words. Press OK to turn on/off or change the state of the chosen item. If some items only have on or off state, then OK key will turn them on or off. If some items have multi states, then OK key will change their states in turn. The changed state will be displayed in state area. Cursor position in the menu will be displayed in the progress bar of right side. User can see from the progress bar whether the cursor has moved to the very top or very bottom of the menu.
- 11): With large control system, on the top of the menu interface, under "Menu", there will be a few bars. The number of bars represents the number of control systems. Every bar stands for one control system. Press left or right key to switch for different control system. The current interface displays the control system that the thicker bar represent. With basic control system, there will be no bars under "Menu" on the top of menu interface. The last item "set" is used to enter into setting interface.

## Time and date:

- 12): It displays the current time and date. From left to right is: date-month-hour-minute and week. User can set time in setting interface.

## Hint information:

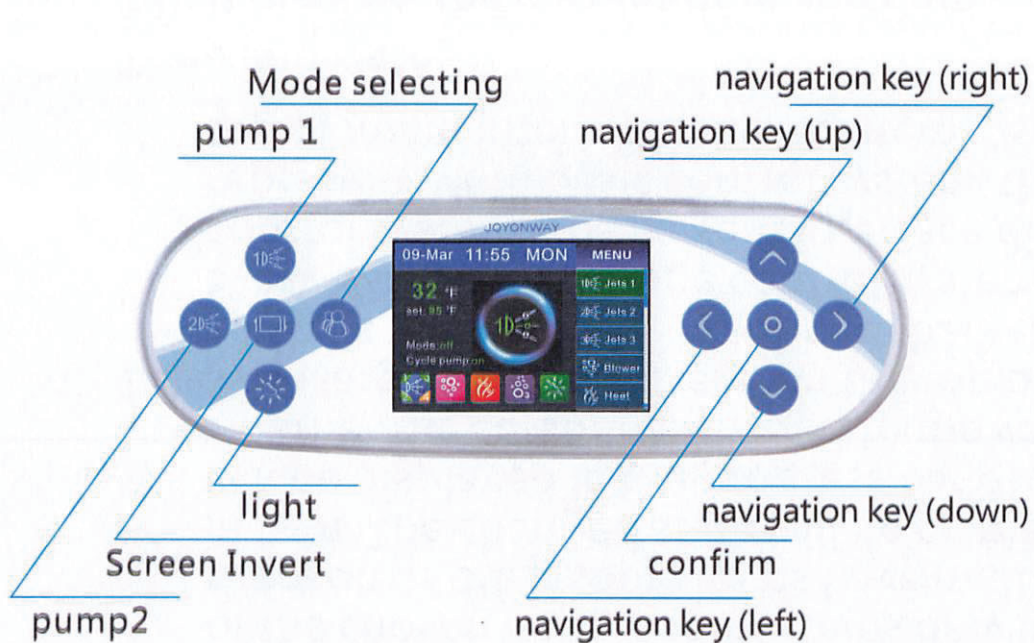
- 13): When there is error in control system or the keys are locked, the screen displays the error information or keys lock state. Be aware of the malfunction, user should deal with it according to control system alarming information described before. If the malfunction can not be solved, please stop operation right away and contact technical support. Professionals can identify the source of malfunction with all the information available.

# Control panel operation instruction

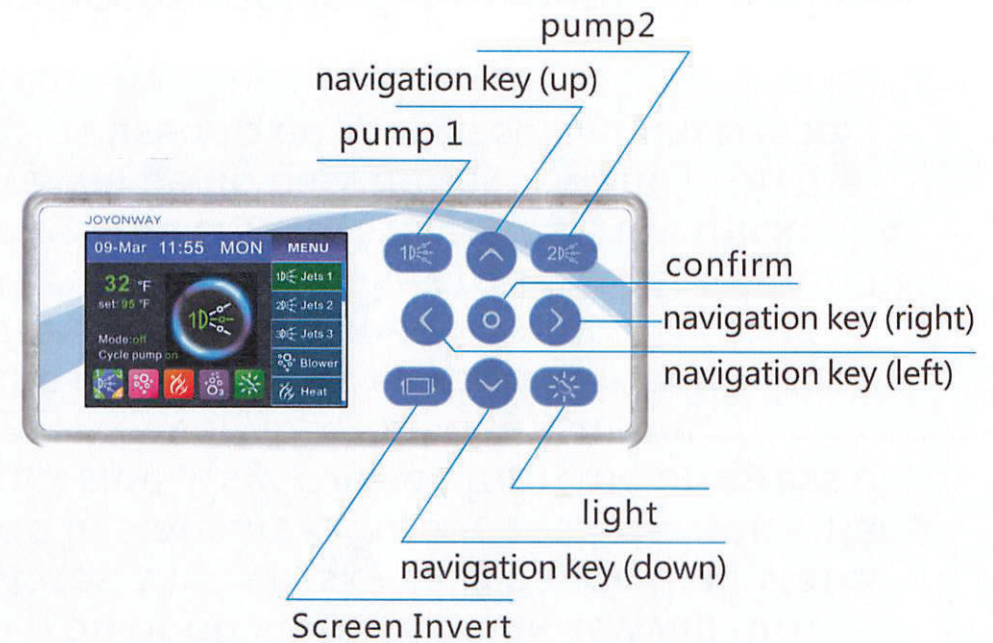
## Keys functions description:

Control panel PB553 has 10 keys and PB555 has 9 keys. They are navigation keys and shortcut keys.






### PB553 keys description



### PB555 keys description







# Control panel operation instruction



PB553 and PB555 have the same navigation keys: "  ", "  ", "  ", "  ", "  ". Users can realize all the operation with navigation keys. In the display interface, the green background of words or icons is the choosing cursor. Only one item can be chosen in every interface. With navigation key, the position of cursor can be changed and relative setting can be changed.

## Shortcut key operation instruction:

PB553 shortcut keys include: "  ", "  ", "  ", "  ", "  " ;

PB555 shortcut keys include: "  ", "  ", "  ", "  " .



User can start or stop the correspondent function in any interface without returning to home interface.


**Pump 1 shortcut key:** "  " or "  " , will be used to control the on/off of pump 1 , if pump 1 is single speed pump; if (pump)jet 1 is double speed pump, press continuously the key can switch from low speed to high speed or off. The sequence is: start low speed,->start high speed->turn off.

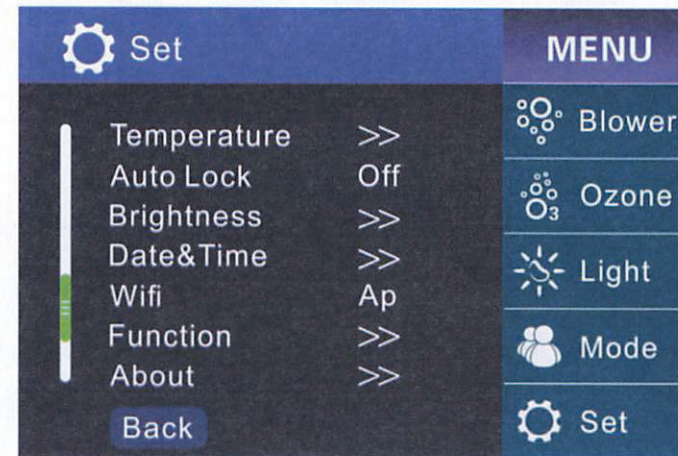
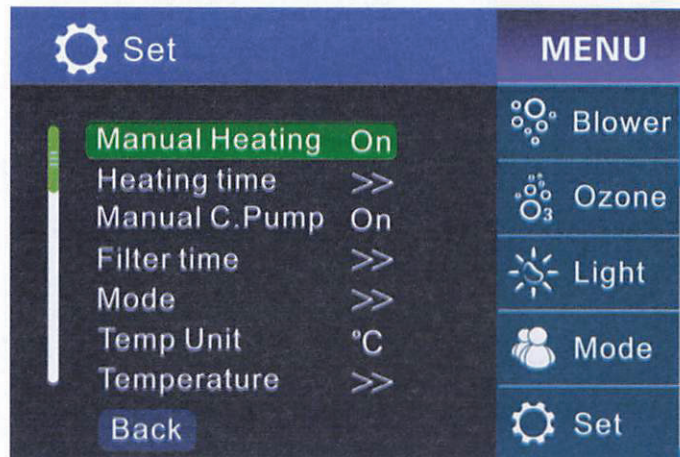
**Pump 2 shortcuts key:** "  " or "  " , are with the same function as pump 1.


**Screen Invert shortcut key:** "  " or "  " , it can realize the displayed content 180 degree inverting and navigation key direction will be changed accordingly.

# Control panel operation instruction

**Light shortcut key:** "  " or "  " , Light has two modes, in mode of on and off, press the shortcut key can turn on and off the light. In RGB mode, light has 9 states of auto color change, red, green, yellow, blue, purple, cyan, white and turning off. User can switch among these states.


**Mode selecting shortcut key:** "  " , It is only applicable for PB553. It has four different modes. Press the key in turn can select the different modes stored by the user.



Move the cursor to the last item " set" in the menu of the home interface, press "  " and enter into setting interface. There are totally 11 items in the setting interface including auxiliary system function, time setting, user habit storage, system information, etc. User can set the appropriate mode and heating time length with their own need.

## Manual Heating

### Manual Heating

When manual heating function is started, a "  Heat " heating choice will be added in the menu. User can manually start the heater in the home interface. When the manual heating function is turned off, the heating choice will disappear.

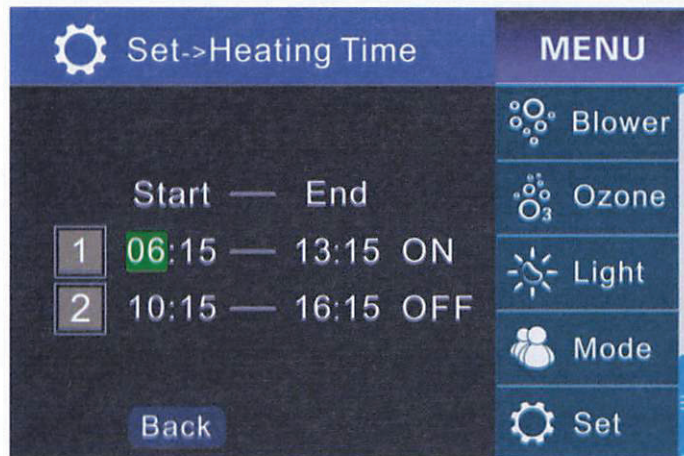









# Control panel operation instruction

PB553/PB555 setting interface

## Heating time

When the control system is set as timing heating mode, heater can operate automatically in two sets of the time periods. And the two time periods are independent from each other. Two time period can be set overlapped, like time period 06:15 ---13:15, , time period 10:15---16:15. Then heater will work between 06:15---16:15. if the starting time is larger than the ending time, then heater will continuously work till the end time of next day, for example if the time period is between 20:00---10:00, then the heater will work from the 20:00 of first day till the 10:00 of the next day. Note: when the time period is set as on, the heater will work, if time period is set as off, heater will turn off.




When the green cursor is at " 1 " or " 2 " , press "  " to set the time period as on or off. Press "  " , entering into time setting. Press "  " to move the cursor. Press "  " and "  " to set the time. Press "  " and "  " to exit the time editing. And cursor will be move back to the very left side. After the time setting is done, press " Back " to return and store the setting.

**Note:** These set times are all based on system time. So user need to ensure the accuracy of the system time when setting the time period.

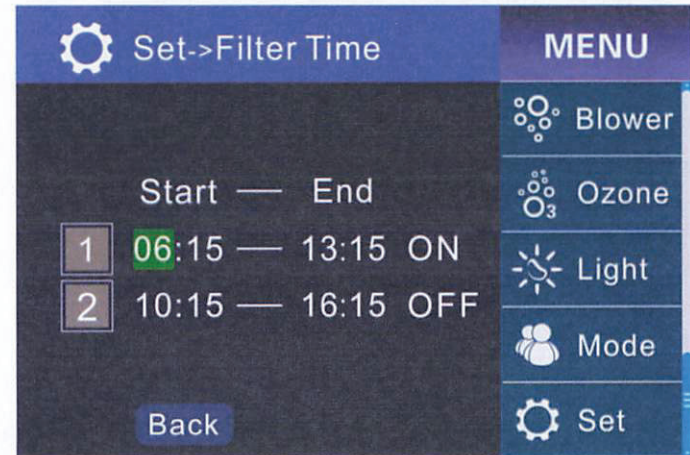
# Control panel operation instruction

## Manual C.Pump

This item will appear when the control system has separate pump as cycle pump. When the manual cycle pump function is started, there will be a cycle pump item “ CPump” in the function operation interface. User can manually start cycle pump in the home interface. When the manual cycle pump function is turned off, this item will disappear.

## Filter time

To purify the water and keep the tub clean it is necessary to filter the water regularly. When the control system is set as timing water cycle mode, its starting and stopping method is the same as timing heating on/off and their time period setting methods are the same. User need to regularly change the filter or strainer according to the water quality.



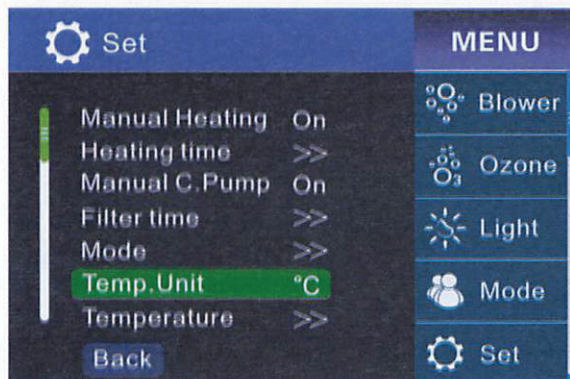
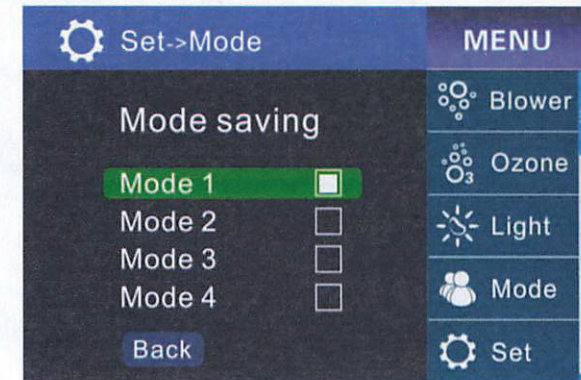
## Mode

User can set and store the function state according to their preference which is defined as mode. PB553 and PB555 control panel have four different modes. They can be stored and selected with navigation keys.

# Control panel operation instruction

How to store the setting: first, set each function according to personal need. In Set->Mode of the menu, by pressing " ^ " and " v " to move the cursor to the items need to be saved then press " o ". if the square on the right side of the item is solid, then it indicates the current mode is stored. Mode of jet(pump), blower, ozone, heat, and brightness can be stored.

How to select the mode stored? In the main interface, by pressing " ^ " and " v " to move the cursor to " Mode ". Then press " o " to select the stored the modes. PB 553 control panel can use mode selecting short-cut key " M ". Note: please pre-set when use the mode function the first time.



## Temp. unit

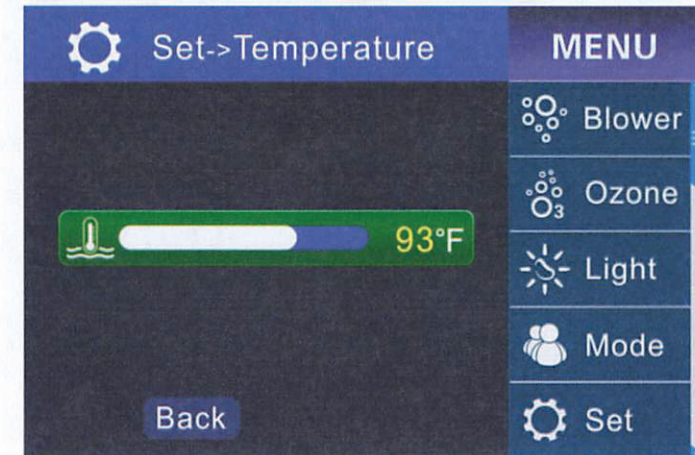
In menu of Set, press " ^ " and " v " to move the cursor to "Temp. unit" , then press " o " , setting the temperature unit as °C or °F.

# Control panel operation instruction

PB553/PB555 setting interface

## Temperature

It refers to set the water temperature inside the bath tub. Water temperature range is 50 F- 104F (10C -40C). In Set-> Temperature of the menu, temperature value can be increased and decreased with " < " and " > ". The set temperature will be automatically stored when exit menu. When the set temperature value is higher than the current water temperature and the heat function is on. The heater will automatically heat.



## Ozone

Ozone function has manual mode and auto mode.

In the Set of the menu, by pressing " ^ " and " v " to move the cursor to Ozone.

Then press " o " to set the ozone as auto start or manual start.

Auto start operation can refer to control regulation description of the control system.

When manual mode is chosen, there will be a symbol of " Ozone " increased in the menu.

User can manually start the ozone in main interface. When manual start mode is turned off, the symbol will disappear.

# Control panel operation instruction

PB553/PB555 setting interface

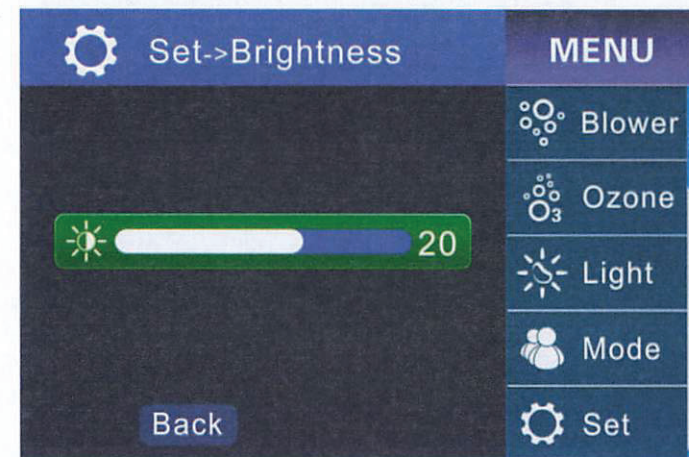
## Auto lock

To avoid unconscious touch of the keys, the panel is equipped with auto lock function. In the set of menu, pressing "▲" and "▼" to move the cursor to the item of "Auto Lock". Then press "○". The lock starting time can be set as "off", "30S", "1 min" and "3 min". When set as off, the lock function is turned off. Set as "30S" or other time length, the control panel will return to main interface and start lock function when detecting no actions on the panel key within the set time. When the lock is started, press continuously "○" for 3S, "Auto Lock" disappear from the screen and lock stops.

## Brightness

To ensure that user can use the control system comfortably with different lighting environment, the backlight brightness of the screen can be adjusted according to the environment lighting condition. Backlight brightness range is 1-30. In the set-> Brightness of the menu, pressing "▶" and "◀" to adjust the backlight brightness.

The set value will be automatically stored when exiting menu.



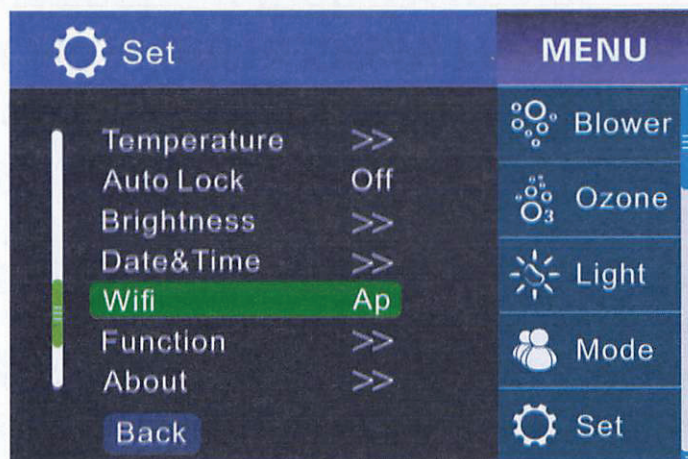
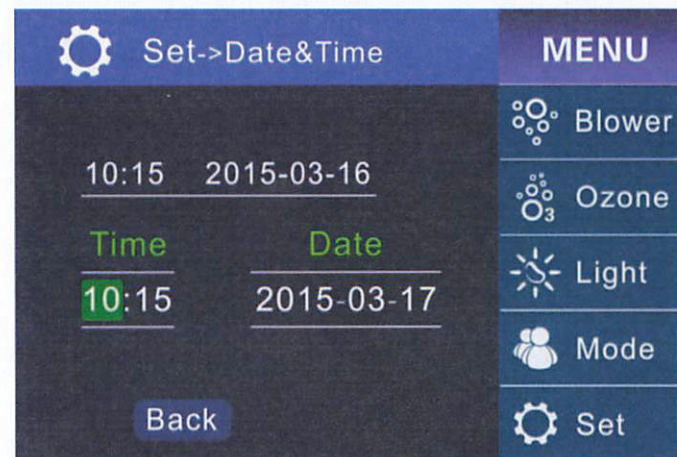
# Control panel operation instruction

PB553/PB555 setting interface

## Date & Time

Time accuracy is very important to the control system. All the timing function setting (timing heating and timing water cycle) is based on the control system time. So the user needs to set the control system time in ahead.

In the Set-> Date & Time of the menu, press "⊙" to move the cursor, and set the date and time with "◀" and "▶". The setting will be automatically stored after exiting the menu. If the control system is off power, the correct time setting can be kept for a few days.



## Wifi

This item will appear when the system has wifi module. This function displays the wifi module current state. It has totally 3 states: "OFF"、"AP"、"Sta".

User can set the wifi mode compulsively to AP or OFF, but it can not be set as Sta mode. When the wifi module is connected to a router, it will automatically switch to Sta mode. When users compulsively set the wifi as AP mode, the connected wifi will automatically disconnected and forgotten. When users compulsively set the wifi mode as OFF, wifi module will stop working.

Reset the APP login password: when users forget APP login password, they can reset the password on the panel to factory default "Joyonway". When the wifi module is on OFF mode, press "▶", wifi state will be displayed as "clean". After a few seconds, when wifi state is switched to "AP", it indicates the password is successfully reset.

For Wifi connection and operation method please refer to SPA APP manual instruction.

# Control panel operation instruction

## Function

Function setting is used to set control system loads and Panel ID. When the control system is allowed to be set (please refer to the description in control system connection and setting), find the item "Function>>" in the Set of menu, press "▲" and "▼" to move the cursor to item "Function>>" then press "○" to enter Set-> Function. In Set-> Function of the menu, there are totally 12 items. They are (pump)Jet1, Jet 2, Jet 3, Jet 4, Light, Blower, Water cycle Ozone, Independent cycle, Heat, Water level and Panel ID as the picture shown below.

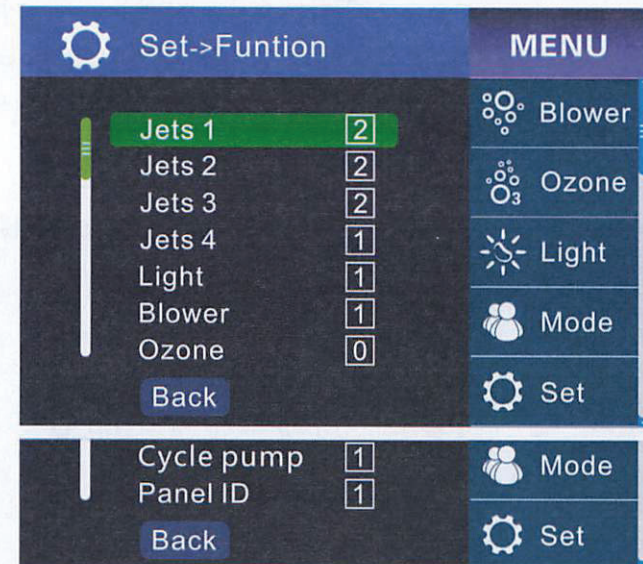
Pressing "▲" and "▼", moving the cursor to the item to be set. Then press "○" to change its configuration parameter.

To (pump)jet (jet1, jet2, jet3, and jet4), if the figure in "□" is 2, then it is double speed pump. If the figure in "□" is 1, then it is single speed pump. If the figure in "□" is 0, then it is invalid.

To light, if the figure in "□" is 2, then it is in RGB mode, if the figure in "□" is 1, then it is in on/off mode. If the figure inside is 0 then the light is invalid.

To cycle pump, if the figure in "□" is 1, then control system is separately set with cycle pump; if the figure in "□" is 0, then the jet 1 low speed pump is set as cycle pump.

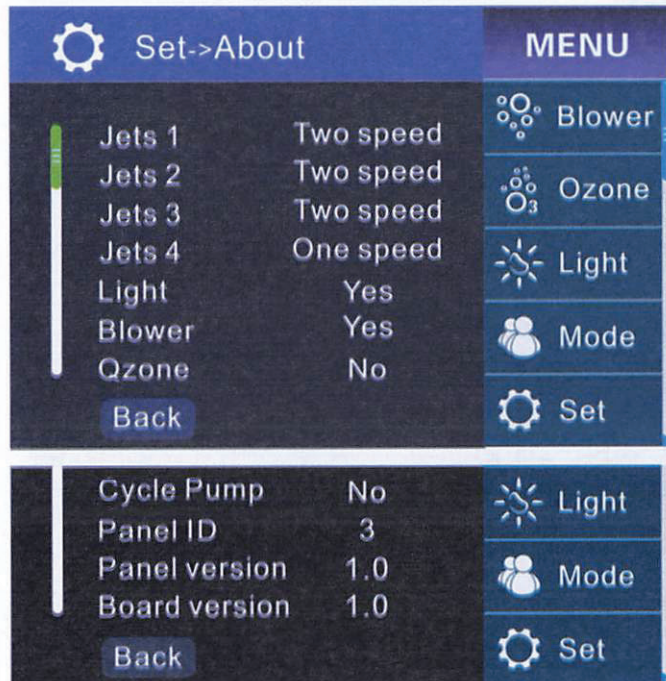
For Power Limit, it can be set as 0, 1, 2, 3, to limit the total power output of the main board. For detailed setting condition, please refer to power control description.



# Control panel operation instruction

PB553/PB555 setting interface

To panel ID, it can be set as 1, 2, 3, or 4, these numbers are used to differ control panels and the control panel ID must be unique. To other loads, if the figure in "  " is 1, then this load is set. If the figure in "  " is 0 then the load is invalid.



## About

In the Set of Menu, press " " and " " to move the cursor to item "About" . Then press " " to enter Set-> About. In Set-> About of the menu, the current control system function configuration condition and software version is displayed.

In the choices for (pump) jet1, jet2, jet3 and jet4, "Two speeds" means double speeds pump. "One speed" Means single speed pump. To light, RGB represents the light is set as RGB mode. "Yes" represents the light is set as on/OFF mode. "No" means it is invalid.

To blower, "Yes" means the blower function is set.

"No" means it is invalid.

To ozone, "yes" means ozone function is set, "No" means ozone function is invalid. To cycle pump, "yes" means control system is set with separate cycle pump. "No" means Jet 1, the low speed pump is set as cycle pump. To panel ID, the figure means control panel ID. NO. To panel version and control system board version, figure means soft ware version NO.

## Restore factory settings

This function is used to restore all the settings back to factory default value.



# Control panel operation instruction

PB554 control panel image

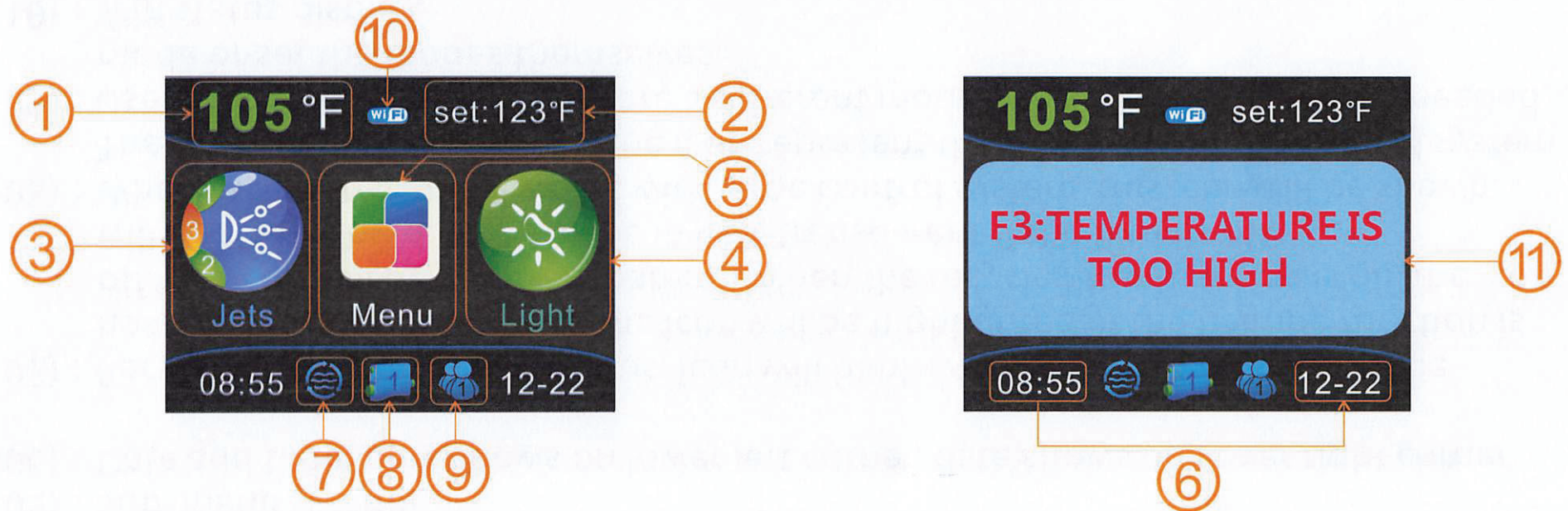


PB554 control panel image

# Control panel operation instruction

PB554 main interface

Below is the main interface of PB554 control panel. Control panel PB554 can be connected to P20B29, P23B32 or P25B37 control system and display real time control system state.



## State displaying area:

When the control panel is connected to the control system, the screen in the control panel can display state for all the functions of the whole control system. User can easily learn the control system state with the symbols and words.

01) : display of current water temperature, unit option: ( °F ) or ( °C )

02) : to set the temperature, unit option: ( °F ) or ( °C )

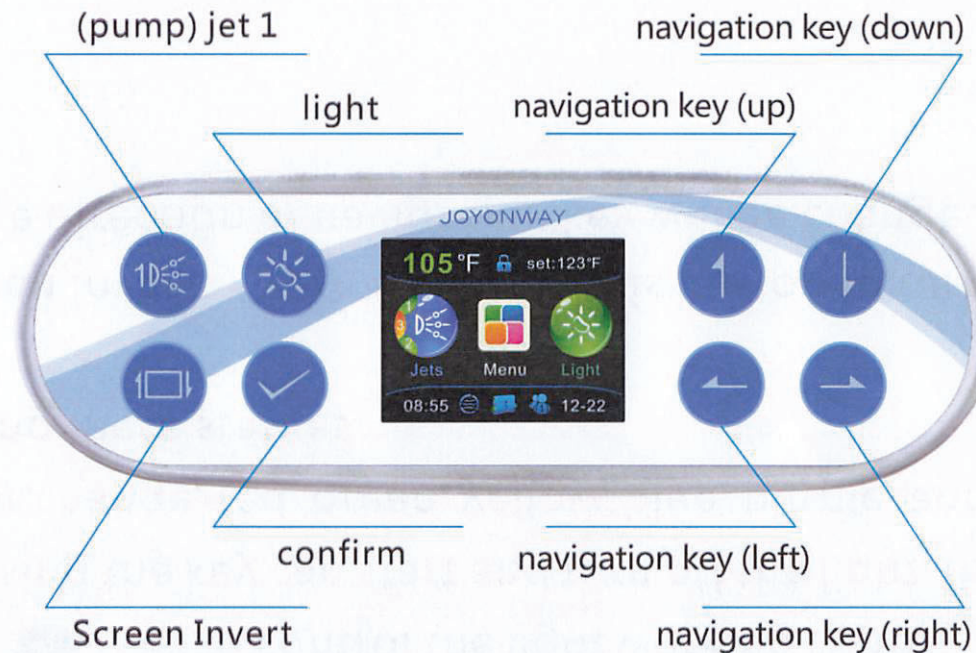
# Control panel operation instruction






PB554 main interface

- 03) : (pump)Jets status: Icon will be highlighted when any (pump) jet is started. the left part of the icon will show the (pump) jet series number and the working state (green=low speed, orange= high speed ) ; icon will show in half-transparent if all the (pump) jets are off.
- 04) : Lamp status: Icon will be highlighted when the light is on; icon will show in half-transparent if the light is off.
- 05) : Sub-menu symbol
- 06) : Date and time: time shows on lower left corner, date shows on lower right corner
- 07) : Recycle filter and heating status: Icon will blink when heating is started, if the heating tube starts heating, the icon will be highlighted. If the heating function is off, the icon will be half transparent. When the recycle filter function is on, the icon will be highlighted; icon will be in half-transparent if the filter is off.
- 08) : When the control panel works with large control system, this icon will be shown. The number in the middle of the icon represent the series No. of the control system.
- 09) : User mode: The system can store 5 different modes. User can switch to the needed mode or set the modes themselves.
- 10) : Wifi status display.
- 11) : When errors occur or panel key is locked, the screen will display error and lock. User can solve the malfunction according to control system alarming information described before. If malfunction can not be solved, please stop using the control right away and seek help from the professional technician. They can locate the source of the malfunction with the information available.




# Control panel operation instruction


navigation key :





PB554 navigation key : "  ", "  ", "  ", "  ", "  " .

By pressing the navigation key, user can do all the operation. In the display interface, the green background of the words or symbol is the choosing cursor. In every interface only one item can be chosen. With navigation key, cursor location or correspondent setting can be changed.

PB554 control panel short-cut key "  ", "  ", "  ", . User can start or stop the correspondent function with short-cut key in any interface without returning to the main interface.

Short-cut key (pump) Jet 1: "  ", If (pump) jet 1 is single speed pump, then the key will be used to control the on and off of (pump) jet 1. If (pump) jet 1 is double speed, then keep pressing the key, it will switch from low speed pump, high speed pump to off. The sequence is: start low speed pump-> start high speed pump-> off.

Shortcut key light: "  ", To control the light working status: light has two modes. In on/off mode, pressing the key can start and turn off the light. In RGB mode, it has 9 statuses of auto color change, red, green, yellow, blue, purple, and cyan, white and off. User can switch among these statuses.

Short-cut key of Screen Invert: "  ", Press this button to turn the main interface upside down. And the direction of navigation key will be changed accordingly.

# Control panel operation instruction

## Function operation interface:



Press " ✓ " in the main interface to go to the function operation interface.

In the function operation interface, the icon will be shown in bigger size if the cursor is on it. Press " ↓ " to move the cursor to the " ↩ " . Press " 1 " to move the cursor to the selected (bigger size) icon.

If cursor selects " ↩ " , press " ✓ " to go back to the main menu.

In the function operation interface, press " ← " or " → " to move the different function icons to the middle of the screen(to select the icons). The corresponding name and working status of the function will be showed in the upside of the screen, press " ✓ " to switch the working status of the controlled function.

# Control panel operation instruction

PB554 setting interface

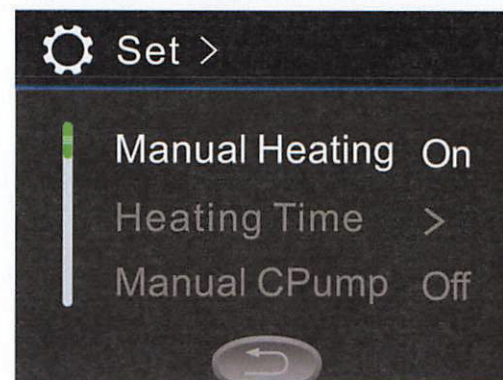
## Set interface:

In the function operation interface, press "↩" and "→" to move the cursor to setting icon "⚙️". Press again "✓" to enter into set interface. In the set interface, the character will be highlighted if the cursor is on it. Press "↑" or "↓" to move the cursor location. Press "✓" to enter into the second level interface of the chosen function or change its status.



## Manual Heating

When the manual heating function is started, there will be a heating icon "🔥" added in the function operation interface. User can start heating function in the function operation interface manually. When the manual heating function is turned off, the icon will disappear.



# Control panel operation instruction

PB554 setting interface

## Heating time

When the control system is set as timing heating mode, heater can operate in two sets of time periods automatically. And the two time periods are independent from each other. And the time periods can overlap. For example, time period 1. 06:15---13:15, time period 2. 10:15---16:15. Then the heater will heat from 06:15---16:15. if the starting time is larger than the finishing time, then the heater will heat till the finishing time of the second day. For example, if set time period 20:00---10:00, then the heater will heat from the first day 20:00 till the second day 10:00. Please be noted that if the time period is set as on, then the heater will be started; if off, then the heater will be turned off.

When the green cursor is on " 1 " or " 2 " , press " ✓ " to set the time period as "on" or "off" . Press " → " to enter into time setting. In time setting, press " ✓ " to move the cursor. Press " ← " and " → " to operate time setting. Press " ↑ " and " ↓ " to exit the edited time period. The cursor will move back to the left side. When the time setting is finished, press " ↶ " to return and store the setting.




**Attention:** all the time setting is based on the system time. So user needs to keep the system time accurate before operating the time period setting.



# Control panel operation instruction

## Manual Cpump

The manual cpump item will appear if there is separate pump in the system set as cycle pump. When the manual cycle pump is started, there will be a cycle pump icon "  " added in the function operation interface. User can start cycle pump manually in function operation interface. The item will disappear when the manual cycle pump function is turned off.

## Filter time

In order to purify water, maintain the cleanness of bath tub, timing filtering is necessary. Filter time and heating time are similar in setting. Please reference to the time setting of timing heating for time setting of timing filter. Please change the filter or strainer according to the water quality,











# Control panel operation instruction

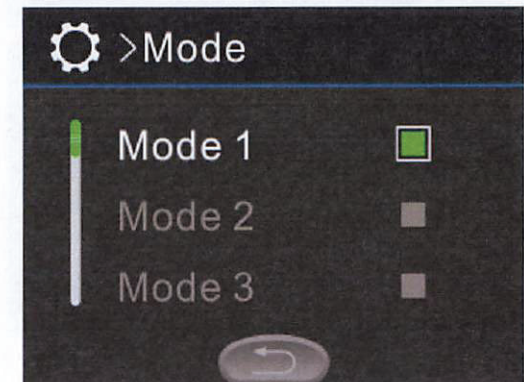
## Mode

User can store the function setting according to their preference which is defined as mode. PB554 control panel can store four different modes. They can be stored and selected with navigation keys.

How to store the setting: first, set each function according to personal preference.

In " >Mode", by pressing " " and " " to move the cursor to the items need to be saved then press " ". If the square on the right side of the item is solid, then it indicates the current mode is stored. Mode of (pump) jets, blower, ozone, heat, and brightness can be stored.





How to select the mode stored? In the function operation interface, by pressing " " and " " to move the cursor to " >Mode". Then press " " to select the stored the modes.

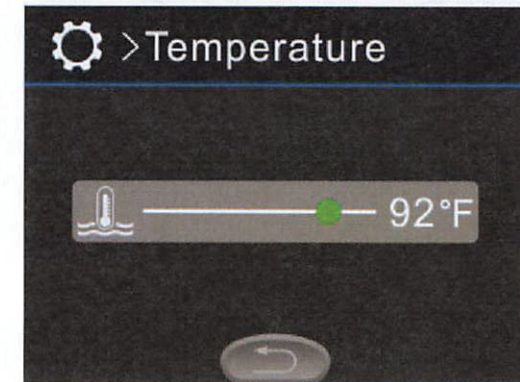


# Control panel operation instruction



PB554 setting interface

## Temp. unit

In "  Set > ", press "  " and "  " to move the cursor to " Temp unit" then press "  " to set the temperature as °C or °F .



## Temperature

Temperature setting refers to the temperature of the water inside the tub. The setting range is 50°F ~104°F (10°C ~40°C). In Set-> Temperature, press "  " and "  " to set the value of the temperature. The set value will be automatically stored after exiting the menu. When the set temperature is higher than the current water temperature and the heating function is started, the heater will start heating automatically.

# Control panel operation instruction

PB554 setting interface

## Ozone

Zone has two modes: auto and manual

In "⚙️ Set >" , press "⬆️" and "⬇️" to move the cursor to "Ozone" , then press "✅" , to set zone as auto mode or manual mode. Auto mode operation can refer to control system control regulation described before. When manual mode is started, there will be a "🔴 O<sub>3</sub>" added in the function operation interface. User can start the ozone generator manually. When the manual mode is turned off, the symbol "🔴 O<sub>3</sub>" will disappear.



## Auto lock

To avoid inadvertent operation of the keys the panel has auto lock function.

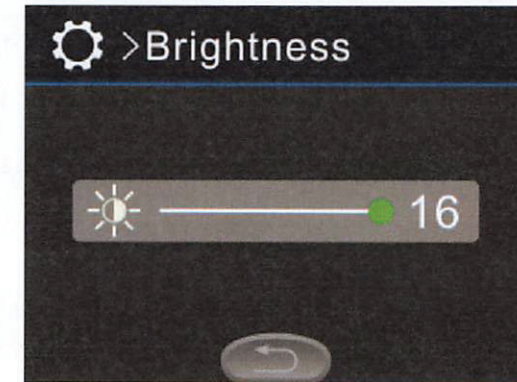
In "⚙️ Set >" , press "⬆️" and "⬇️" to move the cursor to "Auto lock" , then press "✅" to set the auto lock starting time as "30S" , "1 min" , "3min" or "off" . When set as off, the lock function is turned off; when set as "30S" or other time value, the panel will return to main interface and start lock function if no operation is detected within the set time length. When lock function is started, press continuously "✅" for 3S till Auto lock disappear, then the panel is unlocked.

# Control panel operation instruction

PB554 setting interface

## Brightness

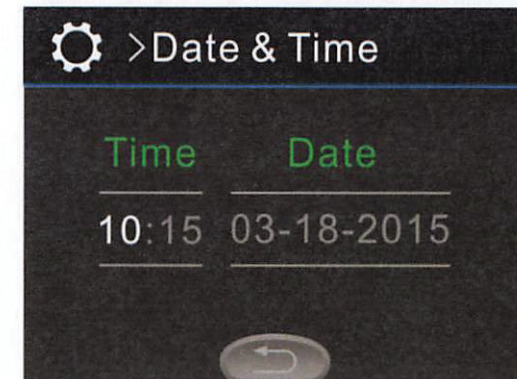
To ensure that user can use the control system comfortably with different lighting environment, the backlight brightness of the screen can be adjusted according to the environment lighting condition. Backlight brightness range is 1-16. In "⚙️ >Brightness", pressing "⬅️" and "➡️" to adjust the backlight brightness. The set value will be automatically stored when exiting the menu.



## Date & Time

Time accuracy is very important to the control system. All the timing function setting (timing heating and timing water cycle) is based on the control system time. So the user needs to set the control system time in ahead.





In "⚙️ >Date & Time", press "✅" to move the cursor, and set the date and time with "⬅️" and "➡️". The setting will be automatically stored after exiting the menu. If the control system is off power, the correct time setting can be kept for a few days.

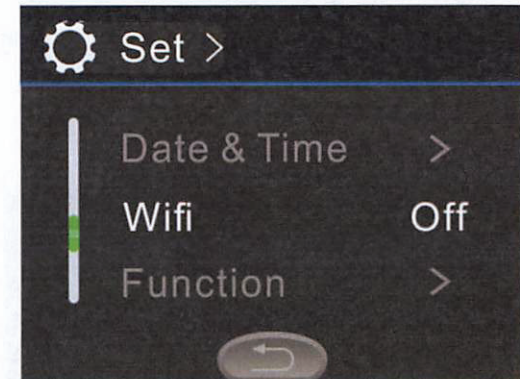


# Control panel operation instruction




PB554 setting interface

## Wifi

When control system is connected with Wifi module, then in "  Set > ", there is Wifi choice. Press "  " and "  " to move the cursor to "Wifi" and press "  ". Wifi can be set as AP mode , Sta mode, forget the connected Wifi or off. When Wifi module is working in AP mode, user can search Joyonway-xxxx with cell phone APP to connect to the control system; when wifi module is working in Sta mode, user can connect to control system with local area network or internet. For Wifi connecting and operating please refer to APP instruction.






## Function

Function is used to set control system loads and Panel ID. When the control system is allowed to be set (please refer to the description in control system connection and setting), find the item "Function>>" in the Set of menu, press "  " and "  " to move the cursor to item "Function>>" then press "  " to enter Set-> Function of the menu.

In Set-> Function of the menu, there are totally 12 items. They are (pump) Jet1, Jet 2, Jet 3, Jet 4, Light, Blower, Water cycle Ozone, Independent cycle, Heat, Water level and Panel ID as the picture shown below.

# Control panel operation instruction

PB554 setting interface

Pressing "  " and "  ", moving the cursor to the item to be set. Then press "  " to change its configuration parameter.

To (pump) jet (jet1, jet2, jet3, and jet4), if the figure in "  " is 2, then it is double speed pump. If the figure in "  " is 1, then it is single speed pump. If the figure in "  " is 0, then it is invalid.

To light, if the figure in "  " is 2, then it is in RGB mode, if the figure in "  " is 1, then it is in on/off mode. If the figure inside is 0 then the light is invalid.

To cycle pump, if the figure in "  " is 1, then control system is separately set with cycle pump; if the figure in "  " is 0, then the jet 1 low speed pump is set as cycle pump.

To panel ID, it can be set as 1, 2, 3, or 4. These numbers are used to differ different control panels and the control panel ID must be unique. To other loads, if the figure in "  " is 1, then this load has been set. If the figure in "  " is 0, then the load is invalid.

