# **TP10 Panel** Quick Guide





## Quick Guide

Please refer to your spa service manual for complete information on your spa service system.

# **TP10**

A full-view, full-colour, high-sensitivity, long-lasting capacitive touch spa control panel. The TP10 has the most advanced capacitive touch screen, more precise contacts and accurate target selection contact area, making human-computer interaction more convenient. TP10 has good waterproof and anti-mistake touch performance.



### Notification Icon

The notification icons at the top right of the screen shows the status of connected value-added accessories















Heat Pumps Online

Heat Pumps Offline

Multimedia Online

Multimedia Offline WIFI Online

Online WIFI Offline

Flashing means the heating is on, steady means it is off.

# **SPA** Function

The following section describes each function of the TP10 control panel.



#### Screensaver

The panel will start screen protection after a period of time after detecting no operation.

Tap anywhere on the display to illuminate the screen, drag the icon to coincide with the shaded icon to unlock the screen and enter the main screen.

Alternatively, you can unlock the device by quickly tapping the left and right icons once in sequence.



#### Load On/Off

If you want to switch on the pump/blower/ light mode, just click on the corresponding icons, then the load would be activated and the icon will be displayed as a dynamic effect, click again and the pump will be switched off. If the pump is a two-speed pump, click the first time for high speed, the second time for low speed, and click again to switch off the pump;

If the icon is grey, your product does not have this function; When using the Pump 1 (twospeed pump) for circulation at low speed, the low speed will automatically turn on under certain conditions and cannot be turned off.

#### Notes:

1. There is no independent control icon for the circulation pump,the startup and shutdown of the circulation pump depends on the system status. For example, when the circulation pump is being disinfected, heated or cooled, the screen is unlocked or malfunctions, the system will automatically start the circulation pump, and will automatically shut down after the function ends for 1-15 minutes.

2. Massage pump /blower icon colour depends on the product configuration, its colour is grey, that the massage pump / blower function is not available; its colour is blue, that the massage pump / blower function is available.

### Screen Rotation

The screen rotation feature allows users to rotate the screen 180 degrees by tapping the Screen Rotation button on the main interface. This feature can help users better view and control the SPA from different positions. The screen will turn off for the rotation then turn back on after a few seconds.







#### **Temperature Query**

The current water temperature is displayed on the main interface. A single tap on the "+" or "-"button will query the set target temperature. The set target temperature will be displayed in a flashing state.

### Water Temperature Regulation



#### **Temperature Settings**

When setting the target temperature, click " + " or " - " again, the set temperature value will be changed. Wait for 3 seconds for the end of setting, the temperature value stops flashing, the system automatically saves the set temperature value, and jumps to the current water temperature interface.

If the product is equipped with a heat pump, when the set temperature is less than the current temperature, the bottom of the panel will display "Cooling to XX. X°C", then the current water temperature will be cooled to the set temperature value; when the set temperature is higher than the current temperature, the bottom of the panel will display "Heating to XX. X°C" and the current water temperature will be heated to the set temperature; when the set temperature is equal to the current temperature, the system will not display either the heating or cooling message. Whether the system heats or cools depends on the current operating mode, see the following page.

### Set Up

The setup screen will allow you to set the panel or product functions.



In the Setup screen, you can set the following functions



The secondary menu can be switched by clicking the left or right arrow, when the menu to be set is selected, the icon will change from white to blue, and the content of the main setup area will be synchronously jumped to the content of the selected menu.

**Optional:** The optional menu indicates that the product will display the corresponding function menu interface only when the product is equipped with the corresponding value-added accessories, otherwise, the function icon will be grey and cannot be controlled.

### Work Mode

The water temperature control status varies depending on the work mode. Choosing a different mode can help you save energy and reduce your costs. Select the heating conditions you need based on the specific mode definition. You can also customize the heating conditions.



Standard Mode

The system automatically heats or cools (with a heat pump) whenever the set temperature differs from the current temperature by more than 1° C at any given time.



#### Energy Saving Mode SPA enters "Eco Mode" from 8:00 a.m. to 6:00 p.m. every day, with automatic heating or cooling (with a heat pump) whenever the temperature difference is greater than 1°C during other times. It is also possible to customise the "Eco Mode" time period.



#### Vacation Mode The SPA will be in "Eco Mode" 24 hours a day. It is also possible to customise the time

period of the "Eco Mode".



Sleep Mode The system will not heat up regardless of the target temperature setting. However, Due to the low temperature protection, heating is unconditionally activated.

**Note:** Eco mode means that for a certain period of time the set temperature and the current temperature within the range of 9  $^{\circ}$ C, the system will neither heat nor cool; if the temperature difference exceeds 9  $^{\circ}$ C, the system will only heat or cool until the temperature difference equals to 9  $^{\circ}$ C and then stop working. If the current water temperature is 20  $^{\circ}$ C, the set temperature of 31  $^{\circ}$ C, the system will be heated to 22  $^{\circ}$ C in the Eco cycle time period, and then stop heating. Its main function is to avoid the peak of electricity consumption for the user, to avoid frequent changes in the temperature resulting in higher energy consumption.



#### Work Mode

When the work mode is switched, the system will pop up a reminder menu.

### Eco Mode Cycling Editor



#### Eco Model Editor

In vacation and energy-saving mode, you can customize the number of times for daily operations, as well as the start and end times for each operation. A green checkmark on the right indicates that the "Eco Mode" will be active during that time period, while no checkmark means it won't be active. If two scheduled time periods overlap, the overlapping period will only execute once. If the start time equals the end time, the system will default to 24-hour execution.

21:15	Vacation Mod	de 🛛 🔊 🕫 📇
Ŵ	Start time	Stop time
	09:00	11:00
	08:30	10:30
۲	08:00	10:00
	07:30	09:30
	07:00	09:00
	Confirm	Cancel
	Confirm	Cancel

By clicking on any position in the Eco cycling period, the system will enter the Edit screen. This screen allows you to edit the start time and end time. Slide the setting up or down to the blue bar and click on Confirm to save the parameter. If you want to abort this setting, click on Cancel.

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#### **Filter Cycle** Ø 🎵 Start time Stop time **(** 09:00 11:00 08:30 10:30 08:00 10:00 07:30 09:30 07:00 09.00 Cancel

#### Filter Cycle

The system defaults to two disinfection cycles per day, each lasting 2 hours. Users can customize the disinfection cycle time period. After the cyclic disinfection starts, please avoid water therapy. When any massage pump or wind pump is turned on, the disinfection device will be temporarily turned off, and the circulation pump will continue to work. The green check mark on the right indicates that cyclic disinfection will be performed within that time period. If it is not checked, it will not be performed. When the time periods of two cycles overlap, the overlapping time period will only be executed once. When the start time is equal to the end time, the system will default to 24-hour execution. Clicking on any position of the disinfection cycle time period will enter the editing interface. This interface can edit the start time and end time. Slide the set value up and down into the blue box, click confirm, and the parameters will be saved. If you want to cancel the current setting, click cancel.

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#### **Temperature Unit**

Temperature units can be switched back and forth between Fahrenheit and Celsius. Click on the desired temperature unit and the selected unit will have a tick mark.

#### 21:15 Panel Panel

#### Panel

The panel provides three functions: screen lock protection, backlight adjustment, and language.



Panel

#### System Lock

After enabling this function, your massage pump, air pump, thermostat, ozone, and circulation pump and their accessories will be shut down immediately until it is unlocked.



#### Unlock

To unlock, press and hold the lock icon for 5 seconds.

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#### Backlight

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The backlight adjusts the brightness of the panel and is recommended to be set to bright during the day and dark at night.

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#### Language

There are 4 languages available in this panel, click on the language icon to switch.

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### **PATECH**



#### Maintenance

The maintenance function allows user to check product maintenance information and historical fault code information.

### Maintenance



#### Reminder

The TP10 panel will provide reminders for maintenance required by the spa, such as flushing or cleaning the filters. Each reminder is set for a certain period of time, after which the corresponding maintenance message will pop up on the main screen. If the reminder has been processed, clicking on the message in this screen brings up a reset button on the right. After resetting, the system will restart the timer again. All reminders can be reset by using the reset button at the bottom of the screen.



#### **Error Information**

Through this page, you can query the historical fault information of the electric control. Please see the "Troubleshooting" section for troubleshooting methods for fault types.



Time and date

The system time and date can be edited in this interface.



Time and Date

#### **Date Setting**

The system time and date can be edited on this screen.The year, month, and day can be set. Slide the set value up or down until it is within the blue frame. Click "Confirm" to save the current settings. If you do not want to save the current settings, you can simply press the "Back" or "Cancel" button.



#### **Time Setting**

The hour, minute, and time format can be set. Slide the set value up or down until it is within the blue frame. Click "Confirm" to save the current settings. If you do not want to save the current settings, you can simply press the "Back" or "Cancel" button.

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21:15		Setup 👂	<b>7</b> 🕫 📇
	Q	Massage pump running time	15min
	Õ	Screen standby time	3min
-	Q	Ozone operation mode	with cp
$\odot$	Ê	Online Test	off
	8	Parameter Settings	>
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#### Setup

The Setup interface allows you to change the automatic stop time for the massage pump, the screen standby time, and the ozone operation mode. The online test is used to diagnose the status of all electrical appliances. The ozone operation mode "with cycle" means that it will only start during the disinfection cycle; "24 hours" means that the ozone will be running 24 hours a day.



#### **Parameter Settings**

The parameter settings interface is intended for professional use only. Non-professionals should not make changes to parameter values without caution.



#### Factory Reset

User settings will be completely restored to the factory defaults.



#### Message Message can be used to query the system version.

### System Information



#### System Version

The system version can be used to query the hardware and software version numbers of the electrical control and panel.





#### **Bluetooth Connection**

Click on the gray Bluetooth icon in the top right corner, and the Bluetooth signal of the amplifier will turn on. After successful connection between the main controller and the amplifier, the gray multimedia icon in the top right corner will turn blue, and the play/ forward and backward icons will also change color. Turn on your phone's Bluetooth, search for "C.Stream," enter the pairing password 2288, and you will successfully pair.

### Multimedia



#### **Play Music**

Tap the blue play icon in the middle to play music on your mobile phone. Tap the right arrow to switch to the next song, and the left arrow to switch to the previous song. This screen will be synchronised with the playback/ toggle up/down operations on your mobile phone.

**Note:** Due to the limitation of different brands of mobile phones, some mobile phones may not be able to play the music if it is not turned on, so you need to turn on the mobile phone's music APP first.



#### Pause the Music

Clicking on the blue icon in the centre during playback will pause the music immediately. Tap the Bluetooth icon in the upper right corner to pause the music and cut off the Bluetooth signal from the amplifier.

21:15		Heat Pump 🛛 🖉 🎜 🗢 📇	
	*	Eco Heat 📃 🔍	
	<b>3</b> 10	Smart Heat	
		Eco Auto	
	A	Smart Auto	
	*	Cool	
	M	Electric	
	Ð	😨 🎜 🖉 D	

### Heat Pump (Optional)

The heat pump menu is only active when the heat pump is connected to the main control, otherwise there is a grey uncontrollable icon.

The heat pump menu provides six heat pump modes, which can be switched automatically by selecting the desired mode and clicking on it. If the heat pump is heating and switches to cooling mode, the heat pump will not switch to cooling immediately to protect the compressor, so you need to wait for a few minutes.

### Heat Pump Operating Mode Definition



### Eco Heating Mode

In this mode, the system only switches on the heat pump to heat the product whenever there is a demand for heating. In Eco mode, the thermostat is switched off by default.



#### Intelligent Heating Mode

This mode uses the heat pump as the main heating source. The thermostat will only be switched on for auxiliary heating if there is a large temperature difference between the front water temperature and the set temperature or if the ambient temperature is low.



#### Eco Automatic Mode

This mode combines the functions of Eco heating mode and cooling mode. When the set temperature is lower than the current temperature, the cooling mode is activated. When the set temperature is higher than the current temperature, the Eco heating mode is activated. In this mode both cooling and heating are realised by the heat pump only.



#### Intelligent Auto Mode

This mode combines the functions of intelligent heating mode and cooling mode. When the set temperature is less than the current temperature, the cooling mode is activated; when the set temperature is greater than the current temperature, the intelligent heating mode is activated.



#### Cooling Mode

In this mode, the system will switch on the heat pump to cool the product whenever there is a demand for cooling. In cooling mode, the thermostat is switched off by default.



#### Electric Heating Mode

This mode shuts down the heat pump by default and only turns on the thermostat for heating when there is a demand for heat in the system.

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### SPA Inverter (Depending on Product Configuration)

The SPA inverter provides an adjustable-flow pump, which can automatically adjust the water flow without manual adjustment of the water flow switch.



#### Main Interface

The SPA Inverter main interface provides SPA mode, control and lighting options.



#### SPA Mode

Select the SPA mode you want, and click the right arrow to enter. When switching from one running mode to another, the system will run automatically without having to click the start button again.



#### Exit SPA Mode

To exit the SPA mode selection interface, tap the "Exit" button in the upper right corner of the screen. A reminder will pop up asking if you want to turn off the variable speed pump. Tap "Confirm" to turn off the variable speed pump and return to the main interface.



#### **Injection Mode**

By clicking on the start icon in the centre, the variable speed pump will switch on and provide a constant massage pressure according to the preset programme. Click on the "Back" icon in the lower right corner to return to the previous level.



#### Pulse Mode

By clicking on the "Start" icon in the centre, the variable speed pump will turn on and cycle through the preset programmes to provide a constant low and high massage intensity. Click on the "Back" icon in the lower right corner to return to the previous level.



#### Surfing Mode

By clicking on the start icon in the centre, the variable speed pump will turn on and cycle through the pre-set programme providing a low and slowly increasing massage intensity. Click on the "Back" icon in the bottom corner to return to the previous level.



#### Sine Wave Mode

By clicking on the start icon in the centre, the variable speed pump will switch on and provide a cycle of massage intensity from small to large and then large to small in a pre-programmed manner. Click on the "Back" icon in the bottom right corner to return to the previous level.



#### Control

The control interface is mainly used to control the fixed speed pump or air pump switch.

### **PA**TECH

### Swimming Machine (Depending on Product Configuration)



#### Main Interface

If you have selected a swimming machine, please refer to the instructions on this page. The swimming interface provides swimming modes, constant speed mode, and lighting options.

21:15	Swim Mode	ø 🎜 🗢 📇
	Warm-up mode	>
	Sine wave mode	$\rightarrow$
۲	Skip mode	$\rightarrow$
	Surfing mode	>

#### Swimming Mode

Select the swimming mode you want, and click the right arrow to enter the operation interface. When switching from the operation mode to another mode, you do not need to click the start button again, the system will run automatically.

Warm-up mode: The swimming machine runs at a constant water flow speed.



Sine wave mode: The swimming machine runs in a cycle of water flow speed from small to large, and then from large to small. Pulse mode: The swimming machine cycles at a constant low and high water flow speed. Surf mode: The swimming machine cycles at a low and gradually increasing water flow speed.

### Swimming + Fixed Speed (Depends on Product Configuration)



#### Main Interface

Please refer to this screen if the selected swimming product includes both variable speed and fixed speed pumps. Swim mode and fixed speed mode definitions are the same as the previous swim machine function definitions, with the addition of the fixed speed pump control interface.



#### Control

This screen can be used to control the fixed speed pump. By clicking on VSP, the screen will jump directly to the "Swim Mode" selection. For the rest of the fixed speed pumps and air pumps, click once to switch them on and again to switch them off.

### **Extension Function**

The control system can control not only the main control panel for standard equipment, but also can control the auxiliary control panel. It can maximum control 4 massage pumps/blowers/lights through the auxiliary control panel.

**Note:** The control system can control up to one auxiliary control panel.



## Troubleshooting

Case	Description	Method
		If the water has not reached the water level line and is directly energized, this fault may occur.At this time,turn off the power immediately and wait for the water to fill to the water level line before turning on the power again.
1	E9-Please check if there is water flow in the circulation pipe.	Check if the filter paper core and the outlet of the circulation water circuit are blocked. If there is a blockage, clean it immediately or ask the dealer to replace the paper core.
		Check if the circulation pump is damaged. If it is damaged, contact the dealer for replacement.
2	E1-Temperature probe 1 disconnected defect.	Check if the temperature probe 1 wiring is loose, rusty, or otherwise damaged.Unplug temperature probe 1 terminal. If the problem is not solved, contact your dealer.
3	E2 - Temperature probe 2 disconnected	Check temperature probe 2 wiring for looseness, rust or other defects. Re-insert temperature probe 2 terminals. If the problem cannot be solved, contact your dealer.
4	E0-Control panel and electronic control communication failure	Re-plug the control panel and electronic control communication terminals, if the problem still can not be solved, please contact the dealer to solve the problem.
5	E5 – High-low voltage protection	When the system detects that the input voltage is less than 155V or the input voltage is greater than 270V (Zero-Fire phase voltage), it will start the E5 protection, the voltage will be restored to normal, and the fault protection can be automatically lifted after restarting from power failure.
6	C-Low temperature protection	When the water temperature $\leq 6 ^{\circ}$ C, the system will automatically start the low temperature protection. Unconditionally start massage pump 1 low speed or circulating pump and heating module, until the actual water temperature rises to 12 $^{\circ}$ C, exit low temperature protection.
7	H-High temperature protection	When the system detects the water temperature $\geq$ 43 °C , start H high temperature protection. At this time, the product can not be used, until the water temperature $\leq$ 41 °C , power off and restart, the fault can be lifted.
		If the water temperature is normal and the product reports an H fault, refer to serial number 1 for troubleshooting.
8	HH-Abnormal super-high temperature protection	When the system detects the water temperature $\geq$ 47°C, start HH abnormal ultra-high temperature protection. At this time, the product can not be used, until the water temperature $\leq$ 41°C, power off and restart, the fault can be lifted.
		If the water temperature is normal and the product reports a HH fault, refer to serial number 1 for troubleshooting.

**Warm tips:** HPXX for the heat pump fault, specific troubleshooting methods see the heat pump function manual. WIFI Module wiring and APP use are detailed in the APP Quick Operation Guide instructions.