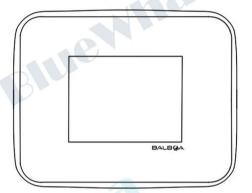
BlueWhaleSpa

SpaTouch



SpaTouch 3



SPATOUCH INSTRUCTION MANUAL

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10	No.		31851	1621	
			CONTENTS TABLE		
					16
		CAUTION		1	
		Your Hot Tub:	Features	2	
		Hot Tub Installation	: Site Preparation	4	
			Electrical Installation	7	16
	NIDE		Testing	10	
- 40			Cover	11	
		Manual Instructions	s: First Steps	12	
			Control Panel Guide:	40	
	-3		SpaTouch 2	13	
10	21000		SpaTouch 3 Bluetooth Guide:	16	
		Chemical Advice:	Bidetootii Guide.) 17	
		Chemical Advice.	How to balance the hot tub water chemistry	20	. 40
		Mile.	How to treat fresh water	23	
			Filtration & Filter Cleaning	24	
		Hot Tub Maintenan	ce: Cleaning	25	
			Draining	26	
			Refilling	27	
			Shutdown	28	
			Recomended Maintenance Routine	29	
	0 1				

CAUTION

Please carefully read the following section as it provides important safety instructions and health warnings.

- 1. Be cautious when entering or exiting the hot tub to avoid serious injuries.
- 2. People with infectious diseases should not use a hot tub.
- 3. Prolonged, continuous usage of a hot tub may have a negative impact on your health.
- **4.** Water temperatures exceeding 38°C are not recommended as it may have a negative impact on your health.
- 5. Use of a hot tub following intense exercise is not recommended.
- 6. Ensure that hot tub chemicals are used in accordance with Manufacturer's guidance.
- 7. It is advised to keep electrical equipment at least 1.5 meters away from the hot tub.
- **8.** Alcohol and drug consumption before or during the use of a hot tub is strongly discouraged, as it may increase the risk of drowning and hypothermia.
- **9.** People using prescription medications or with a serious medical history are advised to consult their GP before using a hot tub.
- **10.** Pregnant women are advised to consult their GP before using a hot tub.
- **11.** Children must not play with the electrical appliances, maintain, or use the hot tub without adult supervision.
- **12.** People with physical or learning disabilities and/or lack of experience in maintaining a hot tub must not use it without supervision.
- **13.** It is important for all users to understand safety instructions and possible risks involved in using a hot tub.
- **14.** The use of glass items such as drinks glasses or glass bottles in the hot tub is not advised, as if broken, the glass can be sucked into the pipes risking damage to the hot tub and injury to hot tub occupants.

!REMEMBER!

All electrical installation must be performed by a licenced electrician and no servicing should be performed by an inexperienced person.

Please contact your dealer or professional services for any assistance to avoid risk.



Warning! Shock Hazard! No User Serviceable Parts.



Your Hot Tub: Features

Get to know all the elements of your hot tub and what they can do.



Control Panel

Your hot tub model will dictate which SpaTouch control panel you have, and what settings are included. The control panel is where you will control your hot tub during use, complete initial set up, set filtration cycles, change temperature, etc. You can find instructions for programming on page 12 onwards of this manual, or in your SpaTouch manufacturers guide provided with your hot tub.



Filter Housing

Your hot tub will have some form of filter houseing situated in one corner of the shell. The most comon style is our standard size with floating skimmer basket, photographed left, but it will depend on your hot tub model. These are where the water flows from the main tub of your hot tub into the filter housing to be cleaned, and then cycled back into the pipework to be heated and circulated into the jets and water features.



Jet

Situated around hot tub seats will be varying sizes and styles of massage jets. This is where the water circulates back into the tub from the pipes, and can be mixed with air to give a stronger massage. You may have fixed jets, rotating jets, or directional jets, which you can reposition the centre funnle to customise your massage. For non fixed jets you can also turn the individual jet to cut the water flow. The strength of water flow will depend on plumming and how many jets an individual pump is serving.



Air Valve

Around the lip of your shell you will find Air Valves. These are smaller than the Water Feature Valves and have "AIR" embossed on the surface. One valve will be paired with up to 4 seats to allow you to adjust how much air is mixed into the water flow of the jets. You can turn them to full active when the pumps are engaged to give a powerful massage, or turn them off for a more soothing feel of just water flow.



Water Feature Valve

If your hot tub has water features you will find Water Feature Valves around the lip of your shell. These are larger than Air Valves and have a longer tongue which turns seperate to the base of the valve. When the pumps are active you can turn them to turn up the water features, such as waterfalls or fountains. Make sure that you alwars turn off the water features before replacing the lid on your hot tub.



Drain Valve

In one of the outer corners of your hot tub you will find a Drain Valve. This is used for draining the water out of your hot tub. We recomend that you drain and replace your water every 3 months, and our engineers will drain your water if carrying out a full service or winter shut down. You will be provided with a hosepipe adaptor with your order that can be screwed onto this valve to allow you to direct the water into a drain with a hosepipe.



Hot Tub Installation: Site Preparation

Before the electrical installation, the site must be prepared to accommodate the arrival of your new hot tub.

1) Location Preparation

- The installation site must be a solid, levelled foundation, ideally a concrete base.
- The base must support the weight of a hot tub, which exceeds 1800 kg on some models. We recommend you seek professional advice on the load bearing ability of your chosen base.
- The spa base must be evenly supported.
- We recommend your chosen site to measure at least 2.5 m x 2.5 m x 0.1 m.
- We advise against below ground installation, as the hot tub must be accessible for service and maintenance from all four sides.

!REMEMBER!

Failure to provide a level surface could structurally damage your spa and void the warranty.

2) Power Supply Requirements

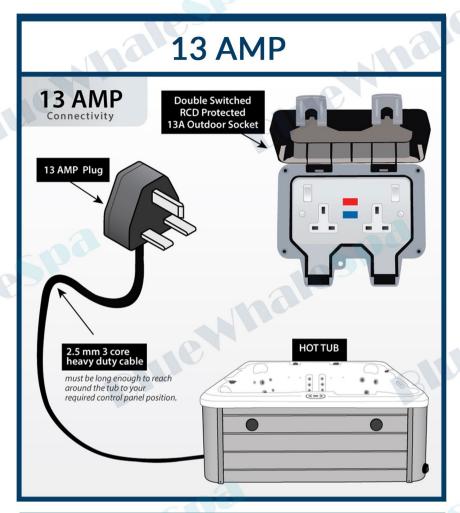
Each hot tub model varies, and we advise you to check your power supply requirements before delivery. You may require either 13 AMP or 32 AMP power supply. All hot tub models should be supplied through a residual current device (RCD) with a rated tripping current not exceeding 30 mA.

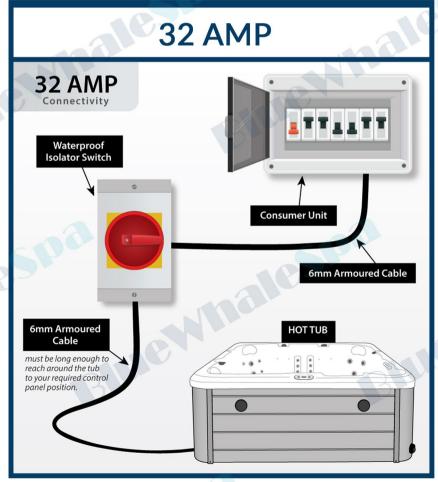
13 AMP

Hot tub models powered by a 13 AMP supply can be connected to an outdoor, RCD protected socket via 2.5 mm 3 core heavy duty cable, long enough to connect from the socket to the hot tub control panel.

32 AMP

Hot tub models powered by a 32 AMP supply need a dedicated power supply direct from your consumer unit. You will need a qualified electrician to install a 3 core 6 mm armoured cable from your consumer unit to an IP65 rated, waterproof isolator switch at least 2 m from the hot tub. There must be a tail of 3 core 6 mm armoured cable connected to the isolator switch with enough length of cable to go around the hot tub to where you require the control panel of the hot tub to be sited, plus 1 metre to allow flexibility for connection to the control box of the hot tub.





In both instances, we recommend that you leave at least 1 metre extra cable to ensure that it can comfortably reach the hot tub.



Preparing and installing the electrical power supply must be performed in accordance with national guidelines, by a qualified party. The customer is responsible for the safety of the power supply installation.

Improper installation may result in a serious injury or property damage and void the warranty on the hot tub.

Hot Tub Installation: Electrical Installation

Position the hot tub at the prepared location and remove the front panel to access the control box (Fig.1).

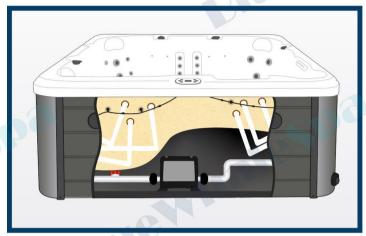


Fig.1

!REMEMBER!

The hot tub must be wired using the following procedure. Failure to follow these instructions raises the risk of serious injury and will result in voiding your warranty.

- 1) The installer connects the cable supplied by the customer from the power supply to the control box. To provide the best access point, any of the hot tub side panels can be drilled through. (Please ensure that no internal components are damaged during the drilling. It is recommended that some form of a moisture barrier is used to prevent water from entering the inside of the hot tub. Drilling through the hot tub side panels will not void the warranty.)
- 2) Power for the hot tub must be supplied through a residual current device (RCD) with a rated tripping current not exceeding 30 mA.
- 3) For 32 AMP hot tubs, the spa must be permanently hardwired to the power supply and earthed appliances must be permanently connected to fixed wiring.
- 4) The wiring of your hot tub cable to the control box will differ depending on the control box instructions. You can find them on the inside of the control box lid. Please follow these instructions and in case of any questions call for assistance. The examples of Wiring Diagrams are available on the next pages (Fig.2a, 2b & 2c).
- 5) To connect the hot tub to the power supply, use a 2.5 mm 3 core heavy duty cable for the 13 AMP hot tub, and a minimum of 3 core 6mm armoured cable for the 32 AMP hot tub. Cable runs over 25 metres must use the next lowest wire gauge number.

Electrical parts or components, except for remote control devices, must be located or fixed at least 2m away from the hot tub.

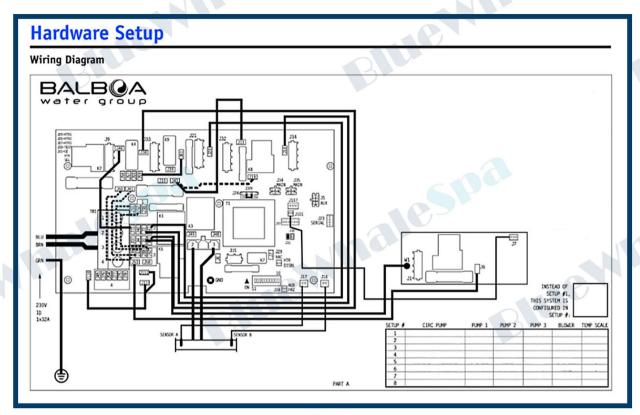


Fig.2a

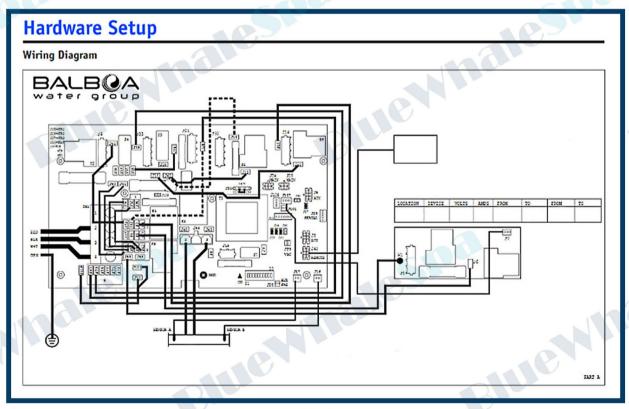
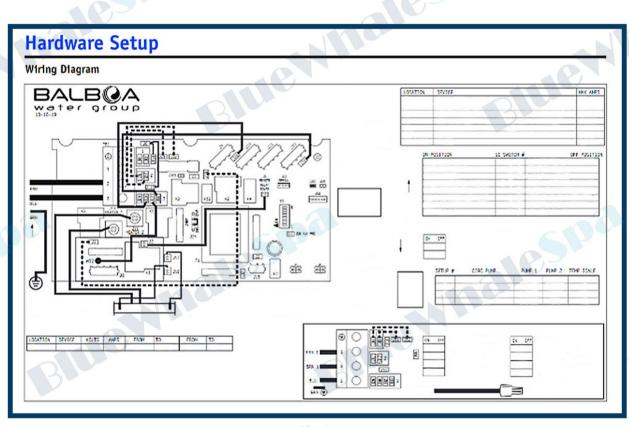


Fig.2b



BlueWhaleSh

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Fig.2c

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Hot Tub Installation: Testing

Following the hot tub wiring, turn on the hot tub and check the control panel for messages. An initial start up logo and then the Priming Mode should appear, which will indicate the correct installation (Fig.3).





Fig.3

It is recommended a Voltage Test and Ampere Test are conducted for safety reasons, even if the correct message displays on the control panel.

- 1) To complete the Voltage Test, an electrical tester is required. (Fig.4)
- 2) While the hot tub is running, place one probe on the live terminal and the other on the neutral terminal. (Fig.2)
- 3) The reading should range between 236 V and 246 V.







Fig.5

- 4) To complete the Ampere Test, an Amp tester is required. (Fig. 5)
- 5) Place the Amp tester on the live cable to check how many Amps are being drawn while the heater and circulation pump are running.
- 6) The reading should not exceed 13 A for 13 AMP hot tubs, or 32 A for 32 AMP hot tubs, when all electrical components are activated simultaneously. In some models, the heater will be disengaged while pump(s) are running.

Following successful testing, turn the hot tub off and check if wiring is secure. After putting the control box cover and front panel back on, the hot tub is safe to use.

Hot Tub Installation: Cover

Carefully unpack the cover- do not use any sharp objects to open the packaging as it may damage the cover. Lay the folded cover onto the hot tub. Once placed on the spa, unfold it so it covers the entire hot tub and fit the skirt around.

!REMEMBER!

You are required to keep your hot tub covered to maintain the warranty coverage.

- A covered hot tub uses less electricity to maintain a set temperature.
- A locked hot tub cover prevents children from using the spa without supervision.
- The hot tub cover is not designed to support any weight, so no equipment should be placed on top of the covered hot tub.
- Remember to turn off all water features (waterfall, fountains) before covering your hot tub. During filtration cycles the water features are activated which will cause the water to drip from the cover, potentially causing draining of your spa.
- Keep the cover clean to prevent contamination of the water when opening and closing the cover.
- Remove any standing water on the cover top, especially after heavy rain.



Cover Warranty:

Blue Whale Spa warrant the spa cover to be free from defects in material on the day of delivery. After that day the care of the cover is the responsibility of the customer as they are open to elements and/or chemical damage.

Manual Instructions: First Steps

Once connected, before turning the tub on, please follow the below steps:

- 1. Remove the filter You can do this by removing the skimmer and basket, turning it anti-clockwise until the straight sides line up, you will then be able to remove the filter and remove the surrounding packaging. Do not replace the filter at this point.
- 2. Put your hosepipe all the way down the filter housing, turn the water on, and fill your tub. The water level needs to be approximately 1" above the lights/covering all your jets but below the headrests.
- 3. Remove the hose pipe but leave the filter out and power on the hot tub. It will then go into **Priming Mode** which is completely normal.
- 4. If **Priming Mode** and all your jet buttons are shown press **CIRC** to switch on your Circulation pump for about 60 seconds.
- 5. Then turn all your jet pumps on (may include a BLOWER/AUX button) for around 30 seconds.
- 6. Then switch all jet pumps off and exit that screen. Your screen will then prompt you to set the time with an information message code. You can exit this and move onto the next steps.
- 7. Use the arrows on the screen to set your desired temperature indicated by the orange text. For a few seconds, you will see "- - °C" and you will hear a pump running. This is the circulation pump. You will see a ripple across the top of the water and a few bubbles slowly being released from an outlet in the footwell (if your hot tub has a dual-speed pump, you will see water coming out from the jets rather than from the bottom of the shell). Shortly after, you will see a temperature appear in the centre of your screen. This is your current water temperature as read by your heater, indicated by the black text. The heat symbol start to flash indicating that the heater has engaged and is now heating the water. The circulation pump is constantly active while the water is heating, ensuring water is moved through the heater where it is evenly and thoroughly heated.

You can then put the filter down into the filter housing, and secure using the filter basket and skimmer. Again, lining up the straight edges, but this time turning clockwise which will then secure it into position. Do not over tighten the filter, as it may expand in the heat and become very difficult to remove when changing your filter which could result in components breaking.

Before you start adding chemicals, we recommend that you allow the tub to heat to approximately 27-30 °C as a minimum. Alternatively, you can dilute the chemicals in warm (not hot) water first. This will ensure that the chemicals dissolve thoroughly and effectively disperse within the water. Once the minimum temperature has been reached, use a testing strip to test the chemical level of your water before you start. Add all chemicals to the water as centrally as possible (into the footwell is ideal) while all the jet pumps are running. Leave the jet pumps on for 3-5 minutes to ensure that the chemicals are dissolved and efficiently dispersed through the water. We recommend that you test the chemical levels in your water daily.

Please note that the circulation pump will only activate on the following occasions:

Filtration/cleaning cycle

Heating
When the temperature is too low to prevent freezing

BlueWhaleSpa

Manual Instructions: Control Panel Guide:

SpaTouch



1. Changing your temperature range between LOW/HIGH

If you are finding that your hot tub is not reaching the desired temperature, your hot tub may be in Low Range (or vacation mode) and there is a 'temperature ceiling' set by the manafacturers that cannot be exceeded in this Range. You will see wither an $\bf L$ or a $\bf H$ in the top left corner to indicate if your hot tub is set to a Low or High Range. Follow these steps to change between the Ranges.

- Press your **SETTINGS** button
- Press HEAT to enter your heating settings
- Press the LOW or HIGH next to the Temp Range to choose the setting you want.
 - We recommend a HIGH range when planning to use your hot tub allowing you to heat to the maximum temperature.
- Exit back to the main screen.

If the RANGE is LOW – the tub will only heat to 37°C

2. Changing the mode between REST/READY

If you are finding that your hot tub is not maintaining the desired temperature, your hot tub may be in Rest Mode which is when the heater will only engage during programmed filter cycles. Ready Mode will circulate the water every half hour and provide accurate temperature readings. On the top left side of your screen you will see an upright R or flat R. Follow these steps to change between the modes.

- Press your SETTINGS button
- Press HEAT to enter your heating settings
- Press the REST or READY next to the Heat Mode to choose the setting you want.
 - For regular use we reccomend you keep it in **READY** mode.
- Exit back to the main screen.
- Please be aware, if in REST mode, you will need to run the

 pumps in order to recieve an accurate temperature in your display

3. Checking/Changing your Time

You will need you time to be correct in order for your filtration cycles to be set correctly. If you want to keep in line with daylight savings, you may want to check and change the time set in your tub after initial set up. Follow the below steps to do so.

- Press your SETTINGS button
- Press TIME
- Select the HOURS
- Use the up and down arrows to choose the correct hour
- Select the MINUTES
- Use the up and down arrows to choose the correct minutes
- Press the highlighted **TICK** to save the settings
- Exit back to the main screen

4. Checking/Adjusting your Filtration Cycles

Your Filtration Cycles are key for keeping your water clean. We recomend 2 cycles per day. If used alongside Rest Mode you may want to set filtration cycles for just before you are likely to use the hot tub so the water is thoroughly heated when you get in. Others may set cycles for just after common use so that the water is filtered shortly after use. Whatever your preferences, we recomend setting your Filtration Cycles for when you are not using the hot tub, as they effect how the pumps run. The following steps will allow you to check and adjust your Filtration Cycles.

- Press your **SETTINGS** button
- Press FILTERS
- Make sure the number 1 is selected to edit the first filter cycle
- Select the HOURS of the Start
- Use the up and down arrows to choose the hour you want the first filter cycle to start
- Select the MINUTES of the Start
- Use the up and down arrows to choose the minute you want the first filter cycle to start
- Then move onto the End to set how long the first filter cycle will be
- Select the HOURS of the End
- Use the up and down arrows to choose the hour you want the first filter cycle to end
- Select the MINUTES of the End
- Use the up and down arrows to choose the minutes you want the first filter cycle to end
- You will see the Duration change at the bottom of the screen with your settings
- Moving onto the second filter cycle
- Make sure the number 2 is selected to edit the second filter cycle
- Select the **HOURS** of the Start
- Use the up and down arrows to choose the hour you want the second filter cycle to start
- Select the MINUTES of the Start
- Use the up and down arrows to choose the minute you want the second filter cycle to start
- Then move onto the End to set how long the second filter cycle will be
- Select the HOURS of the End
- Use the up and down arrows to choose the hour you want the second filter cycle to end
- Select the MINUTES of the End
- Use the up and down arrows to choose the minutes you want the second filter cycle to end
- You will see the Duration change at the bottom of the screen with your settings
- Press the highlighted TICK to save the settings
- Exit back to the main screen



5. Locking/Unlocking the Control Panel

The SpaTouch control panel allows you to Lock the Panel or the Settings of your hot tub. Locking the Panel prevents the controller (touchscreen) from being used, but all automatic functions are still active.

Locking the Settings allows Jets and other features to be used, but the Set Temperature and other programmed settings cannot be adjusted.

When the Settings are Locked, a reduced menu will be seen when accessing the settings.

a. To Lock

- Press your **SETTINGS** button
- Select LOCK
- Choose SETTINGS or PANEL
- Press and hold the word LOCK at the top of your screen for at least 5 seconds
- You will see a LOCK icon appear in the top right

b. To Unlock

- Press your **SETTINGS** button
- Select LOCK
- Choose SETTINGS or PANEL
- Press and hold the word LOCK at the top of your screen for at least 5 seconds
- You will see a LOCK icon disappear in the top right

6. Flip your display

When you are in your hot tub, you may like to flip your screen so that it can easily be read from inside the hot tub.

- You can flip your screen on most displays of the SpaTouch 2 with the use of the FLIP button found in the top right corner, two arrows circling each other.
- Press once to change the direction of yor screen
- Press again to change back.

7. Changing your Preferences

- a. Switching between °C/°F
- Press your **SETTINGS** button
- Press the arrow at the bottom of the screen to go to the second page of settings
- Select UNITS
- Press the current setting next to Temp Display to choose between °C or °F
- Exit to the main screen to see the results

b. Switching between 12 HR and 24 HR clock

- Press your SETTINGS button
- Press the arrow at the bottom of the screen to go to the second page of settings
- Select UNITS
- Press the current setting next to Time Display to choose between 12 HR or 24 HR
- Exit to the main screen

Please refer to your SpaTouch manufacturer control panel manual for more indepth details and for further functions, aditional utilities and general messages that you may recieve on your screen

Manual Instructions: Control Panel Guide:



SpaTouch 3

1. Changing your temperature range between LOW/HIGH

If you are finding that your hot tub is not reaching the desired temperature, your hot tub may be in Low Range (or vacation mode) and there is a 'temperature ceiling' set by the manafacturers that cannot be exceeded in this Range. You will see wither an $\bf L$ or a $\bf H$ in the top left corner to indicate if your hot tub is set to a Low or High Range. Follow these steps to change between the Ranges.

- Press your **SETTINGS** button
- Press **HEAT** to enter your heating settings
- Press the LOW or HIGH next to the Temp Range to choose the setting you want.
 - We recommend a **HIGH** range when planning to use your hot tub allowing you to heat to the maximum temperature.
- Exit back to the main screen.

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2. Changing the mode between REST/READY

If you are finding that your hot tub is not maintaining the desired temperature, your hot tub may be in Rest Mode which is when the heater will only engage during programmed filter cycles. Ready Mode will circulate the water every half hour and provide accurate temperature readings. On the top left side of your screen you will see an upright R or flat R. Follow these steps to change between the modes.

- Press your SETTINGS button
- Press HEAT to enter your heating settings
- Press the REST or READY next to the Heat Mode to choose the setting you want.
 For regular use we reccomend you keep it in READY mode.
- Exit back to the main screen.
- Please be aware, if in REST mode, you will need to run the
 - pumps in order to recieve an accurate temperature in your display

3. Checking/Changing your Time

You will need you time to be correct in order for your filtration cycles to be set correctly. If you want to keep in line with daylight savings, you may want to check and change the time set in your tub after initial set up. Follow the below steps to do so.

- Press your SETTINGS button
- Press TIME
- Select the time displayed to change
- Use the scrolling hours and minutes to choose the correct time
- Press the **TICK** to save the settings
- Exit back to the main screen

4. Checking/Adjusting your Filtration Cycles

Your Filtration Cycles are key for keeping your water clean. We recomend 2 cycles per day. If used alongside Rest Mode you may want to set filtration cycles for just before you are likely to use the hot tub so the water is thoroughly heated when you get in. Others may set cycles for just after common use so that the water is filtered shortly after use. Whatever your preferences, we recomend setting your Filtration Cycles for when you are not using the hot tub, as they effect how the pumps run. The following steps will allow you to check and adjust your Filtration Cycles.

- Press your SETTINGS button
- Press FILTER
- Make sure the number 1 is selected to edit the first filter cycle
- Select the **TIME** of the Start
- Use the scrolling hours and minutes to choose the time you want the first filter cycle to start
- Press the TICK to save
- Then move onto the End to set how long the first filter cycle will be
- Select the **TIME** of the End
- Use the scrolling hours and minutes to choose the time you want the first filter cycle to end
- Press the TICK to save
- You will see the Duration change next to your chosen times
- Moving onto the second filter cycle
- Make sure the number 2 is selected to edit the second filter cycle
- Select the TIME of the Start
- Use the scrolling hours and minutes to choose the time you want the second filter cycle to start
- Press the TICK to save
- Then move onto the End to set how long the second filter cycle will be
- Select the TIME of the End
- Use the scrolling hours and minutes to choose the time you want the second filter cycle to end
- Press the TICK to save
- You will see the Duration change next to your chosen times
- Press the TICK to save the settings
- Exit back to the main screen

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- Select LOCK
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When you are in your hot tub, you may like to flip your screen so that it can easily be read from inside the hot tub.

- You can flip your screen on most displays of the SpaTouch with the use of the FLIP button found in the bottom right corner, two arrows circling each other.
- Press once to change the direction of yor screen
- Press again to change back.

7. Changing your Preferences

a. Switching between °C/°F

- Press your SETTINGS button
- Press the arrow at the right of the scrceen to go to the second page of settings
- Select UNITS
- Press the current setting next to Temp Display to choose between °C or °F
- Exit to the main screen to see the results

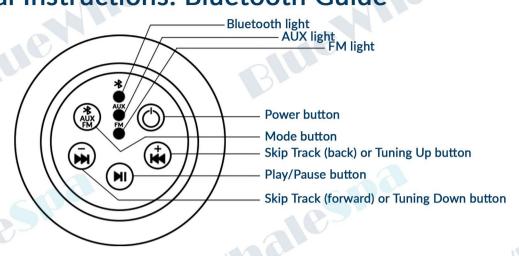
b. Switching between 12 HR and 24 HR clock

- Press your SETTINGS button
- Press the arrow at the right of the screeen to go to the second page of settings
- Select UNITS
- Press the current setting next to Time Display to choose between 12 HR or 24 HR
- Exit to the main screen

Please refer to your SpaTouch manufacturer control panel manual for more indepth details and for further functions, aditional utilities and general messages that you may recieve on your screen



Manual Instructions: Bluetooth Guide



1) Connect to your Bluetooth device

- Step 1 Make sure that the Bluetooth unit is in Bluetooth mode.

 This will be obvious upon powering on by an anouncement of, or similar to

 "The Bluetooth unit is ready to connect".

 If you are unsure, you can press the Mode button to switch between modes until you hear the above announcement.
- Step 2 The light on the Bluetooth will turn blue and flash showing that it is ready to connect to your chosen device.
- Step 3 On your device enable your Bluetooth connection and search for the hot tubs Bluetooth. Each Bluetooth panel may have a different name so make sure to identify other Bluetooth devices around you so that you connect to the correct one.

2) Using the Bluetooth

- Step 1 Once connected, select your music or playlist on your device and place at a safe distance from the hot tub.
- Step 2 The volume is set by your device so make sure that it is at a decent level before getting into your hot tub.
- Step 3 Once you are in the hot tub you can use the Play/Pause, Skip Track forward and back buttons to navigate through your music without worrying about wet hands.

3) Using the FM radio mode

- Step 1 Press the Mode button to change the function mode to FM.
- Step 2 The light FM will turn blue and flash showing that it is ready to tune. You may also hear white noise.
- Step 3 Using the tuning buttons (indicated by and +) you can search for your favourite channel and listed while you are relaxing in your hot tub.

4) Using the AUX mode

This unit is supplied with an AUX setting, but it is non functioning part of our unit for hot tub use.

5) Powering On and Off

To Switch On - Press the Power button until the lights all turn on in the unit.

To Switch Off - Press the Power button until the lights all turn off in the unit.

Chemical Advice: How to balance the hot tub water chemistry

To maintain your hot tub water, you must ensure that your spa equipment is frequently cleaned, and the water chemical balance is regularly checked. The key chemicals that you need to balance are sanitiser (Chlorine/Bromine), pH and Total Alkalinity.

To check these chemical levels, you require appropriate testing strips for your sanitiser. If you use bromine to sanitise your hot tub water, you will need **Bromine Testing Strips**. Alternatively, if you sanitise the water with chlorine, you should use **Chlorine Testing Strips**. The next 4 steps explain how to measure these chemicals and how to adjust them accordingly to your results.

STEP 1: Hot to test the hot tub water

Before testing the water, turn off all water features and pumps, so the water settles. Gently dip one testing strip in the hot tub water about wrist deep, leave the dip strip in the water for the recommended time on the container (times may vary!). Don't move the strip once is under the water and after the specified time, pull it out. Do not shake the excess of water from the testing strip and hold it sideways for around 10-15 seconds, while the results develop. Once the colours on the pads develop, compare them to the testing strip container to measure the chemical levels in your spa.



If the test strip levels are within the spa/hot tub OK range on the container, no chemicals need adding.

If the test strip levels are not within the spa/hot tub OK range on the container, small amounts of chemicals need to be added to adjust the levels. Before adding any chemicals, turn on the jets and make sure that the water is warm to ensure the products dissolve quickly. Whenever chemicals are added, the water must be re-tested to ensure that the coloured pads on the test strip match the spa/hot tub OK range on the container. The table below provides useful information on the ideal reading for each of the chemicals.

TEST	IDEAL READINGS*	TESTING FREQUENCY**
Chlorine	3 - 5 ppm***	Every Day
Bromine	4 - 6 ppm	Every Day
рН	7.2 - 7.6	Every Day
Total Alkalinity	80 - 140 ppm	Every Day

^{*} The ideal readings displayed in this table are presented only for a reference. Always follow the instructions provided by the test strip manufacturer when adjusting the chemical balance of your hot tub water.

^{**} Testing Frequency advised in this table is recommended for when the hot tub is in use. It is recommended you test the hot tub water every time before using the spa. If the hot tub is not in use, the water can be tested every other day, as while the hot tub is running at high temps the chemicals will still use up just as fast.

^{***}ppm= parts per million

STEP 2: Adjusting Total Alkalinity

Total alkalinity (TA) measures the level of all alkaline substances in the hot tub water, including carbonates, bicarbonates, and hydroxides. Total alkalinity levels directly impact the pH levels, so TA levels should be adjusted before pH levels.

The table below guides you on how to adjust TA accordingly to the results on your testing strip. Please note that when testing TA, the recommended reading is between 80 - 120 ppm.

High Total Alkalinity	Use Anti Scale (Stain & Scale Inhibitor) to lower the Alkalinity levels.	
Low Total Alkalinity	Use Total Alkalinity Increaser to raise the Alkalinity levels.	
High pH	Use pH Minus , which will lower the pH level.	
Low pH	Use pH Plus , which will raise the pH level.	

Once the TA level is balanced, it tends to be stable. However, bear in mind that when changing/adding water to your hot tub, the TA levels may change.

Unbalanced alkaline levels have serious effects on the hot tub water. Persistently high TA level may result in green water, as it reduces the effectiveness of your sanitiser. Untreated low TA may cause scale and corrosion of the hot tub's internal parts. Adjusting these levels is very

STEP 3: Balancing pH

The pH level is the measure of the balance between acidity and alkalinity. The ideal pH of the hot tub water is between 7.2 - 7.6.

If your pH level is too low (below 7.2), pH Plus Granules should be added. Low pH level means that the acid in your hot tub water is damaging to the spa parts and can cause skin irritation. If your pH level is too high (above 7.6), add pH Minus. High pH level can lead to milky, unclear water and can cause scale- a hard, crusty mineral build-up.

STEP 4: Adding Chlorine/Bromine

Both chlorine and bromine are sanitisers that break down bacteria in your spa. It is recommended that you test chlorine/bromine levels at least once a week** using testing strips appropriate to the sanitiser you use (bromine testing strips differ from chlorine testing strips).

When adding chlorine or bromine, ensure that the spa is not being used, open all jets and run the pumps at high speed with the cover open for at least 15 minutes.

Lengthy usage of the spa may lower the sanitiser levels faster, therefore, this will require you to add chemicals more frequently.

** Testing Frequency advised in this table is recommended for when the hot tub is not in use. It is recommended you test the hot tub water every time before using the spa.

OPTIONAL STEP 5: Calcium Hardness

In some cases, your hot tub water may need to be treated due to high calcium levels. Calcium occurs naturally in water, and its presence depends on where you live- the water may be softer or harder in different places.

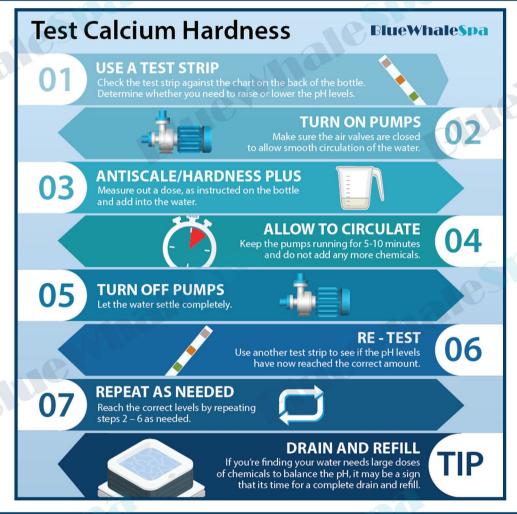
High Calcium Hardness readings indicate that you live in a hard water area and may encounter scaling issues. In that case you need to treat your hot tub water with Stain & Scale Inhibitor to remove any build up or staining that is caused by scale.

Treating hard water is critical as scale can cause irreversible damage to the spa's internal parts, such as pumps and the heater.

On the other hand, low Calcium Hardness readings indicate soft water. Untreated soft water may cause equipment corrosion, excessive foaming and shell damage. The recommended product that treats low Calcium Hardiness is Hardness Plus.

To test Calcium Hardness Regarding you require an appropriate test kit that measures total hardness.

Calcium Hardness is too high	Add Anti Scale (Stain & Scale Inhibitor).	
Calcium Hardness is too low	Add Hardness Plus .	



!REMEMBER!

Never mix chlorine and bromine!

All chemicals and quanitites of product used are the responsibility of the hot tub owner and the manufacturer claims no responsibility over the chemicals used.

Chemical missuse is not covered by your warranty.

Our products are not designed to be used with a floating dispenser, please do not use floating dispensers in your Hot Tub Master hot tub.



Always read and follow chemical's label instructions and do not use third-party products in your spa. Damage caused by salt-based systems that have not been factory installed will not be covered under your warranty.

Chemical Advice: How to treat fresh water

- 1) Fill up the hot tub with fresh, tap water.
- 2) Once the hot tub reaches 27 °C, shock the water by adding around 25 g of chlorine or bromine granules and leave the hot tub running until it reaches a set temperature.
- 3) Once the water is heated, test it by using testing strips. Warm water allows chemicals to dissolve quicker, therefore it is recommended to test the water and adjust the pH/TA chemicals when the water reaches its set temperature.
- 4) Add **small quantities** of chemicals to gradually balance the water chemistry to correct levels as indicated on the testing strips. When adding chemicals, turn the jets on to mix chemicals with the water. Follow the chemical advice described in the previous sections.

Chemical Dose







Mix

Test





Chemical Advice: Filtration & Filter Cleaning

Cleaning your filter regularly is essential for keeping the hot tub water clear. It is recommended that you clean the filter using **Instant Filter Cleaning Spray** once/twice a week, or once a fortnight depending on how often the tub is used, and replace with a new filter every 5-9 months. It is always advised to have two filters and use the spare one while the other filter is being cleaned and left to air dry.

To clean the filter, you need to remove the floating skimmer from the filter housing. Next, remove the plastic basket and take the filter out from the filter compartment (some hot tub models secure the filter by a screw thread, which can be removed by unscrewing the bottom threads). Follow the instructions below for more information on how and when to clean your filter.

- 1) Once a week, rinse the filter with clean water. This could be done by blasting water from a garden hose on each pleat of the filter to remove any dirt, hair, or debris. This process prevents bacteria from building up and chemicals from degrading the filter material.
- 2) Every 2 weeks, cover the filter with Filter Cleaning Spray and leave it to stand for 15-20 minutes. Rinse the filter thoroughly and leave out to air dry. Make sure that the cleaning product is thoroughly rinsed out of the filter as it may cause unnecessary foaming.
- 3) Once a month, you can do a deep clean of the filter with a hot tub filter soak chemical. Place the filter in a bucket and make sure that the filter is completely submerged in the solution. Let it soak for 24 hours. After soaking, remove the filter and rinse it with tap water and leave to air dry.



!REMEMBER!

Clogged or dirty filters will prevent water from going through the filter housing, which may cause pump and heater overworking and failing. The heating system will only function properly when enough water flows through the pipes, you may see error codes such as FLO/HEATER FLO FAIL which can be the result of clogged and dirty filters.

Hot Tub Maintenance: Cleaning

- For regular care and cleaning of the hot tub surface, use a soft cloth or sponge with Surface Cleaner and water. Rinse the surface well and dry it with a clean cloth. To clean grease, oil, paint or ink stains, use rubbing alcohol.
- Never use any abrasive cleaners, including a laundry detergent, car wash, dish washing soap or household soap to clean your hot tub.
- Avoid contact between the hot tub shell and nail polish, nail polish remover, wintergreen oil (methyl salicylate), dry cleaning solution, lacquer thinners, gasoline, or pine oil.
- Avoid placing sharp instruments on the hot tub surface as they may scratch it. If you do notice any scratches on your hot tub, please call us for advice on how to treat or how we can help.
- We recomend cleaning the spa cover and headrests with a vinyl cleaner. Avoid using automotive vinyl products, as these are often oil-based and can cause severe water clarity issues. You can remove and reattach the headrests for cleaning and maintenance.
- Ozone (O3) is a natural purifier, which is produced by a hot tub ozone generator. Ozone breaks down suntan lotions, sweat and urea, however, it cannot be used as the sole sanitiser to maintain your hot tub water. You need to use either chlorine or bromine in addition to your ozone generator.

Below, you can find a list of additional chemicals you can use when struggling with unclear hot tub water.

PROBLEM CAUSE		SOLUTION	
FOAMING WATER	Foam is often caused by detergent resident on swiming costumes and skin. It can also be caused by hair or make-up products, fake tan products or skin conditioners that get into the water in your spa.	Pour a capful of the Anti-Foam product around the edges of your tub to reduce the foam.	
MILKY, UNCLEAR WATER	Milky water can be caused by unbalanced chemicals or body products that get into the hot tub.	Use Hot Tub Water Clarifier product to keep the water in your spa clear.	
SCALE FORMATION	Scale appearing on the hot tub sides and edges can be caused by hard water areas and insufficient use of Anti-Scale that can manage and prevent build up.	Once scale has formed, a full hot tub scale treatment will be needed to prevent this from reoccuring. Please call tech support to talk to us about this.	
GREEN/ CLOUDY WATER	Occasionally, especially after prolonged use of the hot tub by various bathers, chlorine or bromine may dissipate from the spa water faster. When that happens, the hot tub water may become green or cloudy due to the lack of antibacterial sanitiser. Cloudy water can also be caused by Alkalinity imbalance.	Test Alkalinity levels first, and treat if necesarry. To clean the water, use Non-Chlorine Shock and run jets for 30 minutes with the cover open. This helps to remove bacteria, algae and improves regular sanitiser's effectiveness. If non of the above works we advise draining and cleaning your hot tub.	
WHITE WATER MOULD	Lack of sanitiser and unbalanced conditions in your hot tub water can cause white water mould to form, which looks like skin flakes.	You will need to carry out a System Flush and drain the hot tub. Take out all the large jets and clean behind, deep clean the whole tub. In bad cases the System Flush may need to be done twice. To prevent, proper use of chemicals and regular services will keep your water healthy.	



Please keep in mind that water maintenance is the responsibility of each hot tub owner and as such is not covered under your warranty.



Hot Tub Maintenance: Draining

Your spa should be drained every 3-4 months and refilled with fresh water. To drain your hot tub, follow the instructions below:

- 1) Turn off the hot tub and remove the filter.
- 2) Find the drain valve, which is located on the bottom of one of the corners of the hot tub.
- 3) Remove the main screw by turning it anti-clockwise and twist the outer collar of the valve to open the drain.
- 4) It is safe to drain a hot tub directly on your property or in a drain. To drain the hot tub using a garden hose, simply attach it using the stepped hose tail, or stepped hose adaptor depending on your model, and then open the outer collar of the valve. This will allow you to drain the hot tub in a specific location.
- 5) Let the hot tub drain completely and secure the outer collar by twisting it clockwise and reattach the main screw.
- 6) Water drained from your spa is safe to dispose of in your yard, septic system or in a drain. Follow all local regulations for disposal.
- 7) Using a hot tub surface cleaner, wipe down the shell and all compartments.
- 8) To remove large jets and clean any dirt gathered behind them, turn the jets anticlockwise. Please note that only large jets are removable and small jets cannot be taken out.

Stepped Hose Tail



Stepped Hose Adaptor



An alternative option is to buy a submersible pump to remove the water from the hot tub much quicker. This is the method our engineers use when servicing hot tubs and in our showroom and testing bays, and can cut down a 3 hour draining session to 20 minutes, depending on your hot tub water capacity.



Hot Tub Maintenance: Refilling

To correctly refill your hot tub and avoid possible airlock, follow the instructions below:

- 1) Leave the filter out of the hot tub and make sure that all valves are opened.
- 2) Put the hosepipe all the way down the filter housing and turn the water on to start filling your spa.
- 3) Wait until the water level is approximately 1" above the lights and below the headrests.
- 4) Remove the hosepipe, leave the filter out and turn the hot tub on.
- 5) Observe the control panel. If the Priming Mode message displays, it means that you need to run your jet pumps to prime them and remove any air, which is completely normal.
- 6) Open SETTINGS, press your JETS button and activate you CIRC pump for 30 seconds, then turn on all other jets for 30 more seconds. Then you can exit the screen.
- 7) Leave the hot tub to finish its cycle. It will automatically turn on the heater and circulation pump, so you should hear the pump running and a few bubbles slowly being released from the bottom of the shell. You should also see "- -°C" displayed on the control panel. Shortly after, you will see the heat light flashing, which indicates that the heater is measuring water temperature and is actively heating the water.
- 8) Put the filter back into the filter housing and secure it using the filter basket and skimmer. Do not over tighten the filter, as it may expand in the heat and become very difficult to remove when changing your filter which could result in components breaking.
- 9) Follow the Chemical Advice: How to treat fresh water section on page 23.







Hot Tub Maintenance: Shutdown

It is recommended that if you are leaving your spa unattended for up to 14 days, you do not need to shut it down completely. To ensure water clarity and safety, it is recommended that you:

- 1) Lock the cover with the cover locks while the spa is unattended.
- 2) Before leaving, shock the water (add either chlorine or bromine).
- 3) Upon return, check water chemistry and adjust it accordingly.

We recomend keeping your hot tub at 38°C. The lowest temperature we recomend setting is 26°C, this will feel cool to the human body average (37°C) during the summer.

However, when leaving the hot tub unmaintained/unused for 2 weeks or more, it is recommended you follow the shutdown process described below. This process is especially important during winter, as it helps to avoid internal damage due to water freezing. Water that freezes in the internal workings can expand and crack the pipes and pumps, leading to major leaks, and cause damage to other componants. Aditionally stangnant water left in pipes can cause issues upon refilling your hot tub again at a later date. This type of damage is not covered in the hot tub warranty. Follow the instructions below to avoid such issues and prepare your hot tub for safe storage.

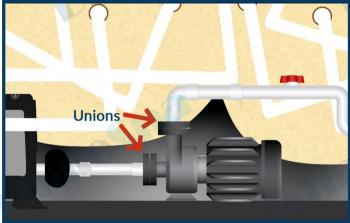


Fig.6

- 1) After draining the hot tub (follow the steps described in the Hot Tub Maintenance: Draining section on page 26), remove side panels by unscrewing the screws hidden underneath the chrome caps.
- 2) Once removed, you will be able to see all internal componants of the hot tub including pipework, control box, heater, and pumps. All unions that tighten the pipes with each componant need to be undone (2 per component) to release any retained water. (Fig.6)
- 3) Using a wet vacuum, each jet, drain valve and opening of both the pipe and componant needs to be cleaned to remove small deposits of water.
- 4) Once the water is removed, the pipework and componants can be reassembled.
- 5) The lid should be left on to protect the shell until the hot tub is ready to be refilled again.

!WARNING!

Please ensure that all water is removed from the hot tub pipes and componants to prevent freezing, cracks and internal damage, including later water issues.

If you decide to shut down your spa in time for the colder seasons, or plan not to use it for a long period of time, it is advised you schedule a Hot Tub Shutdown Service. A professional will drain your spa, making sure that there is no water in the pipework and pumps.

Call 0115 954 8888 to find out more and book your service

Hot Tub Maintenance: Recommended Maintenance Routine

Daily Routine

- 1) Use testing strips to check chlorine/bromine, pH and alkalinity levels.
- 2) Add chemicals if required (Total Alkalinity levels should be between 80 120 ppm and pH level should be between 7.2 7.6).

Weekly Routine

- 1) Using a damp cloth and **Surface Cleaner**, clean the hot tub shell around the waterline to remove any scum line that may have built up and remove and clean the headrests.
- 2) Remove your filter and clean it with **Filter Cleaner Spray**, rinse thoroughly and leave to dry. Place a spare filter in the filter housing and repeat this process every two weeks to prolong the life of your filters.
- 3) Use a dose of Non-Chlorine Shock treatment in your water.

Monthly Routine

1) Clean the hot tub cover with a vinyl cleaner.

Quarterly Routine

- 1) It is recommended to drain your hot tub every 3-4 months.
- 2) Before draining and refilling the hot tub, use a system flush chemical to clear out any build up in the pipework.
- 3) Follow the instructions from the **Hot Tub Maintenance: Draining & Refilling** sections on page 26 and 27.

Annual Service

We recommend a full service once a year to keep your spa in a healthy condition. This annual service provides peace of mind in the knowledge that your spa has been professionally cleaned and every working aspect inspected and function checked for performance.

Here are some details about our hot tub services and what to expect:

- Remove and treat filters with filter cleaner. Recommend new filters where necessary.
- Run chemical system flush (antibacterial and degreaser fluid used to clean internal pipework).
- Remove tub sides (where accessible) and inspect pipework for leaks and obvious faults.
- Electrical check on control system.
- Clean and protect hot tub lid with vinyl protectant.
- Drain tub and clean tub shell with surface cleaner.
- Vacuum out residual water in the tub.
- Remove jets (where possible) clean and refit. Some jets may not be possible to remove without damaging them due to scale build up or other chemical damage. Customer will be advised if this is the case.
- Tighten all pump unions, inspect and replace any small seals if required.
- Refill hot tub with fresh water, check operation of pumps, blower, lights and heater.
- · Rinse and refit filters.
- Balance chemicals using customers own chemicals and sign off the service with the customer.
- The service takes 3 hours.

N.B. For us to proceed with the service, the tub must be filled with water and switched on. Hot tub parts, plumbing fittings, seals etc are additional to the service cost. If the tub is surrounded by decking or other structures, gazebo, summer house etc, the tub owner is responsible for ensuring access is available to the internal control box and circulation pump at the very minimum.

Call 0115 954 8888 to find out more and book an annual service

If you have any questions call us on 0115 954 8888 or visit our website at www.bluewhalespa.co.uk and look for Contact Us.









