



X
SERIES

X SERIES OWNERS MANUAL

bullfrog[®]
spas

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User Safety and Setup Guide

Reference the User Safety and Setup Guide for important safety instructions, information about installation and delivery, electrical requirements, and more.

Use the QR code or this link:
bullfrogspas.com/manuals





Congratulations on your purchase of a Bullfrog Spas® X Series™ hot tub.

NOTE: In this document, the terms “Spa” and “Hot Tub” are used interchangeably. Take a moment to read this manual carefully. Following the instructions in this manual will ensure the safe and smooth operation of your new spa.

Carefully read this Owner’s Manual before you install your spa. Your Bullfrog Spas Limited Warranty may be voided if damage is caused by failure to install, maintain, and operate your spa in accordance with the recommendations contained in this Owner’s Manual or any other printed instruction, notice, or bulletin from Bullfrog Spas. Your spa’s serial number is located both on the base under the equipment door and the Manufacturing ID Label located inside the equipment compartment of your spa.

For the safety of all those who utilize your spa and its surroundings, please make sure your spa and any adjoining installations, including the electrical hook-up, are completed according to codes and only after acquiring any necessary approvals and permits from your local, state/provincial, and/or national government. Follow all local, state, and national safety and wiring rules. Some jurisdictions require certain fencing and/or self-closing and self-latching gates to prevent accidental drowning in a pool or spa. Your spa cover comes with a locking system that meets the ASTM F1346-91 Standard for Safety Covers, which when properly used, may satisfy certain fencing and gating requirements. Your spa meets or exceeds all requirements of the Virginia Graeme Baker Pool and Spa Safety Act. Your spa has been tested and either meets or exceeds the UL-1563 portable spa standard.



Patents: www.bullfrogspas.com/patents

U.S. Patents: 7,908,684, 8,661,576, 8,881,321, 8,689,370, 8,869,469, 5,754,989, 5,987,663, 6,000,073, 6,092,246, 6,256,805, 6,543,067

New Zealand Patent: 555112, 334,093

Australia Patent: 737,335

Canada Patents: 2,588,884, 2,260,237, 2,915,184

Other patents pending worldwide

X Series spas include the following models:

X SERIES: X8, X8L, X7, X7L, X6L, X5L, & X6R

Bullfrog Spas reserves the right to change features, specifications & design without notification and without incurring any obligation.

Register Your Spa

Ensure the very best hot tub ownership experience by registering your warranty. Use the QR code or go to bullfrogspas.com/warranty-registration to register.



Spa Registration

GETTING TO KNOW YOUR SPA

Spa Overview

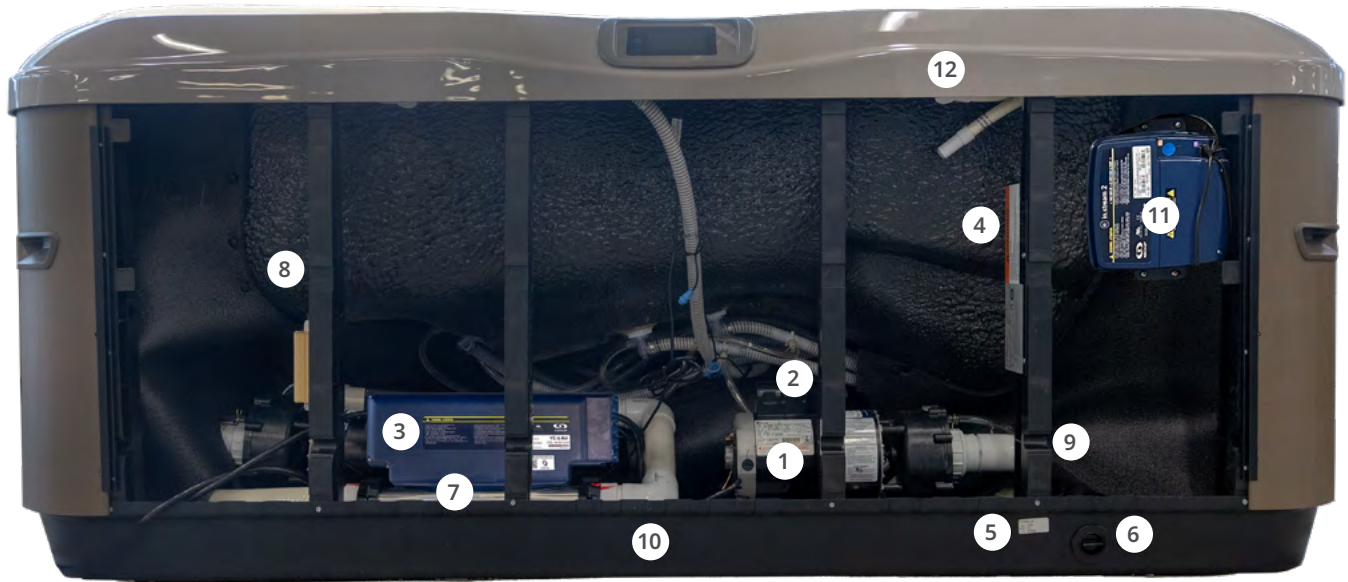
X7 Spa Model Pictured



1. Main control (touch-screen upgrade optional)
2. Filter access
3. Headrest
4. Water feature
5. Foot therapy jet
6. Leg therapy jets
7. Main LED light
8. Entry step and cool-down seat
9. Floor drain
10. Ozone jet
11. Under headrest LED lighting
12. In-wall therapy jets
13. Filter intake
14. Diverter valves

Equipment Compartment Overview

X7 Spa Model Pictured



1. Jet pump 1
2. Jet pump 2
3. Control box
4. Safety certificate and serial number
5. Serial number sticker (visible with door installed)
6. Drain outlet
7. Water heater
8. Support stud
9. Door attachment notch in support stud
10. ABS spa base pan
11. Audio control box
12. Acrylic spa shell

FILLING YOUR SPA

▲ **WARNING:** An empty spa (spa without water in it) must not be left exposed to sunlight as shell damage may occur. Once the spa is unwrapped, fill the spa with water immediately or shade the spa with cover to prevent direct exposure to sunlight.

IMPORTANT: Do not turn power on to the spa without water in the spa. Serious damage to the pump and heater may occur.

▲ **WARNING:** Make sure power is off to your spa prior to following spa filling procedure. Failure to do so may result in serious injury.

Spa Filling Steps

Step 1: Remove filter cover by lifting until snap fittings release.

Note: Images show spa with filter plate removed for clarity.

Step 2: Remove filter cap.



Step 3: Place garden hose inside the inner chamber of the filter cage.



IMPORTANT: Never fill the spa with soft water unless an appropriate mineral supplement is immediately added (see your authorized Bullfrog Spas Dealer).

If your water is extremely hard, it is preferable to either dilute the water's hardness by blending the water with water from a water softener, using a mineral filter, or by the addition of a special water softening chemical (see your authorized Bullfrog Spas Dealer).

Step 4: Fill to the water level indicator line located on the right side of the grill on the face of the filter plate assembly.



Step 5: Reinstall the filter cap(s) and filter snap cap.

Step 6: Check for leaks: After the spa is filled, check all fittings and equipment in the equipment compartment for signs of leakage before turning on the spa. Turn on the pump(s), and once again, check for leakage. If a leak is detected, tighten the fitting by hand. If the leak persists contact your authorized Bullfrog Spas Dealer.

Step 7: Install Cover: The spa cover comes with tie down straps and locking hardware that attaches the cover to the spa or decking. If your dealer did not install the cover, refer to the Cover Installation Instructions included with the cover.

Cover locks are an essential component for compliance with the ASTM F1346-91 safety standard for spa covers.

IMPORTANT: The spa cover is a critical feature in maintaining a safe and secure spa environment. In addition, keeping your spa covered when not in use is important for maintaining spa water at the desired temperature and saving energy. When the spa is not in use, always place the cover over the spa and secure it by pulling down on the cover strap, clicking the two sides of the cover clips together, and then locking each clip with the key provided. The cover should remain in place and locked at all times when not in use to prevent unauthorized entry and to prevent the wind from blowing it open inadvertently.

X SERIES SPA CONTROL PANELS



X Series Standard Control

Preparation and Filling

Fill the spa to its correct operating level. Be sure to open all valves and jets in the spa before filling to allow as much air as possible to escape from the system during the filling process. For details see “Filling your spa” section. After turning the power on at the main power panel, the control panel display will go through an initializing sequence. This sequence displays information regarding the configuration of the hot tub control. After a few seconds, your control will display the Home/Status screen which shows time, jet and light status, temperature status, operation mode, etc.

Power

Press any button to turn the keypad on. After 30 minutes without activity it will shut off.

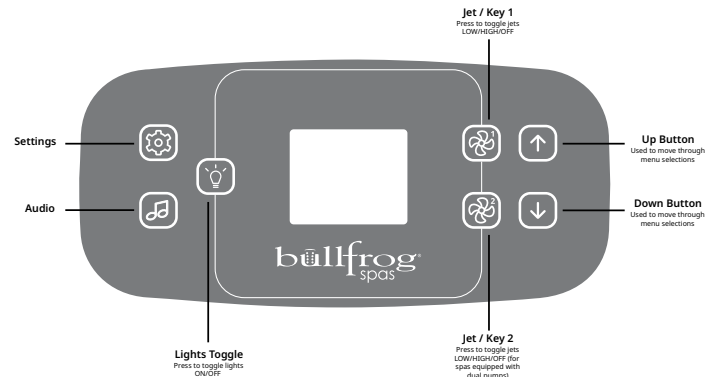
Priming the Pumps

Pumps must be primed directly after filling to ensure the correct operation of your spa. After initial startup, verify that the home status screen appears on the panel. To prime the pumps, activate the “Jets 1” button to high speed. Depending on the model, this may take one or two button presses. The pump has primed when water is flowing from the jets. If your spa is equipped with a second jet pump, repeat the priming process for Pump 2 by pressing the “Jets 2” button once to prime in high-speed.

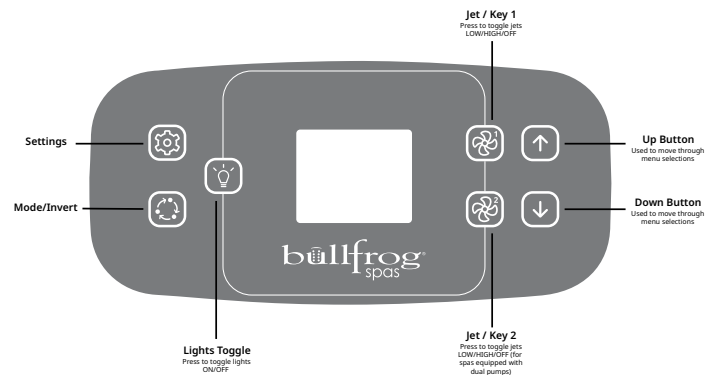
IMPORTANT: Pumps should not be allowed to run without priming (no water flowing out of the jets) for more than 2 minutes. Doing so may cause damage to the pump(s).

NOTE: Sometimes momentarily turning the pump off and on will help it to prime. Do not do this more than 5 times. If the pump(s) will not prime, shut off the power to the spa and call for service.

Once you have completed priming, the home status screen will display the set temperature. The system requires approximately 1-2 minutes of water flowing through the heater to determine and display the correct water temperature.



X Series Standard Control (with audio)



X Series Standard Control (without audio)

Home/Status Screen

The Home/Status screen on your X Series (X500) control shows basic statuses including: time, jet status, light status, current water temperature, spa operation mode, and heating/cooling status. In addition, many of the basic functions of operating your spa can be performed with one touch from the Home/Status screen. In addition, any necessary error or maintenance messages will appear at the bottom of the screen.

Start or Stop Accessories

To start or stop an accessory (jets, lights, etc.), press the associated button. Icons will become animated when their accessory is turned on, and inanimate when turned off. Icons on the screen will reflect the speed or state of the devices running on your spa. When an accessory has more than two states, press the button until it reaches the desired state.

Light Operation

Use the  “Light” button to access the lights menu. Use the  button to turn on both interior and exterior lights. To cycle through options of interior light modes (flashing, fading, solid colors), press the  “Light” button to turn off the lights and then press it again within three seconds to advance to the next interior light mode.

Screen Rotation/Mode Button

From the home status screen, you may press the button to rotate the screen 180 degrees for easier viewing from inside the spa.

Adjusting the Set Temperature

The water temperature is displayed near the bottom of the home status screen. Press the  and  buttons to set the desired temperature. The set point will appear in large type. Press again immediately to adjust the set point to your desired temperature. After 3 seconds without any change to the set temperature value, the Home/Status screen and with current water temperature in the upper right will reappear.

When the set value is lower than the current temperature “Cooling to xx.x” will appear at the bottom of the screen. When the set value is higher than the current temperature, “Heating to xx.x” will be indicated. Normally there is a short delay before the heating starts, during which “Heating suspended” is indicated under the value. When the water temperature reaches your set point a message of “Set point reached” will appear.

Spa Settings

The settings on the X Series (X500) control pad are navigated by the use of the  “Settings” button. One press gives you access to several menus where you can manage the specific settings of your spa. After pressing the Settings button you may navigate to each sub-menu by pressing the  and  buttons and then using the  “Light” button to select a sub-menu.

When using the Settings menu or sub-menus the screen will revert back to the Spa mode and Home/Status screen if no key is pressed for 60 seconds. Note that if an accessory is not present in your spa configuration, its menu will not appear. Refer to the following section to get details about the possible settings, accessories, and their detailed functionalities.

Water Care

The Water Care sub-menu will help you set up your ideal filtration and heating settings. Choose from Vacation, Standard, Super Clean, Energy Saver Saving, and Weekender, depending on your needs and preferences.

Use the  “Light” button to select your setting. A check mark will appear within the selected icon to confirm your selected mode.

In the descriptions of each mode below “Economy mode” means that the set point will be reduced by 20°F* (11°C), which means that the heating system will not be engaged unless the temperature falls to 20°F (11°C) below the spa’s set temperature.

The filtration schedule shown on the screen will apply to the main filtration pump. If your spa uses a circulation pump configured to run 24 hours, the screen will show you the purge setting instead of filtration. The purges are pre-programmed for a fixed number of minutes, therefore the duration will be set to N/A on the screen, and only the start time can be modified.

Water Care Modes

NOTE: Your spa will come from the factory in “Energy Saver” mode. See operation mode options below and select the best mode for your anticipated usage.

Energy Saver (factory default setting)

In Energy Saver mode, the spa temperature set point will be reduced by 20°F (11°C) (see description of “Economy modes” above) during peak daytime hours. The spa will heat to the normal set point during evening hours every day of the week.

Suggested use: Use to save maximum energy and heat only during set filter cycles.

Economy time: Every day of the week, daytime hours. Heats during filtration cycles.

Filter cycle start time: 8:00 AM, duration 1.5 hours, and 8:00 PM, duration 1.5 hours.

Standard

In Standard mode, the spa will heat to the set point and filter according to the spa’s standard configuration. The spa will heat to set point at all times and all days of the week.

Suggested use: Use to maintain readiness for use every day at all times of the day.

Economy time: Not an Economy mode.

Filter cycle start times: 8:00 AM, duration 1.5 hours, and 8:00 PM, duration 1.5 hours.

Super Clean

In Super Clean mode, the spa will heat to the set point according to the spa’s standard configuration. Filtration times are double the standard, increasing both –filtration and operation time of supplemental

water care systems like EOS and others. The spa will heat to set point at all times and all days of the week.

Suggested use: Use to maintain readiness for use every day at all times of the day and increase water care system effectiveness.

Economy time: Not an Economy mode.

Filter cycle start times: 7:00 AM, duration 3 hours, and 6:00 PM, duration 3 hours.

Weekender

In Weekender mode, the spa temperature set point will be reduced by 20°F (11°C) (see description of “Economy modes” above) from Monday to Friday. The spa will heat to set point at all times on the weekend (Saturday & Sunday).

Suggested use: Use when the spa is used only on weekends and not on weekdays.

Economy time: Monday – Friday, 24 hours per day.

Filter cycle start time: 8:00 AM, duration 1.5 hours, and 8:00 PM, duration 1.5 hours.

Vacation

In Vacation mode, the spa temperature set point will be reduced by 20°F (11°C) (see description of “Economy modes” above). The spa will remain in this condition at all times of the day and all days of the week.

Suggested use: Use when on vacation or not using the spa for longer than 2 weeks.

Economy time: Every day of the week, 24 hours per day.

Filter cycle start time: 8:00 PM, duration 3 hours.

Default Settings: The Default Settings option will restore all Water Care modes and schedules to the spa’s default settings. You will be asked to confirm your choice.

NOTE: Spas NOT equipped with a dedicated filtration pump will turn on automatically, using jet pump 1 on low speed, to filter and/or heat. This is normal spa operation.

NOTE: Your spa is equipped with a freeze-prevention system. If potential freezing conditions are detected one or more jet pumps will turn on automatically to circulate water and prevent the possibility of freezing. This is normal operation.

Modifying Water Care Schedules

To modify a Water Care mode schedule, press the  “Settings” button and then use the  “Light” button to enter the Water Care sub-menu. Highlight the water

care mode (Vacation, Standard, Super Cleans, Energy Saver Savings, Weekender) using the  “Light” button. To adjust the schedule of a particular mode next use the lighted key to the right of the screen, the  “Jets 1/Key 1” button, to open the selected Water Care schedule menu.

You can adjust schedules using the  “Light” button to cycle each menu item. Press the  “Light” button again to cycle to each sub-menu item and the  and  buttons to adjust times and schedules.

Once you have set your customized schedule, use the  “Settings” button to go back to the Home/Status screen.

Maintenance Reminders

The X Series (X500) keypad can be set up to remind you of several types of maintenance required on your spa, including rinsing the filter, cleaning the filter, changing spa water, and 2-year professional maintenance checks. Each task has its own standard duration, based on normal use.

From the Settings page you can access the Maintenance menu, which gives you access to the following options:

- Maintenance reminders
- Standby mode

The maintenance reminders menu allows you to verify the time left before maintenance is required, as well as to reset the time once a task is completed.

Use the  and  buttons to choose the maintenance reminder that you wish to view. Select it by pressing the  “Light” button. To reset a reminder once maintenance has been performed select it by pressing the  “Light” button, then confirm it is “Done” by pressing the  (Jets 2/Key 2) button when prompted. Once you have confirmed the task reminder will be reset.

Selecting the Standby mode from the maintenance sub-menu allows you to service your spa. Pumps will stop for 30 minutes, and automatically restart after this time. Once Standby mode has been activated a screen will appear to show that pumps are stopped. The Home/Status page will return after the 30-minute standby maintenance period.

Use the  (Light) button to Cancel the Standby function before the 30-minute period and restart the spa.

Set Date and Time of Day

Setting the correct date and time is important for settings to function as expected. Upon restarting your spa adjust the time format (24 hr. or AM/PM), change

the year, date, and time as needed. Within the Settings menu use the  “Light” button to select the Date & Time sub-menu. Use the  and  buttons to choose the setting that you wish to adjust, and select it by pressing the  “Light” button. Use the  and  buttons to change the parameters, and the  “Light” button to cycle between options. The  “Settings” button will take you back to the main Settings menu.

Adjust Keypad Settings

In this Settings sub-menu you can change the temperature unit, language, display orientation, and keypad security. Within the Settings menu use the  and  buttons and then the  “Light” button to select the Keypad Settings sub-menu. Use the  and  buttons to choose the setting that you wish to adjust, and select it by pressing the  “Light” button. Use the  and  buttons to change the parameters, and the  “Light” button to move between options. The  “Settings” button will take you back to the main Settings menu.

When you change the display orientation, the contextual options and arrow keys adjust to the chosen orientation. The Mode and Menu keys remain unchanged, as well as the accessory keys in the main spa menu.

Screen Lock Settings

You can lock the keypad by selecting one of 3 security levels: Unlock, Partial lock, or Full lock. The Partial level locks the set point adjustment and many options in the settings menu. The Full level locks all keypad functions. Once you have selected your desired lock function press the  “Jets 1/Key 1” button. The display will prompt you to press and hold the  “Light” button for 5 seconds to activate the keypad lock function. To unlock the keypad (either Partial or Full), press and hold the  “Light” button for 5 seconds.

Electrical Configuration

IMPORTANT: Please do not make changes in this section unless you are a qualified electrician.

In this section you can change the low-level configuration, as well as modify the number of phases and the input current value.

*Please refer to the diagram on the spa control center box, located inside of the equipment compartment, for the default configuration of your specific spa model.

Press the  “Light” button to access the sub-menu, a warning will appear. Press the  “Light” button for 5 seconds when prompted to access the sub-menu options. Use the buttons to move to the selection you want to modify. Use the  “Light” button to select, and the  and  buttons to move through the selections. Press the  “Light” button again to confirm.

Please see the Techbook for your spa system for details on low-level settings. Once you have changed the number of phases in the menu you will be unable to use the  and  buttons to return to the Low-level configuration menu. Please go back and access the Configuration menu again.

NOTE: On initial connection the installer is prompted for electrical configurations. The Low-Level setting is selected by the installer. The Phase and Amperage is set automatically. Default settings should be confirmed by the installer to match the actual phase and amperage at the spa’s installation location. On rare occasions, it may be necessary to adjust the Phase and Amperage setting to match the actual service available at the installation location using the instructions above.

*Depending on pack configuration, a code may be required to change the number, number of phases or input current. This code is “5555”.

Restore/Audio configuration

When you select Restore, you will be asked to confirm your choice. Doing so will reset all settings to factory default. Following a restore you will be asked to choose your audio source. Use the buttons to choose between in.stream, in.stream 2, in.tune and no/other audio. This should only be done at installation or when replacing a part.

About

This screen displays technical information about the control system (X500) software on your X Series spa and applicable revisions of the different components of your system.

Audio System Controls (Optional)

Press the  “Mode” button to access “in.stream 2” player controls.

If you are using a device with Bluetooth technology, it must be connected for functions to work. Use code 5555 to pair.

Note: Play/Pause functions apply only to Bluetooth and USB source. Change Track or station functions works with all sources except AUX.

Turning power On/Off: Press  to access Settings and then press  “Audio”. Press  “Power” to turn the in.stream 2 on or off. Selecting the source: Press  to access Settings and then press  “Audio”. Press “Source” to toggle between available sources.

Play/Pause audio: Press the Play/Pause button to start or pause the audio.

Adjusting the volume: Press the Volume Up or the Volume Down key to increase or decrease the volume.

Changing tracks: Use the Last Track and Next Track keys to change tracks. Note that in FM mode these functions can be used to change stations.

Disconnect: This option can be found under the Audio section in the Settings menu.

Fader, Balance and Subwoofer: Fader, Balance and Subwoofer settings can be edited under the Audio section in the Settings menu if your in.stream 2 supports it.

The first time you use your Bluetooth device with an X Series Audio system you must first “pair” your device to the spa audio system according to the standard pairing functionality of your specific device. Each device must be paired separately. Use code 5555 to pair.

For proper function, place your Bluetooth device within 20 feet (6 meters) of your spa. The device should have “line of sight” to the spa control panel / equipment door area.

NOTE: Certain house construction materials and other obstructions can impair Bluetooth connectivity. You may need to experiment with where to place your device for best results.

X Series Touch screen control (Optional) Start Up

Fill the spa to its correct operating level. Be sure to open all valves in all jets in the spa before filling to allow as much air as possible to escape from the system during the filling process. For details see “Filling your spa” section. After turning the power on at the main power panel, the control panel display will go through an initializing sequence. This sequence displays information regarding the configuration of the hot tub control. After a few seconds, your control will display a standard status screen with time, jet and light status, temperature status, operation mode, etc.

Power

Tap screen to wake up the control. Touch and drag the logo icon  to the reverse logo icon  to unlock and access controls. After 30 minutes without activity the touch control will shut off.

Priming the Pumps

Pumps must be primed directly after filling to ensure correct operation of your spa. After initial startup, verify that the home status screen appears on the panel. To prime the pumps, activate the  “Jets 1” button once to high speed. Depending on the model, this may take one or two button presses. The pump has primed when water is flowing from the jets. If your spa is equipped with a second jet pump, repeat the priming process for Pump 2 by pressing the  “Jets 2” button once to prime in high-speed.

IMPORTANT: Pumps should not be allowed to run without priming (no water flowing out of the jets) for more than 2 minutes. Doing so may cause damage to the pump(s).

NOTE: Sometimes momentarily turning the pump off and on will help it to prime. Do not do this more than 5 times. If the pump(s) will not prime, shut off the power to the spa and call for service.

IMPORTANT: Your Bullfrog Spa is equipped with one of three types of main control systems that correspond to the spa series. Locate the control system on your spa by matching it with the photo provided under each control panel section and follow the specific instructions in that section for operation of your spa.



X Series Touch Control

Home/Status Screen

The Home/Status screen on your control shows basic statuses including: time, jet status, light status, screen orientation, current water temperature, heating/cooling status, spa operation mode, audio status (optional), day/night status, and settings. Most basic functions of operating your spa can be performed with one touch from the Home/Status screen. In addition, any necessary error or maintenance messages will appear at the bottom of the screen.

Start or Stop Accessories

To start or stop an accessory (jets, lights, etc.), press the associated button. Icons will become animated when their accessory is turned on, and inanimate when turned off. Icons on the screen will reflect the speed or state of the devices running on your spa. When an accessory has more than two states, press the button once, and then again, until it reaches the desired state.

To turn on all available spa pumps in one touch press the  “Logo” button, located to the side of the main control screen. Press the button again to turn off all available pumps.

Light Operation

Use the  button to access the lights menu. Use the  button to turn on interior lights. Use the associated menu options to control interior light modes (flashing, fading, solid color) and/or colors.

Invert Screen Button

From the home status screen you may press the  button to rotate the screen 180 degrees for easier viewing from inside the spa.

Adjusting the Set Temperature

Within one to two minutes after spa start up and initialization, the water temperature will be displayed in the center of the home status screen. Press the  and  buttons to set the desired temperature. The set point will appear in blue. After three seconds without any change to the set temperature value, the current water temperature will reappear in white.

When the set value is lower than the current temperature “Cooling to xx.x” will appear at the bottom of the screen.

When the set value is higher than the current temperature, “Heating to xx.x” will be indicated. Normally there may be a short delay before the heating starts, during which “Heating suspended” is indicated under the value.

Spa Settings

The settings on the control pad are navigated by the use of the  “Settings” button. One press gives you access to several menus where you can manage the specific settings of your spa. After pressing the Settings button, you may access a sub-menu by pressing the associated icon.

Note that if an accessory is not present in your spa configuration, its menu will not appear. Refer to the following section to get details about the possible settings, accessories, and their detailed functionalities.

Water Care

The Water Care sub-menu will help you set up your ideal filtration and heating settings. Choose between Vacation from Home, Standard, Super Cleans, Super Energy and Weekender, depending on your needs. Touch the Water Care mode name to choose your setting. A confirmation message will appear to prevent inadvertent modification of spa water care settings. Touch the check icon to confirm your choice or touch the X icon to decline.

In Economy mode, the set point will be reduced by 20°F*, which means that the heating system will not be

engaged unless the temperature falls to 20°F below the spa’s set temperature.

The filtration schedule shown on the screen will apply to the main filtration pump.

Water Care Operation Modes

NOTE: Your spa will come from the factory in “Energy Saver” mode. See operation mode options below and select the best mode for your anticipated usage.

Energy Saver (factory default setting)

In Energy Saver mode, the spa temperature set point will be reduced by 20°F (11°C) (see description of “Economy modes” above) during peak daytime hours. The spa will heat to the normal set point during evening hours every day of the week.

Suggested use: Use to save maximum energy and heat only during set filter cycles.

Economy time: Every day of the week, daytime hours. Heats during filtration cycles.

Filter cycle start time: 8:00 AM, duration 1.5 hours, and 8:00 PM, duration 1.5 hours.

Standard

In Standard mode, the spa will heat to the set point and filter according to the spa’s standard configuration. The spa will heat to set point at all times and all days of the week.

Suggested use: Use to maintain readiness for use every day at all times of the day.

Economy time: Not an Economy mode.

Filter cycle start times: 8:00 AM, duration 1.5 hours, and 8:00 PM, duration 1.5 hours.

Super Clean

In Super Clean mode, the spa will heat to the set point according to the spa’s standard configuration. Filtration times are double the standard, increasing both filtration and operation time of supplemental water care systems like EOS and others. The spa will heat to set point at all times and all days of the week.

Suggested use: Use to maintain readiness for use every day at all times of the day and increase water care system effectiveness.

Economy time: Not an Economy mode.

Filter cycle start times: 7:00 AM, duration 3 hours, and 6:00 PM, duration 3 hours.

Weekender

In Weekender mode, the spa temperature set point will be reduced by 20°F (11°C) (see description of “Economy modes” above) from Monday to Friday. The spa will heat to set point at all times on the weekend (Saturday & Sunday).

Suggested use: Use when the spa is used only on weekends and not on weekdays.

Economy time: Monday - Friday, 24 hours per day.

Filter cycle start time: 8:00 AM, duration 1.5 hours, and 8:00 PM, duration 1.5 hours.

Vacation

In Vacation mode, the spa temperature set point will be reduced by 20°F (11°C) (see description of “Economy modes” above). The spa will remain in this condition at all times of the day and all days of the week.

Suggested use: Use when on vacation or not using the spa for longer than 2 weeks.

Economy time: Every day of the week, 24 hours per day.

Filter cycle start time: 8:00 PM, duration 3 hours.

Default Settings: The Default Settings option will restore all Water Care modes and schedules to the spa’s default settings. You will be asked to confirm your choice.

NOTE: Spas NOT equipped with a dedicated filtration pump will turn on automatically, using jet pump 1 on low speed, to filter and/or heat. This is normal spa operation.

NOTE: Your spa is equipped with a freeze-prevention system. If potential freezing conditions are detected one or more jet pumps will turn on automatically to circulate water and prevent the possibility of freezing. This is normal operation.

Modifying Water Care Schedules

To modify a Water Care category, touch the pen icon at the right of the desired Water Care option to open the sub-menu.

Touch the Economy tab to change the economy setting and Filter cycle tab for the filtration settings (or schedules). You can add economy or filtration schedules by touching the title labeled “Add filter cycle” or “Add economy cycle”. To delete a schedule, touch the garbage can icon at the right of the desired function title. Confirm your action when prompted.

You can modify the programmed schedules by selecting one and adjusting the schedule. You have

several possibilities for the schedule (Mon-Fri, weekend, every day, or single days). The schedules will be repeated each week. The time and duration are set in 30-minute increments. When changes are done, press “confirm”. If you don’t want to keep any changes, press “cancel” or use the calendar icon to go back. Ensure that you have selected the desired Water Care mode in the main Water Care menu.

Reminders

The keypad can be set up to remind you of several types of maintenance required on your spa, including rinsing the filter, cleaning the filter, changing spa water, and two-year professional maintenance checks. Each task has its own standard duration, based on normal use, or you may adjust to fit your specific expected usage.

Access the Reminders sub-menu by pressing the  “Reminders” icon in the Settings menu.

Maintenance reminders allow you to verify the time left before maintenance is required, as well as to reset the time once a task is completed.

To reset a task, select it by pressing the title of the specific reminder, then confirm when prompted. Once you have confirmed, the task timer will be reset. You can also use the option “Reset Reminders” to reset all the reminders.

Set Date and Time of Day

Setting the correct date and time is important for settings to function as expected. Upon restarting your spa adjust the time format (24 hr. or AM/PM), change the year, date, and time as needed. Within the Settings menu select “Date & Time” to access these sub-menus. Select “Set Date” to adjust the year, month and day. Swipe up and down the column you want to change and select the desired value. When you are done, touch the  “Settings” icon to save.

Select “Set Time” to change the hour, minute and time format. Swipe up and down the column you want to change and select the desired value. When done, touch the  “Settings” icon to save.

Keypad Settings

In the Keypad sub-menu you can change the temperature unit settings or the language setting. Change temperature units by touching the “Temperature Units” title and then the desired unit of measurement.

Change the language setting by touching the “Language” title and then selecting the desired language.

Standby/Lock

Standby mode allows you to service your spa. Pumps can be stopped for 30 minutes in this mode, and will automatically restart after. Select Standby mode by pressing the  “pause/standby” icon. The home/status screen and normal spa function will resume after the 30-minute standby period. The Lock option allows the user to partially or completely lock the keypad. Selecting the  “Lock” option will lock all functions on the control while the “Partial Lock” option will allow jets, audio, and lights to remain functional.

To lock the keypad, select “Lock Settings” then select “Lock” or “Partial Lock” according to the functions you wish to lock. When asked, select a four-digit code. The same code will be needed to unlock the keypad. To lock the keypad again, you will be prompted to select another four-digit code.

The keypad can be unlocked with a universal unlock code (3732) or by a reset of the keypad. When Full Lock

is selected, all functions are locked. In Partial Lock, you may activate accessories, but spa settings may not be changed.

Diverter Valve

The diverter valve is used to direct water flow from the pump to a specific seat that the user will be sitting in. Water flow can be dispersed to all jets that are powered by that pump or it can be diverted to a specific seat. This diverter valve regulates the flow of the water so that the user can dial in the correct therapy they desire.

To use the diverter valve:

Step 1: Turn the valve in the direction you’d like the water to flow. For instance, if you’d like water to divert to the right seat, turn the valve to the right, etc.

Step 2: To evenly distribute water flow to all seats, set the valve to the middle and receive equal jet power to each seat.

WATER CARE & CHEMISTRY

Chemicals

Properly maintaining your spa water is very important to ensure enjoyment in using your spa and to maximize spa shell and equipment life. Properly maintaining your spa water chemistry will require regular attention to prevent poor water quality, potential unhealthy conditions, and possible damage to your spa.

For all water care related questions please refer all water care-related questions and concerns to your local Authorized Bullfrog Spas Dealer. Your Authorized Bullfrog Spa dealer can recommend the correct products and procedures for safely sanitizing and maintaining your spa according to local water chemistry, regulations, and your specific circumstances.

Suggested Water Care Method: FROG® @ease® (USA Only)

Beginning in 2019 all 2-filter Bullfrog Spas come equipped with an @ease-ready holder system installed in the filtration compartment. This holder accepts FROG @ease system cartridges (mineral & SmartChlor® chlorine) designed specifically for Bullfrog Spas. The holder is backward compatible for all 2013-later, 2-filter Bullfrog Spas. The @ease system holder and system cartridge kits may be obtained through your Authorized Bullfrog Spas Dealer.



Sanitizing System Operating Instructions for Bullfrog Spas®

FROG® @ease® and FROG @ease XL™ are hot tub sanitizing systems* custom designed for Bullfrog Spas that takes the guess work out of water care so you always feel at ease while enjoying your hot tub.

Triangle Cartridges



Blue -
FROG
@ease
Mineral
Cartridge

Silver -
FROG
@ease
SmartChlor®
Cartridge
(180 gr)

Rounded Cartridges



Blue -
FROG
@ease
Mineral
Cartridge

Silver -
FROG
@ease
SmartChlor®
Cartridge
(180 gr)

Silver -
FROG
@ease XL
SmartChlor®
Cartridge
(300 gr)

The combination provides the Fresh Mineral Water[®]∞ benefits of **cleaner, clearer and softer[®]** water that's easier to take care of.

FROG @ease Mineral Cartridge

Active Ingredient:

Silver Chloride0.5%
Other Ingredients:99.5%
Total:100.0%

**KEEP OUT OF REACH OF CHILDREN
CAUTION**

DIRECTIONS FOR USE: It is a violation of Federal Law to use this product in a manner inconsistent with its labeling. For use in hot tubs up to 600 gallons. Use with the FROG @ease SmartChlor Cartridge in the FROG @ease Sanitizing System for Bullfrog Spas. Ensure all hot tub equipment is working properly. Operate the pump and filter as recommended by your hot tub manufacturer. Clean filter following manufacturer's directions. May be used with a previously filled hot tub unless it was sanitized with bromine or biguanides. Then drain and fill the hot tub with fresh water before using this product.

Read entire operating instructions for complete directions for use.

Step 1: Prepare the Hot Tub

1. Fill hot tub with fresh water. If using source water that is high in calcium, iron or other metals, see your dealer before filling the hot tub. It may require the use of a metal control product.

If previously using bromine and switching to FROG @ease System, you must drain and refill your hot tub before using this product.

If previously using dichlor you may convert to FROG @ease System without having to drain the hot tub, as long as cyanuric acid level is below 80 ppm.

2. Clean or replace filter cartridges when dirty (Follow manufacturer's instructions).

3. Balance water by following STEPS a - d in order.

IMPORTANT: Always follow printed instructions on the balancing chemical packages. Add balancing chemicals in small increments one at a time with the jets on and wait 6 hours before testing again and adding any additional balancing chemicals.

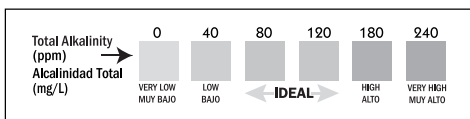
Water Balance Guidelines

pH:	7.2 - 7.6
Total Alkalinity:	80 - 120 ppm
Hardness:	150 - 250 ppm
Total Dissolved Solids:	<1500
Cyanuric Acid:	0 - 50 ppm

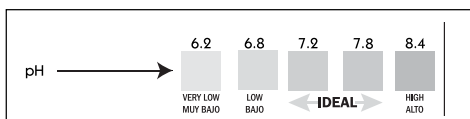
a. Take a water sample from the hot tub and dip a FROG @ease Test Strip into it.



b. Look at the **Total Alkalinity** reading first. Adjustments should be made to bring the Total Alkalinity in the **range of 80 - 120 ppm** prior to making any adjustments to pH even if it throws pH off further.



c. After Total Alkalinity is in range, **test for pH**. It should be **between 7.2 and 7.6**. If higher or lower, add a pH adjuster.



d. Lastly **test for Hardness**. It should be **between 150 and 250 ppm**. If higher, partially drain the hot tub (about 6 inches) and fill with water low in calcium. If lower, add Calcium Increaser.

If balancing takes longer than 2 days shock the water and maintain a chlorine level while continuing balancing.

4. **Very Important!** After balancing and before using cartridges, establish an initial residual of 0.5 - 1.0 ppm free chlorine with FROG® Jump Start® start-up shock, included in this package, that quickly dissolves with an effervescent fizzing action - one packet per 600 gallons.



5. Heat water to the manufacturer's recommended temperature.

Step 2: Set the Cartridges

1. Remove the FROG @ease SmartChlor Cartridge from its bag before proceeding.

2. Set the FROG @ease Mineral Cartridge to the highest setting using the dial on the bottom of the cartridge. No further adjustments are necessary for the life of the cartridge.

3. Set the FROG @ease SmartChlor Cartridge to the setting that matches your hot tub model number and the type of cartridge being used.

For Triangular Shaped Cartridges	Setting #
A5L, R5L	1
A6, A6L, M6, R6, R6L, STIL5, X6L, X7, X7L	2
A7, A7L, M7, M8, R7, R7L, R8L, STIL7, X8, X8L	3
A8, A8D, A8L, A9L, M9, R8,	4
For Round Shaped Cartridges	Setting #
A5L	2
A6, A6L, STIL5, X6L	3
X7, X7L	3
A7, A7L, STIL7	3
M7, X8, X8L	4
A8D, A8L, M8	4
A9L, M9	5

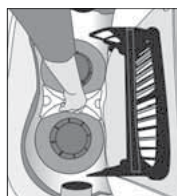
If needed, you may increase or decrease the dial setting. Once set, the FROG @ease SmartChlor Cartridge will maintain a low 0.5 to 1.0 ppm chlorine level as long as the pH stays within 7.2 and 7.6 so typically there is little need to adjust the cartridge setting.

Step 3: Put the System to Work

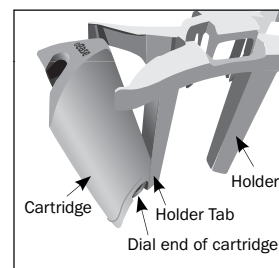
Between Filter Cartridges

1. Remove filter snap cap.

2. Hold weir door/filter plate out into the hot tub slightly or remove from hot tub. If cartridge holder is already installed between the filter cartridges, remove by pulling up on the handle.

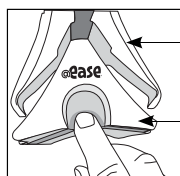


3. Detail of Cartridge Holder Tab



Snap the FROG @ease Mineral Cartridge into one opening of the cartridge holder. With the @ease logo facing the holder, put the dial end of the cartridge into the holder first by connecting the tab on the holder with the indent in the cartridge.

4. Then push the top part of the cartridge in until it snaps into place

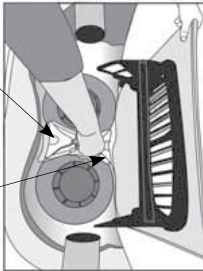


- Follow the same procedure for the FROG @ease SmartChlor Cartridge into the other opening.

6.

FROG
@ease
Mineral
Cartridge

FROG
@ease
SmartChlor
Cartridge



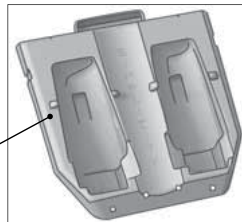
With the silver FROG @ease SmartChlor Cartridge facing the inside of the hot tub, insert cartridge holder between the filter cartridges under the weir door/filter plate pushing down until it stays in place.

- Replace filter snap cap.

Using the Simplicity Filter System

- Turn off main power to the hot tub and remove the JetPak to the right of the main control.

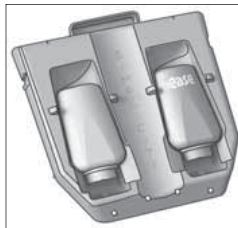
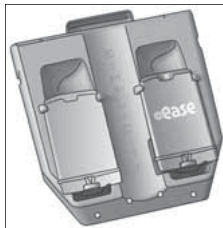
Simplicity
Filter
System



- Insert FROG @ease Mineral Cartridge and FROG @ease SmartChlor Cartridge into the two openings on the outside of the filter system. Push cartridges in until they are latched.

FROG @ease System

FROG @ease XL System

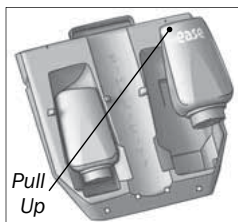
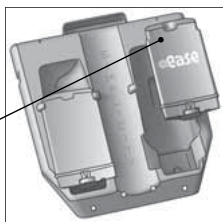


- To remove cartridges, pull up at the top of cartridge and lift out.

Pull
Up

FROG @ease System

FROG @ease XL System



- Replace JetPak.

Replacing Cartridges

Replace FROG @ease Mineral Cartridge every four months, or when draining and refilling hot tub.

Discard it in the trash even though you will hear the spent media left inside. Don't attempt to reuse: the minerals are spent after 4 months.

Replace FROG @ease SmartChlor Cartridge when empty based on the FROG @ease Test Strip showing a lighter color than the out indicator on the bottle. The life of the cartridge varies depending on hot tub size and number of users. FROG @ease SmartChlor Cartridge will last about 3-4 weeks for an average 400 gallon hot tub. Drain water from cartridge to ensure it is empty. Discard in trash or offer for recycling if available.

Step 4: Routine Hot Tub Care

1.



Drain and refill hot tub as directed by your hot tub manufacturer. Whenever you drain and refill, make sure to replace your FROG @ease minerals.

2.



Run filtration system as recommended by your hot tub manufacturer to maintain proper water flow through the system.

3.



Regularly test water with FROG @ease Test Strips and follow directions in Step 1 for maintaining pH, Total Alkalinity and Hardness.

NOTE: pH is affected by bather load, chemicals used, evaporation and the make-up of your source water so maintaining water balance regularly is important.

Troubleshooting

Cloudy Water or Low-Chlorine Levels

- Shock the hot tub with FROG Maintain, a non-chlorine shock.
- Check water balance. pH and Total Alkalinity need to be in the proper ranges for the FROG @ease System to work correctly.
- Check FROG @ease SmartChlor Cartridge and replace if empty—see instructions under Step 3: Put the System to Work.
- If FROG @ease SmartChlor Cartridge is not empty, turn dial setting up one number while maintaining water balance. If needed turn dial up again.
- Check your calendar. The entire FROG @ease System including a FROG @ease Mineral Cartridge needs to be replaced every four months. Without the minerals, SmartChlor will not be enough to sanitize the hot tub.

FROG @ease SmartChlor Cartridge Life

- If hot tub is larger than 400 gallons with significant bather load, you



Manufactured for King Technology, Inc.

6000 Clearwater Dr, Minnetonka, MN 55343 U.S.A.

800-222-0169 | frogproducts.com

Made in U.S.A. Patents: kingtechnology.com/IP

Ver la versión en español de este manual en frogproducts.com

4. FROG @ease SmartChlor Cartridge will maintain 0.5-1.0 ppm free chlorine level as long as the water is balanced.

NOTE: Free Chlorine levels are reduced up to 75%* when using FROG @ease Minerals.

NOTE: Why FROG @ease Test Strips? The FROG @ease SmartChlor Cartridge forms a chlorine reserve that will be inaccurately measured as total chlorine on other test strips. Unlike conventional chlorine, the SmartChlor reserve readily shifts to free chlorine as needed, maintaining hot tub health with a low level of chlorine.

5.



Shock the hot tub with FROG Maintain®, a non-chlorine shock for easy single-dose shocking when you replace the FROG @ease SmartChlor Cartridge or once a month.

6. Replace your FROG @ease SmartChlor Cartridge and complete FROG @ease System that comes with a FROG @ease Mineral Cartridge as directed under “Step 3: Put the System to Work”.

may require a higher dial setting which will shorten the cartridge life.

- If you think the cartridge setting is too high, you can turn the dial setting down one number while maintaining water balance. If needed, turn dial down again.

High Chlorine Levels

- This is highly unlikely with the FROG @ease System because SmartChlor is self-regulating. However, if you use standard test strips, it may appear that total chlorine is higher than the free chlorine.
- No worries—the strip is measuring the SmartChlor reserve, which will shift to free chlorine as needed. Please always use the FROG @ease Test Strips that were included with your System.

Learn more at frogproducts.com or call 800.222.0169
Register your FROG @ease Sanitizing System at frogproducts.com

+ FROG @ease System consists of the FROG minerals silver chloride and carbonate used with 0.5 ppm of FROG @ease SmartChlor Cartridge. The FROG @ease Mineral Cartridge must be used in conjunction with the FROG @ease SmartChlor Cartridge.

* Compared to the minimum ANSI recommended chlorine level of 2.0 ppm for a hot tub.

∞ For pools and hot tubs.

EPA Est. No.: 64114-MN-1

E09220723R5 20-48-0108

Additional Water Care Methods (alternative or outside USA)

In areas where the FROG @ease system is not available (outside the USA) consult your local Authorized Bullfrog Spas dealership for specific options for maintaining water quality. Your Authorized Bullfrog Spa dealer who can recommend the correct products and procedures for safely sanitizing and maintaining your spa according to local water chemistry, regulations, and your specific circumstances.

CAUTION:

- Always follow chemical manufacturers' instructions and never mix chemicals.
- Use an accurate test kit to perform all chemical tests.
- Add chemicals directly to the spa, evenly spreading the chemicals over the surface of the water with the jets operating, or use an appropriate feeding or metering device and check chemical levels often.
- Run the filter pump on high speed, with the cover removed, for at least 30 minutes after applying any chemicals to mix adequately and avoid potential damage to equipment, accessories, or surfaces.
- Names of spa chemicals will vary from one manufacturer to another. Please contact your authorized Bullfrog Spas dealer if you have any questions.

Changing Spa Water

As you use your spa, soap and detergent residues from your skin and bathing suits, along with other substances from maintaining the spa's water chemistry will accumulate in the spa water and make maintaining the water more difficult. Rinsing your bathing suits and showering without soap prior to entering your spa will increase the life of your spa water. Depending upon usage, the spa water will need to be changed every 1-4 months or when the water chemical levels become difficult to manage. When changing spa water, clean the shell and jet pod areas with a spa surface cleaner. See Spa Shell Care. Clean the other areas of the spa with a spa surface cleaner as necessary.

IMPORTANT: Drain your spa to an area that can handle a large quantity of water. If draining water onto

vegetation, make sure that the sanitizer level (chlorine or bromine) of the water is less than 0.5 PPM.

WARNING: Avoid drainage that can lead into basement window wells or any other area where damage could occur.

Regular Spa Water Care Sanitizer and pH Levels

It is important to test and adjust the sanitizer and pH level of your spa on a frequent basis. If the spa is used 0-3 times weekly, we recommend that you test the water a minimum of 2-3 times a week. For each additional use, test the water one additional time. Test kits and supplies are available from your authorized Bullfrog dealer.

pH Control: Proper pH balance is extremely important in controlling bacteria, providing water that is comfortable to the user, and preventing damage to the spa and equipment. The pH scale ranges from 0-14. Levels of pH less than 7.0 are acidic while pH levels greater than 7.0 are basic. The proper pH range for a spa is 7.4-7.6.

High pH levels (greater than 7.6): Can cause scale build-up on the spa and its equipment, cloudy water, a prematurely dirty filter, and less effective chlorine sanitation. To correct high pH levels, add a pH decreaser.

NOTE: Never use Muriatic or Hydrochloric acid to adjust pH as it can damage the spa shell and surroundings.

Low pH levels (less than 7.4): Can cause discomfort to the spa users and corrosion to the spa equipment. To increase pH levels, add a pH increaser.

Always test, and adjust the pH level before you test and adjust the sanitizer level.

Sanitation: Spa water sanitizers kill bacteria and keep the water clean. Effective and safe sanitizers recommended by Bullfrog Spas are granular chlorine (Dichlor) or granular bromine. Chlorine and bromine are the only two spa sanitizers approved for use in spas by the EPA.

WARNING: Trichlor chlorine tablets should never be used in a portable spa. Dissolve rate, potency and the extreme low pH of this chemical can cause severe damage to the spa surface and components. Use of trichlor chlorine tablets will void the Bullfrog Warranty.

Bromine and Dichlor tablets are also not recommended as an acceptable sanitizer in Bullfrog Spas unless an appropriate feeding or metering device is used and the water is frequently tested and monitored as excessive bromine or chlorine in the spa can cause surface damage and component failure.

SPA MAINTENANCE

WARNING: An empty spa (spa without water in it) must not be left exposed to sunlight as shell damage may occur. Once the spa is unwrapped, fill spa with water immediately or shade the spa with cover or wrapping to prevent direct exposure to sunlight.

Spa maintenance:

With each sanitizer test, use either granular Chlorine or Bromine to maintain the following levels:

- Chlorine Level: 3.0 to 5.0 PPM (parts per million)
- Bromine Level: 3.0 to 6.0 PPM (parts per million)

Super Sanitation or Spa Shock

Normal sanitation does not eliminate non-filterable wastes, such as perspiration, oils, hair sprays, etc., which may build up in the water. These substances make the water unattractive, and can interfere with sanitizer effectiveness. Super sanitation is achieved by “shocking” the spa water with a non-chlorine shock (Potassium Peroxymonosulfate), granular chlorine (Dichlor), or granular Bromine (Bromine concentrate).

Super Sanitize the water once a week by adding one of the following:

- Granular chlorine 2 teaspoons (10ml) of per 200 gallons (909.2l) of water
- Granular bromine 4 teaspoons (20ml) of per 200 gallons (909.2l) of water
- Non-chlorine Shock 5 teaspoons (25ml) of per 200 gallons (909.2l) of water

NOTE: Super sanitation may be required more than once per week for heavy usage. With ozone, it may not be necessary to shock the water on a weekly basis, contact your authorized Bullfrog Spas dealer for more information.

Total Alkalinity (TA): Total alkalinity (TA) is the quantitative measurement of alkaline components (carbonates and bicarbonates) present in water to act as a buffer against rapid pH changes. Proper total alkalinity levels are important to ensure optimal chemical balance in spas. Low TA can cause pH to be unstable. To correct low TA, add a Total Alkalinity Increaser. High TA can cause the water to be scale forming, cloudy and corrosive to the spa and its components, as well as other pH related problems. If the spa water has high TA, contact your authorized Bullfrog Spas dealer.

Calcium Hardness (CH): Calcium hardness (CH) is the measure of dissolved calcium in the water. Low CH (soft water) can stain the spa surface as well as cause

corrosion to the spa and its equipment. To correct low CH, add a calcium hardness Increaser. High CH (hard water) can cause cloudy water as well as rough scale build-up on the spa surface and equipment. If the spa water has high CH, contact your authorized Bullfrog Spas dealer.

Stain and Scale Control: Stain and scale problems are common in hot water environments. To help prevent and control staining and scaling, use a stain and scale inhibitor per the manufacturer’s instructions. Add stain and scale inhibitor 3-4 days after super sanitation.

Foam Control: Spa water that contains body oils, lotions and soap residue combined with high water temperatures can cause excessive foaming on the water’s surface. For a temporary fix add a foam remover as per the manufacturer’s instructions. The best way to control foam is to super chlorinate the water; this will destroy the soap agents that normal levels of sanitizer will not. Add 2 tablespoons (20 ml) per 100 gallons (454.6 liters).

Cloudy Water Prevention and Control: There are two basic reasons that spa water becomes cloudy. First, non-filterable liquid waste (e.g. perspiration) has contaminated the water. To remove these substances, Super Sanitize the water. Second, non-filterable micro-particulate waste (e.g. dust) has contaminated the water. To remove these substances use a Water Clarifier as per the manufacturer’s instructions.

Water Chemistry Troubleshooting

Prior to each spa use, check the water. If the water appears cloudy, off color, has significant surface foam, or smells of excessive chlorine/bromine, the water needs to be treated or drained. Using the spa in these conditions could result in irritations.

For assistance in handling spa water chemistry, contact your authorized Bullfrog Spas dealer or another service center capable of performing a computerized water analysis.

Your Bullfrog Spas spa may be equipped with the EOS enhanced ozone purification system. Long term maintenance of this system requires the replacement of the O3 Filter Cartridge approximately every 24 months. Contact your authorized Bullfrog Spas dealer for replacement cartridges and more information.

Freeze Protection

NOTE: Your spa is equipped with a freeze protection mode. When potentially freezing outside temperatures are detected your control system will turn on to

check the water temperature. If heating is necessary to protect from freeze conditions your spa may turn on and heat to a safe temperature. A notification will display on the main control screen indicating this mode is engaged.

Ozone Purifier (Optional)

Your Bullfrog Spas spa may be equipped with an optional WellSpring High Output ozone purification system. This system may also reduce your sanitizer usage. Contact your authorized Bullfrog Spas dealer for information on periodic maintenance or replacement of ozone system parts.

Changing Spa Water

As you use your spa, soap and detergent residues from your skin and bathing suits, along with other substances from maintaining the spa's water chemistry will accumulate in the spa water and make maintaining the water more difficult. Rinsing your bathing suits and showering without soap prior to entering your spa will increase the life of your spa water. Depending upon usage, the spa water will need to be changed every 1-4 months or when the water chemical levels become difficult to manage. Clean the shell and jet pod areas with a spa surface cleaner. See Spa Shell Care. Clean the other areas of the spa with a spa surface cleaner as necessary.

IMPORTANT: Drain your spa to an area that can handle a large quantity of water. If draining water onto vegetation, make sure that the sanitizer level (chlorine or bromine) of the water is less than 0.5 PPM.

WARNING: Avoid drainage that can lead into basement window wells or any other area where damage could occur.

To Drain Your Spa:

Step 1: Turn-off main electrical breaker to spa.

Step 2: Locate drain below equipment compartment door.

Step 3: Pull the drain out with a slight clockwise turn. Use pliers if needed.

NOTE: Drain is fully extended at approximately 2 inches (5 centimeters).

Step 4: Remove drain cap.

NOTE: The drain spout will not drain when fully extended.

Step 5: Attach a standard garden hose. Push the drain spout in halfway to actuate the drain.

NOTE: The Spa will drain about 5 gallons (20 liters) per minute. Ensure that the drainage is in an area safely away from window wells or basement entries.

Step 6: Once the spa is fully drained, pull the drain spout out all the way, remove hose, replace the drain cap and push drain in all the way.

To Refill Your Spa:

WARNING: When refilling the spa, always super sanitize the new water by adhering to the instructions in the Water Chemistry section.

Fill the spa to its correct operating level. Be sure to open all valves and jets in the spa before filling to allow as much air as possible to escape from the system during the filling process. For details see "Filling your spa" section. After turning the power on at the main power panel, the control panel display will go through an initializing sequence. This sequence displays information regarding the configuration of the hot tub control. After a few seconds, your control will display the Home/Status screen which shows time, jet and light status, temperature status, operation mode, etc.

Filter Maintenance (X Series)

It is recommended that pleated cylindrical filter cartridge(s) used in X Series spas be cleaned every 3-6 weeks or as needed. Spas equipped with the optional circulation pump system may require increased cleaning intervals based on use and local water conditions.

Replace the filter cartridge(s)

After multiple cleanings, worn filter cartridges will need to be replaced. To maintain warranty protection, use only genuine Bullfrog Spas filter cartridge replacements. To clean or replace your filter cartridge(s), complete the following:

CAUTION: Never operate spa with the filter(s) removed.

Step 1: Turn off main power to the spa.

Step 2: Remove filter cap and filter plate.



Step 3: Remove the pleated cartridge(s) by turning the filter core cap(s) counter clockwise then sliding the cartridge(s) upward from the filter core.



Step 4: Using a garden hose with a nozzle or other high-pressure device, clean cartridge(s). Work first from the inside, top to bottom on each pleat then from the outside, top to bottom on each pleat.



- To remove collected lotions or body oils, soak cartridge(s) in warm water with a filter cleaner or detergent.
- To remove calcium deposits, soak cartridge(s) in a plastic container using a 1:10 ratio of muriatic acid to water solution. Calcium deposits indicate a high spa pH, which should be corrected.

NOTE: Filter(s) must be cleaned with a filter cleaner/degreaser before attempting to remove calcium and mineral deposits with any acidic based product.

Step 5: Reinstall cartridges(s) by aligning the cartridge slot with the filter core fin; reinstall the filter core cap(s), filter plate, and filter cap.

Step 6: Restore main power to the spa.

IMPORTANT: Using a brush to clean a filter cartridge could cause damage to the filter media.

Spa Surface Care

IMPORTANT: Your spa cover is an essential part of the spa system in order to protect spa surfaces, ensure safety, and to provide the highest possible efficiency. Ensure the cover is in place at all times except during spa use.

General Cleaning

For normal cleaning, use a mild dish-washing soap, window cleaner, or other products recommended by your local authorized Bullfrog Spas Dealer. For stubborn stains, use a mild acrylic cleaner or a mild detergent. To apply these cleaners, use a soft, damp cloth or sponge. Rinse well and dry with a clean cloth. To clean hard water stains, remove light scratches and protect your spa shell, contact your authorized Bullfrog Spas Dealer.

Cleaning a Surface Buildup Line

With normal use of the spa, oils, lotions, and hair products can build up on the surface of the water in small amounts. This could leave a line around the perimeter. This buildup can be easily removed using a spa surface cleaner or its equivalent. Avoid using cleaning agents that leave soap residue in the water.

WARNING: Never allow your spa surface to be exposed to alcohol, acetone (nail polish remover), nail polish, dry cleaning solution, lacquer thinners, gasoline, pine oil, abrasive cleaners, or any other household chemicals other than those listed. These chemicals void the warranty.

Spa Cabinet Care

The EternaWood™ cabinet components are made to provide many years of maintenance-free service. For normal cleaning, use a mild dish-washing soap. For stubborn stains, contact your authorized Bullfrog Spas Dealer.

Spa Cover Care

WARNING: A non-secured, improperly secured, or damaged cover may pose a safety threat to children and may also cause damage or injury if blown off by wind. Always remove entire cover before using the spa.

IMPORTANT: Do not stand, sit, or place any item on the cover that could damage it. Gently remove any snow accumulations over 2 inches (5cm). Always secure the cover with all of the cover locks when not in use, whether the spa is empty or full of water.

Cleaning the Spa Cover

At least monthly, clean the spa cover.

Step 1: Use a garden hose to spray entire cover down with water.

Step 2: Rinse all traces of dirt, sand, and debris from cover.

Step 3: Try not to touch cover or rub anything on it while it is wet.

Step 4: Let cover air dry.

Step 5: Make sure the cover clips are secured.

NOTE: If water doesn't bead on cover when spraying with water and cover looks darker in some areas, use an outdoor fabric protectant (never petroleum based) to condition the area per your Bullfrog Spas Dealer's instructions.

NOTE: If more thorough cleaning is required, add 2 ounces of mild soap to 1 gallon of warm water. Clean the cover fabric with a soft brush. Rinse thoroughly with cold water and air dry. Use an outdoor fabric protectant to condition the area per your Bullfrog Spas Dealer's instructions.

Miscellaneous Care

Cleaning and Protecting Headrests

Regularly clean all headrests with mild soap, water, and a clean cloth. Monthly, treat headrests using a non-petroleum-based conditioning product as recommended by your Bullfrog Spas dealer. This will maintain water resistance and luster of the product.

IMPORTANT: Remove the pillows during and after shock treating the spa water or when sanitizer levels are high. Leave cover open for at least 30 minutes after shocking to ensure pillows are not affected.

NOTE: Pillow discoloration and/or degradation is accelerated by high sanitizer use, improper ventilation after shock treatments, and is not covered by the Bullfrog Spas Warranty.

Vacuum the Spa

Debris from wind, trees, and users will occasionally accumulate on the bottom of the spa. The filtration system will remove the smaller debris. Large or heavy debris can be removed with a hand held spa vacuum available at your Bullfrog Spas dealer.

Low-Use or No-Use Periods

During certain times of the year, you may not use the spa on a frequent basis. For these low-use or no-use periods, consider the following:

No Use for Two to Six Weeks

If the spa will not be used for at least two weeks, lower the temperature to the lowest setting of 80 F (26°C) or place in low range heat mode. Lowering the temperature will cut the cost of operation, however; you will need to adjust the temperature setting approximately 4 hours before use in order to heat the spa to 100 F (38°C).

IMPORTANT: During all low and no-use periods, be sure to maintain the spa water as per the instructions in the Water Chemistry section.

IMPORTANT: For all no-use periods, and on a weekly basis, be sure to have someone visually check that the spa is functioning correctly and to also maintain

the spa water as per the instructions under the Water Chemistry section. Not doing so may lead to corrosion, staining, and/or scaling to the spa and its equipment. During periods of freezing temperatures, a spa that has malfunctioned may be subject to damaged plumbing or equipment as a result of ice buildup within the spa. If the spa cannot be checked and maintained on a weekly basis, then consider winterizing the spa.

No Use for Over Six Weeks

When you are not planning to use the spa for six or more weeks, or when someone is not able to maintain the spa on a weekly basis, you should use Vacation mode. For extended absences you may also choose to winterize the spa. To winterize, follow these steps:

Winterization

WARNING: Prior to winterizing your spa, it will be necessary to super sanitize the spa water as per the instructions in the Water Chemistry section. This procedure will help prevent the growth of bacteria, algae and fungi in any areas of plumbing that may not be fully free of water after you drain your spa for its period of winterization.

NOTE: Your spa is equipped with a freeze protection mode. When potentially freezing outside temperatures are detected your control system will turn on to check the water temperature. If heating is necessary to protect from freeze conditions your spa may turn on and heat to a safe temperature. A notification will display on the main control screen indicating this mode is engaged.

Step 1: Drain the water.

Step 2: Use a shop vacuum to vacuum the plumbing lines by placing the vacuum nozzle over each of the lower jet faces in the spa. Lower jets are any jets located at or below the bench seat area.

Step 3: Remove the drain plug from the pump(s) and loosen all PVC pipe unions in the equipment compartment. Do not replace the plugs or tighten the unions until the spa is de-winterized.

Step 4: Clean the spa shell.

Step 5: Remove filter cartridge(s), clean, and reinstall.

Step 6: Secure the cover to the spa utilizing the tie downs and locking system. In areas where heavy snow is anticipated, place a large piece of plywood (or its equivalent) on top of the spa cover to assist in supporting the cover with the added weight of the snow. Remove snow off the cover following each snow storm.

WARNING: To avoid water from becoming trapped between the floor suction fitting and the filter pipe .

Use a wet/dry vacuum to remove the remaining water out of pipe by placing the vacuum end over the filter hole. In a two-pump spa, first plug off one filter using a tennis ball then vacuum out the water. Or pour ½-1 gallons (5-9 liters) of RV antifreeze into the filter hole.

NOTE: RV antifreeze is nontoxic and does not require evacuation at start up.

Spa De-Winterization

To de-winterize the spa, reverse the winterization procedure. Refill to the water level mark.

WARNING: Whenever refilling the spa, it will be necessary to Super Sanitize the new spa water. Instructions are found in the Water Chemistry section.

LED Light Replacement

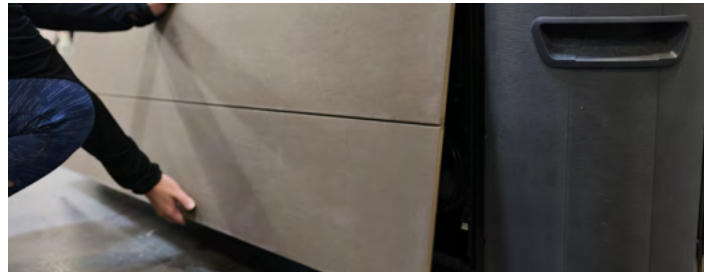
Contact your authorized Bullfrog Spas Dealer for repair.

X Series Door Removal

Step 1: Remove trim strips from trim channels by pulling carefully and firmly, working from the bottom of the trim strip to the top. Place trim strips aside.



Step 2: Remove door - Carefully pull bottom of door out toward you. Carefully grab the bottom corner of the door and pull it out enough that you can slip your other hand in behind the side of the door about 4-5 inches (10-13 cm) up from the bottom. From there you will pull the door firmly away from the spa until the snap on the door pulls out of the snap feature in the rib. Continue to pull the door away until the second snap on the other side pulls out. The door can then be dropped out of the groove on top and removed from the spa.



Step 3: Electrical Disconnect – be sure to disconnect any lighting or any other electrical wiring that is mounted onto the door before completely removing it.

Step 4: When removed, lean door against spa.

X Series Door Installation

Step 1: Electrical –Reconnect any lighting or electrical devices on the door before installing.

Step 2: Door – Slip the upper lip of the door into the top behind the lip of the spa. Lower the door while gently pushing on it until you feel the snaps line up with the snap features in the ribs. Starting from one side, force the first snap into place and then force the other side until the door is secured.

Step 3: Replace trim strips by snapping each carefully into the trim channel.

X6R Door Removal

Step 1: Remove trim strips from trim channels by pulling carefully and firmly, working from the bottom of the trim strip to the top. Place trim strips aside.

Step 2: Remove door – Pull the bottom of the door forward, the door can then be dropped out of the groove on top and removed from the spa.

Step 3: Electrical Disconnect – be sure to disconnect any lighting or any other electrical wiring that is mounted onto the door before completely removing it.

Step 4: Slip the upper lip of the door behind the lip of the spa. Place door securely against spa flush with the side panels. After the door has been completely removed, lean door against spa.

X6R Door Installation

Step 1: Electrical –Reconnect any lighting or electrical devices on the door before installing.

Step 2: Door – Lower the door while gently pushing on it until you feel the snaps line up with the snap features in the studs. Starting from one side, for the first snap into place and then force the other side until the door is secured.

Step 3: Replace trim strips by snapping each carefully into the trim channel.

TROUBLESHOOTING GUIDE

This guide will assist in solving simple problems with the spa. If the problem cannot be solved using these procedures, contact your authorized Bullfrog Spas Dealer.

Control panel displays an error message:

Cause: An error has occurred.

Solution: See Diagnostic Messages for specific errors.

Control pad and spa equipment do not operate:

Cause #1: No electrical power to spa.

Solution: Turn on or reset the GFCI circuit breaker.

If this does not solve the problem, have a qualified Electrician check the electrical service.

Cause #2: The 20 or 30A fuse, depending on the system, has blown.

Solution: Contact your authorized Bullfrog Spas Dealer.

GFCI breaker trips repeatedly:

Cause #1: Improper wiring to spa or GFCI breaker is defective.

Solution: Consult with a qualified Electrician.

Cause #2: There is a defective component on the spa.

Solution: Contact your authorized Bullfrog Spas Dealer.

Spa pump turns off during operation:

Cause #1: Automatic timer has completed its 30 or 60 minute cycle.

Solution: Turn on the pump.

Cause #2: Pump has overheated due to the vents on the equipment door being blocked.

Solution: Clear items away from vents.

Cause #3: The pump motor is defective.

Solution: Contact your authorized Bullfrog Spas Dealer.

Spa will not heat:

Cause #1: Thermostat has been turned down or set to low heat range.

Solution: Adjust thermostat to desired temperature or set to high heat range.

Cause #2: High limit sensor has tripped.

Solution: Press any button to reset.

Cause #3: Heating system is defective.

Solution: Contact your authorized Bullfrog Spas Dealer.

Standard Spa light does not work:

Cause #1: Light has failed.

Solution: Replace light.

Cause #2: Lighting system is defective.

Solution: Contact your authorized Bullfrog Spas Dealer.

Jets surge on and off:

Cause: Water level is too low or filters may be dirty.

Solution: Adjust water to the water level indication mark on the faceplate of the filter assembly. Clean the filters.

Spa pump will not turn on, creates a burning smell while running, or makes excessive noise while running:

Cause: Pump motor is defective. Running during high ambient outside temperatures, excessive run time.

Solution: Contact your authorized Bullfrog Spas Dealer.

Jets are weaker than normal or do not work at all, but the pump is running:

Cause #1: Jet handle(s) are partially or fully closed.

Solution: Open jet handle(s) / valve(s).

Cause #2: Filter cartridge is dirty.

Solution: See Cleaning the Filter.

Cause #3: There is air trapped in the spa equipment or its face piping.

Solution: Remove the clamp to the air bleed line and remove the air line from the pump until air has purged out and you see water flow and reconnect.

Cause #4: The suction fitting(s) are blocked.

Solution: Remove any debris that may be blocking the suction fitting(s).

If your issue is not listed here, contact your dealer for further instructions.

LIMITED WARRANTY INFORMATION

Strong, Reliable Warranty Protection

Your spa is protected by one of the strongest warranties in the industry. Use the QR code or go to bullfrogspas.com/warranty to refer to the warranty for your specific spa series.



Warranty Information

Register Your Spa

Ensure the very best hot tub ownership experience by registering your warranty. Use the QR code or go to bullfrogspas.com/warranty-registration to register.



Spa Registration



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