



# SPA TROUBLESHOOTING GUIDE

# Achieving Correct Alkalinity Balance

To achieve the correct balance of pH levels, it is important to ensure you balance your alkaline levels, as this acts as an aid to resist drastic changes in your pH Levels.

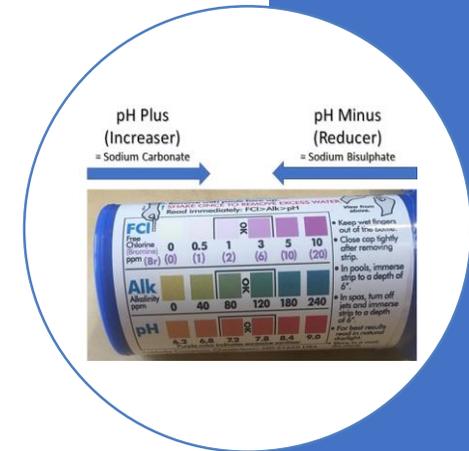
What are the effects

Incorrect Alkalinity can cause dry skin or irritated eyes, scale, cloudy water, erode surfaces of the Spa, corrode metal parts and shorten the lifespan of the Spa. Low-alkaline water also won't be able to balance the amount of phosphates, which feed algae, resulting in green water.

How to Adjust

Total alkalinity should be kept between 80-120 ppm.

To raise alkalinity, you add pH Increaser and to decrease you add pH Reducer over a period of time.



# Common Water Problems

**Common Water Problems:-** Water is Cloudy, Water is a Milky Colour, Excess Foam, Water is Green

**Possible Cause:** - Dead algae particles, Debris from the environment, Bad filtration, Lack of sanitizer (i.e. chlorine/bromine), High pH and/or alkalinity, Body oils, lotions, and other human elements

**Cloudy Water** is often a build up of particles in the water caused by either dirty filters, excess oil, organic matter or incorrect sanitation levels. In order to rectify, clean filters, check water balance levels, add Spa Shock or Spa Sparkle. As a last resort if these methods do not improve the situation it is advised to drain, clean and refill the Hot Tub with fresh water.

**Milky Water** is a white film on top of the Hot Tub usually caused by dirty filters, algae, poor water chemistry, insoluble particles. In order to rectify clean filters, check water balance levels, add Spa Shock or as a last resort if these methods do not improve the situation it is advised to drain, clean and refill the Hot Tub with fresh water.

**Foamy Water** can be the build up is caused by a reaction between body and cosmetic oils combined with the alkalinity of the Hot Tub water. Body oils and cosmetics such as deodorant, makeup, hairspray, shampoo etc. Ideally you should shower before getting into a hot tub in order to remove any hair gel, skin lotions/creams and to generally cleanse your skin. There are *two* common types of foam in a spa:

**A detergent or surfactant-based foam**

Usually uniform bubbles often with a rainbow effect on the bubbles when viewed in the right light. This type of foam is common when surfactants mix with oils (soap) or stain and scale inhibitors (surfactants to reduce water tension to reduce scaling from chemicals like calcium) mix with oils to produce soap in the water.

**Organic Build up**

In a spa this is body oils, skin creams, cosmetics etc that accumulate in the water and make varying sized, creamy, scummy bubbles with particles on them. You see this foam most often shortly after shock treating the water.

In order to resolve these issues use Foam Away or part empty your Hot Tub and flush the system.

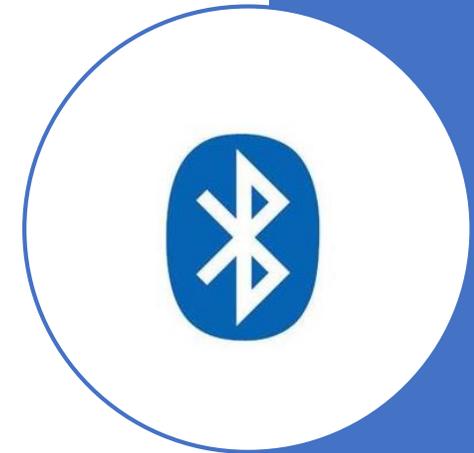
**Green Water** is not a good colour for Hot tub water, it indicates that your Hot Tub has active bacteria growing in the water. It is advisable not use until problem is solved by draining water out then scrub all surfaces with a chlorine solution, rinse out with clean water and refill with clean water. Shock dose the spa with a combination of Chlorine and Non Chlorine.



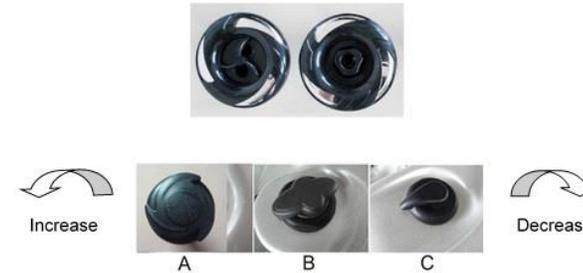
# Bluetooth – Pairing Issues

To resolve pairing issues, follow the steps below: -

- **Make sure the Bluetooth is turned on.** You should be able to see a Bluetooth symbol on the top of your device.
- **Make sure the two devices are in close enough proximity to each other.** It is worth noting that for devices to connect they will need to be within 5 metres of each other.
- **Power device and Spa on and off.** A soft reset can sometimes resolve an issue.
- **Try another device to connect to your Spa.** Some devices can block connections leaving you unable to connect.
- **Power down any likely interferers.** If you're having trouble pairing your phone with the speaker, it could be because the speaker is trying to activate its usual connection. Some older devices are very simple. They just try to connect with the last thing they paired with. If a Bluetooth device was previously paired with something else, turn off that other gadget.
- **Delete a device from a phone and rediscover it.** If your phone sees a device but isn't receiving data from it, sometimes it helps to start from scratch. In iOS settings, you can remove a device by tapping on its name and then Forget this Device. In Android settings, tap on a device's name, then Unpair.
- **Arrange an engineer to visit.** If still unable to connect to your Spa please call us for diagnosis/repair.



# Fault Codes DR, OH, FLO



Running Dry or Low Flow in most cases is the result of a dirty filter, in order to resolve please follow below steps:-

1. **Check Water Level**, ensure you water level is above the filter housing and above jets
2. **Jet Wash Filter**, a dirty filter can cause damage to your components ensure filter kept clean at all times.
3. **Ensure Jets and Valves are open**, too many closed valves and jets can restrict the water flow.
4. **Check Filter Housing for Debris**, ensure any leaves, scum balls and any other obstructions are removed.
5. **Check for Airlocks**, locate the pipe which goes into the top of the pump. This has a large nut, which is called the barrel union. Undo anti-clockwise until you hear the air escape. When the water comes out, re-tighten. This should fix the airlock. Sometimes you have to start the pump again to remove the air.



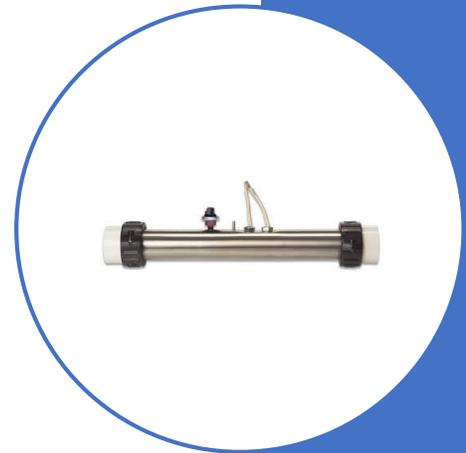
# Hot Tub Not Heating?

First check your instructions manual, many control panels come with different modes for example the preheat mode will only work at certain times of the day. This is normally used for example when you are at work but want the spa heated for the time you come home and not heating constantly. In this mode the spa control panel will usually say preheat and look like the heater is on when in fact it is just an alarm type display showing the spa will heat at the set time. Also most spas have water level sensors which need to be covered by the water line before the spa will switch the heater on, again check your hot tub instructions manual.

Next check your filter, as a clogged filter can restrict water flow, and with little or no flow, there will be no heat either. Try taking the filter out and running the spa for an hour if the water now circulates properly and the temperature rises two degrees Celsius or more in an hour replace your filter.

Another frequent cause is an air lock, especially if you just drained your hot tub. To clear an air lock, first locate and close the valve on the intake side of your pump. Then, on the outflow side of the pump, loosen the pipe union just enough turns to allow the trapped air to escape and fill with water. Retighten the union, open intake valve, and run spa to verify correction of the problem. If an air lock or clogged filter proves not to be the culprit, the cause could be a damaged heater or on some occasions the pump or control board.

If you have followed the instructions to the point where the problem maybe be a damaged heater check the heater indicator light usually located on the top of the heater (although the positioning may be different when connected to the plumbing). If it is not lit, then you are likely not getting power to the heater. You could have a defective pressure or flow switch. If none of these components is the culprit, it may be a bad relay on the main circuit board. If the light is on, but water is not circulating, the heater will not work. If the indicator is on, and water is circulating, then you most likely have a defective heater or heater element.



# Hot Tub Leaking

If your Spa is new and you experience a leak, firstly check all pipe unions as it is not unusual for these to become loose during transit. If after all unions have been tightened and you are still experiencing a leak, please contact us so we can arrange an engineer to visit and repair.



# Jets Not Working or Too Powerful

## Jets Not Working

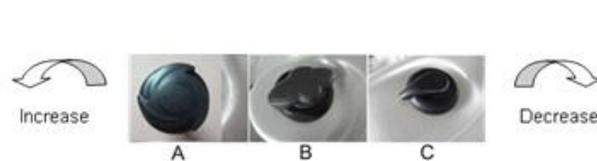
The most common cause for jet pressure issues is a dirty or clogged filter. Try running your spa with the filter out, if this improves performance considerably, then you may have found the culprit.

A broken impeller blade, bad pump bearings will (often indicated by a progressively loud motor or a grinding noise) could cause your pump to operate at a reduced speed, and pump less water.

If air jets are weak, check for obstructions, inspect the blower if so equipped, and check gasket seals around the jet fittings. If the water coming out of your jets is normal, but they no longer spin, they may be stuck from scale deposits. Remove the affected jets and soak them in and treat your hot tub with a stain and scale preventer.

## Jets too powerful or not powerful enough

Firstly, check that the air valves are either open or closed as these add air to the jet flow and apply more power if open. Secondly, adjust the water diverter accordingly, this diverts the flow to various positions in the Spa. Thirdly, if not enough power still check the actual jets are open. Pictures will explain fully these functions.



**Air Valves** affect the pressure of your jets by adding air, you may have more than one air valve on your spa, each of which will be associated to a certain group of jets. By opening an air valve when the pump is on, air will be drawn into the water flow to increase the massage strength. When the air valve is turned clockwise, it will decrease the power of the massage jets. When it is turned anti-clockwise, it will increase the power of the massage jets.



**Jets** are the main parts in which massage comes into effect and almost all of the jets in your spa are adjustable. You can adjust the water flow through by rotating the jet face. Turn the jet face clockwise about 1/4 of a turn, the jets are turned on. Turn the jet face anti-clockwise about 1/4 of a turn, the jets are turned off.

**NOTE:** Some jets and the air jets are adjustable, do not rotate these jets with force as it may cause damages to the jets.



# Noisy Pump, Ozonator, Air Blower

If your Spa is making a noise, please check the following conditions:-

- Water level may be too low
- The filter cartridge may be dirty
- The pump may have airlock
- Wall suction or skimmer may be blocked
- Gate valves are closed
- There is debris inside the pump
- Ensure any vents are not blocked
- Motor is worn out or damaged

Any high pitched squealing noise from any of the components, should be reported immediately.



# Power Tripping

- 1. Check fuse in plug**, for Plug and Play models, one of the main problems with power tripping is water getting into the plug, which can cause the fuse to burn out. It is important to ensure that the plug itself does not get wet and kept dry at all times. If fuse plug has gone, replace fuse.
- 2. Check incoming power supply**, Check breaker. Do not continue until you are satisfied that the power checks out correctly. On some occasions you can have a faulty/over sensitive RCD, water in the isolator or a loose cable. Note: if the Spa runs for 5-10 mins without tripping electrics, this is normally a household electrical issue (consult an electrician).
- 3. Disconnect major components**, pumps, heater, blower and ozonator etc. Turn the power on, if it now trips, your problem is isolated to the wiring or circuit board. If the spa does not trip, plug these things back in one at a time until the hot tub trips again. (Make sure power is off whenever connecting or disconnecting components). When it trips, you've located the culprit. If it is not one of these, check for bad wire connections, missing or burnt insulation or chafes, and loose screws or corrosion on terminals. If that is not the problem, sometimes a heater element that is going bad will cause the hot tub to trip.
- 4. Control system fuses**, on occasions due to power cuts or surges this can cause fuses to blow in the control board. Check and replace any fuses that have a burn out.

**Warning:** Electrical repairs can be dangerous. We recommend that electrical service be referred to a qualified technician. Regardless of who performs the work, make certain that all electrical power to the hot tub or spa is disconnected prior to making any inspections or repairs. This information is provided for educational purposes only. If you hire a qualified technician, this will give you a better understanding of the diagnostic process involved.



# White Marks Around Spa

Limescale is the deposit of hard water which comprises calcium and magnesium. It attaches itself to surfaces and if left, it can look unsightly with it eventually causing damage to the shell and components.

How to prevent/minimise

- +Maintain correct pH & alkalinity levels.
- +Cleanliness is key, keep waterline clean by using a soft cloth or aqua brush and jet wash filters.

