

ColoradoSpas

H O T W A T E R P E R F E C T E D

Established 1976

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START-UP GUIDE: WATER TREATMENT AND FILTRATION

Thank you for your recent purchase at Colorado Spas! We are so excited for you to start enjoying your new spa. Please read through this packet thoroughly before reading any other manual or guide. In this packet you'll find:



- **The Basics on How to Fill Your Spa**
- **The Simple Step-By-Step Procedure on How to Use Your New Spa Marvel All-In-One Natural Hot Tub Treatment**
- **The Importance of Setting the Time of Day and Filtration Cycles**
- **How the Ozone Works**
- **The Significance of Cleaning Your Filters and How To Do So**
- **Registering the Warranty for Your Spa & Additional Online Resources**

The Basics on How to Fill Your Spa

The following should be done **AFTER** a qualified electrician has hooked up the electric to your spa and explained where the power disconnect and/or GFCI is to the spa. There is not an actual on/off switch to the tub—it is either a power disconnect, GFCI, or both--usually located somewhere near the hot tub that is most likely mounted on the house.

Also, your qualified electrician can perform a manual GFCI test while he is there by following the instructions in the manual or you can have your Spa go through its own GFCI test. If you choose to have the tub run its own GFCI test, it will occur 24 hours from the time you turned it on. So, if you turned your tub on at 6PM then the next day at 6PM you'll need to go and check the breaker and it should be tripped.

You'll need to turn the tripped breaker all the way off and then all the way back on. If your tub PASSED the GFCI test then it should run normally, but if the tub FAILED, then in another 24 hours it will trip the breaker again. In the event that your tub FAILED you will need to have your certified electrician come back out and check everything. Note that not all tub models have this feature.

The next step after your electrical has been hooked up, is to fill the spa!

Run your garden hose for 60 seconds outside of the spa before filling.

If your spa has more than one filter, remove the filter closest to the electronic controls of the spa and fill the spa in that opening.

The proper water level of the tub should be high enough to cover the filter intake, but not too high as to overflow. We never want the water level so low that you risk air being sucked into the plumbing line for the heater, as this can result in error codes being displayed and damage to the heater. Once the spa is filled to the proper level, power-up the spa with the GFCI. The spa will go through its own self-check process after the power is applied. Once the "purge pumps...prime pumps" is displayed, the pump(s) are ready to be started. The "purge / prime pump(s)" mode will last 5 minutes, allowing time for the user manually to purge the air from the plumbing lines by turning on the pump(s) from the control panel.

Step-by-Step Procedure for Spa Marvel

Before using your spa for the first time: Once your spa is done with its priming process and heating, close the cover. You will need a measuring cup and your 'Starter Chemical Kit' we sent with your new spa. You will need to let your tub warm up to at least 80 degrees before putting the SPA MARVEL in. Once your tub reaches 80 degrees:

1. Start your jets ☺
2. Add 1 cup of the **SPA UP**, let the tub run until the jets time out.
3. Add the entire bottle of **SPA MARVEL**

Depending on bather load, in 90 days you will be able to add the next bottle of SPA MARVEL. *Please do not confuse your SPA MARVEL routine with the chemical routine in your owner's manual.*

****Please don't be alarmed if the water is cloudy the first time you put SPA MARVEL in your tub. This is just your water getting used to the new treatment and should revert back to clear water within a month after the initial use.****



THE CHEMICAL ROUTINE WE RECOMMEND TO USE ON A REGULAR BASIS FOR CLEAN WATER!

- Add ¼ cup of non-chlorine shock *after two - four people have used the tub.*
- *Once a week* add 1/3 cup of chlorine.
- *Once a month* add 1/2 cup of SPA UP
- In *90 days* add entire bottle of SPA MARVEL
- *Drain tub water every 6 months* and repeat the steps above

****We suggest adding 1 chemical at a time and letting the jets run out let the tub run until the jets time out****

*****You will never have to test your water again with the Spa Marvel Treatment!**

Worry free and hassle free! ☺***

Time of Day and Filtration Cycles

Once you have put in the proper amounts of Chlorine, SPA UP and SPA MARVEL (if your tub has reached 80 degrees) you can set your time of day and filtration cycles. The owner's manual gives you step-by-step guides on how to set the Time of Day and your Filter 1 and Filter 2 filtration cycles. The recommended cycles are at least 8 hours twice a day, depending on the bather load:

1. Filter 1 example: Start 6:00am and run for 8 hours
2. Filter 2 example: Start 6:00pm and run for 8 hours

You can modify the times, but the examples are what we recommend for one cycle in the morning to run for 8 hours and the second cycle for the evening to run for 8 hours. We want to start off with 8 hours twice a day to ensure the water clarity for at least 3 weeks. After 3 weeks, if your water has maintained clarity you can reduce the cycles to 6 hours twice a day. Conversely if the water is cloudy, increase the filtering times. *For more information, please refer to the last page in this guide for a general overview of how to set filtration cycles.*

The filtration cycles are very important because they are the key to clear water. If you have any trouble with understanding how to set your time of day or filtration cycles, just give us a call at the store (970-223-5197) and we can walk you through the steps over the phone! We are always here to help.

Cleaning your Filters

To have your filters at peak performance, we recommend you take the filters out once a week and spray them down with a garden hose or take them in the house and rinse them off with your kitchen sink sprayer. Every 30 to 45 days we want you to fully submerge your filters in water with a cleaning solution—a 5 gallon bucket is the perfect size to soak your filters in—with the correct amount of our SPA MARVEL *Filter Cleaner*, and then soak them overnight. After soaking, rinse the filter thoroughly to remove the oils and debris as well as the cleaner itself. It will not harm your tub to run without filters, but always use the skimmer basket so no large objects can be sucked into the filter opening. Having an extra filter on hand is the best option. This way you can rotate the clean filter for the next overnight soak.

We have the SPA MARVEL Filter Cleaner at our store's location, so when you're ready to deep soak your filters come on in and grab some!

Clean Water is FUN Water

The average adult contributes a pint of body fluid every hour in 104 degree water. Once you're sitting in a hot tub your body will start to release body oils and perspiration into the water. Any residual soap, shampoos, hairsprays, cosmetics, suntan lotions or hand lotions that are remaining on your skin will be passed into the water. Since the organic waste is actually dissolved in the water (in solution) it will not filter out. Since the filter will not remove the waste from the bather load, it needs to be chemically burnt off or oxidized. This is where your ozone, non-chlorine shock and chlorine come into play. All three will break down the organic wastes by oxidizing them. With SPA MARVEL, the chlorine is only used as a weekly oxidizer and sanitizer to reach all internal areas of water contact in the tub. So with the combination of filter times for the ozone to work, the non-chlorine shock, and the chlorine, your water should be crystal clear!

Ozone

Ozone gas is a powerful oxidizer, which will burn off the organic waste from the bather load in the water. Ozone only works by contact and does not leave a residue in the water. So the only time ozone will function is during the filtering cycles. This is the reason we have you set your filtering cycles for 8 hours twice a day because that is the only time the ozone operates. So, ***if your water is ever cloudy increase the run time of the filtering cycles*** for your ozone to oxidize your water more sufficiently. Ozone only works when it comes into contact with organic waste and typical bather load will exceed the ability for the ozone to keep up. This is where the nonchlorine oxidizer shock comes in.

Non-Chlorinating Oxidized Shock

Oxidizer Shock is used in conjunction with the ozone to remove the organic waste from the water. To help the ozone you add the non-chlorine shock after 2-4 bodies have used the tub. (One adult for 20-30 minutes at 102 degrees or above equals 1 body). After you get out of the tub, add ¼ cup of the Oxidized Shock.

As an example, if 2 adults use the tub two nights in a row, you add ¼ cup the second night after you get out. If the bather load is light, just the weekly chlorine addition should be adequate.

Chlorine

Chlorine by nature is not a good primary sanitizer for hot water but does work well in conjunction with the SPA MARVEL as an oxidizer. The chlorine should be added **at least weekly**.

Depending on the bather load, add 1/4 cup with the jets running. This allows for the chlorine to penetrate all areas of water contact in the tub.

The chlorine is to be used as an oxidizer and a secondary sanitizer to help the SPA MARVEL during periods of heavy bather load. If possible leave the cover partially open, after adding the chlorine, for the first 30 minutes with the pumps on high to allow for the chlorine to gas-off.

*****To recap**, it is recommended that the filtering times are set as high as needed to compensate for the bather load. Always start with long cycles to allow the ozone time to do its work. Use the non-chlorine shock as needed during the week. Then use the chlorine **at least** once a week, to have complete water penetration. ***

Attention all



Owners:

*****DON'T FORGET TO REGISTER THE WARRANTY WITH
YOUR SPA!*****

Cal Spa Warranty Registration: <http://calspas.com/register-your-spa.php>

Additional online resources can be found at the following websites:

 Cal Spas Owners Manuals: <http://calspas.com/owners-manuals.php>

 Cal Spas Troubleshooting: <http://calspas.com/troubleshooting.php>

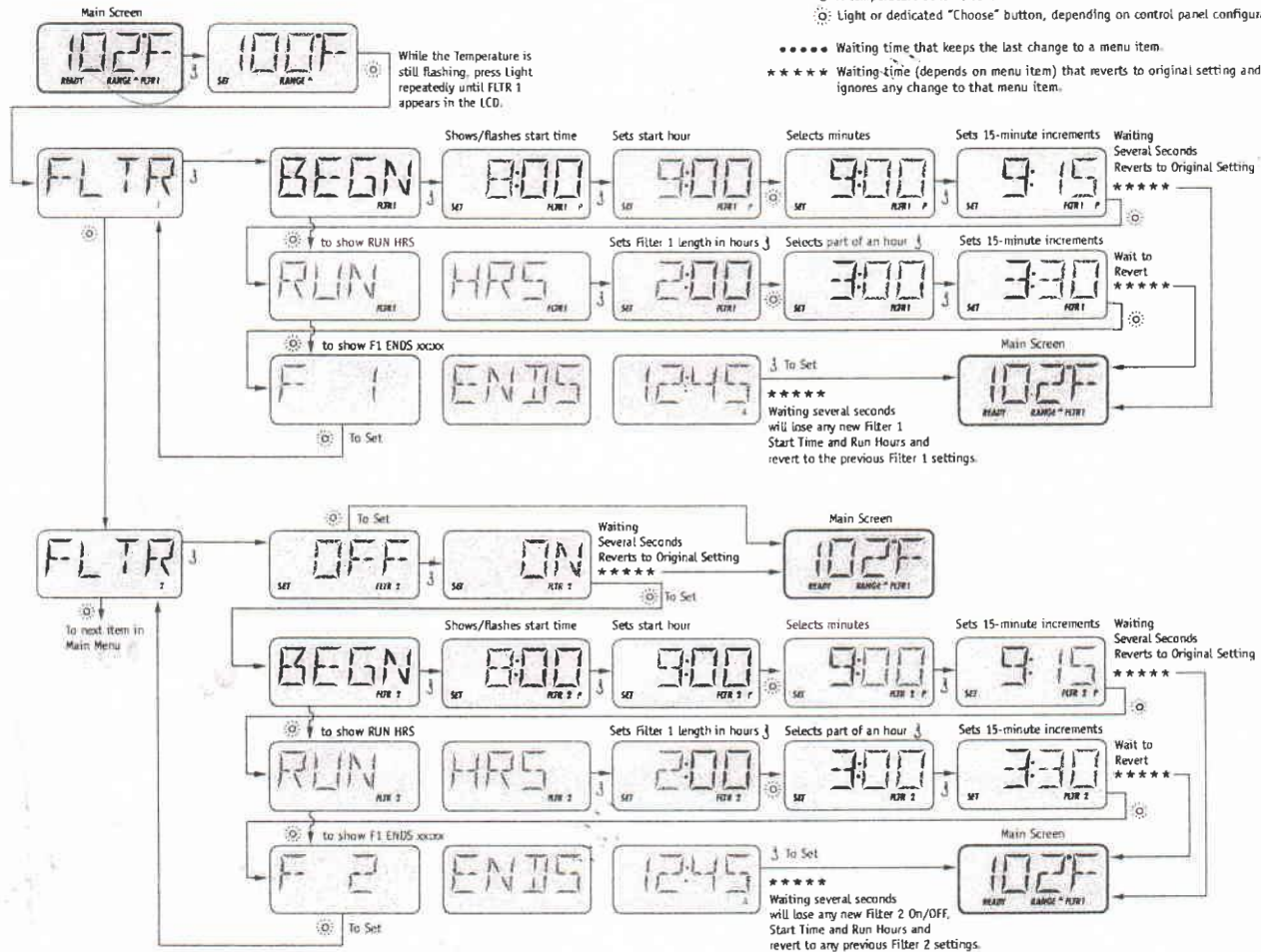
Adjusting Filtration

Main Filtration

Filter cycles are set using a start time and a duration. Start time is indicated by an "A" or "P" in the bottom right corner of the display. Duration has no "A" or "P" indication. Each setting can be adjusted in 15-minute increments. The panel calculates the end time and displays it automatically.

Key

- Indicates Flashing or Changing Segment
- Indicates Alternating or Progressive Message - every 1/2 second
- A temperature button, used for "Action"
- Light or dedicated "Choose" button, depending on control panel configuration
- Waiting time that keeps the last change to a menu item.
- ***** Waiting time (depends on menu item) that reverts to original setting and ignores any change to that menu item.



Filter Cycle 2 - Optional Filtration

Filter Cycle 2 is OFF by default.

It is possible to overlap Filter Cycle 1 and Filter Cycle 2, which will shorten overall filtration by the overlap amount.

Purge Cycles

In order to maintain sanitary conditions, secondary Pumps and/or a Blower will purge water from their respective plumbing by running briefly at the beginning of each filter cycle.

If Filter Cycle 1 is set for 24 hours, enabling Filter Cycle 2 will initiate a purge when Filter Cycle 2 is programmed to begin.

