## Narrowing the search

**After you have completed the first test and found that there is a leak, complete test #2.**

**(Test #2)**
Step 1: Refill the pool to the same starting level. Set up the Check A Leak Unit and record the number on the white float where it crosses the top of the blue float.

Step 2: Turn the pump **OFF** for 24 hours and record the change in the white float.

Step 3: Evaluate Results.

If there is no change in the readings, then the leak is probably in shell of the pool. Having the system off for 24hrs isolates the test to just the shell.

If there is a change in the reading but smaller than the loss when the system was operating normally, it is possible that there is more than one leak. The location of the leaks can be in the pool body and system piping/equipment simultaneously.

**Finding A Leak:** Now that you have identified that the pool is leaking and narrowed the search to either the shell, or piping/system, follow these steps to find the Leak.

## If your leak is in the lining/shell of the pool:

**Vinyl Liners** - Look for tears or separations around all fittings: skimmer, returns, cleaner line, etc. Pay close attention to steps and corners, where the liner may be stretched more than normal. If an animal had the misfortune to fall into your pool you may notice claw marks (tears) just below the water line. Spending time under water with a mask may be required to find a small leak in the liner. When liners become old they may have many pinhole leaks. There can always be more than one leak.

**Shell of the pool** - Turn off the pump at least an hour before you do this. In a concrete pool, visually inspect the tile line, skimmer, steps, lights and returns, many times cracks in the shell are obvious. Use an approved Dye Test Kit to avoid staining. By using the syringe near the crack, you will see the crack pull the dye in. That will show you where the pool is leaking. If there are no visible cracks, you will want to apply the Dye around any of the items that pierce the shell of the pool (main drain, returns, lights, etc.). Be sure to check the "mouth" of the skimmer where the plastic of the skimmer meets the concrete. This area is very susceptible to movement and often separates causing a leak. The other most common location of leaks are around the tile line of the pool and behind the pool light.

**If your leak is in the system/piping:** Look closely at the filter, pump, heater, and valves. Check the ground for moisture. Turn the pump on and off looking closely for spraying water when the pump is turned off.

**Some leaks are not detectable using the suggestions above:** If that is the case, it is time to call a professional! Thanks to state-of-the-art technology, most pool or spa leaks can be found and repaired without major disruption. Some of the methods used are: Compressed air is used to pressurize a pipe. The air displaces the water in the pipe until it reaches the leak, at which point bubbles escape from the hole to reveal the problem area. Or, where a pipe fails to maintain a constant air pressure, a leak exists. Special television camera that is snaked through plumbing pipes to spot leaks. By injecting air into a pipe, then listening electronically for sounds of air escaping with a super sensitive microphone. If these types of leaks exist, it is beyond the scope of this DIY guide.

**Standard Pools:** Once the leak is found, it is easy to fix using a patch kit. This kit will work under water. After patching, check again with your Dye kit to make sure you sealed the leak. Please note that if you patch near a fitting, you will want to leave the pump off while it cures, so the flow of water doesn't wash the patch away. See our order today page for product resources.

**Vinyl Liner:** If you find that the liner has pulled away or is leaking behind a fitting, we would STRONGLY recommend that you call in your local pool professional at this point. If you find the leak in the liner itself, it is usually an easy matter to patch, using a vinyl patch kit and following the directions. See our order today page for product resources.