

## Source Water Problems and Solutions Chart

Water in the US varies greatly. Areas in the southern parts of the US usually have hard water whereas areas in the northern parts sometimes have soft water. While the Genesis can correct for some variation in the source water, it cannot handle all types of water because some types of water simply can't be ionized well.

You'll know if your Genesis is achieving the correct pH levels by using the provided pH drops (red solution). Push the "alkali" button to the #4 level, put a small amount of this water into a glass, like a shot glass. Then add two or three drops of the pH drops. You should see a purple result, like the color of the screen, indicating a 10 pH. Getting this purple result tells you that your Genesis is accurately ionizing the water and no further treatment of your water is necessary.

Dark blue is also acceptable, indicating a 9.0 to 9.5 pH. Any other color requires pre-treatment of your water.

Note: The optimal drinking water you should consume is indicated by a dark blue result with the pH drops.

Also, if you live in the southern parts of the US, there is an abundance of alkaline minerals in the water, like calcium. So, it is very difficult to achieve a strong acidic pH with a water ionizer alone. To get a stronger acid, you will need to pre-treat your water with a reverse osmosis filter and a remineralizing prefilter. The reverse osmosis filter removes most of the scale from the water, while the remineralizing prefilter adds soluble minerals necessary for ionization. The following is a chart to give some general recommendations. Please call your dealer for more specific information.

Source Water	Comments	Solution
Acceptable hardness (Approximately 7-12 grains)	Water contains acceptable mineral content. Genesis will produce nearly accurate pH and ORP water.	No water pre-treatment is required.
"Hard" water (Approximately 12-16 grains)	Water contains excessive mineral content that will shorten Genesis filter life and reduce electrolysis accuracy.	Install one or two "hard water" prefilters along with a "remineralizing" prefilter to reduce hardness and scale and add soluble minerals to water.
"Hard" water (16 grains and higher)	Water contains excessive mineral content that will shorten Genesis filter life and reduce electrolysis accuracy.	Install Reverse Osmosis filter to purify water (removes scale). Install remineralization prefilter to add minerals to water for ionization.

<b>Source Water</b>	<b>Comments</b>	<b>Solution</b>
“Soft” water (below x grains)	Water lacks enough mineral content for Genesis to produce accurate pH and ORP water.	Install remineralization prefilter to precondition Genesis source water.
Excessive sediment.	Water contains material that may clog Genesis filters.	Install sediment (hard water) prefilter.
Soft Water (from salt – based water softener)	Water is void of minerals necessary to ionize water. Salt content in water may damage Genesis electrolysis plates.	Install Reverse Osmosis filter to purify water (removes salt). Install remineralization prefilter to add minerals to water for ionization.
R/O Water	Water is void of minerals necessary to ionize water.	Install remineralization prefilter to add minerals to water for ionization.
High Fluoride Water	Water has high levels of fluoride, usually in cities.	Install fluoride prefilter.
Chloramine in Water	Water has chloramines (chlorine bonded with ammonia).	Install Reverse Osmosis filter to purify water (removes chloramine). Install remineralization prefilter to add minerals to water for ionization.
Heavy Metals in Water	Water has heavy metals like arsenic in water (typical in desert states).	Install heavy metal (KDF) prefilter.

**Note:** All prefilters are available on - [www.ecomart.ws](http://www.ecomart.ws)