

Table of contents

PRODUCT

Safety Precautions	03/04
Names And Functions	05/06
How to Use	07/12
Replacing Your Filter	13/14
Composition of Filter	15
How to measure pH	16
Counter Top Installation Instructions	17
Installation Instructions	18/20
Trouble Shooting Guide	21/22
Product Specifications	23

Safety precautions

Read the recommendations below before installing the ionizer

DO NOT MAKE A REPAIR YOURSELF! Attempting to do so will VOID your warranty!
Contact service center if the machine breaks down.



If your machine becomes submerged in water, unplug the power cord from the wall before removing your machine from the water. Failure to do so may result in electric shock!



NEVER touch the power cord or plug with wet hands. This may result in electric shock! Make sure the power plug is firmly and properly inserted into the outlet. Failure to do so may result in electric shock or fire!



Protect your machine from freezing temperatures and direct sunlight.



DO NOT use your machine at voltages other than what is specified. DO NOT plug in your machine where it will exceed the rating of the outlet or electric wiring. or damage to yourself, the wiring, or the machine!



DO NOT run hot water through your machine. DO NOT clean by pouring water over or spraying the machine.



Unplug your machine if you do not plan to use it for an extended period of time (approximately seven days). Turn off the master power switch on the back of the unit. Filter replacement may be necessary



Make sure to use your machine only with potable water. DO NOT attempt to repair or service the machine yourself!



If the appliance makes strange or unusual noises. If burning smells are detected, unplug the power cord immediately and contact customer service



DO NOT close, bend, pinch, press or otherwise obstruct output ports or hoses.

pH reagent liquid precautions



It is combustible.
DO NOT expose the pH measuring reagent to extreme heat, flames, or fire.



DO NOT drink the pH reagent liquid and avoid contact with the eyes and skin. If the liquid is ingested, induce vomiting immediately and call a doctor. If the liquid gets in the eyes, flush immediately and thoroughly with cool water. Call a doctor. If exposed to your skin, wash it off immediately.



Make sure to keep the pH reagent liquid tightly closed and out of the reach of children.

Some helpful tips



DO NOT store alkaline water in stainless steel, bronze or aluminum containers. Glass or ceramic is best for storing your alkaline water, but you can also use a high-quality plastic container.

Always try and keep your stored water cool and away from direct sunlight.

Water is always best fresh out of the machine and ideal if consumed on a day-to-day basis.

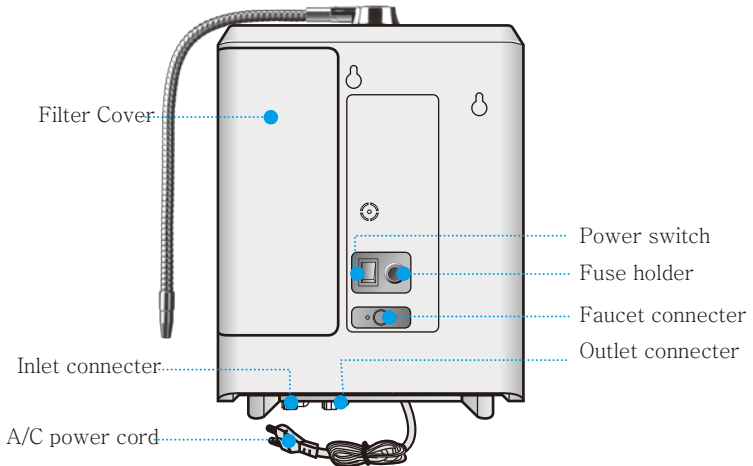
Save the box and Styrofoam your machine came in. This will help if your machine needs to be transported at a later date. If you are using your machine downstream of a reverse osmosis system are running reverse osmosis water in your home, remineralization of the water will be needed if you want strong acid water.

Names and functions

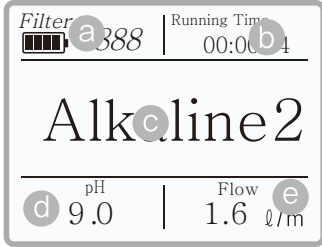
Front Side



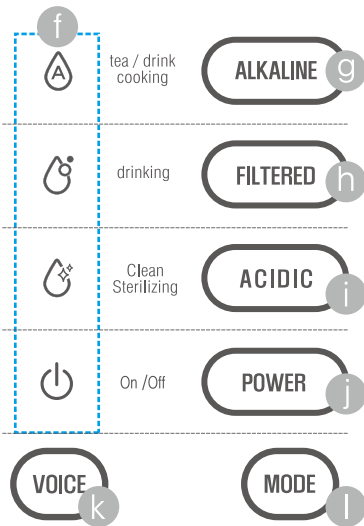
Back Side



Indicators / Controls



- a Displaying filter lifespan
Indicating total remaining filterlife
- b Displaying water discharging time
Indicating usage time
- c Displaying number of grade in use
Indicating the made currently in use
- d Displaying pH
Indicating pH for each mode
- e Displaying volume of supplied water
Indicating total water flow per minute



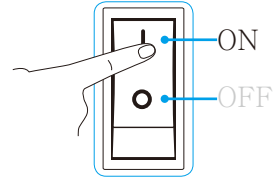
- f Setting display
Method to use lamp which is on when each function is selected
- g Alkaline selection button
Button used for when using alkaline water
- h Water purification button
Button used for when using filtered water
- i Acidic selection button
Button used for when using acidic water
- j Power button
Button which is used when on/off
- k Voice button (muting voice sound)
Function that can make voice sound on/off which is made when each function is selected
- l Setting button
Button which sets each function

How to use

Initial operation

1 Power up your ionizer.

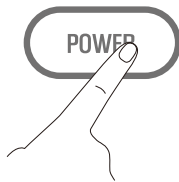
Turn on power switch on back side after plugging power code into socket.



Signal sounds, initial screen appears and disappears again which makes it stand-by status.

2 Start water flow through your ionizer.

- Press the **"POWER"** button which opens the internal valve in your ionizer.
- The Digital Filter Life Indicator will begin and you will hear your ionizer's "voice" announcing the selected mode of operation.



NOTE

The water may initially come out discolored (light to charcoal gray) due to carbon particulates in the new filter.

This is not harmful and is typical of all carbon filters. Allow the water to flow for 2-3 minutes in the "Filtered" mode to flush all the carbon dust.

When drinking alkaline water

1 Repeat steps 1–3 above, or with water already running through the machine then

2 When pressing **"ALKALINE"** water selection button, graphic lamp is on which indicates character of alkaline water, number of grade, and announcement can be heard which informs alkaline water grade.

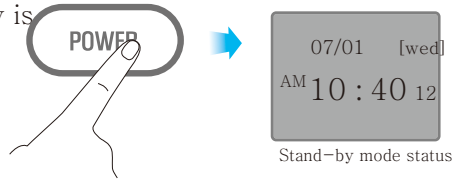


Whenever you press alkaline water selection button repeatedly, it changes number of grade.



How to stop

Press the **"POWER"** button, water supply is stopped and it is converted to stand-by status automatically.



NOTE

If alkaline water function is set previously, alkaline water used in previous step is discharged

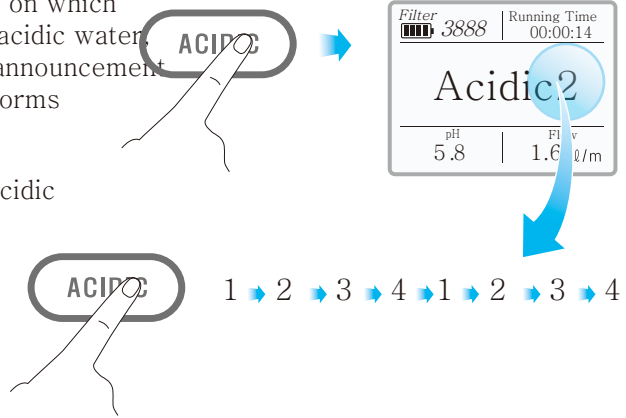
When using acidic water

※This function is necessary when getting a lot of acidic water and using it for washing face or body.

1 Repeat steps 1–3 above, or with water already running through the machine then

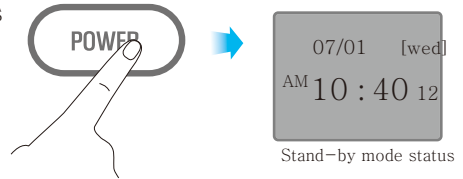
2 When pressing "ACIDIC" water selection button, graphic lamp is on which indicates character of acidic water, number of grade, and announcement can be heard which informs acidic water grade.

Whenever you press acidic repeatedly, it changes number of grade.



How to stop

Press the power button, water supply is stopped and it is converted to stand-by status automatically.



⚠️ ※Acidic water is not drinking water. Be careful not to drink acidic water, confusing it with alkaline water.

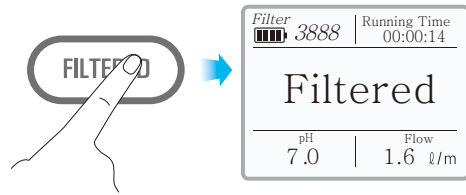
NOTE

If acidic water function is set previously, alkaline water used in previous step is discharged

When drinking purified water

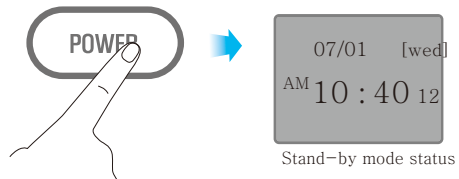
1 Repeat steps 1–3 above, or with water already running through the machine then

2 When pressing **"FILTERED"** water selection button, display will indicate the filtered mode.



How to stop

Press the power button, water supply is stopped and it is converted to stand-by status automatically.

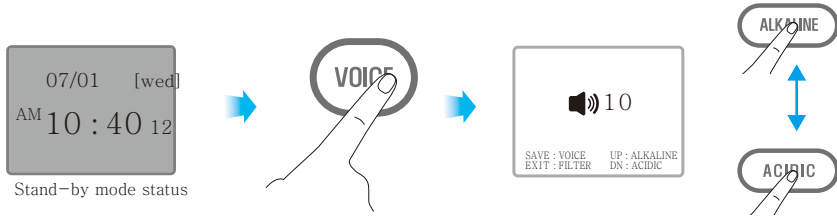


NOTE

If filtered water function is set previously, filtered used in previous step is discharged

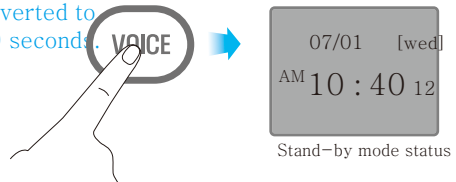
Volume adjusting function for voice information

- 1 Press **"VOICE"** button for 3 to 5 seconds under stand-by mode.
Adjust volume by alkaline and acidic button. Volume consists of 0 to 10 steps.



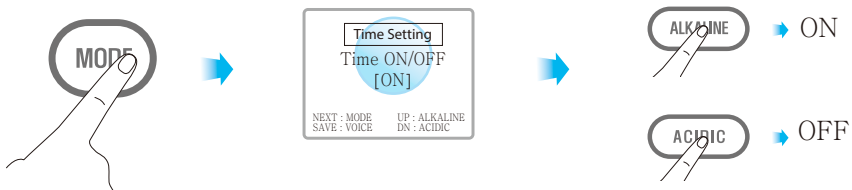
- 2 If saving volume by pressing **"VOICE"** button, it is converted to stand-by screen.

※If there is no additional operation after completing volume adjustment, it is saved and converted to stand-by status automatically after 10 seconds.



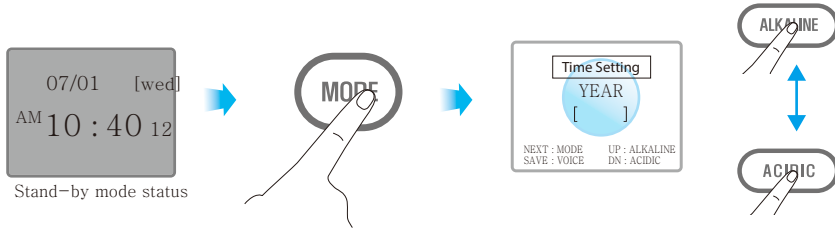
Stand-by screen adjusting function

After entering setting **"MODE"** screen by pressing setting button among stand-by mode, set ON/OFF function for stand-by screen by pressing alkaline button.



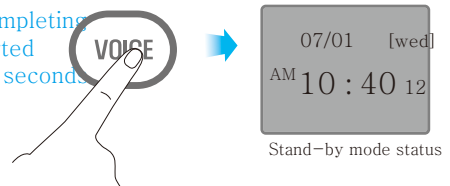
Time and date adjusting function

- 1 After entering setting mode by pressing **"MODE"** button on stand-by mode, select date and time by setting button and adjust them by alkaline and acidic buttons respectively.



- 2 When saving it by pressing **"VOICE"** button, it is converted to stand-by screen automatically.

※If there is no additional operation after completing volume adjustment, it is saved and converted to stand-by status automatically after 10 seconds.

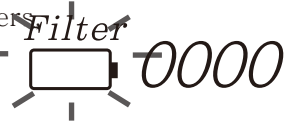


Replacing Your Filter

How to replace the filter

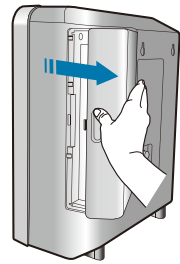
! IMPORTANT! Stop operating product before replacing the filter

1 When lifespan of filter comes to an end, graphic figure of filter indicates 0000 and filter change icon flickers, which is informing that it's time to change filter.



Stop supplying water by turning power switch on back side of product to OFF position.

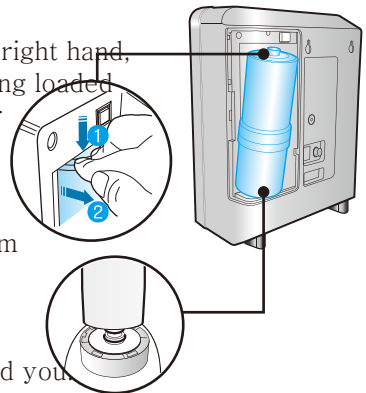
2 Open the filter cover.
slide the cover to the left and remove it.



3 Remove the expired filter.

Taking hold of the filter securely with your right hand, press the filter firmly down against the spring loaded mechanism to disengage the top of the filter and then pull it toward you and up to remove it.

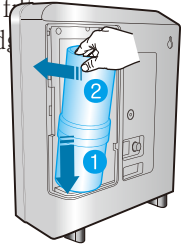
The upper part of the filter is separated from housing by pressing firmly down. Once you have engaged the spring loaded mechanism, you can then easily remove the filter from the main body by pulling it toward you. Remove filter with the same as method above.



! Check for leakage by running water through your ionizer before replacing the housing cover.

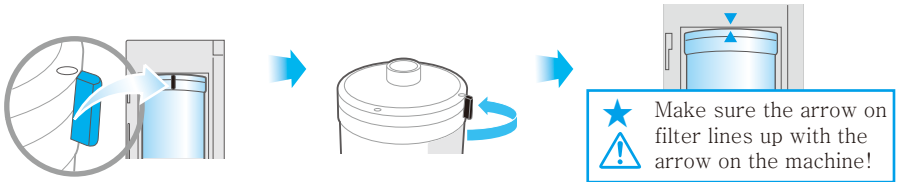
4 Insert the new filter into the compartment.

Remove the plastic caps covering both ends of the new filter. Seat the large opening on the bottom of the filter cartridge onto the base in the center of the filter cushion. Push the filter down and into the housing compartment ensuring the opening at the top of the filter is seated properly into the fitting at the top of the housing.



Once new filter is installed, rotate the filter until the arrow on the filter is aligned with the arrow on the machine.

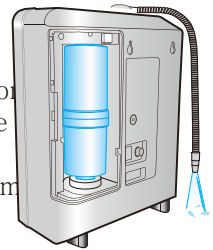
Your filter is equipped with a genuine chip. This chip communicates with the machine how much water has flowed through the filter.



5 Flush out the carbon dust.

The water flowing through will initially come out discolored (light to charcoal gray) due to carbon particulates in the filter. It is not harmful.

Allow the water to flow for 2–3 minutes in the filtered mode and this will flush all the carbon dust.



6 Replace the filter cover.

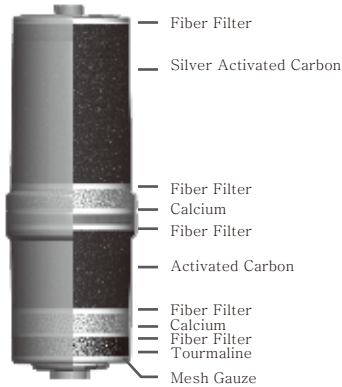


Please replace filter when any one of the following occur:

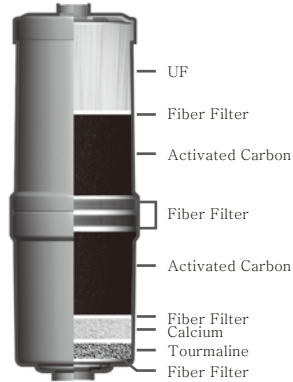
- When severely polluted water has been run through the ionizer and filter
- Excessive odor in output water and/or severely decreased flow rate
- After prolonged period of inactivity of over 30 days

Composition of Filter

High Performance NSF Filter



High Performance NUF Filter (Option)



CAUTION

It is better to use UF (Combined hollow fiber membrane) filter initially, with power off, after making water of 20 l (1kgf/cm²) flow for approx. 5 minutes at minimum without fail, in order to eliminate hydrophilic substance.

(If water pressure is below 1kgf/cm², a time longer than 5 minutes is needed)

Recommended period for changing filter

Effective period of filter use may differ greatly depending on season, usage, and environment. (I.E. water pressure, quality, and amount of use)

REFERENCE

Change filter when follow phenomena occur even filter change icon does not flicker.

- When water flows little because filter is blocked due to heavily contaminated water
- When water smells because seriously contaminated water is flowed in
- When lots of foreign substance in water (turbid water, invisible substance) is eliminated in a short time
- When reusing it after you do not use it for a long time

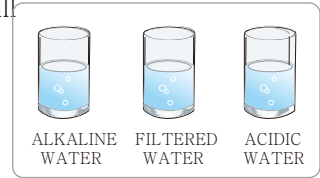
If filter is new, initial water can be black and turbid. It is not harmful to health because it is activated dust which is spilled from inside of filter.

How to measure pH

! IMPORTANT!

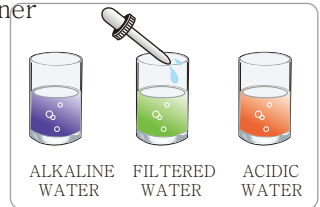
Water quality and mineral content vary greatly in different locations and will directly impact machine performance with respect to pH and hydrogen production.

Fill the three test containers provided about 1/2 full with alkaline, acidic, and filtered water each.



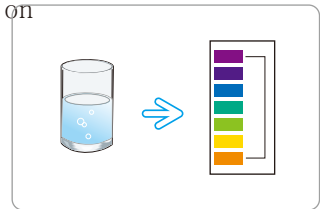
Add 2 or 3 drops of the pH reagent into the container and stir if needed.

If the reagent and water are not mixed well, the correct result may not occur, mix well.



The pH value is determined by matching the color on the pH color chart provided.

A digital pH meter is more accurate than reagent.



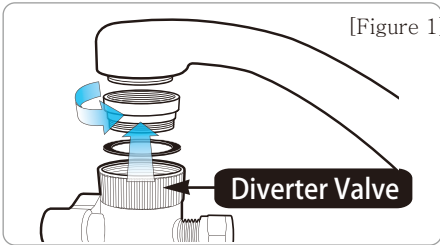
! CAUTION

- DO NOT consume water containing pH reagent.
- Keep the pH reagent liquid and color chart away from OPEN FLAMES!
- If contact with eyes, flush liberally with fresh water, and seek medical help.
- If ingested, induce vomiting, and seek medical help.

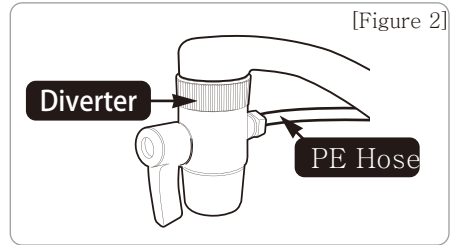
Installation Instructions

Installation: Connecting to a Standard Faucet

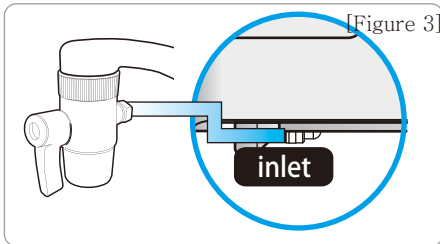
! CAUTION Before installing, shut off water supply.



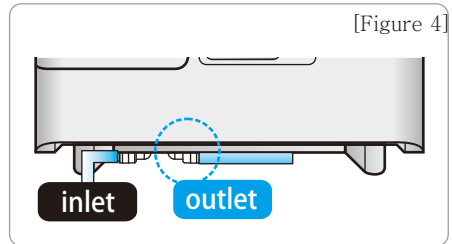
1 Remove aerator from faucet. Attach diverter valve. Use sizing rings and grommet if needed.



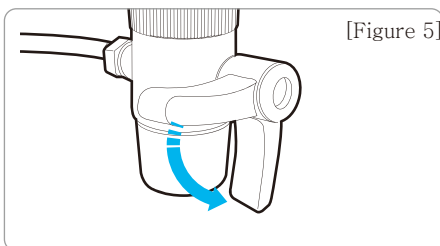
2 Connect 1/4 in. (PE) hose to the diverter in "Figure 2". Shown above.



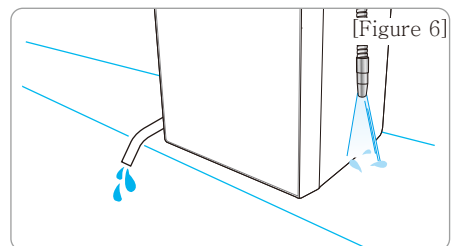
3 Push the 1/4 in. (PE) hose all the way in the water inlet at the bottom of the machine.



4 Connect stainless steel acid line to the acidic outlet and allow it to drain into your sink.

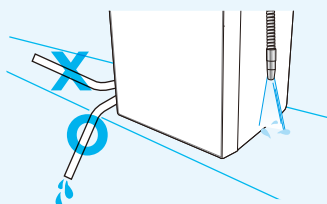


5 After finishing the connection of "Figure 4" open the water supply valve and adjust the water pressure.

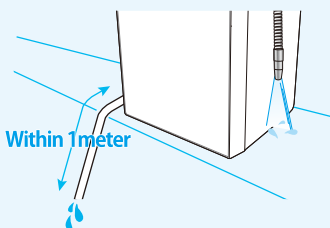


6 Check for leaks on all connections after installation is completed.

! CAUTION



Acidic water tubing must not be raised higher than the base of the product.



Within 1meter do not use the outlet hose to be longer than 1meter

! CAUTION

When using a Reverse Osmosis filter prior to the machine, you will need to verify the R.O. storage tank pressure is 11–13 psi. You will also need to remineralize the water to have at least 100 TDS in the water for optimum performance. You can purchase a TDS meter inexpensively.

Accessories



Water Spout



Elbow



Teflon tape



Fitting spanner



Diverter Valve



Manual



1/4 in. Water Source Hose (5m)



Dust Pre-Filter



Color chart



pH test kit

Trouble Shooting Guide

Abnormal condition	Cause(s)	Resolution
The Function Display Panel does not come on.	A power plug is not properly inserted, or it is inserted into a faulty outlet.	Properly insert power plug into a correctly functioning power outlet
	The fuse is blown. The fuse is not inserted properly	Replace the fuse. A spare fuse is located in the rear-panel fuse holder.
pH test shows alkaline water color as neutral (7) while acidic water color gets yellow (6). This is normal if initial pH is 6.5	Faulty or evaporated reagent: alkaline / acidity are always produced in inverse proportion. Therefore, showing an acidic color means inversely that alkaline water has to be generated from the unit. Lack of alkaline color can result from a chemical reaction where carbonic acid in water evaporates some test reagent elements.	Test pH value on level 3 or 4 water; replace reagent.
Power supply is suddenly cut off while operating the unit.	Elevated level of salt in the water or high TDS; extended operation at high pH; sudden change in electrical current. In these cases your machine will shut down automatically to protect the electrodes and circuitry.	Wait – the unit will become operational again after about one hour. Your Machine has a safety mechanism built-in to protect the electrodes and circuitry. This mechanism will shut the Machine down automatically. This mechanism protects the unit from overuse or excessive electric current.
Low output of alkaline water from the unit.	Filter is clogged. Premature clogging may be caused by sudden drop in water quality and an influx of sediment or other contaminants, which stress the filter.	Replace your filter or clean dust-pre filter. There may be calcium build up in the top spout. Clean the machine with commercial (30%) vinegar. Call Customer Support to order new filter.
	Low pressure in your household plumbing.	Ensure water supply valves are fully open. The water pressure in house may be too low.
	The input hose is bent, kinked or otherwise restricted.	Straighten the bent hose.

Abnormal condition	Cause(s)	Resolution
The Function Display Panel / display indicators do not come on even after turning the tap on.	Faulty PCB (Printed Circuit Board)	Immediately unplug the unit and contact Customer Svc. arrange service.
Strange smell from Alkaline water.	Expired filter from ordinary use or premature clogging due to contaminants in water quality.	Replace your filter.
	Sudden change in water quality with elevated level of Sulfur (not Chlorine). Elevated Sulfur levels are observed in some areas during summer months. These levels fall within safe drinking water standards, yet will cause a reaction with ionized water causing a unique smell.	Select lower pH level (1-2). If still present, filter replacement may be necessary.
Water appears murky; white snow like particles in the bottom of your glass.	You have high hardness (calcium primarily) in your water. The white is extracted CaCO ₃ (Calcium carbonate). After CO ₂ in water is bonded with Ca where elevated levels of CO ₃ exist in your water. In water where elevated levels of CO ₃ exist, what you see after ionization is CO ₂ in the water bonded with Ca.	This is calcium and is harmless. You can lower the alkaline setting to 1 or 2. Lower the voltage to the electrodes. Typically this only occurs in extremely hard water. You can also add a softening pre-filter.
At first no smell, but then smell from the alkaline water about one hour after.	Your water bottle needs cleaning. Expired filter. Dish washer detergent is embedding itself in the bottle's materials.	Clean your bottle or container. Select lower pH level (1-2). Replace your filter. Change dishwasher detergent brand
Water leakage from the filter cartridge housing.	Filter not installed correctly into filter housing.	Remove your filter and reinstall it properly following the filter replacement instructions. Increase the quantity of source water inflow.
No acid water flow from the acidic output port.	Acidic output hose is bent, kinked or otherwise restricted.	Straighten the bent hose; increase water flow from supply.

Product Specifications

Product Manufacture Permission Number	No. 610 by KFDA (Korea Food & Drug Administration)
Feature	Ion Water Generator
Model	SM-S112TL
INPUT Voltage	AC 120V or 240V, 50Hz~60Hz
Power Supply	SMPS(9P)
Power Consumption	SMPS(380W)
Overall Dimension	270 x 383 x 135 (WxHxD) mm
Applicable Water Inflow Pressure	0.7~5kgf/cm ²
Applicable Water Temperature	5~30℃
Unit Operation Type	One Touch Automated Ionization Start
Electrolysis Method	Continuous Electrolysis
Electrode	9 Plate (Platinum over Titanium)
Electrolysis Capacity	DARC system, (3.5L/min. at 3.5kgf/cm ²)
Electrolysis Setting	Alkaline (4level) / Purified Water / Acidic (4level)
pH Value	pH 4.0(±0.5)~10.5(±0.5)
Filter Replacement	Easy Replaceable Cartridge
Filter Composition	Activated Carbon Filter, UF Membrane Filter
Filter Life	Approximately 6months (20liter/day)
Display Method	TFT LCD(3.2 INCH)

Protection type and class against electric shock : Class II device, Type B applied part

MEMO

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MEMO

A series of horizontal dashed blue lines, spaced evenly down the page, intended for writing a memo.

SM-S112TL

Alkaline Water Ionizer

Owner's Operation Manual

SM-S112TL

Alkaline Water Ionizer

Warning: Incorrect installation and/or operation could void your valuable warranty

Please protect your investment! **READ THIS MANUAL CAREFULLY**



Enjoy drinking alkaline water that is:

- ⊕ Alkaline
- ⊕ Oxygen rich
- ⊕ Molecularly altered to improve hydration
- ⊕ Antioxidant

Use acidic water that is:

- ⊕ A fantastic astringent for skin care
- ⊕ A good antiseptic
- ⊕ Great for cleansing

