

Alkaline Water Ionizer



SM-V112TL Alkaline Water Ionizer

Enjoy drinking alkaline
water that is:

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

Use acidic water that is:

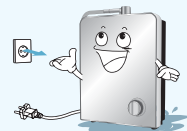
- + A fantastic astringent for
skin care
- + A good antiseptic
- + Great for cleansing

Warning: Incorrect installation and/or operation could
void your valuable warranty.
Please protect your investment! READ THIS
MANUAL CAREFULLY

! Safety Precautions

If the product is immersed in water by accident, remove the plug from the socket and remove the product from water.
Contact the Service Center.

- ▶ It may cause electric shock.



Do not use power outside the power rating of the socket or device.
In any case power other than 220V **MUST NOT** be used.

- ▶ Do not use the product with other electric devices at the same time as it may cause fire.



Do not pull on the power cord.
Do not touch the plug with wet hand.

- ▶ It may cause electric shock.
- ▶ Excessive dust on the plug may cause moistening leading to poor insulation or fire. Remove the plug from the socket and wipe off with dry cloth.



Push in the plug all the way to the socket.

- ▶ Loose connection may cause electric shock or heat generation leading to fire.
- ▶ Do not use a defective plug or loose socket.
- ▶ Do not bend the power cord by force.
- ▶ Do not damage or deform the cord by placing a heavy object over it. (It may cause fire or electric shock.)
- ▶ Wipe off dust or water from the plug pins and the connection parts. (It may cause fire or electric shock.)

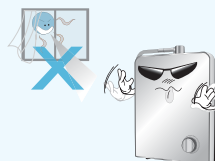
Do not install the product in an area exposed to freezing or direct fire.

- ▶ Ambient temperature : 10~40°C, Water temperature: 5~30°C
- ▶ This product should not be installed in a location where it may be subject to freezing temperatures.



Install away from excessive humidity or dust, water splashes or direct sunlight.

- ▶ It may cause fire or electric shock.



Connect the product to the cold water pipe.

- ▶ Connection to the hot water pipe may damage the filter or electrolyzer.



Do not install the acidic water hose higher than the product;
Keep the length below 1.5m, and do not immerse the hose in water.

- ▶ It may cause insufficient water flow or poor water discharge.

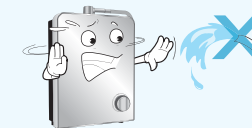
Do not disassemble, repair or alter the product.

- ▶ It may cause fire or electric shock. Please contact the retailer or the Service Center for repair.



Do not splash water to the product.
Do not wash the product with water.

- ▶ It may cause short, electric shock or breakdown.



Do not block the Water Output.
Do not bend, twist or press the hose.

- ▶ It may cause water leak, incorrect pH level in water or product malfunction.



Remove the plug from the socket immediately if there is abnormal noise or smell from the product, and contact the Service Center.

- ▶ It may cause fire or electric shock.



Do not use water other than drinking water.



Do not place the pH measuring solution near fire.

- ▶ It may ignite leading to fire.



Before using the product that had not been in use for a long period of time, let water flow for 2~3 minutes to ensure proper operation of the product.

Do not use aluminum containers that are vulnerable to alkaline, or copper containers that are vulnerable to acid.

- ▶ Metal containers may cause corrosion or weaken the activation condition.



The pH measuring solution must not be swallowed, put in eyes or applied to the human body.

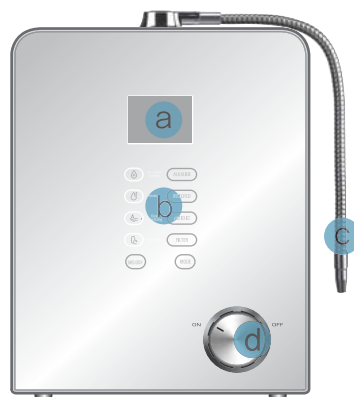
- ▶ If swallowed by accident, drink plenty of water to induce vomiting. If got in the eyes, wash off with plenty of water. Contact the physician immediately.

- ▶ If splashed onto the human body, wash off with plenty of water. Keep the solution capped and away from the reach of children.



Name and action of each part

Front side



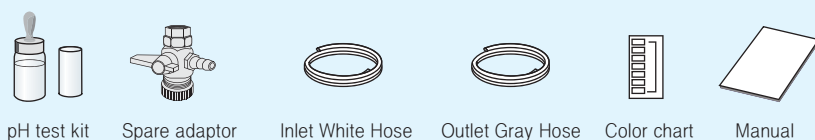
- a** Display
Display which indicates operational status when device is activated.
- b** Function selecting button
Button which is used when each function is selected.
- c** Alkaline water discharging nozzle
Passage through which alkaline water comes
- d** Water supplying valve
which supplies/blocks raw water to main body

Back side

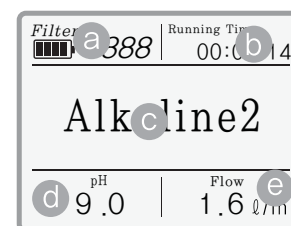


- e** Power switch
Device which supplies/blocks power to main body
- f** Fuse holder
Safety device which controls overload
- g** Acidic water discharging hole
Passage through which additionally generated acidic water comes
*Passage through which alkaline water comes at the time of washing
- h** Water supplying hole
Passage through which water is supplied to main body inside
- i** A/C power code
Power connecting code

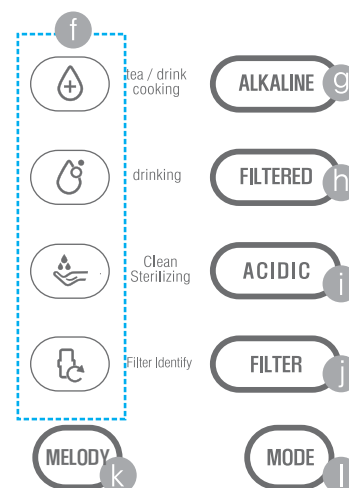
Accessories



Displaying part and operating part



- a** Displaying filter lifespan
Indicating total amount of filter use
- b** Displaying water discharging time
Indicating time during which water is discharged
- c** Displaying number of grade in use
Indicating number of grade in alkali/acid and purification currently in use
- d** Displaying pH
Indicating pH for each grade
- e** Displaying quantity of supplied water
Indicating total quantity of current water flow per minute

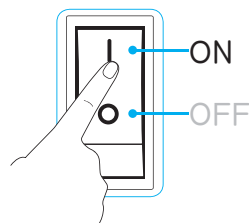


- f** Setting display
Method to use lamp which is on when each function is selected
- g** Alkali selection button
Button which is used when function of alkaline water is selected
- h** Water purification button
Button which is used when function of water purification is selected
- i** Acid selection button
Button which is used when function of acidic water is selected
- j** Filter Identify button
Button which is used when filter is Identify
- k** Melody button (muting melody sound)
Function that can make melody sound on/off which is made when each function is selected
- l** Setting button
Button which sets each function

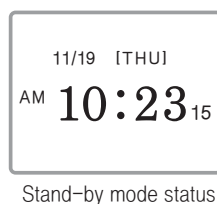
How to use

Initial operation

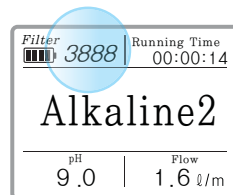
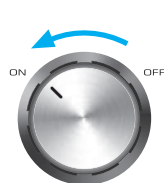
- 01 Turn on power switch on back side after plugging power code into socket.



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



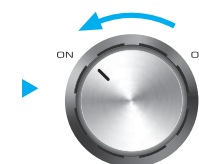
- 02 When supplying water by turning on water supplying valve, voice announcement can be heard according to previous mode, and counting lifespan of filter starts



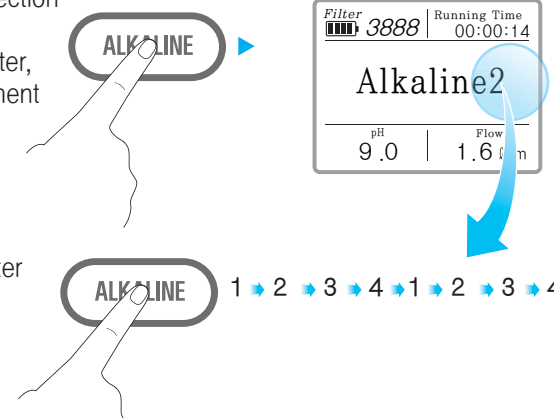
When drinking alkaline water

※4th grade of alkaline water is recommended for special use.

- 01 Supply raw water inside by turning on water supplying valve under stand-by mode.



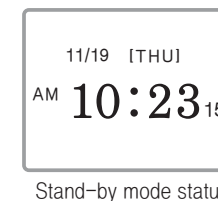
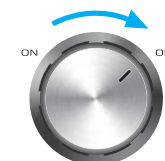
- 02 When pressing alkaline water selection button, graphic lamp is on which indicates character of alkaline water, number of grade, and announcement can be heard which informs alkaline water grade.



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

How to stop

If turning water supplying valve to OFF position, water supply is stopped and it is converted to stand-by status automatically.



Reference

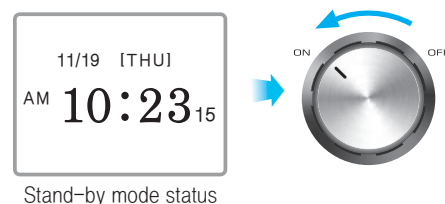
If alkaline water function is set previously, alkaline water used in previous step is discharged without additional operation when you turn water supplying valve to ON position.

How to use

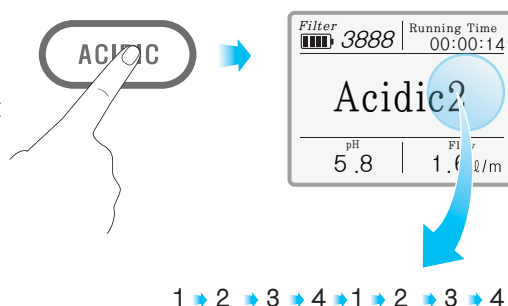
When using acidic water

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

- 01 Supply raw water inside by turning water supplying valve to ON position under Stand-By mode.



- 02 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 water selection button repeatedly, it changes number of grade.

How to stop

If turning water supplying valve to OFF position, water supply is stopped and it is converted to Stand-by status automatically.



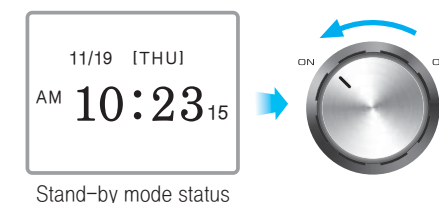
⚠ ※Acidic water is not drinking water. Be careful not to drink acidic water, confusing it with alkaline water.

Reference

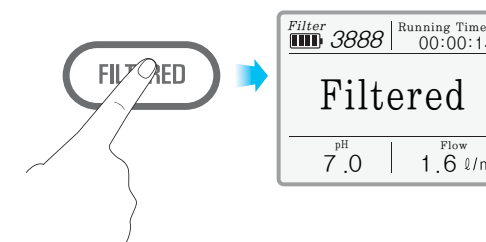
If alkaline water function is set previously, alkaline water used in previous step is discharged without additional operation when you turn water supplying valve to ON position.

When drinking purified water

- 01 Supply raw water inside by turning water supplying valve to ON position under stand-by mode.

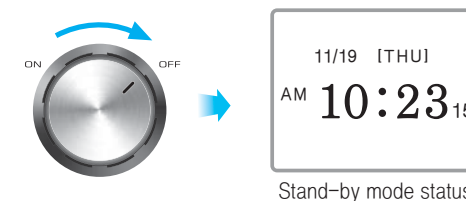


- 02 If pressing purified water selection button, graphic lamp of purified water character is on, and announcement can be heard saying that "this is purified water" and purified water is discharged.



How to stop

If turning water supplying valve to OFF position, water supply is stopped and it is converted to Stand-by status automatically.

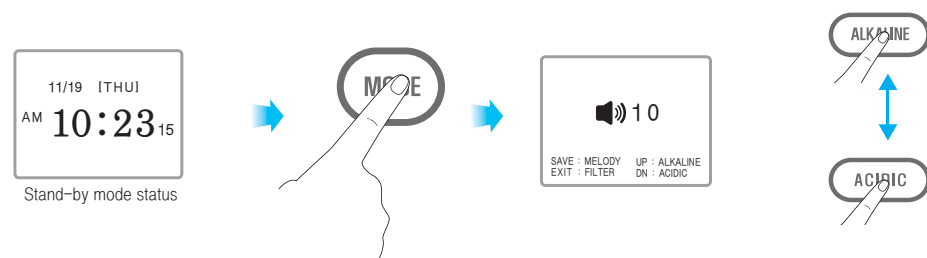


Reference

※When turning on water supplying valve under stand-by release status, purified water is discharged. (However, voice is not heard and graphic does not flicker.)

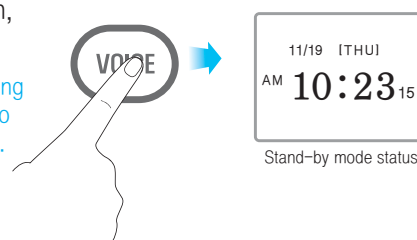
Volume adjusting function for voice information

- 01 Press melody button for 3 to 5 seconds under stand-by mode.
Adjust volume by alkali and acid button. Volume consists of 0 to 10 steps.



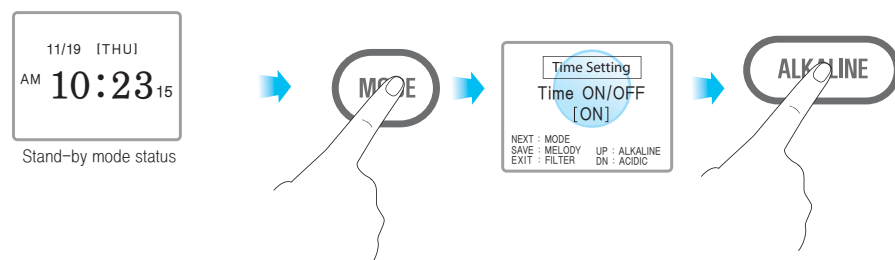
- 02 If saving volume by pressing melody button, it is converted to stand-by screen.

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



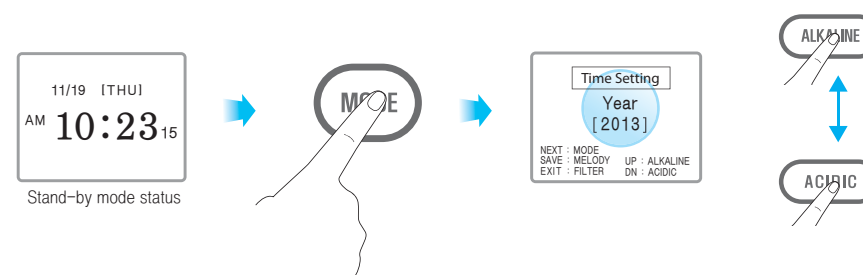
Stand-by screen adjusting function

After entering setting mode screen by pressing setting button among stand-by mode, set ON/OFF function for stand-by screen by pressing alkali button.



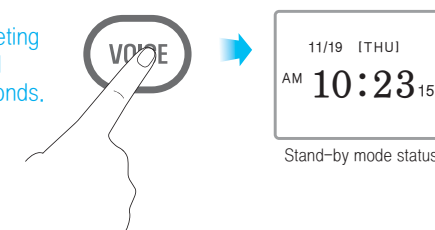
Time and date adjusting function

- 01 After entering time setting mode screen by pressing setting button among stand-by mode, select year, month, date, hour and minute by setting button and adjust them by alkali button and acid button respectively.



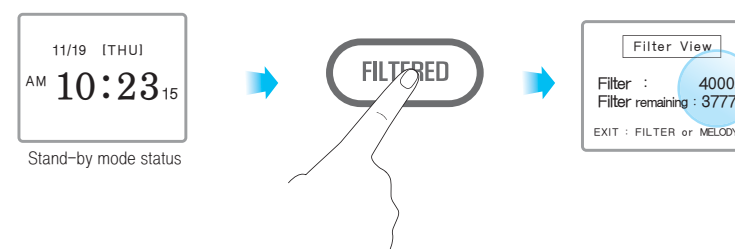
- 02 When saving it by pressing melody button, it is converted to stand-by screen automatically.

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



Function that checks filter capacity and amount of its use

If pressing filter button among stand-by mode, you can check filter capacity and its remaining capacity.



Change of genuine filter

Use genuine filter only.

※When changing filter, change it after checking whether it is genuine filter (tag attached) or not without fail.



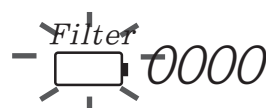
Caution



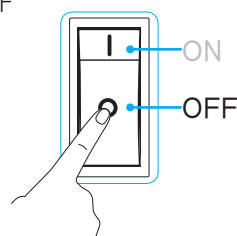
If you do not use genuine filter and use similar product instead, electrolysis function is not activated, only purified water is discharged and problem may occur at the time of electrolysis because dust and grain generated from activated carbon is flowed into electrolytic cell. Use genuine filter definitely. If there arise some problems, free after service is not available. (Period for free after service: 1 year)

How to change filter (For recognizing genuine product)

01 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.

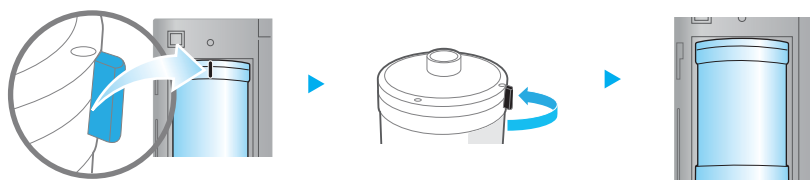


02 Stop supplying water by turning power switch on back side of product to OFF position.

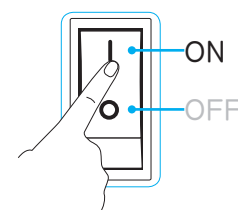


03 After having projected part of genuine filter face toward front, equip it in line with bottom groove and push it inside.

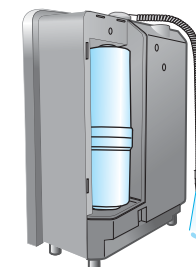
04 Equip filter by turning projected part of filter until it can not be turned any more in one direction.



05 Turn on power switch on back side of product.



06 Check water leakage after making water flow for 2 to 3 minutes by opening water supplying valve with power off.



Filter Reset

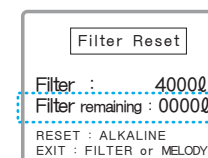
Filter reset function

This is the function that initializes filter by MICOM, of which lifespan comes to an end.

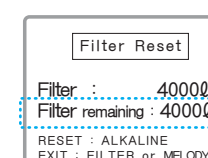
01 Press and hold the filter button for 3 seconds.

02 Press and hold the alkaline button for 3 seconds.

3 seconds



3 seconds



Reference

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.

Composition of filter/ How to measure pH

Composition of filter



④ Hollow fiber membrane

Impure particle is filtered, and virus, bacteria and germ can be eliminated through microscopic gas pocket

③ Granular activated carbon

eliminates smell, taste and chemical substances such as disinfectant, agricultural chemicals, phenol and trihalomethane

② Calcium

effective in eliminating chlorine in water.

① Membrane filter

Floating material, rust and residue of which particle is relatively big can be filtered.

Caution



It is better to use UF (Combined? hollow fiber membrane) filter initially, with power off, after making water of 20 L (1kg/cm²) flow for approx. 5 minutes at minimum without fail, in order to eliminate hydrophilicity substance.
(If water pressure is below 1kg/cm², longer time is needed than 5 minutes.)

Recommended period for changing filter

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

Reference

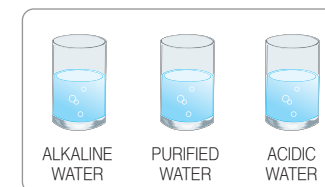
Change filter when follow phenomena occur even filter change icon does not flicker.

- ▶ 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

How to measure pH

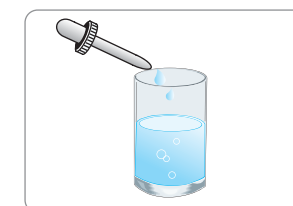
Important Note: Water quality and mineral content vary greatly in different localities and will directly impact performance of your ionizer with respect to pH.

- 01 Fill one of the test tubes provided about 1/4 full with alkaline, acidic or purified water.

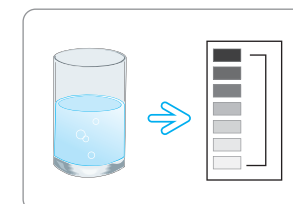


- 02 Drop 2 or 3 drops of the pH reagent into the container and shake it.

If the reagent and water are not mixed well, the correct result may not be and shake it.



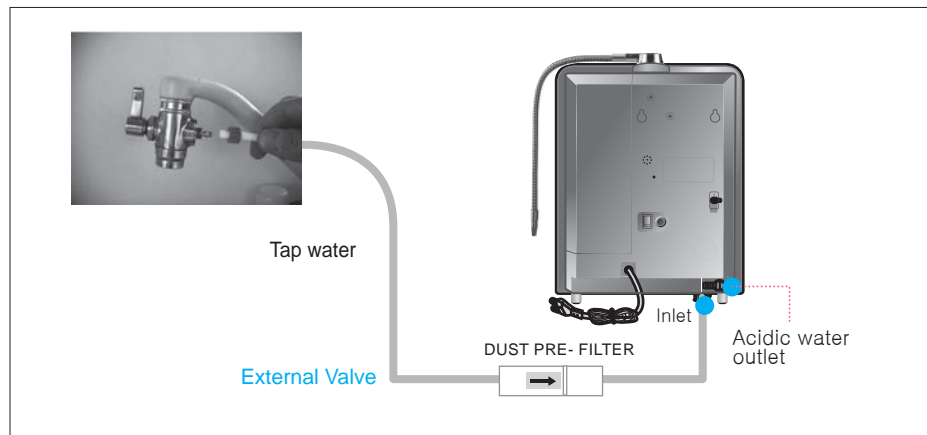
- 03 The pH value is determined by matching the color the pH color chart provided.



Caution

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

How to Install



Installation method

Your gives you the option of three installation methods:

- 1) at your sink attached to your faucet with a diverter,
- 2) at your sink but plumbed directly to your cold water line (no diverter) and,
- 3) undersink – completely out of sight with a small dedicated faucet.

It is recommended that methods 2) & 3) be done by a plumber.

Installation Method 1) At the sink with a diverter (easiest)

1. ATTACH DIVERTER TO YOUR TAP

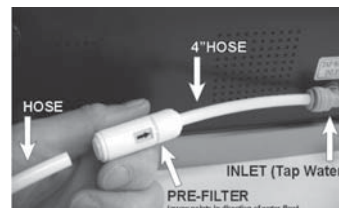
Remove the aerator from tap (pliers may be required), and attach diverter valve in its place. There are adapters supplied in case the diverter does not fit your tap. If you have leaks at the diverter, use plumber's Teflon tape (available at any hardware store for a couple of dollars).

2. CUT A FOUR INCH LENGTH OF WHITE HOSE

Using a very sharp utility knife, cleanly cut a four inch length of the white hose. The cleaner you make your cut, the less likely you will experience a leak.

3. ATTACH THE IN-LINE PRE-FILTER

There is a small black arrow on the pre-filter indicating water flow direction. The arrow on the pre-filter will POINT AT YOU IONIZER indicating water flowing toward the ionizer. Insert the four inch length you cut into the end of the pre-filter making by pushing firmly ensuring the arrow is pointing at the end of the four inch hose. The four inch length will be between your ionizer and the pre-filter.



4. ATTACH THE TAP WATER INLET HOSE TO YOUR IONIZER

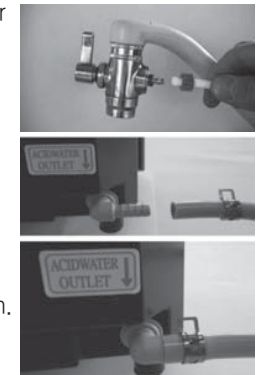
Attach the free end of the four inch length of white hose with the pre-filter attached to the gray port on the bottom of the ionizer. To attach the white inlet hose, by pushing it firmly into the grey tap water inlet port. (To remove it, press on the end of the fitting and pull it out at the same time).

5. POSITION YOUR IONIZER

This can be beside the sink, to the rear of the sink, or on the wall above the sink (there are keyhole slots on the back for this). Make sure it is on a hard and level surface

6. ATTACH THE TAP WATER INLET HOSE TO THE DIVERTER

- a. Insert the long length of white hose into the free end of the pre-filter (see photo).
- b. Remove the small compression nut on the back side of the diverter opposite of the diverter lever.
- c. Slide this nut over the end of the white hose with the threads positioned so you can screw it back onto the diverter.
- d. Push the white hose firmly onto the nipple, and then screw the compression nut back onto the nipple. Make sure the nut is screwed firmly in place, but do not over tighten. If you are having trouble getting hose on to the nipple, try soaking it in hot water for a minute.



7. ATTACH THE GRAY ACIDIC OUTLET HOSE.

The ACIDIC OUTLET port is on the lower right corner of the back of the ionizer, and is labeled with a red sticker. First slide, one of the small squeeze clamps over the end of the hose. To make it easier to attach, soak the hose in a cup of warm water for 20–30 seconds. Firmly push the hose all the way onto the gray outlet port. Squeeze the clamp and slide it over the port. Ensure the opposite end runs down into the sink. Cut the hose to a convenient length.

8. CONNECT THE POWER CORD to an appropriate GFI outlet.

9. INSTALL FLEXIBLE STAINLESS STEEL SPOUT

Screw this into the port on the top of the ionizer. Do not over tighten.

Trouble Shooting Guide

The product may not operate by improper use or trivial causes, rather than by break-down. Before contacting the Service Center for repair, please refer to the following:

Symptom	Check point	Troubleshooting
There is no display in the stand-by mode.	<ol style="list-style-type: none"> 1. Is the power cord properly connected? 2. Is the power switch turned ON? 3. Is the fuse broken? 4. Is the fuse holder properly coupled? 	<ol style="list-style-type: none"> 1. Connect the power cord properly. 2. Turn on the power switch. 3. Replace the fuse. (250V/2A) 4. Couple the fuse holder properly.
'Unregistered filter' shown on the display	<ol style="list-style-type: none"> 1. Did you replace the filter with an authentic filter? 2. Did you register an authentic filter? 3. Are you using a non-authentic filter? 	Replace with an authentic filter, and register it.
Even with the supply of raw water, there is no display.	<ol style="list-style-type: none"> 1. Did you replace the filter with an authentic filter? 2. Did you register an authentic filter? 3. Are you using a non-authentic filter? 	Replace with an authentic filter, and register it.
'Registration disabled' appeared on the display.	Have you attempted to register the filter more than 9 times?	Replace with an authentic filter, and register it.
Little or no water dispensed	<ol style="list-style-type: none"> 1. Is the supply of raw water sufficient? 2. Is the filter blocked? 3. Is the Input Hose bent? 4. Is the flow control on the faucet diverter locked? 	<ol style="list-style-type: none"> 1. Check if there is water cut. Check if the raw water valve is open, or the hose is bent. 2. Replace the filter. 3. Straighten the bent hose. 4. Open the flow control device and adjust the flow rate.
Power suddenly turns OFF during operation	<ol style="list-style-type: none"> 1. Is the fuse broken? 2. Have you used the product for a long period of time at once? 	<ol style="list-style-type: none"> 1. Replace the fuse. (250V/2A) 2. The product will stop to protect itself from over-current. Wait for 5 minutes to recommence.
The filter replacement lamp flickers.	Is the filter beyond the replacement cycle?	Replace the filter.

For symptoms other than those listed in this table, please turn power off the product, and contact the Service Center.

Symptom	Check point	Troubleshooting
Water tastes bad.	<ol style="list-style-type: none"> 1. Is the filter beyond the replacement cycle? 2. Electrolyzed reduced water is highly active, although it is suitable as drinking water, a trace of cl_2 may remain in the water leading to bad smell? 3. Over-electrolysis due to insufficient amount of input water may cause bad smell? 4. Is the hose for input water bent? 	<ol style="list-style-type: none"> 1. Replace the filter. 2. Adjust the pH level. If the problem persists, replace the filter. 3. Fit a booster pump to increase the amount of input water. 4. Unbend.
During the pH measuring test with the pH measuring solution, acidic water turns yellow but alkaline water changes to neutral.	Carbonic acid in water is momentarily turned to neutral due to chemical reaction.	This is harmless to the human body. The sight of it may be unpleasant, but it is safe to drink. Increase the amount of input water, or lower the pH level.
Bottled ionized water has foggy substances settled on the bottom.	Excessive carbonic acid (CO_2) in water bonds with calcium producing calcium carbonate ($CaCO_3$).	Increase the pH level.
No smell at first, but water smells after an hour of storage.	<ol style="list-style-type: none"> 1. Is the container contaminated? 2. Do you live in the area where water contains a lot of salt? 	<ol style="list-style-type: none"> 1. Use a glass container with a cap, and wash it often to keep clean. 2. The level of permittivity may vary from place to place due to varying degree of excessive electric charge. Lower the pH level.
Water leaking around the filter or somehow inside the product.	<ol style="list-style-type: none"> 1. Is the filter properly fitted in? 2. Is the leakage from somewhere other than the filter? 	<ol style="list-style-type: none"> 1. Remove the filter, check the O-ring and put the filter back. 2. Stop immediately and contact the Service Center.
No water dispensed from the Acidic Output.	<ol style="list-style-type: none"> 1. Is Water Output blocked? 2. Is the Water Output Hose bent? 	<ol style="list-style-type: none"> 1. The output line should be positioned lower than the Water Output of the product. 2. Unbend.

Product Specifications

Product Specification		
Production Permit No.		No. 610 by KFDA
Item Approval No.		Heo12-1692
Product Name		Alkaline Ionizer
Model		SM-V112TL
Input (Consumption) Power		000
Weight		Approx 4.5kg
Dimensions (W*D*H)		270 * 135 * 383mm
Operable Water Pressure		0.7 – 5kgf/cm ²
Operational Water Temp		5 –30℃
Control Method		All-in-one Input Water Valve ON/OFF Method
Operation Method		Opening and shutting Tap Water
Electrolysis Method		Continuous type
Electrolyzer	Levels of electrolysis concentration	1 – 4 levels
	Volume of ionized water	Max 2.0 ℓ /min (based on the Output Water)
	Cleaning Method	Fully automatic through the automatic channel conversion(DARC)
	Electrolysis Pole material	Platinum titanium
Purifier	Filter Replacement	Cartridge type
	Filter Life	Approx. 6 months (based on 20 ℓ home use)
	Filter Usage	In numbers on LCD
	Filter Structure	MUF (Complex Membrane Filter), MSF
Thermal Cut-out Device		A built-in temperature bi-metal
Water Supply		By direct connection to the tap water pipe

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

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