

Owner's Manual  
for your new

# Emco Tech Venus Water Ionizer



**EMCO TECH CO.,LTD**  
www.royalwater.com

Importer



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

## CONGRATULATIONS ON YOUR NEW PURCHASE!

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You have just purchased the finest, most advanced home water system in the world! Your new ionizer is designed to provide you with many years of healthy, "functional" water. There are many specific uses and benefits of this amazing water, so read this manual carefully to learn how to get both optimum performance out of your ionizer and to protect your investment.

Your new Emco Tech Venus produces filtered alkaline, ionized water.

Just exactly what is that? Your ionizer employs computer accurate and selectable magnetic energy to perform electrolysis through patented platinum bonded titanium electrodes inside a water cell. Inside this advanced cell, the magnetic energy separates the water into an alkaline (high pH) and acid (low pH) stream without using any chemicals.

Ionizing the water in this way re-structures the molecules and reduces their cluster size, binds extra oxygen molecules, and concentrates ionized, absorbable and beneficial minerals like Calcium, Magnesium and Potassium.

Your new Emco Tech Venus also produces Acidic water. This type of water is lower than neutral or pH7, and has many excellent uses. You will now have the convenience and benefits of water that "functions" in many ways that ordinary tap, filtered or bottled water cannot.


## TABLE OF CONTENTS

Important safety warnings and precautions .....	03-08
Lets take a tour of your new Venus! .....	09-10
Description of control panel features .....	11-12
Accessories .....	13
Installation procedure .....	14
Operation .....	15-16
How to set your individual pH levels .....	17
How to set cleaning period and cleaning time .....	18
Performance and measuring pH .....	19-20
How to replace your filter .....	21-22
Some uses for alkaline and acidic water .....	23-24
About your biostone filter .....	25-26
Trouble shooting guide .....	27-28
Product specifications .....	29


# IMPORTANT SAFETY WARNINGS AND PRECAUTIONS


⚠ **WARNING:** Please read these pages carefully. They contain very important information to keep YOU and your new Ionizer safe! When using your Ionizer, especially when children are present, basic safety precautions should always be followed, including the following:

## ELECTRICAL PRECAUTIONS AND SAFEGUARDS

 NEVER attempt to repair or service the unit yourself. Attempting to do so will void your valuable warranty! Contact your dealer to arrange service or repair.




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


 Do not use your Ionizer at voltages other than specified (AC 110V FOR USA). Use a GFI outlet. Do not plug in your Ionizer where it will exceed the rating of outlet or electric wiring. Failure to do so can result in fire, injury and/or damage to yourself, wiring or Ionizer!



 NEVER touch the power cord or plug with wet hands – this may result in electric shock!



 Do not wash your Ionizer by immersion or by pouring water over the main body; always unplug your Ionizer while cleaning the casing. Clean with a damp sponge or cloth.

 Ensure the power plug is firmly and properly inserted into the outlet – failure to do so may result in electric shock or fire!

 Keep the power cord and your Ionizer away from hot surfaces or appliances – failure to do so may result in electric shock or fire!

Do not operate your Ionizer with a damaged power cord or plug or insert into a faulty or worn outlet.

Never insert foreign objects into your Ionizer.


## Installation Precautions

 Protect your Ionizer from freezing temperatures.



 Protect your Ionizer from direct sunlight.



 Do not put anything heavy on top of your Ionizer. Do not install your Ionizer on an unstable or soft surface. Install only on a hard and level surface.





# IMPORTANT SAFETY WARNINGS AND PRECAUTIONS

## Maintenance Precautions

- Always unplug your ionizer when changing the fuse or cleaning your ionizer - failure to do so may result in electric shock.

## Common Sense Precautions

- Do not attempt to repair or service the unit yourself. Contact your dealer. Attempting to do so will void your valuable warranty!
- Make sure to use your ionizer only with potable water which is suitable for human consumption.
- DO NOT use your ionizer with well water, water with extreme hardness, high sediment or TDS levels without first consulting your dealer.

## During Use

- Do not run hot water through your ionizer.



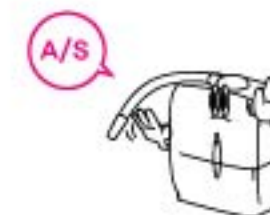
- Do not clean by pouring water over or spraying the ionizer.



- Do not close, bend, pinch, press or otherwise obstruct output ports or hoses.



- If the appliance makes strange or unusual noises or burning smells are detected, unplug the power cord immediately and contact your dealer to arrange service.



- Unplug your ionizer if you plan not to use it for an extended period or turn off the main power switch on the back of the unit. Filter replacement may be necessary. If unused for more than two weeks remove the filter and store in a refrigerator to inhibit bacteria or mold growth. Filter replacement is necessary if unused for more than two weeks and the filter is not refrigerated.



- GROUNDING INSTRUCTIONS -**  
This appliance must be grounded. In the event of a malfunction or breakdown, grounding will reduce the risk of electric shock by providing a path of least resistance for electric current. This appliance is equipped with a cord having an appliance grounding conductor and a grounding plug. The plug must be plugged into an appropriate outlet that is installed and grounded in accordance with all local codes and ordinances.

\*WARNING - Improper connection of the appliance-grounding conductor can result in a risk of electric shock. Check with a qualified electrician or service representative if you are in doubt whether the appliance is properly grounded. Do not modify the plug provided with the appliance; if it will not fit the outlet, have a proper outlet installed by a qualified technician.

- The power-supply receptacle for the appliance shall be installed on a wall adjacent to the counter space in which the appliance is to be installed.
- Care shall be exercised, when the appliance is installed or removed, to reduce the likelihood of damage to the supply cord.

## pH Reagent Liquid Precautions

-  Do not expose the pH measuring reagent to extreme heat, flames or fire. It is combustible.



-  Do not drink the pH reagent liquid, put it in the eyes or apply to the body.

- 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 spilled or dropped on your body, wash it off immediately.




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


## Precautions for use of Alkaline water – don't develop a "drinking" problem!


- If you have never consumed alkaline water – start off with the lowest alkaline setting. Let your body adjust slowly and naturally for 4–7 days. After this initial adjustment period, you can gradually increase the alkalinity of the water.
- Do not take medications with alkaline water. Take medications using the filtered water setting.
- Consult with a physician before drinking alkaline water if you have:
  - Chronic disease
  - A dysfunctional liver or intestines
  - Are currently under medical treatment
- Do not drink alkaline water if you have achlorhydria.
- Consult a physician before using acidic water if you have:
  - Sensitive skin
  - Allergies
- Only use potable drinking water in your ionizer.
- Poor water quality may have negative effects on your health and your ionizer! Most municipal water sources will be fine in your ionizer. Well water and water from smaller systems should be checked, and may require pre-filtering.
- Your ionizer is not under warranty for any damage or required cleaning caused by hard water deposits.


## Some helpful tips

-  For storing your alkaline water, glass or ceramic is best. Always try and keep your stored water cool and away from direct sunlight. You can use plastic, but only use lexan (number 7) or poly bottles (Nalgene type), preferably PBC free. It is always best fresh out of the machine and ideal if consumed on a day-to-day basis.





-  Do not store alkaline water in stainless steel, bronze or aluminum containers.

-  Save the box and Styrofoam your ionizer came packed in. This will help if your ionizer needs to be transported at a later date.

-  Do not use an ionizer downstream of a sodium-based ion exchange softening system or reverse osmosis system without first consulting with your dealer.

## Safety Precautions

Please read these pages carefully. They contain very important information to keep YOU and your new ionizer safe!

 Warning	Property damage, serious injury or death may result if these instructions and precautions are not observed.
 Caution	Physical injuries or material damage may be caused if the instructions are not observed.

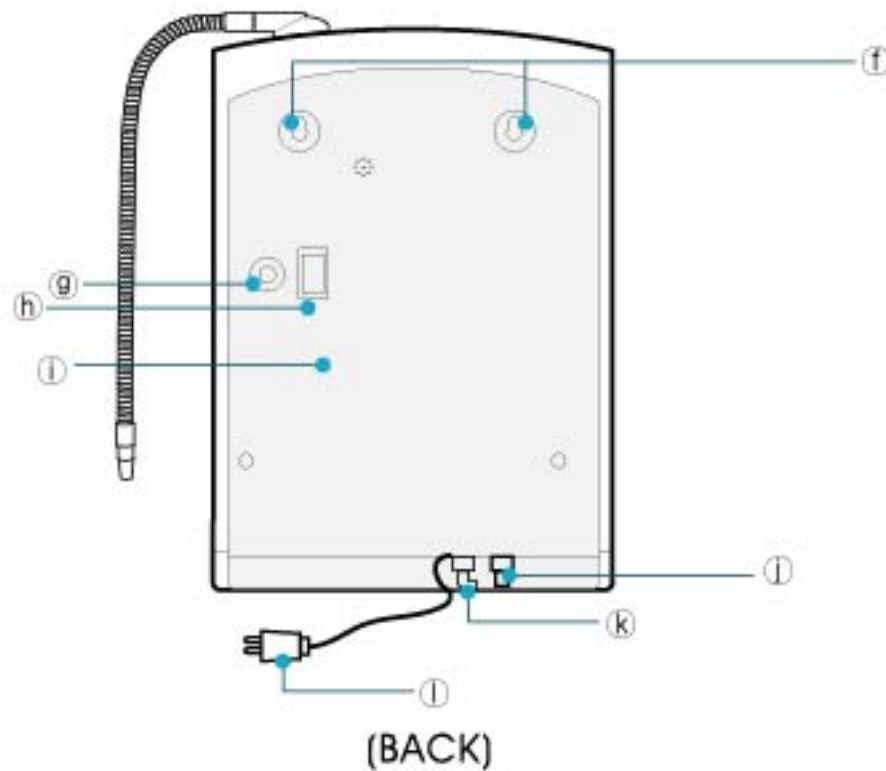
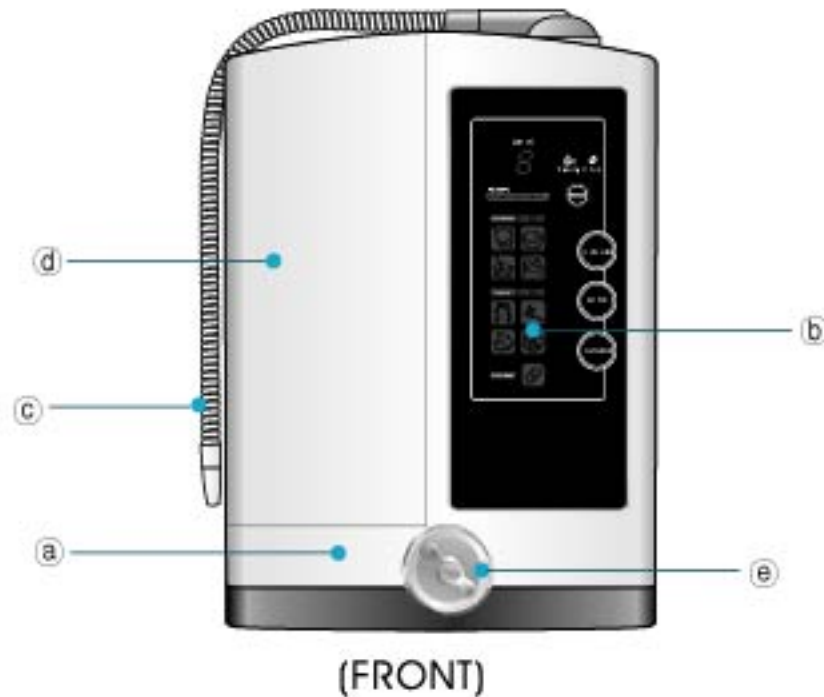
### Do's and Don't's

- |  |  |  |
|--|--|--|
|  DO NOT |  Do not disassemble it. |  Disconnect the power cord from the wall outlet.    |
|  DO     |  Do not touch it.       |  Ground product for protection from electric shock. |



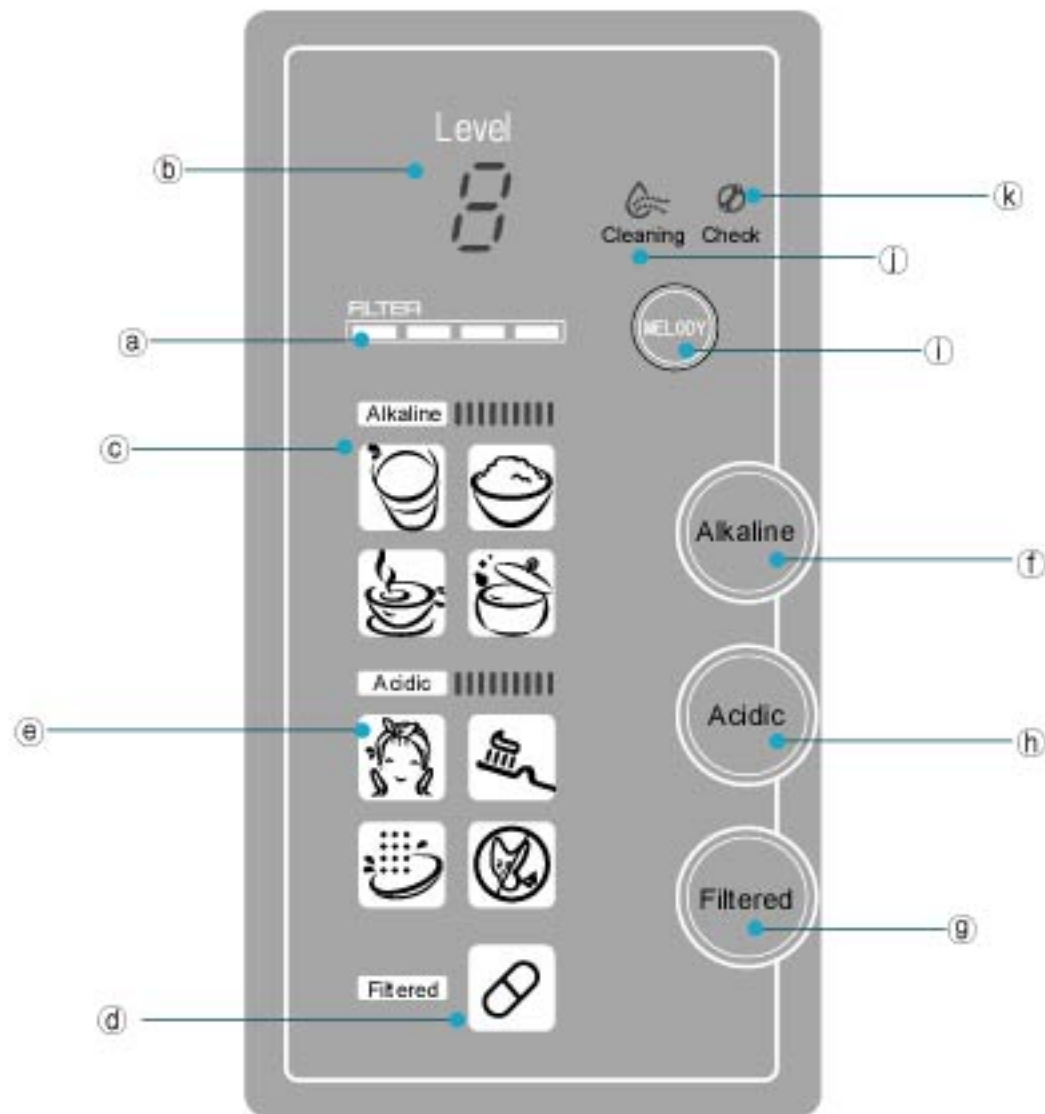
## LETS TAKE A TOUR OF YOUR NEW VENUS

## DESCRIPTION OF MAIN BODY



- Ⓐ Main Body  
Easy to clean and durable plastic casing protects your ionizer.
- Ⓑ Control  
Push Button Controls and function indicators (detailed on the next page).
- Ⓒ Flexible stainless steel drinking water spout  
You will get your drinking water from this spout. It is flexible to accommodate proper positioning.
- Ⓓ Filter Housing Door  
You will open this door to access and change your filter.
- Ⓔ Flow Control Valve  
This controls the flow rate of water through your ionizer. Tip: This adjustment has DIRECT impact on the performance of your ionizer. SLOW FLOW = higher pH; FAST FLOW = lower pH
- ⓫ Key-hole Slots For Wall Mounting  
To save counter space you can mount your ionizer on the wall, Note: use suitable fasteners.
- ⓬ Fuse Holder  
Your ionizer comes equipped with a fuse to protect it in case of power surge or fluctuation.
- ⓭ Main Power Switch  
You will use this switch on the back to turn on and off the power supply to your ionizer.
- ⓮ Back-Cover Panel.
- ⓯ Acidic Water Outlet Port (On the bottom of your Venus)  
This is labeled with a red sticker and is where the acidic stream will exit your ionizer.
- ⓰ Tap Water Inlet Port (On the bottom of your Venus)  
This is labeled with a blue sticker and is where the tap water will enter your ionizer.
- ⓱ Power Cord.  
This is your 110v AC power cord. Always use a GFI outlet in good working order.

## YOUR CONTROL PANEL



CONTROL PANEL

## DESCRIPTION OF CONTROL PANEL FEATURES

- Ⓢ LED Filter Life Indicator**  
 This LED indicator scale shows approximate filter life. When you first use your Venus the lowest LED will be lit green. The LEDs lights will illuminate up the indicator scale as filter life decreases. When the top LED illuminates Red it is time to order a new filter.
- Ⓛ Level Indicator**  
 Shows Low, Medium and High settings.
- ⓐ Alkaline Water Indicator**  
 This illuminates when you have Alkaline Water selected
- ⓐ Filtered Water Indicator**  
 This illuminates when you have Filtered Water selected
- ⓐ Acidic Water Indicator**  
 This illuminates when Acidic Water is selected and/or when the machine is in cleaning mode.  
 Note: a tune will always plays when Acidic Water is selected or the Ionizer is cleaning.
- ⓕ Alkaline Water Button**  
 Depressing this button selects Alkaline Water to come out of the Flexible Drinking Water Hose.
- ⓖ Filtered Water Button**  
 Depressing this button selects Filtered Water to come out of the Flexible Drinking Water Hose. (Filtered Water is filtered with no change in the pH).
- ⓕ Acidic Water Button**  
 Depressing this button selects Acidic Water to come out of the Flexible Drinking Water Hose.
- ⓓ Melody Button**  
 Turns the sounds On or Off. Additionally, the volume can be adjusted on the button.
- ⓓ Cleaning Indicator**  
 The cleaning mode will run for 10 seconds.
- Ⓢ Check Indicator**  
 When this light is lit the appliance needs to be serviced.

## ACCESSORIES

Before installation, please check to ensure you have the following accessories.  
Please note that the diverter and adapters fit onto the vast majority of standard faucets.  
If you have a non-standard or custom faucet you may need to locate and purchase a special adaptor - please consult with your dealer if necessary.

Install Kit (Diverter and adapters)



Diverter / Hose clamps / Adapter

Accessories



fuse / pH color chart  
Reagent / Test tube or cup

## INSTALLATION PROCEDURE

1. ATTACH THE DIVERTER TO YOUR TAP -  
Remove the aerator from tap (pliers may be required), and attach diverter valve in its place (see photo below). There are adapters supplied in case the diverter does not fit your tap. **DO NOT OVERTIGHTEN. If you have leaks at the diverter, use a few wraps of plumber's Teflon tape which is available at any hardware store for a couple of dollars.**
2. ATTACH THE WHITE HOSE TO THE TAP WATER INLET PORT -  
Attach one end of the white hose to the gray port on the bottom of the ionizer labeled "TAP WATER INLET".  
To attach the white hose, simply push it firmly into the opening on grey port.



## INSTALLATION PROCEDURE

3. ATTACH THE GRAY HOSE TO THE ACIDIC WATER OUTLET PORT -

First, slide a squeeze clamp over the end of the hose. Then attach the gray hose to the white plastic port labeled ACIDIC WATER OUTLET on the bottom of the ionizer.

Simply push the hose firmly over the white plastic port. Squeeze the clamp and position it over the white port. Ensure the opposite end runs into the sink.



4. POSITION YOUR IONIZER -

Ensure it is on a hard and level surface.  
A wall mount can be done - there are keyhole slots on the back for this.

5. ATTACH THE WHITE HOSE TO THE DIVERTER -

Remove the small compression nut on the back of the diverter (opposite of the lever). Slide the nut over the opposite end of the white hose you attached to the TAP WATER INLET port with the threads positioned so the nut will screw back onto the diverter. Push the hose firmly onto the nipple. Firmly screw the compression nut back on. Do not over tighten.



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

7. INSTALL FLEXIBLE STAINLESS STEEL SPOUT

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



# OPERATION

## 1. POWER UP YOUR IONIZER.

- Depress the black power button located on the back of the ionizer to the "ON" position.
- The black power button is ALWAYS left on. Your ionizer will "go to sleep" in between uses and "wake up" when it detects water flow again.
- You will hear a single chime and the display panel will illuminate for 2-3 seconds.
- With the power on and the display panel dark, your ionizer is now in standby mode.

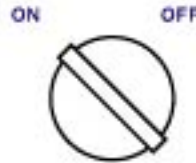


## 2. START WATER FLOW THROUGH YOUR IONIZER

- A. Set the flow control Valve - This control is on the front of machine and has an "ON" and "OFF" position. Try initially setting this half way between "ON" and "OFF".

**Important :** This is one of the most critical features in controlling your ionizer's performance.

This control WILL DIRECTLY impact the performance of your ionizer. A slow flow will yield higher pH; a fast flow will yield lower pH.



- B. Turn on your water faucet. Turn the lever to until you "divert" the water through your ionizer.
- C. Get the feel for the difference in flow rates by adjusting FLOW CONTROL VALVE from a slow trickle to the fastest flow. When you begin ionizing the water, start with it in the medium range and adjust faster or slower as necessary to achieve optimum results.

After 20 liters of water have flowed through the JP107 units, it will do an autoclean for 10 seconds.

For example, if the ionizer is used first for 15 liters and then is used for 5 liters, upon the next use, the unit will do an auto clean for 10 seconds. You are able to choose the autoclean setting. (See page 18)

# OPERATION

## 3. TO SELECT ALKALINE WATER

- A. Start Water Flow through your Venus.  
Remember - **The Venus cleans for 10 seconds after every 20 liters**
- B. To select an alkaline level simply depress the "ALKALINE" button to move to next level until the desired level is achieved. The pH level indicator will change accordingly.
- C. Note: Your Venus will always "remember" the last setting. For instance, if the previous setting was Alkaline Level Medium, then it will go back to Medium when you start the ionizer.

### IMPORTANT NOTES:

- If you have never consumed alkaline water - do not use a setting higher than **LOW** to begin with. Let your body adjust slowly and naturally for 4-7 days. After this initial adjustment period, you may gradually increase the alkalinity of the water.
- pH levels will vary according to the minerals present in the source water and water flow rate through your ionizer.

## 4. TO SELECT ACIDIC WATER

Note: Acidic water is for external use only. **DO NOT DRINK.**

1. With water running through the ionizer:
2. Depress the "ACIDIC" button. The Acidic Water Indicator will light and the pH Level Indicator will move up and down the scale to indicate the selected level.
3. To select a different level, depress the "ACIDIC" button to move to next level until the desired setting level is achieved. The orange symbol and number will change accordingly.

## 5. TO SELECT "FILTERED" WATER

1. Start water flow through your ionizer.
2. Depress the "FILTERED" button. The Filtered Water Indicator will be illuminated. "Filtered Water" runs through the Biostone filter, but does not receive any ionization. The Filtered water comes out of the stainless steel spout.

## 6. HOW TO SHUT OFF THE WATER FLOW FROM YOUR IONIZER

Rotate the diverter lever until the water flow from the ionizer stops and reverts to the faucet. The water will stop and the display panel will go dark indicating the ionizer is in standby or "asleep".



## HOW TO SET YOUR INDIVIDUAL pH LEVELS

(Only do the following if when using reagent drops you are unable to get yellow in acidic range and blue in the alkaline range)

- 1 Turn on the main switch on the rear case and pressing the Filtered button about 5 seconds on the front.



The default setting is level 3.  
The pH level indicator shows the current level.

If the filtered button is pressed and held the alkaline and acidic levels can be set.

It is possible to choose between settings 0 - 6.  
After setting the unit, if the buttons are not pushed for another 5 seconds or if the water is run through the unit, the last setting chosen is remembered.

- 3 Depress the "ALKALINE" button to raise to the desired setting, and depress the "ACIDIC" button to lower to the desired setting.

8 > 8 > 8 > 8 > 8 > 8 > 8

ALKALINE



8 < 8 < 8 < 8 < 8 < 8 < 8

ACIDIC



## HOW TO SET CLEANING PERIOD AND CLEANING TIME

The default setting for the JP107 Venus is to self clean for 10 seconds after 20 liters have flowed through the unit. When the unit is cleaning, acidic water is flowing through and the water should not be consumed.

Tip:

If when you use the ionizer you select acidic water and let it run, it will help keep the electrodes and other internal parts such as the hoses clear of any calcium buildup. Acidic water is not to be consumed.

### How to set the cleaning interval

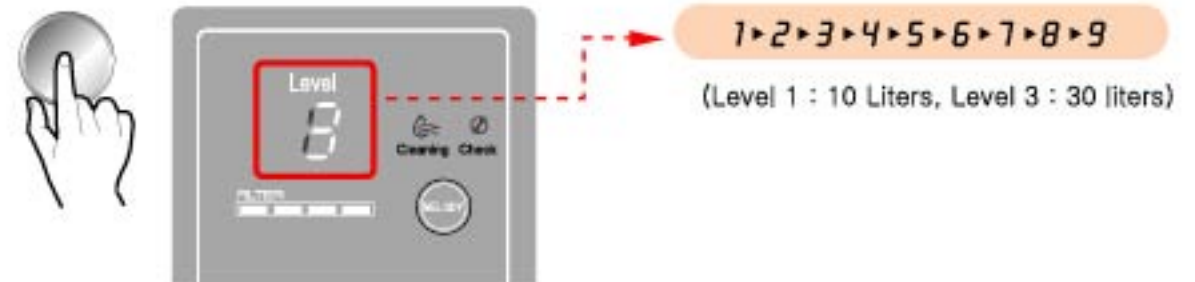
You may choose to have the unit clean at different intervals.

10 - 90 liters / no cleaning

: by pressing a button it is possible to choose from 10 to 90 liters of cleaning.

For example: 1: 10 liters, 5: 50 liters

How to set: Hold down the alkaline button for 5 seconds.



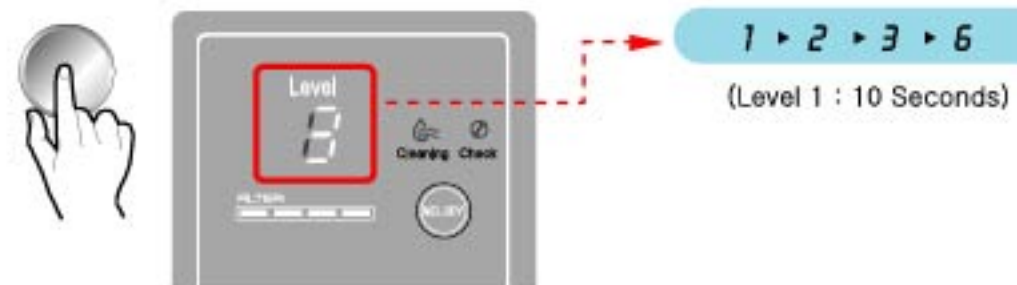
### How to set length of cleaning time

Length of cleaning time can be set beforehand.

1) You can choose between 10, 20, 30 and 60 second cleaning time.

2) How to set length of cleaning time: Hold down the acidic button for 5 seconds in order to set the cleaning time.

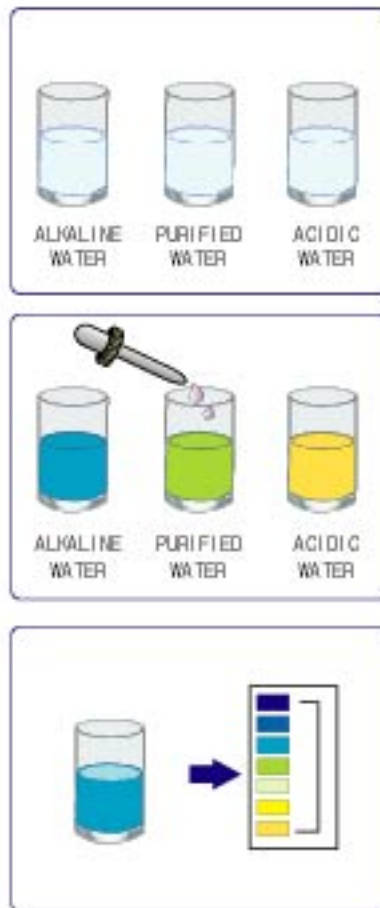
For example: After 20 liters pass through the unit, it is possible to choose 20 seconds cleaning.



# PERFORMANCE AND MEASURING pH

## How to Measure pH

- 1) Fill one of the test tubes provided with about 1 inch of alkaline, acidic or purified water.
- 2) Place 2-3 drops of the pH reagent into the tube and shake it. If the reagent and water are not mixed well, the correct result may not be achieved. Too many or too few drops will effect results, adding another drop will make the color stronger.
- 3) The pH value is determined by matching the color the pH color chart provided.
- 4) Keep the pH Indication reagent in a dark and cool place. DO NOT expose to sunlight or heat.



## THE PERFORMANCE OF YOUR IONIZER (VERY IMPORTANT INFORMATION!):

- There are three primary factors that control the performance of your ionizer:
  - 1) The quality of your source water and its mineral content. We can not control this factor.
  - 2) The voltage being applied to the minerals in the water. You control this by selecting the Alkaline level on the control panel. The higher the setting the more voltage or power is being applied to the water.
  - 3) The flow rate of water through your ionizer. You control this with your faucet, on the control panel. This determines how long the water is being processed. With a fast flow your ionizer will produce lower pH, with a slow flow it will produce higher pH.
- Water quality and mineral content vary greatly in different localities. Generally in "hard water" areas where mineral content is higher, your ionizer will easily reach high levels of pH even with a faster flow. In "soft water" areas where mineral content is lower, your ionizer may only reach the higher levels of pH with a slower flow.
- Learn to use the pH test kit and be sure to test your source water. Also test the water produced at each alkaline setting at various flow rates.
- Do not drink the water that has been tested with the pH testing solution.



# HOW TO REPLACEMENT THE FILTER

**IMPORTANT!** Stop water flow prior to filter replacement.



## How to Replace the Filter

- 1** When the top LED illuminates Red it is time to change your filter. You will also want to replace your filter if any of these situations occur:
- Severely reduced flow rate - slower than usual even with full flow on the control valve.
  - Abnormally bad taste - usually due to a sudden change in quality of source water.
  - A period of inactivity of over one month - for instance an extended vacation.

- 2** Open the filter housing cover.
- Push in on the plastic ridges in the center of the filter housing cover on the side while pulling the door out and to the left. Swing door out 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.

- 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.
  - 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.

- 5** Check for leaks by running water through your ionizer before replacing the housing cover.

- 6** Flush out the GAC carbon dust.
- The water will initially come out discolored (light to charcoal gray) due to carbon dust in the new filter. This is not harmful and is typical of all GAC filters. Allow the water to flow for 2-3 minutes in the "Purified" mode and this will flush all the carbon dust.

- 7** Reset the filter life indicator (2 method).
- Press the "Reset" button located at the top of the filter housing compartment for 2-3 seconds while in standby mode (water not running through the ionizer).
  - Press BOTH the Alkaline and Filtered buttons simultaneously until the LED lights on the Filter Life Indicator resets.



- 8** Replace the filter housing cover.

## SOME USES FOR ALKALINE AND ACIDIC WATER

### Some uses for the different levels of Alkaline water

Alkaline Water:

Note: pH levels will always vary with different source water.



1

Weak Alkaline water (pH7.5 – pH8.5).  
This level is used for initial consumption period (4-7 days).  
Let your body adjust slowly to the increase in pH.  
Many people find that this lower level is actually perfect for them.



2

Weak to Medium Alkaline water (pH8 – pH9).  
Move up to this level after the initial adjustment period.  
Adjust to this level for 3-4 days. Most people will drink at level 2 or 3.  
This level is also great for cooking rice and other grains –  
fluffier and great tasting!



3

Medium to Strong Alkaline water (pH8.5 – pH9.5).  
Some people like this for drinking though it can start to taste strong to others.  
It is superb for making tea or coffee as it enhances the taste and  
reduces bitterness!



4

Strong Alkaline water (pH9.5 – pH10+).  
Generally, most people find this very strong tasting and with powerful  
detoxifying effects. Great for boiling vegetables!  
Alkaline water will eliminate the bitter taste and brings out more of their  
natural color.

### Some uses for the different levels of Acidic Water

The Acid water has both antiseptic and antibacterial properties.

It also has an astringent effect and can be used for cosmetic purposes.



1

Weak Acidic water (pH6.5 – pH5.5).  
Used for oral hygiene, mouth wash etc.  
Use it while brushing your teeth, gargle with it and use it as  
a natural mouth wash!



2

Weak to Medium Acidic water (pH6 – pH5).  
For skin care, as an astringent, use it for washing your face or as a natural  
after shave.



3

Medium to Strong Acidic water (pH5 – pH4).  
For cleaning in the kitchen.



4

Strong Acidic water (pH4 and lower).  
For sterilization purposes, use it to sterilize cutting boards,  
dish towels etc...

### What would I use the Filtered Water for?



The pH of Filtered water is neither raised nor lowered and would be the same as  
your tap water.  
This water is simply cleaned of impurities by the advanced filtration system.  
You can use it both as drinking water and to take medications with.



# About your Biostone Filter

## Composition of filter

### Calcium:

It slightly increases the alkaline mineral content in your water. It improves water taste and odors, and it is particularly effective in removing the chloride. You get calcium on tap!

### Tourmaline:

Tourmaline emits Far Infra Red (FIR) energy naturally. FIR produces well documented health benefits and it also has an amazing effect on water. The Biostone contains the semi-precious gemstone tourmaline in ceramic form, so you get FIR on tap!

### Non-woven fabric filter

Filters out sediment and particulate.

### Granular Activated Carbon (GAC) :

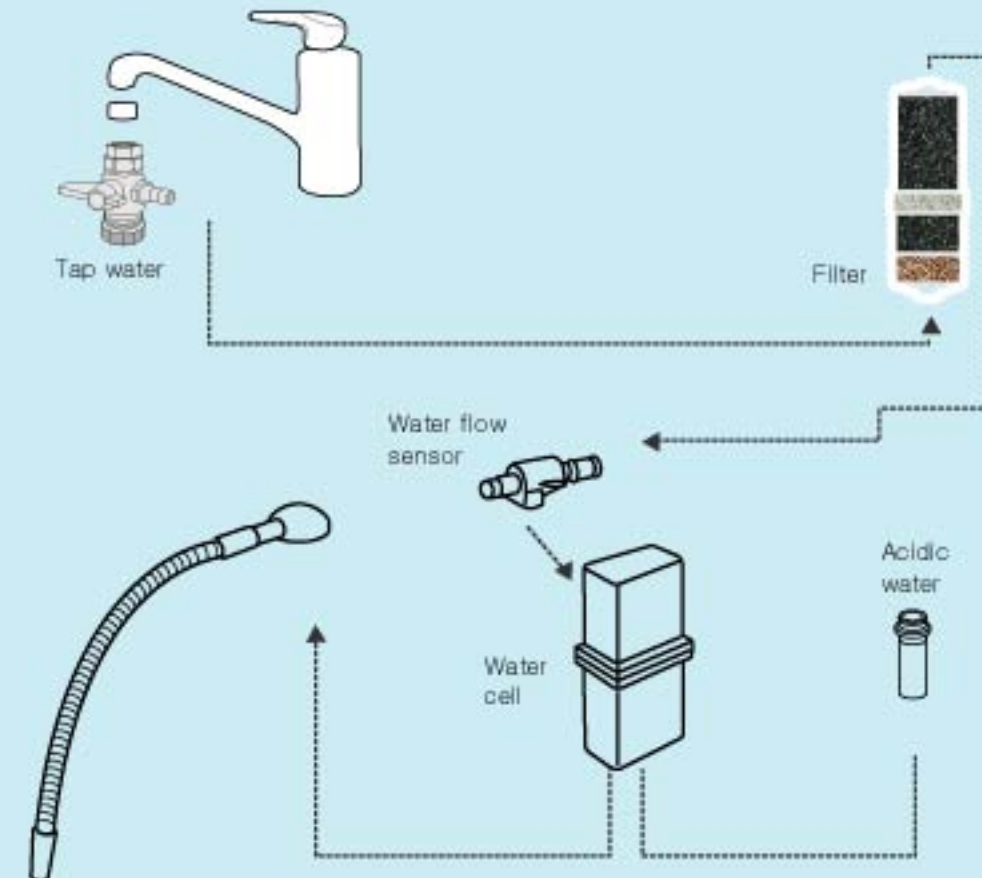
The workhorse of the filtration media, GAC is especially effective at removing chlorine, its odor and taste, agricultural chemicals, phenol, trihalomethane and other chemical contaminants. Silver is impregnated into the granular activated carbon to inhibit bacterial growth in between use.

### Non woven fabric filter :

Filters out sediment and particulate.



## Flow Diagram





# 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 included in your reagent kit (3A / 250V fuse)
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 your dealer to arrange service.
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 flux 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 ionizer has a safety mechanism built-in to protect the electrodes and circuitry. This mechanism will shut the ionizer 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. Clean Pre-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
Strange smell from Alkaline water.	Expired filter from ordinary use or premature clogging due to flux in water quality.	Replace your filter.
	Sudden flux in water quality with elevated level of Choline (not Chlorine). Elevated Choline 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 milky: white snow like particles in the bottom of your glass.	You have high hardness (calcium primarily) in your water. The white is extracted CaCO <sub>3</sub> (Calcium carbonate). After CO <sub>2</sub> in water is bonded with Ca where elevated levels of CO <sub>3</sub> exist in your water. In water where elevated levels of CO <sub>3</sub> exist, what you see after ionization is CO <sub>2</sub> in the water bonded with Ca.	This is calcium! It is not only harmless, but actually good for you. Remember the ionizer separates and condenses the alkaline minerals and this is what you are seeing. You can lower the setting (1-2) and reduce this effect. Typically this only occurs in hard water areas.
At first no smell, but then smell from the alkaline water about one hour after.	Your water bottle or receptacle is foul and needs cleaning. Contamination mixes with alkaline water when filling your bottle. Expired filter.	Clean your bottle or receptacle. Try selecting lower pH level (1-2). Replace your filter.
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 The Ministry of Health & Welfare	
Feature	Ionic Water Processor	
Model	Venus	
Input voltage	120Vac, 60Hz	
Input Electricity(Power consumption)	0.5A(80W)	
Weight	Approx 13lbs	
Overall Dimensions	13" x 9.75" x 5.50"	
Applicable Water Inflow Pressure	0.7~5kgf /cm <sup>2</sup>	
Applicable Water Temperature	40 ~ 86F	
Unit Operation Type	One Touch - Automatical ionization Start	
Unit Operation Means	Tap - water - open and - close	
Electrolysis Device	Electrolysis Method	Continuous electrolysis
	Electrolysis Strength	1-2-3-4 level
	Ionized Water Output Rate	Max 3 Liters/minute(alkaline+acidic water)
	Cleaning Device	Automatic & Manual cleaning
	Electrode Materials	Platium and Titanium
Water Purifying Device	Filter Replacement	Easy replaceable cartridge
	Filter Life	Estimated filter life is variable (in ANY filter) depending on a variety of factors. With municipally treated water and normal usage, we estimate the following: one user = 12-15 months, two users = 10-12 months, a family of four = 6-9months
	Filter Life Indicator	LED Filter Life Indicator
	Filter Composition	Silver impregnated activated Carbon and bio ceramic stone, calcium Tourmaline space fibre ultra fine (optional)
Water Purifying Device	Temperature sensor / Auto Shut off	
Water Supply	Direct connection to a tap	

## Error codes

- E02 : Low or blocked water flow  
(If the water flow sensor does not get a minimum signal after 7 seconds, there is a flow malfunction which will cause the machine power and electrodes to turn off after 10 seconds.)
- E03 : Reset switch Malfunction  
(If the button is held longer than 30 seconds, the machine will power off and the electrodes will be shut off.)
- E04 : Button switch malfunction  
(If a control panel button is held longer than 30 seconds, the machine will power off and the electrodes will be shut off.)
- E05 : Leak (If the sensors detect a leak in the machine) after 5 seconds, the machine will power off and the electrodes will be shut off.
- E06 : High temperature  
(If the inlet water exceeds the appropriate temperature the unit will power off and the electrodes will be shut off immediately.)
- E07 : Signal error  
(If there is a malfunction with the communication between the display PCB and the Main PCB the machine will power off immediately.)
- E08 : High Voltage

## Warning Shown on Display

Icon Light	Error code	Beep	Icon Light	Error code	Beep
Alkaline Level 1 + Check			Acidic Level 1 + Check	5	Continue
Alkaline Level 2 + Check	2	5 times	Acidic Level 2 + Check	6	5 times
Alkaline Level 3 + Check	3	5 times	Acidic Level 3 + Check	7	5 times
Alkaline Level 4 + Check	4	5 times	Acidic Level 4 + Check	8	Continue

Reset method : Press the Filtered Button.