

Instruction Manual

Model TYH-51TYPE
Model TYH-81TYPE



Thank you for your purchasing
our product.

It is important that you study
this instruction manual carefully
to make the most of the product.
Keep this manual as well as the
warranty card in safety.

TOYO

① Always seek for professional medical or pharmaceutical advice before taking medication with ionized water.
(If you are on cordial diuretic such as digitalis for heart and kidney disease, do not take alkaline ionic water.)

② Seek for professional medical or pharmaceutical advice if any physical abnormality is felt as a result of drinking the water.

③ To take alkaline ionic water, start with the pH as low as pH7.5 - 8. (For measuring pH, refer to P.5)

④ Do not take alkaline ionic water if you are suffering from anachlorhydria (too little acid in the stomach)

⑤ Do not take acidic water.

⑥ Do not use hot water.

⑦ Call the shop you bought the TYH-51/ TYH-81 from. Do not attempt to fix it yourself.

⑧ No modification is permitted.

⑨ Do not use organic solvents such as benzine or thinner to clean the electrolytic cell and storage cell.

⑩ Do not unplug the TYH-51/TYH-81 while in operation.

Alkaline ionic water can be used in many ways

- With its acidity control effects, it alleviates people suffering from mal-digestion, stomach and intestine abnormal fermentation, chronic diarrhea, or gastric hyperacidity. Daily intake of 150 - 300cc of alkaline ionic water of about pH9 is normally recommended (starting first with the pH Selector Switch set to [1] (pH7.5 - 8) then gradually up to the recommended pH9).

- Brings out natural savory color and flavor of your coffee, tea or green tea like no other.

- Makes whisky, brandy, or any alcoholic beverage less acidic on the rock, giving it soft and mild flavor.

- Brings out the natural taste like you have never known before of the foodstuff you cook.

- And washed with alkaline ionic water, your rice cooks, looks and tastes like never before.

● Warning: The life of water purifying cartridge varies significantly with the tap water quality.

Acidic ionic water can be used as follows

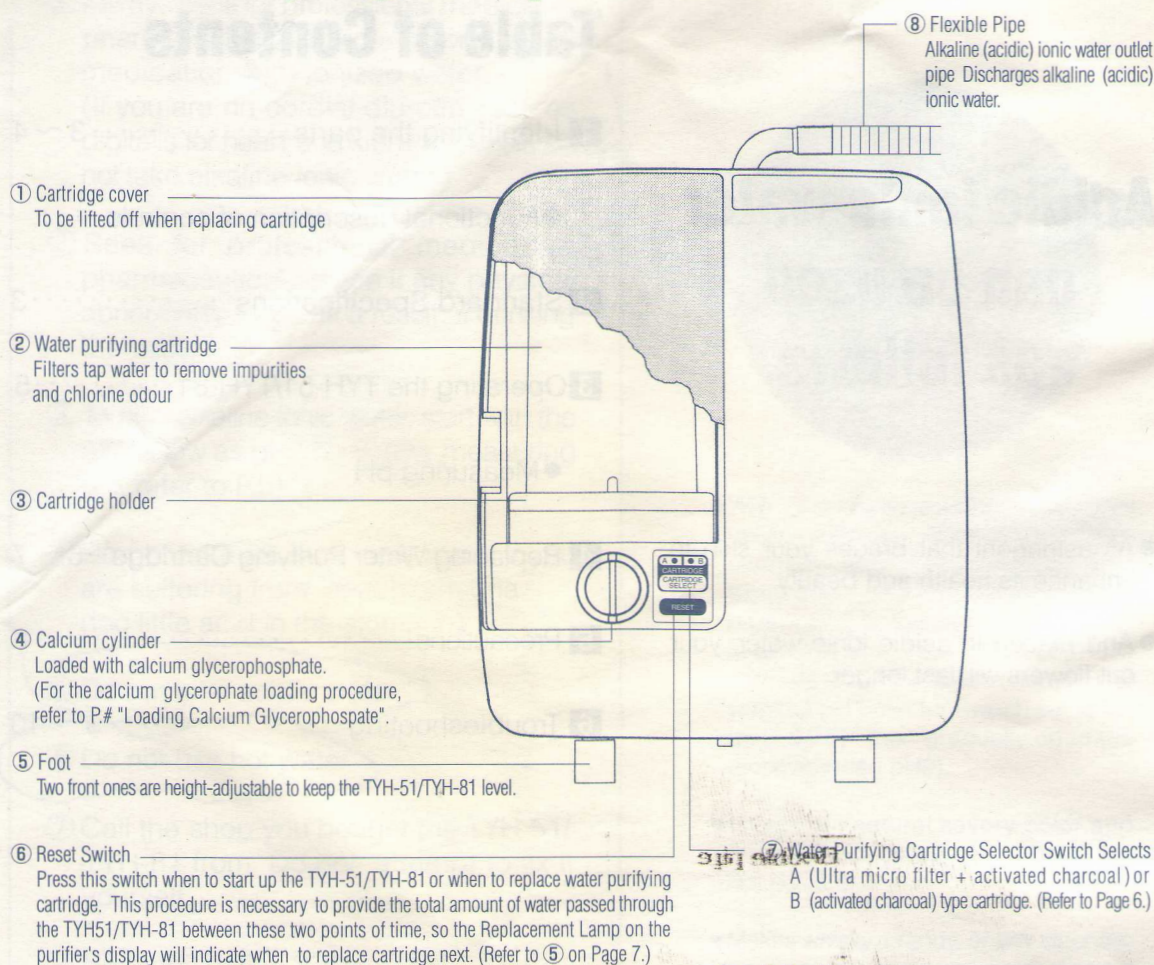
- As astringent that braces your skin to enhance its health and beauty.
- And placed in acidic ionic water, your cut flowers will last longer.

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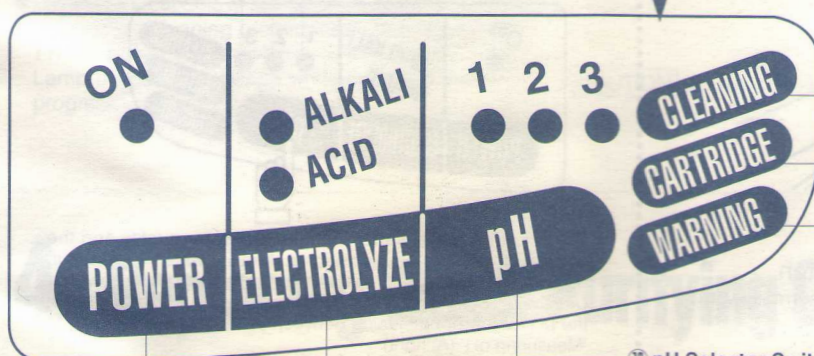
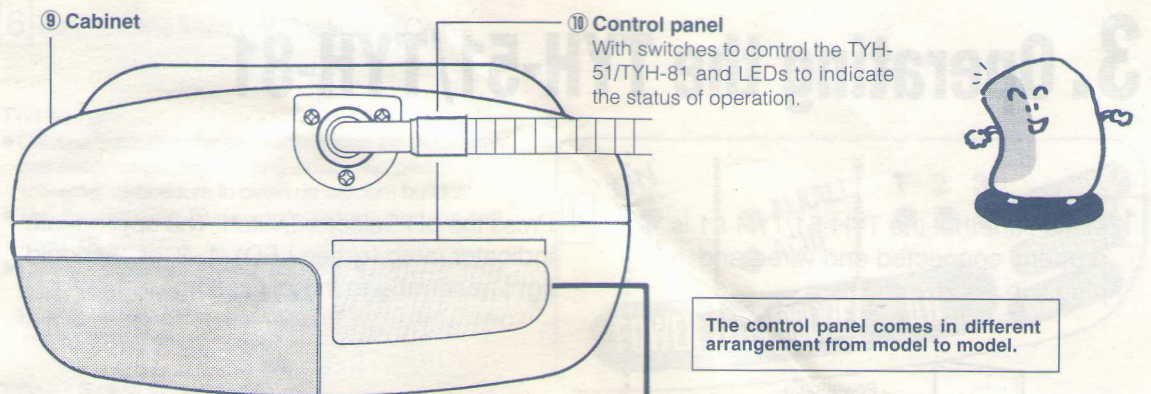
1. Identifying the parts



2. Standard Specifications

Model No.	TUH-51	TYH-81	Model No.		TUH-51	TYH-81
Rated voltage	120V/AC		Water purifying cartridge	Filter material	Silver-added granular activated charcoal, Mechanical filter	
Rated current	1.3A/AC			Life	Approx. 10,000 lit	Approx. 12,000 lit.
Rated frequency	50/60Hz				The amount of water processed until the concentration reaches 0.4ppm, given the initial residual chlorine concentration of 1ppm. * The water purifying cartridge life may be significantly shortened depending on the water quality.	
Power consumption	120W				Substance to be removed	Residual chlorine, odor, red rust
Weight	5.2kg			Substance that cannot be	salt, metal ions dissolved in original water	
Dimensions	307 (H) x 244 (W) x 130.5(mm)			Power cord	2.2 m	
Throughput	1.0-5.0lit./min (water pressure 3.4kgf/cm2)	1.0-10.0lit./min (water pressure 3.4kgf/cm2)	Hoses		1.5m x 2	
			Type approval		No. 91-46326	
			Medical equipment production approval		No. 05B519	

● Specifications subject to change



14 Clean Lamp
Flashes to indicate the electrolysis chamber needs to be cleaned inside. (Refer to Page 6.)

15 Replace Lamp
Flashes to indicate the water purifying cartridge needs to be replaced. (Refer to Page 6.)

16 Safety Lamp
Flashes with electronic beep to indicate the water is hot according to the thermal sensor. (So does it when the internal temperature is abnormally hot.)

11 Power Switch
Turns power on/off. Turning it on causes the Power Lamp (red) to light.

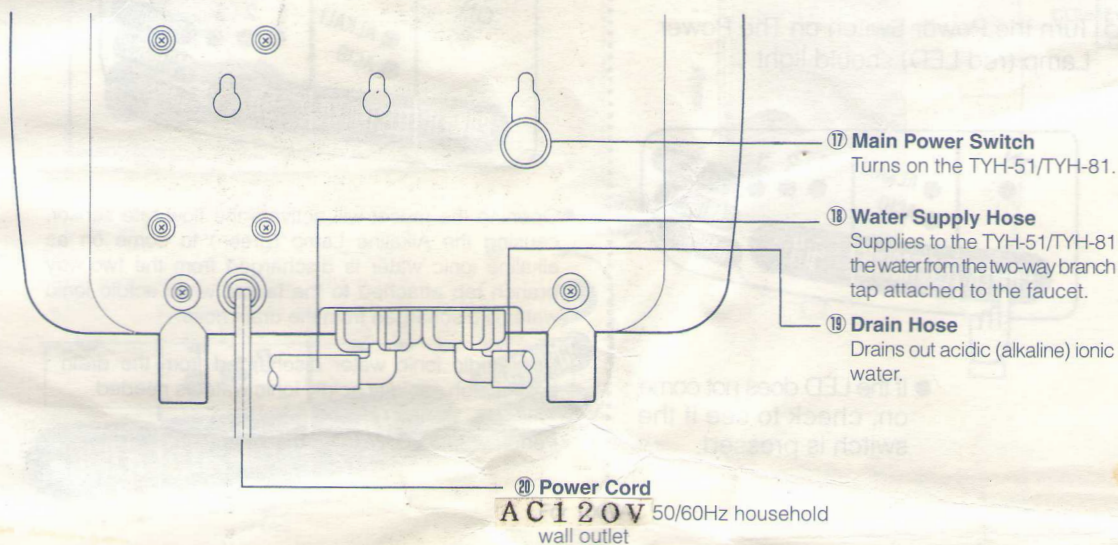
12 Alkaline - Acidic Selector Switch

- With the switch selected to Alkaline, alkaline ionic water will be discharged from the **flexible pipe**
- With the switch selected to Acidic, weak acidic ionic water will be discharged from the **flexible pipe**
- This switch should be normally selected to Alkaline.

13 pH Selector Switch
Selects pH of ionized water in 3 steps both in Alkaline, and Acidic modes as follows:

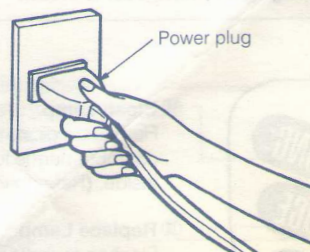
- ①...Weak (pH7.5 - 8)
- ②...Moderate (pH8 - 9)
- ③...Strong (pH9 or more)

※ Note that above pH values should be used as a rough guide. Set the pH to an appropriate value according to Measuring pH on Page 5.

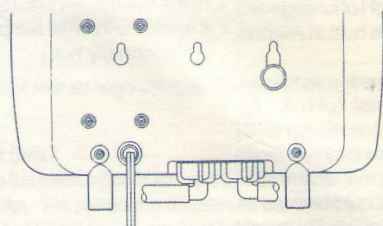


3. Operating the TYH-51/TYH-81

- 1 Make sure that the TYH-51/TYH-81 is properly connected and wired and plug it in.

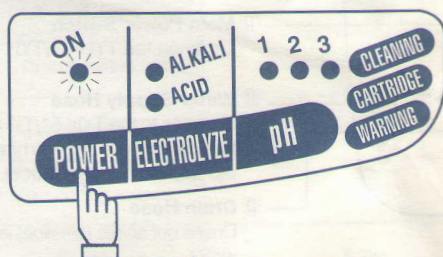


- 2 Press the Main Power Switch.
 - Operate the TYH-51/TYH-81 normally with this switch on.



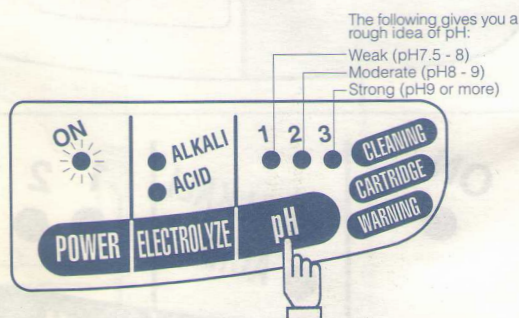
(Rear view of the TYH-51/TYH-81)

- 3 Turn the Power Switch on The Power Lamp (red LED) should light.



- If the LED does not come on, check to see if the switch is pressed.

- 4 Press the pH Selector Switch. The appropriate indicator lamp (green LED), 1, 2, or 3 should light according to the pH setting.



- The pH of the water varies with the tap water quality and the amount of water being discharged. Alkaline water increases in pH with a decreasing amount being discharged, and vice versa. Use the pH Selector Switch and adjust the amount of water to set the pH to appropriate value between pH7.5 - pH9 according to "Measuring pH" (At right)

- 5 With the level on the branch tap with shower set to (Purified Water), turn on the tap water faucet



- Opening the faucet will activate the flow rate sensor, causing the Alkaline Lamp (green) to come on as alkaline ionic water is discharged from the flexible pipe while acidic ionic water is discharged from the drain hose.

Use acidic ionic water discharged from the drain hose if high acidity acidic ionic water is needed.

*Perform 3-5 above in normal operation.

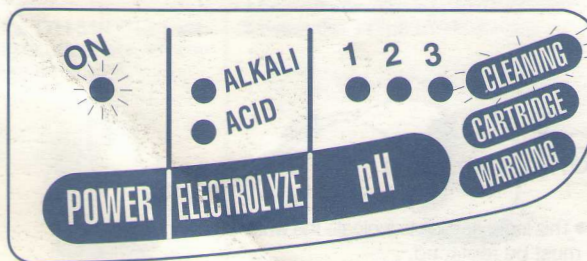
6 Cleaning the Interior of Electrolysis Cell

TYH-51 Type

- Calcium buildup on the electrodes inside the electrolysis cell may reduce the ionizing ability. So perform the following procedure to clean up calcium buildup.
- The Clean Lamp flashes to warn you that the cell must be cleaned.
- Press the Electrolysis Switch to select "Acidity" and allow water to run through the TYH-51/TYH-81. The calcium buildup on the electrodes will be removed completely. The Clean Lamp will turn off.

TYH-81 Type

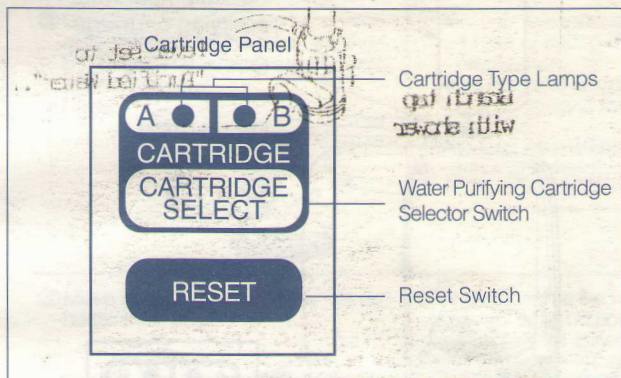
- The TYH-81, capable of self-cleaning, does not require any manual cleaning procedure as required for the TYH-51 above. When cleaning is required, the Clean Lamp flashes with beeps while self-cleaning is in progress.



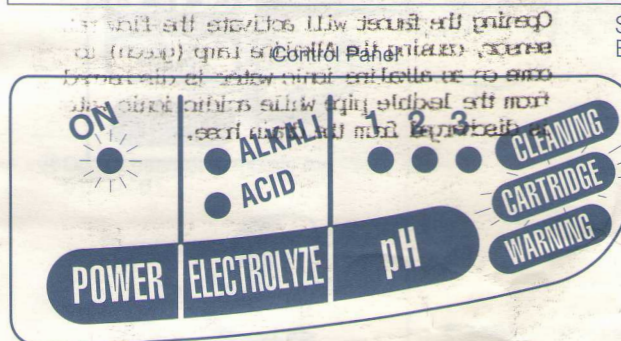
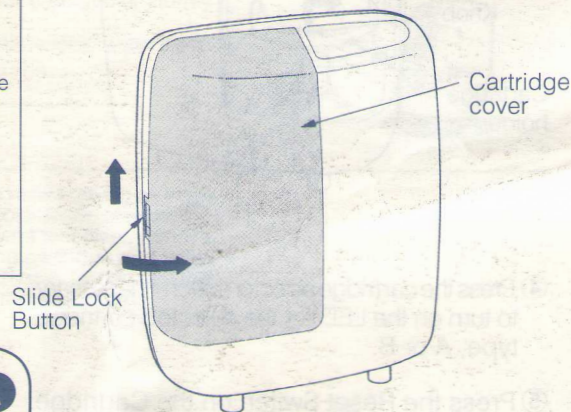
CAUTION Do not drink water used for cleaning.

4. Replacing Water Purifying Cartridge

- The TYH-51/TYH-81 is equipped with B type (activated charcoal) water purifying cartridge. But A type (Ultra micro filter+activated charcoal) is optionally available as replacement.
- Perform the following procedure to replace the water purifying cartridge when the Replace Lamp starts flashing:



- ① Push up on the slide lock button to remove the cartridge cover.



- 7 To shut off the TYH-51/TYH-81, turn the Power Switch off.

- The Power Lamp (red) will turn off.

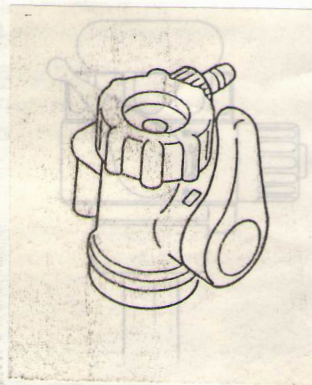
8 Replace Lamp

- This lamp flashes to indicate the water purifying cartridge must be replaced.

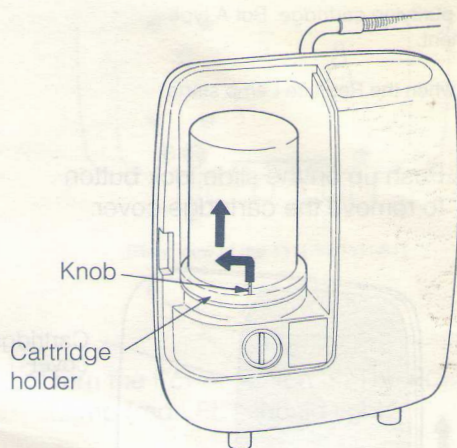
- ※ The end of cartridge service life will be accurately calculated on the basis of the amount of water filtered.

- 9 The TYH-51/TYH-81 can be used as a water purifier as well.

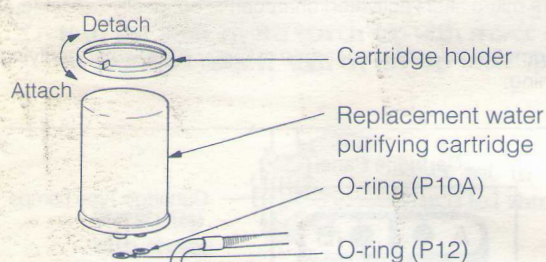
- To use the TYH-51/TYH-81 as a water purifier, turn the water on with the TYH-51/TYH-81 switched off.



- ② Turn the cartridge holder knob counterclockwise and lift the water purifying cartridge up. It will come off.

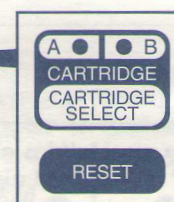


- ③ Attach the two-supplied O-rings to the replacement water purifying cartridge as shown in the figure below. (Do not use the old O-rings.)



- ④ Press the cartridge selector switch if necessary to turn on the LED for the selected cartridge type, A or B.

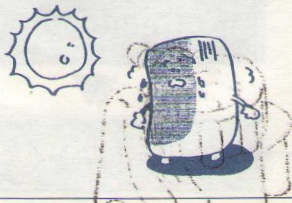
- ⑤ Press the Reset Switch on the Cartridge Panel. The Replace Lamp will then turn off.



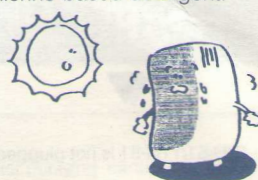
- ⑥ Perform ① and ② above in the reversed order to replace the cartridge cover.

5. Precautions

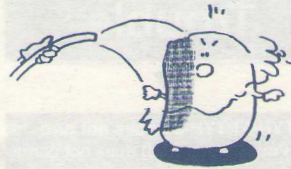
- ① Do not expose the TYH-51/TYH-81 to direct sunlight.



- ② Do not clean the TYH-51/TYH-81 with thinner, benzine, cleanser, or any chlorine-based detergent.



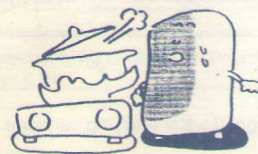
- ③ Keep the TYH-51/TYH-81 dry.



- ④ Do not leave the drain hose lifted up when finishing operation. Otherwise there would be no automatic draining.



- ⑤ Keep the TYH-51/TYH-81 from any heat.



- ⑥ Do not keep pet fish in ionic water.



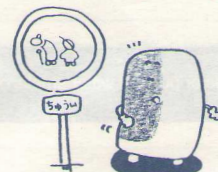
- ⑦ Do not leave any object on the TYH-51/TYH-81



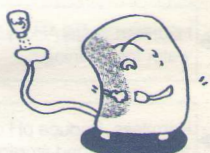
- ⑧ Do not use a damaged power cord.



- ⑨ Be extremely careful if you have extremely young or old persons have access to the TYH-51/TYH-81.



- ⑩ Salt water or extremely hard water may damage the interior of the TYH-51/TYH-81 and may significantly shorten its life.



- ⑪ ● Do not take alkaline ionic water within 1 hour of taking medicine if you are on medication.
● Do not take alkaline ionic water if you are on digitalis for cardiac or kidney disease.
● Do not take alkaline ionic water if you have anachlorhydria
(too much acid in stomach)



- ⑫ Make sure that water does not run hotter than 30 C.



- ⑬ Remember that the water purifying cartridge may get frozen in cold climate or weather. When to shut down the ionizer, remove the water purifying cartridge and keep it so that it will not be frozen. Do not press the Reset switch for this procedure.



- ⑭ Do not attempt to modify the TYH-51/TYH-81.



- Chlorine removal capacity and pH may vary slightly from region to region.
● This product is applicable to potable tap water as specified in "Tap Water Law".

6. Troubleshooting

Trouble	Cause	Corrective Action
The TYH-51/TYH-81 does not turn on (The Power Lamp (red) does not come on.)	The TYH-51/TYH-81 is not plugged.	Plug the TYH-51/TYH-81 in.
Ionic water is whitish and not clear.	Bubbles associated with electrolysis.	Not harmful at all. The water is drinkable. It will become clear shortly.
Too little discharged ionic or purified water	Clogged water purifying cartridge	Water purifying cartridge life has expired. Replace.
	Calcium buildup on electrodes	Hold down Acidity Switch for 30sec or so to run the water through the TYH-51/TYH-81 to clean electrolysis chamber.
Ionic or purified water smells of chlorine	Water purifying cartridge life has expired	Replace
No water comes out during winter	Frozen connection hoses or piping blocking water flow.	Wait for the frozen parts to defreeze.
Floats and sedimentation a) Occurs in ionic water b) Occurs during ionic water storage c) Occurs when ionic water is heated. d) Dark brown sedimentation occurs	Calcium contained in ionic water solidified (white)	Harmless. Press Acidity Switch to turn on water for cleaning.
	Calcium dissolved in ionic water reacting with carbon dioxide contained in air becoming solidified. (white)	Harmless. Reduce pH of ionic water or avoid prolonged storage.
	Calcium cannot remain dissolved any more as a result of dissolved calcium reacting with carbon dioxide or water evaporating.	Harmless. This occurs in normal tap water but more conspicuously in ionic water containing more calcium or iron.
	Iron ions dissolved in tap water becoming solidified. Varies with water quality.	Harmless

Trouble	Cause	Corrective Action
Water contaminated with red rust	Water purifying cartridge is capable of removing normal red rust but not so if the iron ions dissolved in water become solidified.	Before running water through the ionizer, leave the water turned on until there is no red rust visible in the tap water duct. (This is to prevent the water purifying cartridge from getting clogged, that would drastically reduce its life.)
	Water purifying cartridge at the end of service life	Replace water purifying cartridge.
Inside of drain hose becoming blackish	Oxides such as those of iron contained in tap water build up over a long period of time	Harmless. Immerse the hose in bleaching agent to remove blackish buildup.
Alkaline ionic water goes black when it is in an aluminum container.	Oxidized film formed on the aluminum surface.	Harmless. Aluminum oxide is used on kitchen utensils as Alumite products.
Rice cooked with alkaline ionic water and then kept warm goes yellowish.	Under high pH conditions, ingredients in rice, subjected to heat, are more likely to change chemically.	No problem. Reduce pH.

- For more, contact the dealer your purchased the product from.
And DO NOT attempt to fix it yourself.

