

Instruction Manual 使用說明書

Alkaline Ionizer Household Use

電解水機家庭用

English

Model No. TK-AS66-ZEX



Thank you very much for purchasing our Alkaline Ionizer. 感謝您選購 Panasonic 電解水機。

Please read through this manual carefully before using the product to ensure proper operation.

Be absolutely sure to read the "Safety Precautions" (P. EN3 ~ EN6) before use to ensure that you will use the product safely. After reading the manual, keep it in a safe place along with the warranty in case you need to refer to it later.

- Be absolutely sure to check that the purchase date has been entered on the warranty.
- Please keep in mind that the manufacturer of the product will not be responsible for any product malfunctioning or accidents resulting from the improper installation or operation of the product.
- ■使用前請詳閱本説明書,詳閱説明書後再正確使用。特別是「安全注意事項」 (TC3 ~ TC6 頁),請務必在使用前詳細閱讀,以便安全操作。閱讀後請妥 善保管並與保證書放在一起,以備不時之需。
- 保證書上的「購買日期」請務必填寫。
- 因安裝錯誤或不正確使用,而造成產品故障或發生事故時,本公司恕不負責。

Use properly to economize on electricity

正確使用,節省用電

We use NSF42 certified activated carbon. 我們使用 NSF42 認證的活性碳.



COMPONENT / 成分

Activated carbon (APG-05TGA 60/200) manufactured by Kuraray Co.,Ltd. used in this product is Tested and Certified by NSF International against NSF/ANSI Standard 42 for material requirements only. (Check Date (2017.2.1)) 本產品使用的活性號曲 Kuraray Co.,Ltd. 製造的 (APG-05TGA 60/200) 物料需求由 NSF 國際通 過 NSF/ANSI Standard 42 檢測 和認證。 (檢查日期(2017年2月1日))

The Alkaline Ionizer

eliminates turbidity and odors, and makes your water tasty.

- The Alkaline Ionizer produces alkaline ion water and weak acidic water by electrolysis.
- It eliminates the following substances so that the water you drink will be tasty.

13 substances specified by JIS standards

Free residual chlorine, turbidity, total trihalomethane, chloroform, bromodichloromethane, dibromochloromethane, bromoform, tetrachloroethylene, trichloroethylene,

1,1,1-trichloroethane, CAT, 2-MIB (mold smell), soluble lead

Japan Water Purifier Association voluntary class 4 substances

Iron (particulate form), Aluminum (neutral), Geosmin (mold smell), Phenols

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Safety Precautions

Please make sure to follow these instructions

In order to prevent accidents or injuries to the user, other people, and damage to property, please follow the instructions below.

The following charts indicate the degree of damage caused by wrong operation.

WARNING Indicates serious injury or death.	Indicates risk of injury or
I WARINING or death.	property damage.

■ The symbols are classified and explained as follows.

(The following are examples of symbols.)

 $\left|\left(\right\rangle\right)$

This symbol indicates prohibition.

This symbol indicates requirement that must be followed.

Power cord and power plug

- Do not damage the power cord or power plug.
 - (It may cause a fire or electric shock due to short circuits, faulty insulation, deterioration or other.)
 - Using staples (,) to secure it Damaging it Re-working it Bending it unnaturally
 - Twisting it Pulling it Positioning it too close to a heating appliance
 - Placing heavy objects on top it Bundling it Pinching it Sandwiching it. etc.
 - When removing the power plug from the power outlet, hold the molded part of the plug rather than the cord itself, and pull the plug free.
 - If the supply cord is damaged, it must be replaced by the manufacturer, its service agent or similarly qualified persons in order to avoid a hazard.
- Do not use in a manner that exceeds the rating of the power outlet or connected equipment.

(Connecting too many appliances to a power outlet may cause a fire due to heat generation.)

• Do not connect or disconnect the power plug with wet hands. (It may cause an electric shock.)

• Use 220 V - 240 V AC voltage.

Insert the power plug firmly.

(It may cause smoking, a fire or electric shock.)

Do not use a damaged plug or loose power outlet.

- Remove the dust or other foreign matter on the power plug periodically. (If dust or other foreign matter is allowed to build up on the plug, moisture or other factors may lead to defective insulation which, in turn, may cause a fire.)
 Disconnect the power plug, and wipe it with a dry cloth.
- If the Alkaline Ionizer falls into water by accident, disconnect its power plug from the power outlet, and take the Alkaline Ionizer out of the water. (Otherwise it may cause an electric shock.)
 - Please contact an authorized dealer for a check or repair.
- Discontinue using the appliance immediately and unplug when abnormality or breaking down occurs.

(It may cause smoking, a fire or electric shock.)

- <e.g. for abnormality or breaking down>
- The lamp indicator is abnormal. (P. EN21)
- Abnormal noise generated during operation
- The main unit becomes abnormally hot or deformed.
- Please contact an authorized dealer for a check or repair.

EN3

English

Safety Precautions (continued)

Disassembly prohibited



- Do not disassemble, repair or remodel the Alkaline lonizer.
 (Doing so can lead to a fire and/or electric shocks.)
- Please contact an authorized dealer for a check or repair.

Water supply

0

Use only water (such as tap water) which has been approved for consumption.

(Consuming non-approved water may cause health problems as this Alkaline Ionizer does not have sterilization capabilities and cannot eliminate toxic substances other than those it can remove (P. EN2).

Existing conditions and health problems



People with kidney disease (users who have renal failure or who have difficulty in eliminating potassium from their systems) should not drink alkaline ion water. (Doing so may cause health problems.)

• This appliance is not intended for use by persons (including children) with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instruction concerning use of the appliance by a person responsible for their safety. Children should be supervised to ensure that they do not play with the appliance. Keep this instruction manual in a safe place.

(Otherwise it may cause an accident or health problems.)

 People with the following conditions should consult a doctor before drinking alkaline ion water.

(Otherwise it may cause health problems.)

- People who is receiving medical treatment from a doctor
- People with health problems or weakened constitution (People who is not feeling well)
- People with kidney diseases other than renal failure or potassium elimination
- People in the following situations should consult a doctor before applying weak acidic water to their skin.

(Otherwise it may cause health problems.)

- People with sensitive skin
- People susceptible to allergic dermatitis
- First-time users should consume small quantities (1 to 2 cupfuls) starting at the "Alkaline Level 1" setting for about two weeks, and then start using the "Alkaline Level 2" or "Alkaline Level 3" settings when their body has become accustomed to alkaline ion water.

(Drinking too high a level or too much (3 or more cupfuls) alkaline ion water at the start may cause health problems.)

Installation location

- 0
- Do not block the main spout or bend, twist, flatten, pull or clamp the hose. (Doing so may cause water to leak, prevent the output of water or cause other malfunctioning.)
 Do not connect a hose or any other appliances to main spout, acidic water spout or drain outlet. (Doing so may cause water leaks or malfunctions.)
- Do not use the Alkaline Ionizer if the outlet pipe is loose.

(Doing so may cause water leaks or damage.)If it has come loose, screw it in securely.

• Do not connect the Alkaline lonizer to a hot water supply system which is not equipped with a directional control check valve (for preventing the backflow of the water).

(Doing so may lead to malfunction in the hot water supply system.)

- Do not connect the Alkaline Ionizer to a main stop system water boiler (whose construction does not permit the water to be stopped at the hot water outlet) [such as an instantaneous water heater]. (Doing so may lead to malfunction in the water boiler.)
- Install the main unit on a level surface. (Failure to do so may cause the main unit to topple over and possibly cause injury.)
- When mounting the main unit on a wall for use, be absolutely sure to ask your dealer or a contractor to do the installation work.

(If you try to do the work yourself, the main unit may fall off, possibly causing an accident.)

• The location where the main unit is to be installed must be able to support a weight of over 6 kg. If the installation location does not have enough strength to support the main unit, the Alkaline lonizer may fall, resulting in an accident and kitchen damage.





Do not splash water or wash the main unit.

(It may cause an electrical leakage, electric shock or malfunction.) English

Accidental ingestion

• Do not leave the supplied accessories within reach of infants or toddlers.

(Doing so may result in accessories being swallowed by mistake.)

- Consult a doctor immediately if you suspect that an accessory has been swallowed.
- Do not allow infants and children to play with packaging material. (It may cause

suffocation.)

Safety Precautions (continued)

CAUTION Non-consumable alkaline ion water, applications Do not drink the following kinds of water: (Doing so may cause health problems.) · Weak acidic or acidic water • Water which comes out of the drain outlet Water which comes out of the main spout in the "Preparation time" status or during the automatic cleaning of the electrodes. · Water which contains pH test liquid. Do not directly consume water whose pH level exceeds 10. (Doing so may cause health problems.) Consuming water which has a pH level of around 9.5 "Alkaline Level 3" (Drinking water in daily life) is recommended. Keep the general amount of water consumed daily at around 0.5 liter to 1 liter. Do not take medicine with alkaline ion water. (Doing so may cause health problems.) Do not use alkaline ion water, acidic water, or purified water for the care of fish or other pets. (The environment may change as a result, and the fish, etc. may die.) Do not use aluminum containers that do not stand up to alkalis or copper containers that do not stand up to acids. Aluminum or copper (Doing so may cause containers discoloration of the containers or damage them.) When starting to use the Alkaline Ionizer, drain out the water which has collected inside. (Otherwise it may cause health problems.) When starting use Run about 0.6 liter (about every day 15 seconds) of water through the Alkaline Ionizer. When the Alkaline Run about 8 liters (about 3 lonizer has not been minutes) of water through used for 2 or more days the Alkaline Ionizer.

Storing alkaline ion water and purified water

 Use alkaline ion water or purified water immediately after it is produced, or when storing it for future consumption, pour into a clean sealed container, and consume it within 1 day if it is kept at room temperature or within 2 days if it is kept in the refrigerator. (The Alkaline Ionizer removes sterilizers

(such as chlorine) so the water may go bad over time, possibly causing health problems.)

If feeling unwell

If you have drunk alkaline ion water and do not feel well as a result, or if the symptoms do not improve after continued use, stop drinking the water and consult a doctor. (Otherwise it may cause health problems.)

If you have applied weak acidic water to your skin and you experience skin problems, stop use immediately, and consult a doctor.

(Otherwise it may cause health problems.)

Hot water

Do not allow water above 60 °C in temperature to pass through the Alkaline lonizer. (It may cause a burn.)

pH test liquid

Do not bring the pH test liquid near a naked flame. (Doing so may cause it to ignite, causing a fire.)

Do not drink the pH test liquid or the water containing the test liquid or put in your eyes.

(Keep these liquids away from children.) (Doing so may cause health problems.)

If the reagent or water containing it has been accidentally swallowed, drink copious amounts of water; if it has made contact with your eves, rinse thoroughly with clean water and, in either case, consult a doctor.

 Place the cap on the test liquid container, and keep it out of the reach of infants and toddlers.

Operating Precautions

Water supply

- Do not run the following types of water through the Alkaline Ionizer. (Doing so may shorten the service life of the cartridge.)
 - Water which is very turbid
 - Water containing a great deal of red rust
- Do not run well water containing sea water or other salt content (from wells near coastal area) through the Alkaline Ionizer. (Doing so may cause malfunction.)
- When using the Alkaline lonizer in areas where the water is very hard*
 - Once a day, run weak acidic water through the Alkaline lonizer for about a minute before use (otherwise calcium will build up on the main spout and along the water lines, hindering the passage of the water).
 - *: In areas where the water is very hard, soap will not lather easily and white deposits (calcium) will build up in kettles and pans.
- Depending on the region and water quality, it may not be possible to acquire the designated pH level.

Usage

- Do not place this product upside down. (Doing so may cause that lead to malfunction.)
- Do not connect the Alkaline Ionizer to a hot water-only faucet. (Doing so may cause malfunction.)
- The table below shows the temperatures of water that can be used. Use water at these temperatures.

(Failure to do so may cause damage or adhesion to the cartridge, resulting in part of the total trihalomethane being discharged.)

Position of bypass selector	Water temperature
Purified	Under 35 °C
Unpurified/Shower	Under 80 °C

• Do not lift the main unit by taking hold of the outlet pipe, or forcefully move the main unit.

(Doing so may cause damage.)

- Do not continuously produce alkaline ion water or weak acidic water beyond the time spans given in the table below.
 - If water is produced for longer periods than the ones shown below, the "U27" error code (P. EN44) will appear on the LCD display, and electrolysis will be suspended.

Alkaline 4 (Strongly Alkaline)	Approx. 10 minutes
Stronger for Alkaline 3	Approx. 10 minutes
Standard or Milder for Alkaline 3	Approx. 30 minutes
Alkaline 2	Approx. 30 minutes
Alkaline 1	Approx. 30 minutes
Weak Acidic	Approx. 10 minutes

English

Installation location

- Do not install the Alkaline lonizer in any of the following locations.
 - Near hot areas such as heating appliances (above 60 °C)
 - (Doing so may cause it to become deformed.)
 - In an area in direct sunlight or where it may be exposed to wind and rain (Doing so may cause incorrect operation or malfunctions.)
 - Where it may freeze (Doing so may cause cracking in the water pipes or cartridge.)
 - Where it may be covered with oil (Doing so may cause cracking in the case.)
 - In a bathroom or where the Alkaline lonizer will be exposed to water or steam (Doing so may cause incorrect operation or malfunctions.)
 - In areas lower than the kitchen counter (such as the floor)
 (Doing so may cause insufficient draining of cleaning water through the pipes.)
 - Near radios (Doing so may generate static in the radio.)
- Do not use a hose or other commercially available product to extend the water outlet.

(Doing so may cause malfunction.)



Supplied Accessories

Before using this unit, check that the following supplied accessories are accounted for. If any are missing, contact your dealer.



Checking the Faucet

Water faucet which cannot install the Alkaline lonizer

Faucet without a metal
 Faucet with an end of

lip end

10 mm or less





Shower nozzle

· Faucet with sensor





Faucet with a flaring end

Plastic or other material

· Water faucet which can attach the Alkaline Ionizer using options.



Diameter of faucet end:

Names of the Parts and Steps to Take Before Operation



- Attaching the bypass selector
- (P. EN10 ~ EN12)
- Installing the Alkaline Ionizer and plug in. (P. EN13 ~ EN15)
 - **Check after installation** (P. EN16) Run alkaline ion water through the Alkaline Ionizer for about 3 to 4 minutes to expel the air inside the main unit.
 - "Preparation time" blinks for about 20 seconds on the LCD display.



Operation (P. EN20 ~ EN22)

EN9

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Attaching the Bypass Selector

Keep all parts that are not used during installation, as they may be needed later if the unit is moved or the faucet is changed.

Outside-screwed faucet

• Water faucet which can attach the Alkaline lonizer without an accessory.



Remove the mounting nut and adaptor.

- When the filter or gasket washer (made of metal) drops off, please return to the original position (P. EN34).
- Make sure any foreign matter is not attached on the end of the faucet and gasket inside of the bypass selector.

Attach the mounting nut and adaptor.



Attach the bypass selector and tighten the mounting unit until the bypass selector does not turn.

- Do not use any tools. (This may damage the mounting nut.)
- Make sure the bypass selector is not inclined.



Adaptor

Inside-screwed faucet

• Water faucet which can attach the Alkaline lonizer with an accessory.



Remove the mounting nut and adaptor.

- When the filter or gasket washer (made of metal) drops off, please return to the original position (P. EN34).
- Make sure any foreign matter is not attached on the end of the faucet and gasket inside of the bypass selector.





inside the bypass selector. If it is moved, return to the original position. Make sure foreign matter is not attached to the filter and the gasket is not inclined.



English



Mounting nut

Mounting nut

Attach the mounting nut and adaptor.

• The adaptor should be screwed on straight. Screwing it on tilted may strip the threads, resulting in water leaks.



Bypass selector

Attach the bypass selector and tighten the mounting unit until the bypass selector does not turn.

- Do not use any tools. (This may damage the mounting nut.)
- Make sure the bypass selector is not inclined.

Attaching the Bypass Selector (continued)

Faucet without an aerator

• Water faucet which can attach the Alkaline Ionizer with accessory.



more than 10 mm
 13 mm or more, less than 24 mm



Remove the mounting nut and adaptor.

- When the filter or gasket washer (made of metal) drops off, please return to the original position (P. EN34).
- Make sure any foreign matter is not attached on the end of the faucet and gasket inside of the bypass selector.

Insert the installation adaptor,

and tighten it with the mounting











.

Push the bypass selector against the faucet and install the 4 screws as shown below.

Tighten the 4 screws temporarily

and loosen the mounting nut to

leave a 3 ~ 4 mm gap.

Top view

nut.



Water faucet
 Installation adaptor
 Screws



- Do not use any tools. (This may damage the mounting nut.)
- Make sure the bypass selector is not inclined.

Installing the Alkaline Ionizer

Preparations





2 Extend the power cord and hose in the manner that best suits the location where the unit is installed.

• Do not flatten or bend the cord or hose.

Bottom of the unit

When extending the cord and hose from the left

Condensation water outlet



Position the acidic water hose so that it will not go over the condensation water outlet (since the unit will be unstable when it is placed right side up).

English

Installing the Alkaline Ionizer (continued)





5 Secure the acidic water and drain hoses using the suction disc.

• Secure the hoses so that they will not move out of place.

Note

- If the hose is too long, it is recommended that you cut it to the proper length (cut it straight down).
- Immediately after the Alkaline Ionizer has been installed, "Preparation time" blinks for about 20 seconds on the LCD display when water is run through the Alkaline Ionizer. (P. EN9)
- The language of the LCD displays can be selected from English or Chinese. (P. EN19)

6 Connect the power plug to the power outlet (AC 220 V - 240 V).

- The buzzer sounds, about 15 seconds later the LCD display lights up in blue, and "鹼性1(飲用初期)" appears on the display
- The Alkaline Ionizer's power consumption is 1 W even in the standby status.

Important

• The power plug is normally kept connected to the power outlet (to keep the automatic electrode cleaning function working).

English

Installing the Alkaline Ionizer (continued)

Checks after installation

After installing the Alkaline Ionizer, run alkaline ion water through the unit for about 3 or 4 minutes to expel the air inside the main unit.

Check item	Trouble inspection location and remedial action	Reference page
Is water coming out of the main spout?	 Is the water supply hose bent or flattened. → If it is, straighten it out. 	EN13 ~ EN15
Is water coming out of the acidic water spout when alkaline ion water has passed through the Alkaline lonizer?	 Are the acidic water and drain hoses bent or flattened? → If they are, straighten them out. Have the acidic water and drain hoses been connected properly. → If not, check their connections to the acidic water stand. 	EN13 ~ EN15
Acidic water spout	 Does "Reduce flow" appear on the LCD display? If so, gradually reduce the flow at the faucet until the display is cleared. If water coming out of the acidic water spout is interrupted, increase the height difference of the main spout and acidic water spout. 	EN22
Is any water leaking from where the bypass selector is connected?	 Has the bypass selector been installed securely on the faucet? → Check again the instructions for "Attaching the Bypass Selector", and install it securely. Have the parts inside the bypass selector been inserted properly? → If not, install them properly. Are there any cracks at the end of the faucet (in the insulating cap, for instance)? 	EN10 ~ EN12
Is there any water leaking from where the water supply hose is connected?	 → Consult a plumber. Has the water supply hose been attached securely to the bypass selector? → Insert it as far as it will go, and use the hose fastening nut to secure it. 	EN14
Is there any water leaking from where the outlet pipe is connected?	 Has the outlet pipe been attached securely to the unit? → Insert it securely as far as it will go. Is the gasket installed on the outlet pipe or is it twisted? → Install the gasket properly. 	EN15
Is water leaking from the faucet?	 Is the gasket on the faucet old? → Consult a plumber. Are there any cracks in the faucet (in the insulating cap, for instance)? → Consult a plumber. 	_

Measuring the pH Level (Ion Concentration)



- blue may change to a green or yellow color). If this is the case, take the following action.
- Use "pH Fine Adjustment" to set the alkalinity or slight acidity to "Stronger". (P. EN24)
 In addition, when the unpurified water is measured, the color of the test water may differ from
- what is on the pH Chart (due to the effects of carbonic acid or other components in the water).
- If the pH level is high, change the water quality to weak alkaline or mix the water with purified water before using it.
- When the cartridge is new (about a week old), the pH level may be somewhat higher: this is normal and does not indicate any trouble.

EN17

English

TK-AS66-ZEX_En.indb 17

Before Operation

Tips on operating the Alkaline lonizer (using it to suit the intended application)

Alkaline ion water:

Drinking Water water 95

Drinking Water

習慣飲用

Medicine baby formula

沖泡牛奶用

Washing the Face

洗臉

water⁹ 飲用初期

9

0

5.5

Timer 計時器

High 強

Low 弱

Electrolysis

電解強度

- The pH level of alkaline ion water increases by about 0.5 per setting in the following sequence: Alkaline $1 \rightarrow$ Alkaline 2 \rightarrow Alkaline 3 \rightarrow Alkaline 4 (Strongly Alkaline). In these instructions, "Alkalines 1 to 3" are collectively referred to as "Alkaline".
- aily at around 0 E liter to 1 liter at the "Alkaline 2"

Alkaline 3

Alkaline 2

Alkaline 1

Purified

淨水

Weak Acidic

弱酸性

⑧ When 鹼性強 is pressed

and the flow is reduced at the faucet, acidic water comes out of the acidic water spout.

鹼性

鹼性

鹼性

Cont.

持續

 \bigcirc

Buzzer control

高示笛切

Alkaline 鹼性強	Removing astringency, boiling vegetables	When removing the astringency from burdock and spinach, etc. (Do not drink this water.)	9.5 ~ 10.5
Alkaline 3 鹼性	Drinking water in daily life	For coffee, tea, boiling or stewing food, cooking food in pots at the table, soups	9.0 ~ 10.0
Alkaline 2	Drinking water for Experienced user	When cooking rice	8.5 ~ 9.5
Alkaline 1 鹼性 1	Drinking water for new user	When starting to drink alkaline ion water (first two weeks or so)	8.0 ~ 9.0



Applications Taking medicine or making baby formula, etc.

The water has not been subjected to electrolysis.

Weak acidic water:

- The mild acidity of this water is close to the acidity of the human skin.
- Applications Washing the face

pH standard 5.0 to 6.5

Acidic water:

• When (Weak Addic) is pressed and the flow is reduced at the faucet, acidic water with a pH level of 3 or so comes out of the acidic water spout.

(For removing tea stains from tableware, odors left behind by cooking fish dishes, etc.)

pH standard 2.8 to 3.5*

*: When the pH3 water quality indicator lights up.

Selecting the language of the LCD displays

The language of the LCD displays can be selected from English or Chinese. The default setting is Chinese.

Turn off the faucet, and press (Atom 1) down until the buzzer beeps four times (about 3 seconds).

• When the button is pressed again for about 3 seconds, the language of the LCD displays returns to Chinese.



English

Note

- The steps to switch the displays to English cannot be taken while water is running through the Alkaline Ionizer
 or while the setting mode or check mode is established.
- Even if the displays are switched to English, displays in the setting or check mode will remain in Chinese.

LCD displays which appear during operation



Note

- The LCD displays will be cleared about 30 to 45 seconds after a button has been operated or after the faucet has been turned off (in order to conserve power). They light up when another button is operated or the water flows to the Alkaline Ionizer.
- When the water flow has dropped (to less than 1.0 liter or so a minute), the remaining cartridge life is displayed even while water is running through the Alkaline Ionizer. In a case like this, the water is not electrolyzed (no electrolysis and no water treatment).

Electrolysis signal

While "Electrolysis On" is displayed, a display is provided to indicate roughly the electrolytic strength (amount of power used for the electrolysis). It does not appear while the water is turned off or while purified water is being produced.

- The electrolytic strength changes (in 8 steps) depending on the water quality selector buttons and water flow
- (amount of water being electrolyzed) used.



To turn off the electrolysis signal

Refer to "How to set" (P. EN32), and set "Electrolysis Signal" to "OFF".

Operation

Using alkaline ion water, weak acidic water or purified water Press the water Set the bypass Open the quality selector button selector to corresponding to the type of faucet. "Purified". water required. "Preparation time" The buzzer beeps, and the water quality indicator and LCD now appears on the display light. display. Water quality selector button LCD display Application color When removing the astringency Alkaline 鹼性強4 Orange from food or boiling vegetables Alkaline 3 鹼性 Drinking water in daily life Alkaline 2 鹼性 Drinking water for Experienced Blue user Alkaline 1 鹼性 Drinking water for new user Purified 淨水 Medicine, milk Green Weak Acidic 弱酸性 Washing the face Pink Continue lamp STATISTICS OF STATISTICS LCD display Alkaline 4 Alkaline 3 Ē Alkaline 鏡性 2 Alkaline 酸性 1 Purified 滲水 Weak Aodk 弱酸性 C Acidic water spout Water quality indicators Drain outlet Electrolysis signal (P. EN19)

Start using the Alkaline lonizer.

- The "Preparation time" display is cleared, and the buzzer beeps three times. This indicates that the Alkaline Ionizer is now ready to be used.
 - While weak acidic water is selected, the warning buzzer (weak acidic buzzer) continues to beep to warn you not to drink the water by mistake.

While alkaline ion water is selected

Acidic water comes out of the acidic water spout. (For the pH standard, see P. EN51.)

To obtain acidic water with a pH level of 3 or so from the acidic water spout

Press (Merrie 4), and gradually reduce the flow of water at the faucet until the pH3 water quality indicator lights.

While purified water is selected

While weak acidic water is selected

No water comes out of the acidic water spout or drain outlet.

Alkaline ion water comes out of the drain outlet (do not drink this water).

Turn off the faucet after use.

Continue lamp

The Continue lamp lights when "Alkaline" or "Purified Water" is selected. While it is lighted, the Alkaline lonizer can be used as soon as the faucet is opened. **This is a useful function for continuing to use the Alkaline Ionizer to produce the same water quality from the main spout.**

- When washing rice
- When filling glasses with water and drinking more than one glass of water, etc.
- The Continue lamp does not light with Alkaline 4 (Strongly Alkaline) or weak acidic water.
- The Continue lamp will go off:
 - When "Alkaline" has been switched to "Purified Water", "Weak Acidic" or "Alkaline 4 (Strongly Alkaline)"
 - When "Purified Water" has been switched to another water quality
 - When 10 minutes have elapsed after the faucet was turned off.

To stop the weak acidic buzzer

Press Weak Acidic Buzz contr

Use it:

- When weak acidic water is used again, the buzzer will sound.
- To turn off the weak acidic buzzer

Refer to "How to set" (P. EN31), and set "Weak acidic buzzer" to "OFF".

Buzzer volume The volume can be adjusted to "High", "Medium" or "Low". (P. EN32)

When the faucet is turned off after use:

 When Alkaline 4 (Strongly Alkaline), weak acidic or purified water has been used, the water quality is automatically returned to the "Alkaline" setting used last (because the "Alkaline priority" setting is "ON")

English

 After the Continue lamp has gone off, water will continue to come out of the drain outlet for about 90 seconds (because the water inside the Alkaline Ionizer is draining).

🕐 Note

- You can collect the water that comes out from the acidic water spout or drain outlet while the Alkaline Ionizer is being used and use it to do the dishes or laundry or fill the bathtub.
 - Do not use it to rinse dishes or clothes.
 - When using a container to collect water, ensure that the water level in the container does not rise above the bottom of the Alkaline Ionizer.
- Even after the faucet has been turned off, a small amount of water will continue to come out of the main spout. This is normal and does not indicate any trouble.

Markant 🗍

 If the Alkaline lonizer has not been used for more than 24 hours, continuous beep will sound when alkaline ion water or purified water passes through the unit, and the automatic electrode cleaning is started (this will last for about 15 seconds). During this period, do not use the water which comes out of the main spout. (P. EN40)

Using alkaline ion water, weak acidic water or purified water (continued)

When the "Reduce flow" display appears (only while "Alkaline" or "Weak Acidic" is selected)

This message appears when too much water is flowing (in this case, it may not be possible to achieve a high enough pH level).

Gradually reduce the flow from the faucet until the display is cleared*.

*: For "Alkaline": Flow of about 5.0 liters/minute For "Weak Acidic": Flow of about 3.2 liters/minute



- If the Alkaline Ionizer is used with the water quality/Application Pictogram displayed, the Flow will be indicated while the "Reduce flow" message is displayed. (This serves to provide a guideline for the flow adjustment.)
- When "Alkaline 4 (Strongly Alkaline)" is selected, the "Reduce flow" message tends to appear more often. (In this case, it is cleared at a rate of about 2.2 liters/minutes.)

To find out what the pH level is

Measure the pH level using the supplied pH test kit. (P. EN17)

Note

• The remaining cartridge life is displayed when the flow drops (to less than 1.0 liter/min or so) because the flow at the faucet has been overly reduced or because of changes in the tap water pressure. (Electrolysis will be suspended if "Alkaline" or "Weak Acidic" is selected.) If one of the water quality selector buttons is pressed in this status, the water quality is displayed for about 4 seconds, after which the "Flow reduced" and "Too much tightened at the faucet?" displays appear alternately. To use the Alkaline Ionizer again, open the faucet until the water quality display is restored.

To prevent the setting from returning to "Alkaline" after turning off the faucet

Refer to "How to set" (P. EN32), and set "Alkaline priority" to "OFF".

• "Alkaline priority" will be set to "OFF" for purified water only.

("Alkaline" is restored after producing Alkaline 4 (Strongly Alkaline) or weak acidic and turning off the faucet.)



English

Using the unpurified water (tap water) By "unpurified water" is meant here the untreated tap water.

Set the bypass selector to "Unpurified" or "Shower".





Bypass selector

If hot water has been run through the Alkaline Ionizer by mistake, it will come out of the hot water opening.

The hot water guard mechanism is activated (at temperatures over 60 °C) to protect the cartridge.

- A beep may be heard at this time: this is normal and does not indicate any trouble.
- → Shut off the hot water immediately, and run about 0.4 liter of cool water (for about 10 seconds) through the Alkaline lonizer to cool it down.
 - Water will still come out of the hot water opening for a few moments: this is normal and does not indicate any trouble.

lmportant

 The table on the right shows the temperatures at which water can be used by the Alkaline Ionizer. Use water at these temperatures (otherwise trouble may result). (Bypass selector as seen from below)

Unpurified water shower holes Source water _______ opening (straight) Hot water opening

Position of bypass selector	Water temperature
Purified	Under 35 °C
Unpurified	Under 80 °C
Shower	

Operation (continued)

Finely adjusting the pH level (ion concentration)

Operation

Turn off the faucet,

on the control panel

and press

for 1 second.

Press (Enter

Selection/

Mode(1sec.)

To bring the pH level of the water processed through the Alkaline lonizer closer to the pH standard (water quality indicator number), the pH levels set for the "Alkaline" or "Weak Acidic" water quality selector buttons can be finely adjusted in 3 steps: "Stronger", "Standard" or "Milder".

pH fine adjustment Continue mode Water output buzzer pH fine adjustment: Alkaline 1 e.g.) pH值微調:鹼性1 $\cdot \langle \rangle$ Note Press (Enter -Stronger Standard The pH level fine adjustment -Milder changes the pH level in a e.g.) When (桃aine 3) is pressed To finely adjust the pH pH fine adjustment: Alkaline 3 range from 0.2 to 1.5 for pH値微調:鹼性3 level, press one of the water -Stronger 漂泊 "Stronger" or "Milder" from quality selector buttons. Standard the "Standard" setting. Milder (Depending on the water e.g.) To set to "Stronger" Press (Selection/ Mode(1sec.) Selection/ 5 , and quality and usage conditions, pH值微調:鹼性3 pH fine adjustment: Alkaline 3 select the pH fine there is some latitude in the Stronger amount of the change.) -Standard adjustment setting. Milder If there is more than one button for which the pH 🛛 Alkaline **1** 📗 When it is level is to be finely adjusted, New Users purchased, repeat steps 4 and 5. Standard "Standard" is 各水質的 叶値微調 終了 After about 是否設定模式 selected. Press (Enter) 6 3 seconds **Control panel** 朱是 <The setting is finished> Fine adjustment Exit the setting mode? Adjustment of all the water of the water -Yes Selection/ Mode(1sec.) Return Enter No quality pH level quality pH levels set in completed steps 4 and 5 is completed. Exit the setting mode? Selection/ Mode(1sec.) 是否設定模式 Press (Yes LCD L_{No} display and select"是". e.g.) Cartridge life Press (Enter R 11800L Water quality selector buttons Check the pH level using the pH test kit. Q (P. EN17)

Note

- When feed is pressed in steps 2 to 5, the previous screen is restored. The previous screen will not be restored when it is pressed after the settings are completed.
- Displays on the screens indicated will be in Chinese even if the English display mode is established.

EN24

LCD displays

Mode selection

Setting mode

^LCheck mode

Setting mode

For Your Operating Convenience

Measuring the water output volume

Each time water is run through the Alkaline Ionizer, the total water output (amount of water that comes out of the main spout) is calculated and indicated on the LCD display in 0.1-liter increments. (Water output display)

In measuring the water output, it is recommended that you set the main spout and acidic water spout as instructed in the procedure on P. EN26 (in order to improve the accuracy of the water output display).

Turn off the faucet, and press

Display Selector repeatedly until "Water

output" is displayed.

 Each time the button is pressed, the display on the LCD changes.



Water quality selector buttons

Press the desired water quality selector button, and then turn on the faucet.

 As soon as the "Preparation time" display is cleared, the measuring begins.



Measure the water output.

 While the output is being measured, the water output buzzer sounds once for every 0.2 liter or so of water output.

Turn off the faucet when the water output display reaches the figure to be measured.



To turn off the water output buzzer

Refer to "How to set" (P. EN31), and set "Water output buzzer" to "OFF".

Important

If there is too large a discrepancy between the water output display and actual water output, perform "Correcting the water output display" (P. EN28).

For Your Operating Convenience (continued)

Measuring the water output volume (continued)

To sound the advisory buzzer when the amount to be measured is reached

Press the water quality selector button corresponding to the water quality that is to be selected.

- Each time the button is pressed, the display on the LCD changes.
- 2 With the faucet turned off, press - + Return or Enter repeatedly until the

eturn or Enter repeatedly until the

amount to be measured is reached.

- The LCD display changes to the "Measure setting" screen.
- The water output amount which can be set ranges from 0.6 to 5.0 liters.
- Figures in a range from 0.6 to 2.0 liters can be set in **0.2-liter increments**. Figures in a range from 2.0 to 5.0 liters can be set in **0.5-liter increments**. (See table on the right.)

To stop the setting

 Press another control button or another water quality selector button.

Open the faucet.

• As soon as the "Preparation time" display is cleared, the measurement begins.

When the advisory buzzer beeps, turn off the faucet.





• The previously set figure is displayed for the second and subsequent times.



The advisory buzzer beeps when the set amount is reached.

Note

• If the faucet is not turned off even when the set amount is passed, the measurement will continue and the water output displayed. In this case, the water output buzzer will beep once for each 0.2 liter of water output.



- When will not be restored even when the button is pressed.
- Once the settings have been set, they will be stored in the memory until other settings are established (until they are changed).
- Displays on the screens indicated will be in Chinese even if the English display mode is established.

EN27

English

For Your Operating Convenience (continued)



Note

- When will not be restored even when the button is pressed.
- Once the settings have been set, they will be stored in the memory until other settings are established (until they are changed).
- Displays on the screens indicated will be in Chinese even if the English display mode is established.

Monitoring the water flow

While water is running through the Alkaline Ionizer, the water flow (total flow of water coming out of the main spout, acidic water spout and drain outlet per minute) is displayed and can be monitored. (Flow display)

Display Selector repeatedly until "Flow" appears on the LCD display.

- Each time the button is pressed, the LCD display changes.
- No figure for the flow will be displayed when the supply of water has been turned off or when the flow is under about 1.0 liter/minute.

When the water flow cannot be displayed

When the flow cannot be displayed (such as when the water pressure is too low), it can be monitored on the "Check flow" display.

down until

Purified

Turn off the faucet, and press

Press

faucet, and press 净水

the buzzer beeps four times (about 3 seconds).

- When the button is pressed again for about 3 seconds, the display returns to the previous screen. The water quality is automatically returned to the "Alkaline" setting used last.
- Open the faucet.
 When the faucet is turned off, the display returns to the previous screen.

Using the timer

The buzzer beeps (for about 10 seconds) when the set time is reached. This is useful when setting cooking times.

Turn off the faucet, press (Timer), and set the time.

- The LCD display changes to the "Set timer" screen.
- Each time the button is pressed, the time is increased in per 1-minute.
- When the button is held down, the time is increased in per 5-minute.
- Any time from 1 to 60 minutes can be set.

After about 3 seconds



When the set time is reached, the buzzer beeps LCD displays (for about 10 seconds). Timer end • To stop the buzzer, press () LCD displays • Lights LCD displays

Note

- The Alkaline Ionizer can be used while the time is being counted down. (The LCD display changes to what is shown on the right, for example.)
- The timer setting is released when:
 - Water is run through the Alkaline Ionizer during the timer setting operation.
 - is pressed while the time is being counted down.
 - (No timer operations can be performed while water is running through the Alkaline lonizer.) • The error code has appeared (P. EN44).
- Output the time set.





Blinks.

LCD displays

e.g.)

Alkaline 1

New Users

3min.

Guide



Check flow Check flow Check flow display English

For Your Operating Convenience (continued)

Setting mode and check mode

The following items can be set and checked in the setting mode and check mode. (No setting or checking operations can be performed while water is running through the Alkaline Ionizer.)

The settings established when purchased can be used for this mode

• The settings established when purchased can be used for this mode.



After the settings are completed, the previous screen will not be restored even when the button is pressed.

Items which can be set		Setting method (page)	Default settings
Stronger, Standard or Milder for "pH fine adjustment"	 The pH standard set in the "Alkaline" and "Weak acidic" water quality selector buttons can be adjusted in 3 levels. 	EN24	Standard
"Continue mode" ON and OFF	 When OFF is set, the "Continue" mode is released, and the continue lamp (P. EN21) goes off. 	EN31	ON
"Water output buzzer" ON and OFF	 When OFF is set, the buzzer does not beep during the water output count. 	EN31	ON
"Weak acidic buzzer" ON and OFF	 When OFF is set, the buzzer does not beep while weak acidic water is selected. 	EN31	ON
"Alkaline priority" ON and OFF	 When OFF is set, the "Alkaline" setting is not restored after using purified water and turning off the faucet. 	EN32	ON
"Buzzer volume" High, Medium and Low	• The buzzer volume can be adjusted in 3 steps.	EN32	Medium
"Electrolysis Signal" ON and OFF	 When OFF is set, the electrolysis signal (P. EN19) does not light. 	EN32	ON
Measurement condition setting	 This setting is performed to improve the accuracy of the water output display (P. EN24). 	EN27 ~ EN28	-

Items which can be checked		Check method (page)
Optional accessories	• The model number of the optional replacement cartridge can be checked.	EN33
Setting check	 The settings established in the setting mode can be checked. 	EN33

How to set

(For details on the items which can be set and the settings established when purchased, see P. EN30.)



• When 📾 is pressed in steps 2 to 5, the previous screen is restored. After the settings are completed, the previous screen will not be restored even when the button is pressed.

• Displays on the screens indicated will be in Chinese even if the English display mode is established.

EN31

English

For Your Operating Convenience (continued)

Setting mode and check mode (continued)

■ **How to set** (For details on the items which can be set and the settings established when purchased, see P. EN30.)



- When will not be restored even when the button is pressed.
- Displays on the screens indicated will be in Chinese even if the English display mode is established.

■ How to set (For details on the items which can be checked, see P. EN30.)



Note

- When keep is pressed in steps 2 to 6, the previous screen is restored.
- After step 7, the previous screen will not be restored when the button is pressed.
- Displays on the screens indicated will be in Chinese even if the English display mode is established.

Maintenance

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- Do not use detergents, cleansers, paint thinners, benzine, alcohol or kerosene for cleaning purposes. If, for instance, a detergent has been used by mistake, wipe the surface with a damp cloth to remove all traces of the detergent. (Otherwise, the detergent may get mixed in with the water running through the Alkaline Ionizer or the plated parts may be damaged or peel off or the plastic parts may become damaged, discolored or deformed.)
 Use of cleansers may also impair the workings of the outlet pipe and cause trouble.
- Do not use brushes or other implements made of metal (since they may leave scratch marks).
- Do not use a tool to tighten up the nut (since the nut may be damaged).





Before Replacing the Cartridge

Replacement display

The volume of water which has run through the Alkaline Ionizer is totalized, and the remaining cartridge life is indicated on the LCD display. Use this display as a general guideline for when to replace the cartridge.

 The cartridge life (12 000 liters) is a figure based on tests involving a standard water quality and water pressure (JIS S 3201: Testing methods for household water purifiers), and with tap water in general there may a significant difference in the clogging time depending on the water quality (turbidity, iron rust, etc.) and water pressure.

English



• As the remaining cartridge life becomes shorter and shorter, the black blocks "∎" in the bar display disappears.

Time for replacement of cartridge

Replace the cartridge when the following is indicated on the LCD display.

Displays (shown alternately)	Description
U25 Cartridge life (clogging) About 2 seconds Replace cartridge, and press Switch Display for about 3 seconds.	 This display indicates that the cartridge has come to the end of its life due to internal clogging. When water is run through the Alkaline lonizer, the LCD display changes to "Flow".
U26 Cartridge life About 2 seconds Replace cartridge, and press Switch Display for about 3 seconds.	This display indicates that the total run through water volume has reached 12 000 liters.

Before Replacing the Cartridge (continued)

- Even if U25 or U26 is not displayed, replace the cartridge when:
- The water has an unpleasant odor or taste (this means that the cartridge's ability to filter out these impurities has deteriorated).
- The period of time (about 1 year) that serves as a general guideline for when to replace the cartridge has passed.
- Period of time serving as a general guideline for when to replace the cartridge (for a year using 30 liters per day)

Replacement guideline	Substances removed by cartridge	
About 1 year	Free residual chlorine, turbidity, total trihalomethane, chloroform, bromodichloromethane, dibromochloromethane, bromoform, tetrachloroethylene, trichloroethylene, 1,1,1-trichloroethane, CAT, 2-MIB (mold smell), soluble lead	

(Replacement cartridge: Model number TK-AS45C1-EX) (P. EN49)

Differences in usage period by water quality

Inside the cartridge is a hollow fiber membrane filter for removing microscopic dirt. The cartridge's life will be shortened when the Alkaline Ionizer is used with a quality of water containing many clogging substances.



Hollow fiber membrane surface (new filter)



Clogged hollow fiber membrane surface



Total volume of run-through water

- (1) Water containing many clogging substances
 (2) Wether its
- (2) Water with standard quality

Note

- The volume of water coming out of the Alkaline Ionizer may be reduced when:
 - The water temperature is low (because the water does not run through the cartridge so easily).
 - The Alkaline Ionizer is used in areas where the water pressure is low (under 70 kPa).
 - The pressure of the tap water has dropped because of the demand for tap water in the area concerned.
 - Immediately after a period when the water supply was shut off such as during plumbing work.
Replacing the Cartridge

- Replace the cartridge without disconnecting the power plug. (The cartridge life cannot be reset when the power plug is disconnected.)
- Do not replace the cartridge with the condition of main unit flat.
- Do not place the main spout upwards.
- Before replacing the cartridge, turn off the faucet. Do not run water through the Alkaline lonizer with the cartridge removed. (Doing so will cause the water to overflow.)

Remove the cover, and then remove the cartridge.

Install the new cartridge.

- Take care since water will drip from the cartridge. Water may also emerge from the bottom of the unit (this does not indicate that there is a leak).
- Do not place the unit on its side or upside down with the cartridge removed (since water may get inside the unit and cause malfunction).

After putting the cartridge in place, push it up.



English

New cartridge



Align the center of the bottom of the cartridge with the center of the cartridge hole, and while pressing it down, push the cartridge in.



(for about 3 seconds).

- The "Reset completed" display appears, and about 3 seconds later the "Cartridge life" display appears.
- Refer to the displays on the right, and check whether the remaining cartridge life has been reset correctly.

Open the faucet, and run purified water through the Alkaline **Ionizer** (for about 3 or 4 minutes).

- When water is run through the Alkaline Ionizer, "Preparation time" blinks for about 20 seconds on the LCD display.
- While water is running through the Alkaline Ionizer, check that water is not leaking from the area where the cartridge was installed and that water is coming out of the drain outlet.



EN37

TK-AS66-ZEX En.indb 37

Replacing the Cartridge (continued)





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- Dispose of the used cartridge in accordance with the applicable ordinances in the area concerned.
- Even replacing the cartridge before U25 or U26 is displayed, the cartridge life display should be reset according to step 3 in order to display the remaining cartridge life correctly.

When Moving the Alkaline Ionizer

Follow the steps below to drain off the water in the Alkaline Ionizer.

1 Disconnect the power plug, and connect it again.

- "Preparation time" blinks for about 15 seconds on the LCD display, and water comes out of the drain outlet.
- Repeat this step two or three times, and disconnect the power plug.
- 2 Remove the cap, turn the unit upside down, and drain off the inside water.

3 Disconnect the water supply hose from the bypass selector.

- After disconnecting the water supply hose, put the hose fastening nut back on the bypass selector (to ensure that the nut is not misplaced or lost).
- Drain off the water inside the bypass selector.





Remove the cartridge.

 Do not place the unit on its side or upside down with the cartridge removed (since water may get inside the unit and cause trouble).



Put the end of the water supply hose at a position lower than the bottom of the unit, and drain off the water inside the hose.

- Disconnect the acidic water and drain hoses from the acidic water stand, and put them at a position lower than the bottom of the unit.
- Return the cap and cartridge to their original positions.



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• Not all the water may be adequately drained off in this process so factor in water leaks and pack the Alkaline lonizer accordingly when transporting it.

When not in use for a long time

If you will not use this unit for a week or more, make sure to follow the instructions below.

Remove the cartridge from the unit (P. EN37), put it inside a plastic bag, and then store the bag in the refrigerator.
 Remove the air from the bag before closing it.

Disconnect the power plug.

- To use this unit again
 - 1) Install the cartridge. (P. EN37)
 - 2) Connect the power plug.
 - 3) Run water through the Alkaline Ionizer for about 3 minutes.
 - If you are not going to use the Alkaline Ionizer for a month or more, the water inside the cartridge may have gone bad so it is recommended that you replace the cartridge.

English

Automatic Electrode Cleaning

This operation automatically removes the calcium deposits on the electrode plates inside the main unit.



- Automatic electrode cleaning is not performed while the Continue lamp is lighted.
- until automatic electrode cleaning is completed.
- Do not use the water which comes out of the main spout or drain outlet. Start using it after the buzzer has beeped three times.

When the Power or Water Supply is Cut Off

When the power supply is cut off

- Turn off the faucet if the power is cut off while the Alkaline Ionizer is being used.
- Purified water comes out of the main spout if water is run through the Alkaline Ionizer while the power is off.
- After the power is restored, the Alkaline Ionizer can be used again as usual. (After the power comes back on, the "Alkaline 1" (New Users) setting is automatically restored.)
- Even when the power has failed, the settings establishing in the setting mode will not be lost.

When the water supply is cut off

- The Alkaline Ionizer cannot be used.
- If the water is cut off during use, turn off the faucet.
- When the water supply is restored, set the bypass selector to "Unpurified" or "Shower", and first run unpurified water (tap water) into the sink to run out the air and turbid water inside the pipes. The Alkaline Ionizer may then be used again as usual.

(This is because the cartridge life will be significantly reduced if water with air or turbidity is run through the Alkaline Ionizer.)

Q&A

Before use

Isn't it possible to use underground water for the Alkaline Ionizer?

) Underground water cannot be used.

⁷ The quality of underground water is unstable, so please use the tap water.

What is the point of the effects that the properties of source water (tap water) have on the water produced by the Alkaline Ionizer?

) Consult the table below.

⁷ The water obtained using the Alkaline Ionizer may not be sufficiently alkaline if the water has a high carbonic acid content.

In a case like this, boil the alkaline ion water to remove the carbonic acid and obtain the intended alkalinity. Also, in areas where the hardness of water* is high, the water may be turbid and white.

 With underground water or source water containing underground water, set the alkalinity to "Stronger" using the "pH fine adjustment" since alkalinity may be hard to obtain when using the Alkaline Ionizer.

	Coastal areas, islands	Hot spring areas	Water with a high concentration of carbonic acid (underground water)	Hard water	Soft water
Properties of source water	Salt water may be mixed in with the source water.	The source water contains sulfur so it tends to be acidic.	Carbonic acid gas is mixed in with the source water which tends to be acidic; the water has a high concentration of minerals so it is easier for electricity to be conducted.	The water has a high concentration of minerals so it is easier for electricity to be conducted.	The water has a low concentration of minerals so it is difficult for electricity to be conducted.
Properties of electrolyzed alkaline ion water	Tends to more alkaline.	Tends to make alkaline ion water more neutral due to the sulfate ions.	Tends to be more neutral due to the carbonic acid gas.	Tends to more alkaline.	Tends to less alkaline.
Points on using alkaline ion water	Use the "Milder" setting for the alkalinity.	Use the "Stronger" setting for the alkalinity. Reduce the flow of water at the faucet so that only a small volume of water is run through the Alkaline Ionizer.	Use the "Stronger" setting for the alkalinity. Reduce the flow of water at the faucet so that only a small volume of water is run through the Alkaline Ionizer.	Use the "Milder" setting for the alkalinity.	Use the "Stronger" setting for the alkalinity. Reduce the flow of water at the faucet so that only a small volume of water is run through the Alkaline lonizer.

*: Hardness of water: Whether water is classified as hard or soft depends on the concentration of the calcium and magnesium in the water.

During use



However, you should not keep drinking acidic water. If you have drunk large quantities by mistake and do not feel well, consult a doctor.

Will the Alkaline Ionizer remove lead (soluble lead) from the water?

) Yes, it will.

What does a service life of 850 hours for the electrolyzer mean?

This figure represents the total time that electrolysis can be performed by the electrolyzer, and it means that the electrolyzer will last for about 7 years when the Alkaline Ionizer is used for 20 minutes a day. The electrode plates are worn down by the electricity passing to the electrolyzer. If the "H31" code appears on the display, it means that the electrolyzer has come to the end of its service life. Ask your dealer to replace the electrolyzer.

Continued on next page

English

Q&A (continued)



What kind of water should babies be How long do the alkaline ion water and drinking? purified water "keep"? Use it within 24 hours at room temperature. Water produced at the "Purified Water" setting is When alkaline ion water is produced, the chlorine recommended for babies. As babies are weaned, start using alkaline ion water (sterilizer) in the tap water is removed off, making it gradually with the "Alkaline 1" (Drinking water for new easier for bacteria to proliferate. Even when storing alkaline ion water in the user) settina. refrigerator, keep it in a clean sealed container, and use it within 2 days. • Also use weak acidic water within 2 days. Cartridge Can I use alkaline ion water to make ice? I've been using the cartridge for over a Yes, you can. year and the replace cartridge display Use the ice made from alkaline ion water in the same has still not appeared. Does this mean I you would with the ice made from tap water don't have to replace the cartridge? If you store alkaline ion water in the tank of a refrigerator equipped with an automatic ice-making You should replace the cartridge. function, change the water within 2 days. Although it has seen less use and its filtering performance is still satisfactory, its activated carbon may deteriorate rapidly due to changes in the water What else can I do with alkaline ion water quality or other factors so replace it after using it for besides drinking it? a year. You can use it for cooking, making rice, making tea or coffee just as you would with regular water. I want to replace the cartridge. (P. EN18) What type should I use? Use the cartridge with the TK-AS45C1-EX model What is the white powder that's deposited number. on the inside of the kettle and thermos flasks? It's the calcium from the water. There is no problem if you drink the water, but if it Acidic water bothers you, clean the containers concerned. If the white powder is not removed by cleaning, obtain some citric acid from a pharmacy, mix 50 g with 1 What is the pH level of the acidic water liter of water, leave to soak in the containers for 2 or 3 which comes out of the acidic water days, and then rinse the deposit off. spout while alkaline ion water is coming out of the main spout? What is the white stuff that floats in the See P. EN51. water which is produced when ice made using alkaline ion water has melted? These are minerals contained in the water. When water is frozen, the minerals solidify on the surfaces of the ice. There is no problem if you swallow the white bits. When I use alkaline ion water to cook rice, the rice becomes sticky. What can I do about this? The rice may be sticky or yellow depending on the amount of water and the type of rice and rice cooker used. Either reduce the pH (hydrogen ion concentration) level of the alkaline ion water or use the Alkaline Ionizer at the "Purified Water" setting.

English

Error Code

When one of the following codes appears on the LCD display, take the suggested action described below. If a code from **H31 to H39** has appeared, do NOT attempt to disassemble and repair the Alkaline lonizer yourself, but contact your dealer.

Error code	Cause and remedial action
U21 • U27	 Depending on the water quality and environment, electrolysis may be suspended in order to protect the Alkaline Ionizer. (Purified water will come out of the main spout.) → Turn off the faucet, wait about 3 minutes, and then resume use.
U22 • U23	 Depending on the water quality and environment, electrolysis may be suspended in order to protect the Alkaline Ionizer. (Purified water will come out of the main spout.) → Turn off the faucet, discontinue use, and wait about 30 minutes. (Depending on the water quality and environment, you may have to wait more than 30 minutes.)
U25 • This appears alternately with the "Replace Cartridge" message.	 The cartridge has reached at the end of its service life due to clogging. (The water flow does not exceed 1.2 liters/minute.) → Replace the cartridge after checking water flow shortage due to decrease in water pressure, bend or collapse of the hose.
U26 • This appears alternately with the "Replace Cartridge" message.	 The total run-through volume of water serving as the guideline for cartridge replacement (12 000 liters) has been exceeded. → Replace the cartridge. (P. EN37 ~ EN38)
U28	 This is the electrolyzer service life warning. (It warns that the total electrolysis time has reached about 847 hours.) Consult your dealer. The service life of the electrolyzer is about 850 hours. When the water supply is shut off and the power plug disconnected and then reconnected, the electrolyzer can be used for the remaining hours of its service life (for about 3 weeks at a daily rate of 10 minutes).
H31	 The electrolyzer has reached the end of its service life. Total electrolysis time: About 850 hours (only the ion water production time and cleaning time) → Ask your dealer to replace the electrolyzer.
H32 ~ H39	 The Alkaline Ionizer has failed. ➔ Disconnect the power plug, and consult your dealer.

Troubleshooting

If you think that something is wrong with the Alkaline Ionizer, check out the following points before requesting repairs. If you decide that trouble has occurred, do NOT attempt to disassemble and repair the Alkaline Ionizer yourself, but contact your dealer.

• Sometimes suspected trouble is remedied by disconnecting the power plug and then re-connecting it.

When the LCD display shows the following:

Symptom Check following point		Reference page
English is not displayed on the LCD.	 This is because the English display mode has not been selected. → Take the steps to switch to the English display mode. 	
English is displayed on the LCD.	 This is because switching to the English display mode has been undertaken. → Take the steps to switch the display language, and return to the Chinese display mode. 	
The displays in the setting and check modes are not in English.	 The displays cannot be shown in English in the setting and check modes. (This is not a malfunction.) 	EN19
No display at all or LCD	 The display is cleared automatically when the Alkaline Ionizer is not being used. (This is not a malfunction.) 	EN19
display is cleared suddenly	 Is the power plug disconnected? → If it is, connect it. 	-
The "Preparation time" display blinks	 This display appears for about 20 seconds when water runs through the Alkaline Ionizer immediately after installation or cartridge replacement. → The air inside the cartridge is being expelled. Keep running the water for 3 or 4 minutes. 	EN9 EN37
The "Electrode cleaning" display blinks	 The electrodes are being automatically cleaned. → Keep running the water for about 15 seconds. 	EN40
The display changes to "Alkaline" after "Alkaline 4 (Strongly Alkaline)", "Weak Acidic" or "Purified Water" was used	• When the faucet is turned off after the Alkaline Ionizer is used at the "Alkaline 4 (Strongly Alkaline)", "Weak Acidic" or "Purified Water" setting, the "Alkaline" setting is automatically restored. (This is not a malfunction.)	EN21
The display does not return to "Alkaline" after the	 Has "OFF" been selected for "Alkaline priority" so that the Alkaline setting will not be returned? → Set "Alkaline priority" to ON. 	EN32
Alkaline lonizer was used at the "Purified Water" setting	 Does this happen while the Continue lamp is lighted? (This is not a malfunction. The "Alkaline" setting will be returned after about 10 minutes.) 	EN21
When the water flow is reduced at the faucet during use, the display suddenly changes to "Cartridge life"	 This happens when the water flow is reduced too much or the flow is diminished due to a change in the water pressure. When using the Alkaline lonizer at the "Alkaline 4 (Strongly Alkaline)", "Weak Acidic" or "Purified Water" setting, press the water quality selector button again, turn on the faucet, and adjust the flow. 	EN22

Continued on next page

English

Troubleshooting (continued)

When the LCD display shows the following: (continued)

Symptom	Check following point	Reference page
"Replace cartridge and press switch display for about 3 seconds." message appears on the display	 The flow has diminished because of cartridge clogging or some other reason. Disconnect the power plug and then re-connect it. If operation is continued and the "U25" code appears, replace the cartridge. 	EN35
The "U25" or "U26" code is not cleared even after the cartridge is replaced	 Have you forgotten to reset the cartridge life? → Refer to step 3 in the procedure of "Replacing the cartridge", and reset the cartridge life. Did you reset the cartridge life with the power plug disconnected? → Connect the power plug, and then reset the cartridge life. 	EN37
The "U26" code does not appear even after the time (approx. 1 year) representing the guideline for when to replace the cartridge has passed	 Has the Alkaline Ionizer seen less use so that the total run-through volume of water serving as the guideline for cartridge replacement (12 000 liters) has not been reached yet? (This is not a malfunction. Check the cartridge life display.) Although the filtering performance is still satisfactory, the cartridge's activated carbon may deteriorate rapidly due to changes in the water quality or other factors so replace it after using it for a year. 	EN35 ~ EN36

■ Is this a malfunction?

	Symptom	Check following point	Reference page
llet	Water comes out after the faucet has been turned off	• The water inside the outlet pipe is draining off.	EN21
Drain outlet	No water comes out from the acidic water spout when using	 Are the acidic water and drain hoses bent or flattened? If water keeps running, it may cause malfunction. Also It can not electrolysis correctly. Has the "Reduce flow" appeared on the LCD display? 	EN13 ~ EN15
D	other than purified water	 Reduce the water flow at the faucet slowly until the message is cleared. 	EN22
Acidic water spout	No water comes out when the Alkaline Ionizer is used at the "Alkaline" or "Alkaline	 Are the acidic water and drain hoses bent or flattened? → Straighten out the hoses. Have the acidic water and drain hoses been connected correctly? → Check the connection of the hoses to the acidic water stand. 	EN13 ~ EN15
Acidic 1	4 (Strongly Alkaline)" setting	 Has the "Reduce flow" appeared on the LCD display? Reduce the water flow at the faucet slowly until the message is cleared. 	EN22
Bypass selector	Water is leaking from a place other than the selected spout	 The build-up of calcium or other minerals inside the bypass selector may be to blame. Obtain some citric acid from a pharmacy, dissolve 50 g in one liter of water, and after immersing the bypass selector in the solution for about 12 hours, rinse with water. 	_

	Symptom	Check following point	Reference page	
	Very little or no water is discharged from the Alkaline lonizer	 Has the flow at the faucet been reduced too much? → Open up the faucet. Is the water pressure too low? → Open up the faucet all the way and increase the water flow at the main water supply. 	EN29	ish
		 Is the filter of the bypass selector clogged? If it is, clean the filter. 	EN34	English
	 "Flow reduced", "Too much tightened at the 	Has the cartridge been installed properly?	EN37 ~ EN38	
	faucet?" or "Bent hose?" displays	• Has the water supply been cut off?	EN40	
	appear alternately.	Is the water supply hose bent or flattened?	EN13 ~ EN15	
		If the display appears again even after taking the above action, the flow has diminished because of a clogged cartridge or other such reason. Replace the cartridge.	_	
Other	Much water comes out	 The water amount from the main spout varies depending on the kind of water and/or selection of the water quality even though the amount of source water stays constant. Maximum flow varies depending on the kind of water and/or selection of the water quality. 		
	"Reduce flow" has become more likely to be displayed			
Ō	The water comes out from the main spout is warm.	 When water starts to run through the Alkaline Ionizer, water which was kept at room temperature while no water was flowing to the Alkaline Ionizer or water warmed by the heat inside the Alkaline Ionizer may come out. → Allow the water to keep flowing for about 0.6 liter (about 15 seconds) before uses. 	-	
	The buzzer does not sound even when using the "Weak Acidic" setting	 Has "OFF" been set for the "Weak acidic buzzer" setting? 	EN31	
	The water produced by the Alkaline lonizer has an odor or unpleasant taste or is turbid	 The ability of the cartridge to remove odors, unpleasant tastes and turbidity has deteriorated. → Replace the cartridge. 	EN37 ~ EN38	
	The pH level of the water produced by the Alkaline lonizer is not within the rough pH level range	 The pH level may be a little high when a new cartridge is used (for the first week or so). (This is not a malfunction. Measure the pH level again after a week.) 	_	
	The pH level of weak acidic water is neutral	 If the pH level of weak acidic water is 6.5 or so, it may not be possible to distinguish it from the pH 7 level (neutral) in the pH Chart. → Test the water coming out of the drain outlet while using the "Weak Acidic" setting, and if it is 10 to 11, it means that the pH level for weak acidic water is 6.5 or so. 	_	

Continued on next page

Troubleshooting (continued)

Is this a malfunction? (continued)

	Symptom Check following point		
	Sounds are heard from the unit after the faucet has been turned off	• These sounds are made by the water inside the unit draining off.	_
	There is a big difference between the	 Are the acidic water and drain hoses bent or flattened? → If they are, straighten them out. Is the height difference between the main spout and acidic water spout more than 10 cm and under 50 cm? → Adjust the height difference to a value ranging from 10 to 50 cm. 	EN13 ~ EN15
	water output display and actual output of water	 Have you set the height difference between the main spout and acidic water spout? → Set the height difference. 	EN27
		 If there is still a big difference between the water output display and actual output of water even after taking the above action, follow the steps of "Correcting the water output display". 	EN28
	When a dryer is used, sounds are heard from the unit	 Sounds may be heard with some dryers. (This is not a malfunction.) 	_
Others	The pH level of alkaline ion water does not indicate alkalinity	 Is "Alkaline" set for the water quality (or has "Weak Acidic" or "Purified Water" been set)? → Switch to "Alkaline" using one of the water quality selector buttons. 	EN20
		 Depending on the water quality, the water's alkalinity may not be indicated (because of the effects of carbonic acid in the water). (This is not a malfunction. Using "pH fine adjustment", set the alkalinity to "Stronger" for use.) 	EN24 EN41
		 Are the acidic water and drain hoses bent or flattened? If they are, straighten them out because otherwise electrolysis will not be performed properly. 	EN13 ~ EN15
	It is becoming difficult for the pH level to rise	 Calcium has built up inside the Alkaline Ionizer, causing a deterioration in the electrolytic performance. 	_
	The weak acidic water has an odor (it smells like swimming pool water)	 Electrolysis causes the chlorine ions in the water to collect in weak acidic water, forming hypochlorous acid. (This is not a malfunction.) 	EN42
	White suspended matter is mixed in with the alkaline ion water	• This is calcium which has built up inside the Alkaline Ionizer. (It can be used.)	_
	Not much water comes out of the Alkaline lonizer after the cartridge has been replaced	• Did you flow water for 3 to 4 minutes? (This is necessary to expel air inside the cartridge.)	EN37
	Water drips or trickles out of the main spout even when the water is cut off	• The water inside the outlet pipe is being expelled. (This is not a malfunction.)	EN21

When there is a water leak

Place where the water leaks	Check following point	Reference page
Area where the bypass	 Has the bypass selector been installed on the faucet securely? → If not, install it securely. 	EN10 ~ EN12
selector is connected	 Have the parts inside the bypass selector been inserted properly? → If not, insert them properly. 	EN34
Area where the water supply hose is connected	 Has the water supply hose been connected securely to the bypass selector? → Insert the hose as far as it will go, and tighten it using the hose fastening nut. 	EN14
Area where the outlet pipe is connected	 Has the outlet pipe been connected to the unit securely? → If not, screw it in securely until it will go no further. Did you install the gasket? Or is the gasket twisted? → Install the gasket properly. 	EN15
Top of the unit	• Has the cap been installed securely on the unit?	EN39
Bottom of the unit	 Has the cartridge been installed securely? If not, install it securely. Depending on the temperature and humidity conditions, water formed from condensation may collect inside the unit. (This is not a malfunction.) 	EN37 ~ EN38
Faucet area	 Is the faucet gasket old? → Call in a plumber. Is the faucet (insulating cap, etc.) cracked? → Call in a plumber. 	_

Optional Accessories

Obtain all optional accessories from your dealer. For details on how they are used, refer to the accompanying instructions.

Consumables	For use with large faucet
Replacement cartridge Model No.: TK-AS450	Large-diameter Faucet Fitting (inside diameter 32.5 mm)
	Wall mounting bracket
Model No.: P-A3303ZEX Used when mounting the unit on a wall	 CAUTION If you want to install the unit on a wall, ask an authorised dealer or service personnel to do the job. Installing the unit yourself may cause the unit to fall and result in an accident The location where the unit is to be installed must be able to support a weight of over 6 kg. If the installation location does not have enough strength to support the unit, the Alkaline Ionizer may fall, resulting in an accident and kitchen damage.

EN49

English

Specifications

Rating		220-240 V ~ , 50 Hz, 0.8 A	
Power consump	otion	Approx. 130 W (approx. 1 W during standby)	
		Approx. 200(W) × 123(D) × 318(H) mm	
		Approx. 4.1 kg (approx. 4.6 kg when full of water)	
Temperature of water used by Alkaline Ionizer			
·	er used by Alkaline Ionizer		
(dynamic pressu	-	70 kPa to 350 kPa	
Usable water se			
(static pressure)		70 kPa to 750 kPa	
<u> </u>	Electrolysis method	Continuous electrolysis	
	Output water volume	2.0 L/min. (at 100 kPa water pressure)	
	(flow of water produced)	3.0 L/min. (at 200 kPa water pressure)	
	Electrolysis capability		
	selection	Alkaline: 4 levels; weak acidic: 2 levels	
		Approx. 30 minutes at room temperature (approx. 10 minutes	
Electrolysis	Continuous operation	for Stronger at Alkaline 3 (Drinking water in daily life), Alkalin	
	capability	4 capability (Strongly Alkaline), Weak Acidic) (Note 2	
		Approx. 850 hours cumulative (ion water production time,	
	Electrolyzer life	cleaning time only)	
		Auto cleaning method (cleaning time: approx. 35 seconds,	
	Electrolytic cleaning	waste water drain time: approx. 15 seconds)	
Purified water o	utput volume	2.5 L/min. (at 100 kPa water pressure)	
Filtration flow vo	•	2.5 L/min. (at 100 kPa water pressure)	
Cartridge Install		TK-AS45C1-EX	
	Free residual chlorine	12 000 L (Note 3	
	Turbidity	12 000 L (Note 4	
	Total trihalomethane	12 000 L (Note 3	
	Chloroform	12 000 L (Note 3	
	Bromodichloromethane	12 000 L (Note 3	
Purification	Dibromochloromethane	12 000 L (Note 3	
capacity	Bromoform	12 000 L (Note 3	
(Note 1)	Tetrachloroethylene	12 000 L (Note 3	
(NOLE I)	Trichloroethylene	12 000 L (Note 3	
	1,1,1-Trichloroethane	· · · · · · · · · · · · · · · · · · ·	
		· · · · · · · · · · · · · · · · · · ·	
	CAT	12 000 L (Note 3	
	2-MIB (mold smell)	12 000 L (Note 3	
0h	Soluble lead	12 000 L (Note 3	
Substances	Iron (particulate form)	Can be removed (Note 5	
other than	Aluminium (neutral)	Can be removed (Note 5	
above that can	Geosmin (mold smell)	12 000 L (Note 5	
be removed	Phenols	12 000 L (Note 5	
Guide for time to replace cartridge		Approx. 1 year (Note 6	
Filter material		Non-woven fabric, granular activated carbon, ceramic,	
Components which cannot be filtered out		powdered activated carbon, hollow fiber membrane	
		Iron dissolved in water, heavy metals (silver, copper, etc.), sa	
		(seawater)	
Length of power		Approx. 3 m	
Power protectio	n device	Current fuse: 2.5 A	
Overheating protection devices		Overheating protector (automatic resetting type, activated at	
(inside isolation		temperature of 120 °C)	
		Thermal fuse (activated at temperature of 145 °C) × 1	

- All figures given are for a water temperature of 20 °C.
- This product cannot convert hard water into soft water.
- The total volume of water coming out of the main spout, acidic water spout and drain outlet is given as the run through water volume and daily volume of water used.
- **Note 1:** The water which can be used as alkaline ion water and weak acidic water is equivalent to about 80% of the filtration flow volume.
- Note 2: This period may be shorter depending on the water quality and usage environment.
- Note 3: This value is for a removal rate of 80% based on JIS S 3201 tests.
- Note 4: This value is for a filtration flow volume of 50% based on JIS S 3201 tests.
- **Note 5:** This value is for a removal rate of 80% based on specification standard tests (JWPAS B standards) stipulated by the Japan Water Purifier Association (JWPA). Note that the removal of iron (particulate form) and aluminum (neutral) are not stipulated as part of purification capacity.
- **Note 6:** This period applies when 30 liters of water are used a day. If 60 liters are used a day, the cartridge usage limit will be approximately one-half. The period may also be significantly less depending on the amount of water used and on its quality and pressure.

Proportions of water from the main spout and drain outlet

	Ratio
Alkaline 1/2/3	4:1
Alkaline 4 (Strongly Alkaline)	4:1
Weak Acidic	4:1

pH level of acidic water from acidic water spout

Water quality	pH level of acidic water
Alkaline 4 (Strongly Alkaline)	2.8 to 3.5 (pH3 or so when the "pH3" water quality indicator has lighted)
Alkaline 3	3.0 to 4.5
Alkaline 2	4.0 to 5.5
Alkaline 1	5.0 to 6.5

The pH level differs depending on the quality and volume of the water and pH fine adjustment level.

Inspection	Check the Alkaline Ionizer you've been using for years!					
\sum	Are any of the following symptoms applicable?	 Nothing appears on the LCD display even though the power plug has been connected. An error code (U21 to U28) has appeared, and it re- appears even after taking remedial action. An error code (H31 to H39) has appeared. Some other trouble or failure has occurred. 		If any of these symptoms have occurred, disconnect the power plug from the power outlet in order to prevent accidents, and be absolutely sure to ask your dealer to check out your unit.		

愛心檢查	請對長年累月使用的鹼性離子整水器進行檢查				
\bigtriangledown	是否有這樣的 現象?	 就算已將電源插頭插入,仍沒有任何顯示出現 出現異常顯示(U21 ~ U28),即使處理異常顯示依舊出現 出現異常顯示(H31 ~ H39) 出現其他異常現象或故障 		出現以上現象時,請停止使用, 避免故障或事故發生。從插座 拔下電源插頭,務必委託經銷 商或Panasonic直屬服務站人 員檢查。	

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