

# HOCI manufacturing machine Instructions

It's okay with just water! The manufacturing method is simple. Make sterilized water quickly and easily. 7" TFTLCD makes it easy to operate.





Hello. We're IWIN, a company that thinks about customers first.

Starting with the development of various embedded systems and raw liver, IWIN has developed and sold its own slightly acidic hypochlorous acid water generator under its own brand, which is gradually expanding its use range, such as food hygiene management, crop disease sterilization, and infection prevention in hospitals.

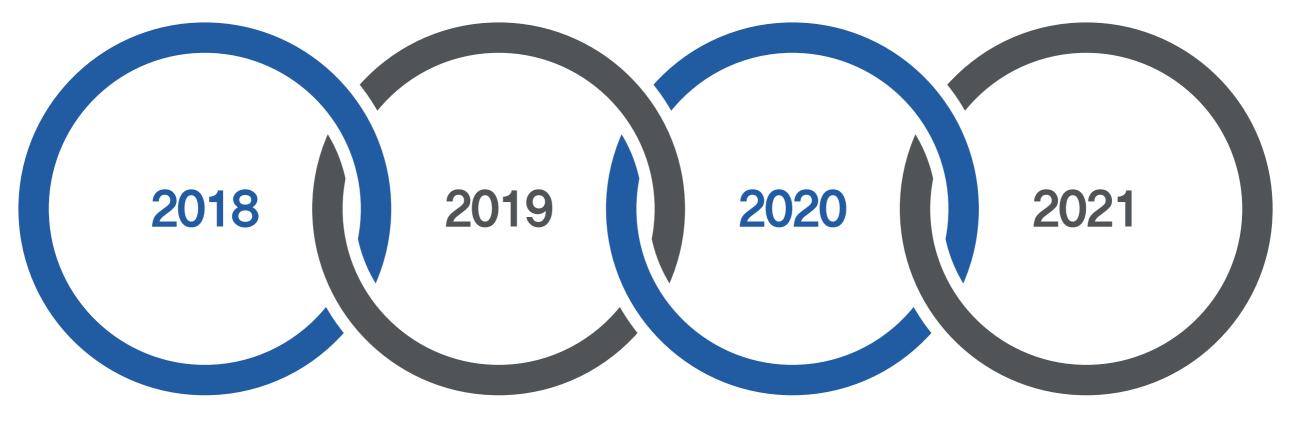
In the critical era of hygiene, disinfection and sterilization, we will do our best to 'WIN WIN' with customers with eco-friendly sterilization water generation technology using microacidic hypochlorous acid water generator.

> IWIN CEO Seunghyeon, Lee

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# 2018.10

- Established IWIN
- H&Care Co., Ltd. Electrolytic Sterilization Water Controller and Hydrogen Water Tumbler Controller Production
- EOS Hitech Co., Ltd. Ion Water Heater Controller Production

# 2019.01

-Kyung-eun F&B Co., Ltd. Fermenter Conveyor Mass Production

### 2019.12

- Patent Registration of 'IoT tumbler for hydrogen water generation and drinking management and information provision system using it'

# 2020,04

- 'Electric car seat for toddlers' patent registration

# 2020.06

- Slightly acidic hypochlorous acid water generator Product Development

# 2020.10

-2 patents filed for slightly acidic hypochlorous acid water generator

# 2021.03

### 2021.10

- KC certification
- certification

# 2021.11

- SM Unit Co., Ltd.: Development and production of electric scissors and alpine controllers

- slightly acidic hypochlorous acid water generator AUTOZEN

- slightly acidic hypochlorous acid water generator AUTOZEN8 electromagnetic compatibility

- AUTOZEN CE certification

#### Dear customer

Thank you for purchasing our products.

Please read this manual carefully to ensure proper use of the product.

- If you have any inquiries during use, or in the event that this product doesn't function properly, refer to this manual.
- We assume no responsibilities for any accidents arising out of improper use of this product as specified in the manual
- Keep the manual as well as the warranty in a safe place so it will be handy when you need it the next time.

### Product characteristics

#### CPU built-in, fully automated system.

All operations of the product are controlled by a semiconductor CPU that automatically finds optimal operating conditions using the flow rate and the measured current value.

#### Automatic water outlet control

Pressing the touch button can release water or stop the flow of water.

Voice announcement. Various functions and safety warning voice guidance make it safe and convenient to use.

#### Indication and notification of electrolyte replacement

This product informs you that you can replace it through alarm and voice guidance when the electrolyte is all used up.

### Precautions before Use



Never use the water that comes out of the product for drinking as it is sterilizing water, not drinking water with non-acidic hypochlorous acid



Since the electrolyte contains a small amount of hydrochloric acid, corrosion can easily occur when the electrolyte comes in contact with metal. Care with handling, and wash with running water when contaminated with electrolyte.



In case of contact with the human body while handling the electrolyte, wash it with running water



no risk of vibration or impact, Avoid installation in hot and humid places with room temperature below zero or above 40 degrees, Avoid places that receive direct fire and direct fire and direct sunlight.

Install horizontally in a place where there is



Please install it out of reach of children,



A small amount of chlorine gas is generated during the production of electrolytic sterilization water, so please install it in a well-ventilated place



# Embedded Systems Development History-

# Major R&D history and status of national task implementation

Gas and electric     Coolant mist injec     CO2 sensor	llers ection oven controller fryer controllers ctor light (AirWatch) controller NTROLLER roller for UV curers llers controller umbler controller
Control device	
<ul> <li>Orthopedic Exercise Devices (CPM)</li> <li>SHOULDER CPM</li> <li>KNEE CPM</li> <li>ANKLE CPM</li> <li>Alkaline ionizer controller</li> <li>Portable for menstrual cramps/muscle pain relief</li> <li>Combination stimulator</li> </ul>	<ul> <li>Overcurrent protection relays (OCR)</li> <li>Digital Protection Relays (DPRs)</li> <li>Fault Interval Automatic Relay (ASS)</li> <li>Overcurrent protection relays for RMUs</li> <li>High—speed relay OCR</li> <li>Arc Protection Relay (APR)</li> <li>Automatic Load Switching Switchgear (ALTS)</li> <li>High—Brad Street Light Monitoring</li> <li>System</li> </ul>

Year	Project Name
1999~2003	Computer automatic embroidery controller
2005	Developing OCR for Low-Pressure Cran
2006	Development of harmonic movement apparatus a technology
2008	Shoulder CPM Development Development of Mechanical Control Embedded Sy:
2009	Knee CPM Development
2010	Development of valve controllers for Developing a Simple Shoulder Cl
2011	Development of Solar Environmental Monitor Controlle System Solar controller development
2012	Developing OCR for High Speed Relay OC Development of hybrid upper limb motor devices
2013	Elbow CPM Development Sealing Machine Controller Develop Development of VCB TRIP Controller for Minir Development of Foothold Disturbance Applied Dyna Training/Evaluation System Fire pump controller developme
2014	Develop an ARC Protection Rela ALTS Intelligent Automatic Load Transition Switch Development of SVC reactive power compe
2015	Ankle CPM Development Developing a simple Knee CPM SVRS Energy Saving Device Develo LG Electronics Incense CO <sub>2</sub> Sensor De Development of circular ionizer Multipower development for UV curing i
2016	Solar battery chargers and remote monitor
2017	Development of knee rehabilitation treatment dev therapeutic assistant photographic o Rotary oven controller developme
2019	Development of Agricultural Sterile Water Ma
2020	Development of hypochlorous acid water
2021	Development of electric scissors and alpi

	Remarks
development	Sunstar
e Breakers	Small and Medium Business Technology Innovation Challenges
nd controller design	Industry-academia joint technology development: Chungbuk University
stem for Medical Use	Changmyung Control Technology Regional Industrial Common Technology Development Project (06~08)
	Changmyung Control Technology
boilers PM	Daesung Celtic Energies Co., Ltd. Changmyung Control Technology
er and Communication	Sehwa Energy Industry Co., Ltd. Daesung Celtic Energies Co., Ltd.
CR and RMU s utilizing vital signs	LS SAN Co., Ltd. Small and medium-sized enterprises technology innovation development project (10~12)
oment 1g – For Export amic Posture Balance nt	Changmyung Control Technology Orbit Co., Ltd. 中国樂高有限公司 Small and Medium Enterprises Technology Innovation Development Project(12~14) Joe Eun Jump Co., Ltd.
ay gear Development nsation device	LS Prenatal Co., Ltd. LS Prenatal Co., Ltd. Changmyung Control Technology
Л pment velopment machines	Changmyung Control Technology Changmyung Control Technology Changmyung Control Technology Acen EOS Hitech Co., Ltd. M vision Co., Ltd.
ring systems	Chungbuk University LINC Business
vice equipped with device ent	Creative Fusion R&D: Ministry of Industry, Trade and Resources Daeheung Soft Mill
aker Controller	EOSHytech
r generator	WIN
ne scissors	SM Units



#### Eco-friendly sterilization

- New concept sterilization technology that sterilizes only with water
- No additional detergents or chemicals required
- Reduced to plain water after bactericidal action and no 2nd degree of contamination

### Powerful bactericidal effect

- Removes 99.9% of bacteria, viruses, bacteria, and fungi such as salmonella and Staphylococcus aureus
- Completely kills almost all germs in less than 30 seconds to 10 minutes

#### Strong disinfection of food materials & Cleaning effect

- Toxicity such as chloroform, trihalomethane is not produced when sterilized
- Eliminate pesticides and food poisoning bacteria
- No odor and does not affect the original tissue and taste of the food

#### Powerful deodorizing effect

• Powerful oxidizing power sterilizes

putrefactive bacteria to purify the air

and remove odors

#### Convenience and affordability

- All you need is water is OK, the manufacturing method is simple
  - Quickly and easily sterilized • No noise and vibration during sterilization
  - Unlike lax or high concentration hypochlorite-based fungicides, it does not cause depigmentation and metal corrosion of the cleaning material
  - Sterilized by non-heating method, eliminating container deformation of glass and plastic
  - Can be used semi-permanently



#### Excellent safety

- Can be used as safely as tap water
- Uses low voltage (DC2V to 48V) which is safe for the human body, unlike traditional electrolysis methods
- Unheated sterilization method does not produce environmental hormones
- · Passed all toxic, irritating, and carcinogenic tests conducted by the Institute of the Ministry of Health, Labor, and Welfare of Japan
- HOCI is approved as a food additive and certified for safety

### What is slightly acidic hypochlorous water?

#### Safe disinfectant approved as a food additive

HOCI(hypochlorous acid) is a substance with strong bactericidal properties that is produced when diluted hydrochloric acid (HCI) is electrolyzed in a septal electrolyte.

With a pH5-6.5, a low concentration of effective chlorine 10-30 ppm, it exerts strong bactericidal properties and is a safe disinfectant that was approved as a food additive by the Ministry of Food and Drug Safety in November 2007.

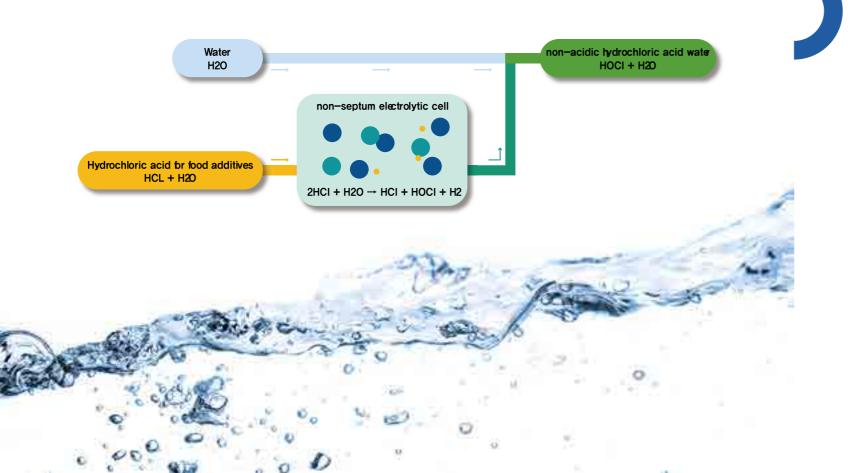


# Principle of slightly acidic hypochlorous acid (HOCI) water generator

#### Generated by electrolysis of tap water

Tap water containing trace amounts of chloride ions (cl-) is electrolyzed into a septum-free electrolyte to produce hypochlorous acid (HOCl).

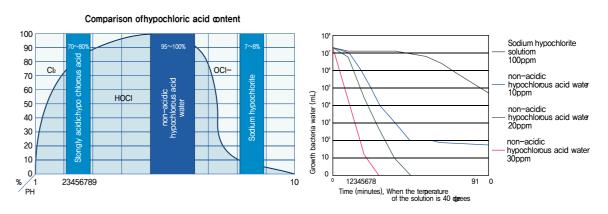
If necessary, a dedicated hypochlorous acid producer can also be added to produce high concentrations of hypochlorous acid water (increasing the bactericidal power in the treatment of highly contaminated areas)



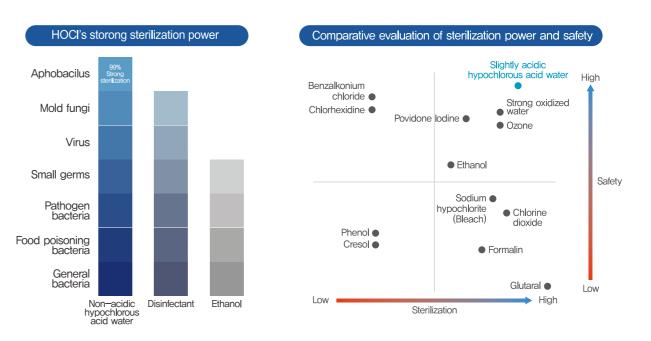
### Difference from other disinfectants

#### Safe and strong sterilization power

slightly acidic hypochlorous acid (HOCI) and sodium hypochlorite (Chlorine bleach, NaOCI) are completely different products. While HOCI sterile water is safe for users and the environment, side effects such as irritation, testicular cancer, skin cancer, and burns have been reported from sodium hypochlorite. The sterilizing power of HOCI sterilizing water is 80 times stronger than that of sodium hypochlorite, as shown in the test result below.



\*Jpan Food Analysis Center in 2002 - Corparison of sterilization power of HOCI concentration (30ppm, 20ppm, 10ppm) and sodium hypochlorite (100ppm)



# Comparison of sterilization power and safety

# Applications

Δ	pplications	application examples	Use cases
Food manufacturing Group cafeteria		Fresh vegetable production, Overall organic food manufacturing, Schools, corporations, government offices, hospitals, military bases, hotels, restaurants, etc,	Sterilization of food ingredients, removal of pesticide residues Hand sanitizer, kitchen equipment Washing utensils, dishes, drains, sterilization and disinfection Indoor kitchen, bathroom sterilization and deodorization
Agriculture		Agriculture Facility cultivation (Strawberry, cucumber, tomato, lettuce, etc.) Fruit tree	Substitute fungicides (Spray on leaves and stems), Eco-friendly agriculture, Seed sterilization, Sterilization of harvested fruits and vegetables
Livestock		Barns and dairy cow	Spray barns for disinfection and deodorization Instrument equipmen disinfection, Sterilization of various viruses, such as foot-and-mouth disease and pig cholera, Sterilizatio disinfection and, deodorization of slaughterhouses
Medical treatment		Hospital, dentistry, veterinary hospital	Hand disinfection, gargle, body disinfection, and instrument sterilization, Disease management wound disinfection, treatment for bu and atopy, Indoor air purification ar deodorization
Air purification		School, daycare center, kindergarten, postpartum care center, nursing home Restaurant, cafeteria, food factory, mart Closed places such as movie theaters	Indoor air purification Air purificatio in multi–use facilities
Home	Page	Kitchen, bathroom, kids room, bedroom, living room refrigerator, shoe cabinet, the interior of a car	Kitchenware, dish sterilization and cleaning, removal of food materia residue pesticide Air purification and deodorization of Kitchen and living room, sterilization and deodorization of toilet Sterilization of toothbrush, baby bottles, baby products, toys Sterilization of bedding products, removal of residual detergent, etc

# Product



# "AUTOZEN" is...

It is a direct-water type hypochlorous acid water manufacturing device that is an eco-friendly sterilization, deodorization, and disinfecting water.





#### Eco-friendly sterilization

After bactericidal action, it is reduced to ordinary water and 2nd degree of pollution!

New concept sterilization technology sterilization technology that sterilizes only with water No need to add separate detergents or chemicals!

### Powerful bactericidal effect

Eliminates 99,9% of all bacteria, viruses, and bacterial fungi such as Lemonella, Staphylococcus aureus, etc.!



### Disinfection and cleaning effect of food materials

No toxic substances such as chloroform, trihalomethane are produced when sterilized!

No odor and no impact on the original tissue and taste of the food! Eliminate residual pesticides and food poisoning bacteria!



# Slightly acidic hypochlorous acid water generator for homes and small businesses



Ease of operation



- operating status and operation status of the instrument
- instrument operating time
- display when not in use

# Convenience of Entering water Out water connection



Ease of replacement of 1L electrolyte cylinder

#### AutoZen7

- 7-inch touch LCD display for convenient operation and operation status check
- · Reliable hypochlorous acid water preparation using patented diaphragmatic electrolyzer
- Easy and reliable electrolyte cylinder replacement
- Constant current control to maintain constant pH and residual chlorine regardless of flow rate
- Operation status voice notification



• Easy to operate with 7" TFTLCD and touchpad, easy to check the • Display flow rate, electrolyte usage, total HOCL production and

· Operation progress display and voice notification function, watch





Discharge volume 2L/min, 18 hours of use at 30 ppm of residual chlorine



# Application Cases







Vehicle air conditioning sterilization Deodorizing effect

Sink





Table Deodorizing effect

Pets Deodorizing effect



Bedding, furniture, sofa Deodorizing effect

Drainage Deodorizing effect

Spec.

Product		slightly acidic hypochlorous acid water generator
Model		AUTOZEN 7
Rated pow	ver supplies	220-240V ~ / 50-60Hz
Water sup	ply method	Direct Type
Noumenon	Measurements	340×340×150(W×H×D)mm
Noumenon	Weight	Approx, 5kg
Allowable w	ater pressure	100 ~ 500 kPa
Allowable	temperature	5 ~ 40°C
	Electrolysis method	Continuous electrolysis
Electrolysis device	Allowable frankincense	1.0~2.5L / min
	Electrode	Iridium / Titanium
	pН	5 ~ 6.5
Electrolytic sterilization water	Effective chlorine concentration(pp)	10 ~ 50
	Amount of production (L/min)	1.0 ~ 2.5L / min
	Electrolyte	6% HCL 1L



Deodorizing effect



Sterilization of food ingredients and Removal of residual pesticides





Bathroom Deodorizing effect





Other spaces, products, etc. Deodorizing effect

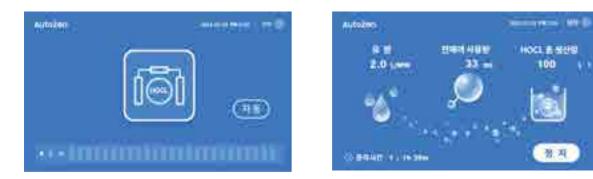
### Slightly acidic hypochlorous acid water generator for Businesses



#### AutoZen8,10

- 7-inch touch LCD display for convenient operation and operation status check
- Reliable hypochlorous acid water preparation using patented diaphragmatic electrolyzer
- Easy and reliable electrolyte cylinder replacement
- Constant current control to maintain constant pH and residual chlorine regardless of flow rate
- Operation progress indication and voice notification, clock display when not in use

# Ease of operation



- Easy to operate with 7" TFTLCD and touchpad, easy to check the operating status and operation status of the instrument
- Display flow rate, electrolyte usage, total HOCL production and instrument operating time
- Operation progress display and voice notification function, watch display when not in use

## **Convenience** of Entering water Out water connection



Ease of replacement of 20L electrolyte cylinder



Can be used for 130 hours based on 5L/min of water output and 30ppm of residual chlorine





Pro	duct	slightly acidic hypochlorou	is acid water generator
Mo	odel	AUTOZEN 8 (IW-AZ300)	AUTOZEN 10 (IW-AZ1200)
Rated power supplies		220–240V ~ / 50–60Hz, 200W	
Water supply method		Direct Type	
	Measurements	430×1010×300(W×H×D)	430×1120×300(W×H×D)
	Weight	Approx, 35kg	Approx. 45kg
_	Allowable water pressure	100 ~ 500 kPa	
	Allowable temperature	$5\sim40^\circ\!\mathrm{C}$	
	Electrolysis method	Continuous electrolysis	
Electrolysis device	Allowable frankincense	$3.0 \sim 6.0 L \ / \ min$	3.0 $\sim$ 20.0L / min
	Electrode	Iridium / Titanium	
Electrolytic sterilization water	$5 \sim 6$	5.5	
		10 ~ 50	
		Maximum 6L / min	Maximum 20L / min
	Electrolyte / Amount	6% HCL 20L / Sterile water 40 ton	

### **Application Cases**



#### Food manufacturing, Group cafeteria

• Sterilization of food ingredients and removal of pesticide residues Hand sanitizer Disinfection of kitchen equipment • Disinfection of dishes Drainage sterilization Toilet sterilization and deodorization effect



#### Agriculture, livestock

 Substituting fungicides (spray on leaves and stems) Seed sterilization • Sterilization and disinfection of harvested fruits and vegetables

• Spray disinfection and deodorization in the barn Sterilization of various viruses such as foot-andmouth disease and pig cholera Sterilization, disinfection and deodorization of slaughterhouses and slaughterhouses



#### Hospital

 Hand sanitizer Gargle Disinfection of instruments Disinfection of wounds • Burn, atopy treatment Air purification and deodorization



Air Purification

 Schools, daycare centers, kindergartens Postpartum care centers, nursing homes Restaurant, canteen Food factory Closed places such as supermarkets and movie theaters



### Direction to use

#### Settings screen - Settings

#### **DRAIN WATER Ready screen**

lvsis



 Electrolytic water outlet action button Settings button • Press the screen for 3 seconds to switch between automatic and manual,

#### Automatic settings

Automatically operate the instrument according to the flow rate of the water tank using the float switch Manual settings Available as an operation/stop switch

#### Error screen 1

Error screen 5

screen.

### -----HOLENDE Ener 1. 8098 404 DOUGH BALLING





If the water intake is less than 0.5L or the value greater than 3L continues for 30 seconds after water dispensing, the water intake is stopped and an error screen is output with an error voice. Click the OK button to clear the error

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100000

Ettor5: 素수經 品牌

If the set continuous water dispensing

amount during water dispensing

operation, an error sound and an

error window are displayed, and water

dispensing is stopped. If you press the OK button, the error screen disappears and it moves to the operation standby



It occurs when there is no communication between the main board and the control board continuously for 5 seconds. The above error should be checked by contacting the A/S center.



• If you press the operation button in the center, it outputs the voice "Electrolyzed water is dispended" and starts electro

• It is a window to check the status of the electrolyte and internal operation required for hypochlorous acid water (HOCL) generation.Dispending proceeds when the preparation is complete.

Occurs when the current flowing through the electrolyzer does not exceed a certain value after 30 seconds of water discharge operation. It occurs when the electrolysis performance deteriorates due to deterioration of the electrolyzer's warranty life of 3000 hours or more. For the above error, contact the A/S center to replace the electrolyzer.

#### **Direction – Operation screen**



Flow rate : Displays the current flow rate. Electrolyte Usage : Displays the amount of electrolyte used, HOCL Total Production : Displays the total amount of HOCL produced. Operating time : Displays the total usage time of the device. Stop operation : When the stop button is pressed,

#### Error screen 3

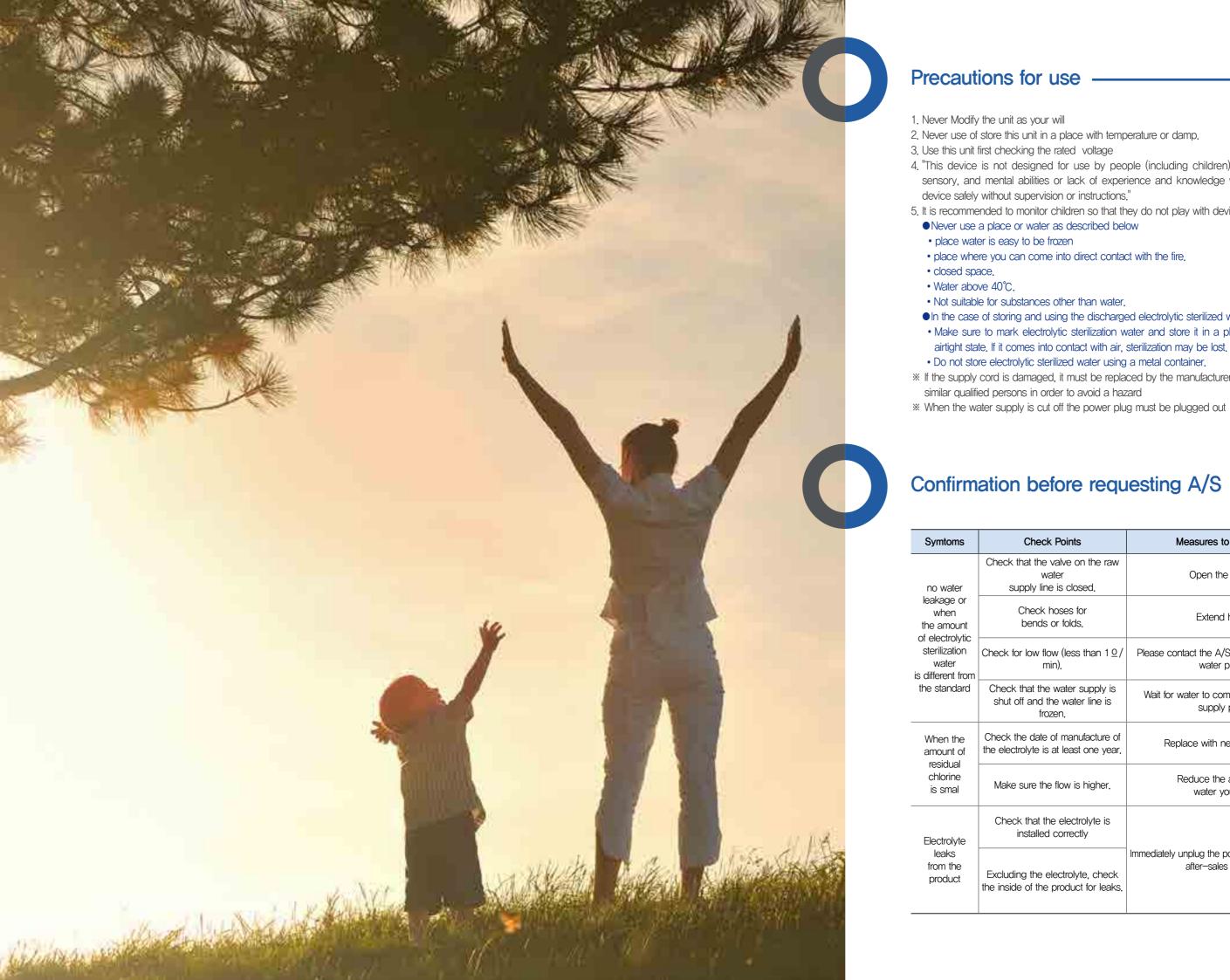


f the resistance of the electrolyzer does not reach a certain value after 30 seconds of water outflow, it is judged that the electrolyte is not supplied. The error is cleared by replacing the electrolyte container that contains the electrolyte.

#### Error screen 7



Occurs when data to be stored in memory such as set values is not saved. The above error should be checked by contacting the A/S center.



- 2. Never use of store this unit in a place with temperature or damp.
- 4. "This device is not designed for use by people (including children) who lack physical, sensory, and mental abilities or lack of experience and knowledge who cannot use the
- 5. It is recommended to monitor children so that they do not play with devices.

  - place where you can come into direct contact with the fire.
- In the case of storing and using the discharged electrolytic sterilized water
- Make sure to mark electrolytic sterilization water and store it in a plastic container in an
- Do not store electrolytic sterilized water using a metal container.
- % If the supply cord is damaged, it must be replaced by the manufacturer, its service agent or
- \* When the water supply is cut off the power plug must be plugged out

# Confirmation before requesting A/S

ck Points	Measures to be taken	
e valve on the raw vater ne is closed.	Open the valve	
k hoses for s or folds.	Extend hose.	
flow (less than 1 º / min).	Please contact the A/S center to install the water pump	
e water supply is the water line is ozen.	Wait for water to come out of the water supply pipe.	
e of manufacture of s at least one year.	Replace with new electrolyte	
ne flow is higher.	Reduce the amount of water you get.	
the electrolyte is d correctly	Immediately unplug the power cord and reque after-sales service.	
electrolyte, check e product for leaks.		



# Certifica&transcripts -

















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