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WATER ELECTROLYZER

**WOX-40WA-EW**

# **INSTRUCTION MANUAL**

FOR END USER

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**HOSHIZAKI CORPORATION**

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L1X006112 (111520)

## IMPORTANT SAFETY INFORMATION

Throughout this manual, notices appear to bring your attention to situations which could result in death, serious injury, or damage to the unit.

|                  |  |
|------------------|--|
| <b>WARNING</b>   | Indicates a hazardous situation which, if not avoided, could result in death or serious injury.  |
| <b>CAUTION</b>   | Indicates a hazardous situation which, if not avoided, could result in minor or moderate injury. |
| <b>NOTICE</b>    | Indicates a hazardous situation which, if not avoided, could result in damage to the unit.       |
| <b>HYGIENE</b>   | Indicates important precautions for hygiene and food safety.                                     |
| <b>IMPORTANT</b> | Indicates important information about the use and care of the unit.                              |

### IMPORTANT

This booklet is an integral and essential part of the product and should be kept and preserved by the user.

Please read carefully the guidelines and warnings contained herein as they are intended to provide the user with essential information for the continued safe use and maintenance of the product. In addition, it provides GUIDANCE ONLY to the user on the correct services and site location of the electrolyzer.

Please preserve this booklet for any further consultation that may be necessary.

### WARNING

This is a water electrolyzer, and should be destined only to be used for the purpose for which it has been expressly designed. Any other use should be considered improper and therefore dangerous. The manufacturer will not be held liable or responsible for any damage caused by improper, incorrect and unreasonable use.

**The installation, and relocation if necessary, must be carried out by qualified personnel**, in accordance with current regulations, according to the manufacturer's instructions.

This electrolyzer is not intended for outdoor use (including under canopy). Exposure to rain may cause electric leak or shock. Direct sunlight can damage the plastic tank exterior, resulting in cracks and water leaks.

Ensure adequate ventilation. Hydrogen gas or chlorine gas may cause health problems.

Do not mix electrolyzed water with other chemicals. Mixture with acidic or chlorine-based chemicals can cause chlorine gas, resulting in health problems.

Do not use a large volume of sanitizing water only. Generation of a large amount of chlorine gas may cause health problems or corrosion of surrounding equipment.

The use of any electrical appliance involves the observance of some fundamental rules. In particular:

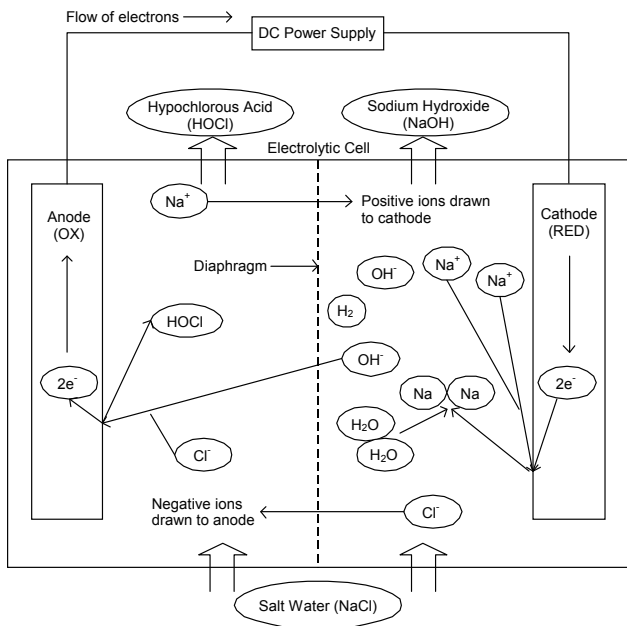
- \* Instances of high humidity and moisture increase the risk of electrical short circuits and potential electrical shocks. If in doubt, disconnect the electrolyzer.
- \* Do not damage the power cord or pull it in order to disconnect the electrolyzer from the electrical supply network.
- \* If the supply cord is damaged, it must be replaced by your local Hoshizaki service agent or similarly qualified persons in order to avoid a hazard.
- \* Do not touch the electrical parts or operate the switches with damp hands.
- \* 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.
- \* Do not attempt to modify the electrolyzer. Only qualified personnel may disassemble or repair the appliance.

### CAUTION

Do not use a flame near a container or tank holding electrolyzed water. Hydrogen gas from cleaning water may cause ignition.

In the context of this manual, the term "sanitizing water" refers to acidic water and "cleaning water" refers to alkaline water.

## 1. PRINCIPLE OF ELECTROLYSIS



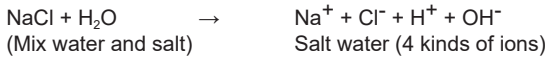
### Reactions at Anode

Chloride ions (Cl<sup>-</sup>) and hydroxide ions emit electrons (e<sup>-</sup>) to the anode, which become hypochlorous acid (HOCl).

### Reactions at Cathode

Sodium ions (Na<sup>+</sup>) receive electrons (e<sup>-</sup>) from the cathode and become sodium metal (Na) which reacts with water (H<sub>2</sub>O) and becomes sodium hydroxide (NaOH) and hydrogen gas (H<sub>2</sub>).

Salt water contains four kinds of ions; sodium ions (Na<sup>+</sup>), chlorine ions (Cl<sup>-</sup>), hydrogen ions (H<sup>+</sup>) and hydroxide ions (OH<sup>-</sup>).



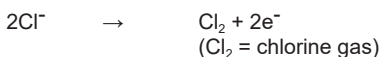
When two electrodes are inserted into salt water and voltage is applied:

Negative ions (Cl<sup>-</sup>) are drawn to the anode, and Positive ions (Na<sup>+</sup>) are drawn to the cathode.

At the anode, hydrogen chloride (HCl) and hypochlorous acid (HOCl) are generated.



Electrons (2e<sup>-</sup>) are emitted to the anode, which means the acidic water (HCl + HOCl) causes oxidation. [As electrons are emitted, the oxidation/reduction potential becomes positive (+mV).] Chlorine ions also emit electrons and become chlorine gas (Cl<sub>2</sub>).



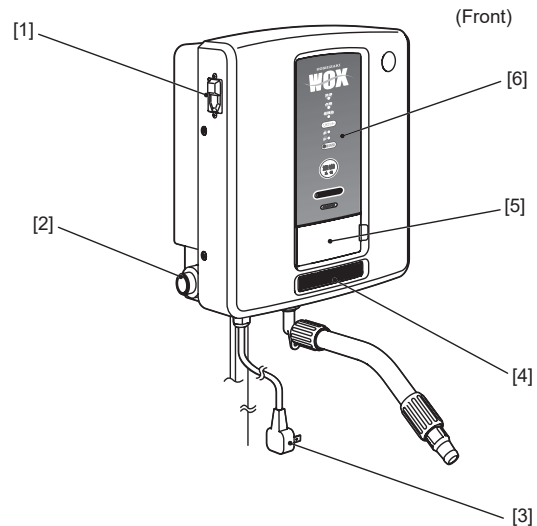
At the cathode, sodium hydroxide (NaOH) and hydrogen gas (H<sub>2</sub>) are generated.



Electrons (2e<sup>-</sup>) are received from the cathode, which means the alkali water (NaOH) causes reduction. [As electrons are received, the oxidation/reduction potential becomes negative (-mV).]

## 2. CONSTRUCTION

### [a] EXTERIOR



[1] Power switch (earth leakage circuit breaker)

[2] Water inlet (G3/4 male)

[3] Power cord (1 phase 220-240V)

[4] Dispensing sensor

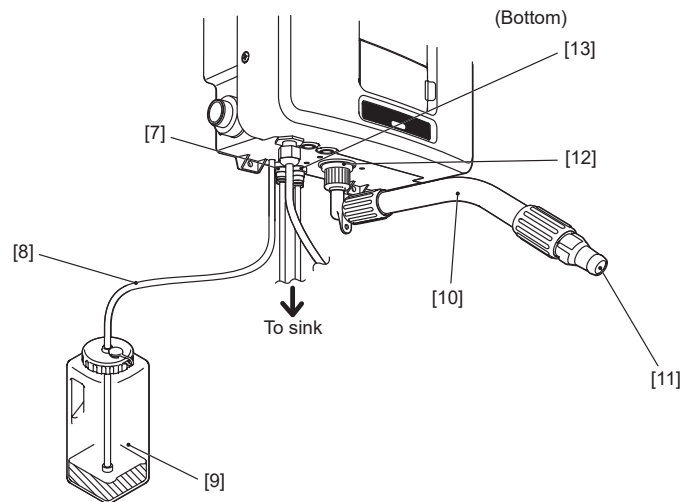
Senses a hand or object to start and stop dispensing electrolyzed water without using the dispense button (default setting: portion control mode).

[5] Control panel

Contains buttons and lamps for electrolytic cell function settings. See "[c] CONTROL PANEL".

[6] Operation panel

Indicates the operating conditions of the unit.



[7] Drain outlet (left)  
Drains sanitizing water in flush cycle.

[8] Salt water hose

[9] Salt water tank (accessory)

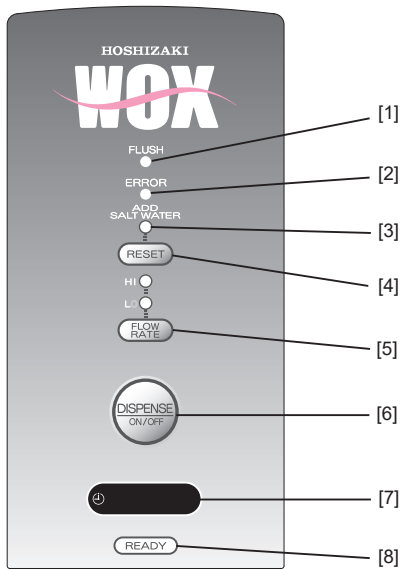
[10] Nozzle hose (accessory)

[11] Nozzle

[12] Sanitizing water outlet (G1/2 male)

[13] Drain outlet (right)  
Drains cleaning water during dispensing action and sanitizing water in flush cycle.

**[b] OPERATION PANEL**



[1] Flush lamp (red)  
The electrolytic cell and cleaning water circuit are being flushed while this lamp is on. Starts flashing 5 minutes before flush cycle begins.

[2] Error lamp (red)  
Flashes or illuminates in case of trouble.

[3] Add salt water lamp (red)  
Flashes or illuminates when the salt water tank is running out of salt water.  
Flash: The electrolyzed water performance is insufficient. The unit is going to stop due to the lack of salt water.  
Illuminate: The electrolyzed water performance is insufficient. The unit stops due to the lack of salt water.

[4] Reset button  
After adding salt water in the salt water tank, press this button. The add salt water lamp starts flashing, and salt water is supplied to the unit.

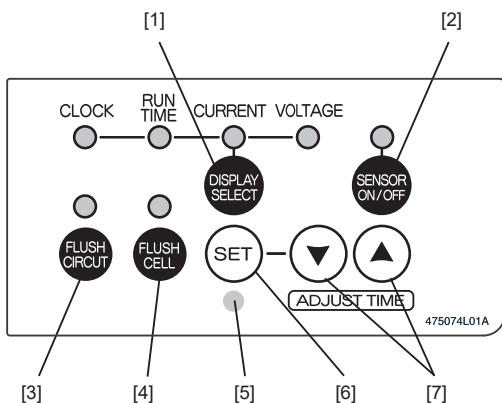
[5] Flow rate select button  
Adjusts the flow rate. The lamp of selected flow rate (HI or LO) comes on.  
HI: For utensils, LO: For foods

[6] Dispense button  
Press this button to start or stop dispensing sanitizing water (default setting: continuous dispensing mode).

[7] Display  
Normally indicates present time. Also indicates the cell run time, current, voltage, and error code in case of trouble.

[8] Ready lamp (blue)  
Flashes or illuminates when electrolysis starts. See "5. DISPENSING".  
Flash: The electrolyzed water performance is insufficient.  
Illuminate: The electrolyzed water performance is sufficient.

**[c] CONTROL PANEL**



[1] Display select button  
Press this button to select the indication in the display on the operation panel. The lamp (green) of the selected item (clock, cell run time, current or voltage) illuminates.

[2] Sensor button  
Press this button to use the dispensing sensor. Electrolyzed water is dispensed and stopped by the sensor while the lamp is on.

[3] Flush circuit button  
Press this button to flush the electrolyzed water circuit. The red lamp flashes while the circuit is being flushed.

[4] Flush cell button  
Press this button to flush the electrolytic cell. The red lamp flashes while the cell is being flushed.

[5] Sensor lamp (blue)  
Illuminates when the sensor detects a hand or object.

[6] Set button  
Use this button to make various settings.

[7] Up/down button  
Adjusts settings and present time.

**[d] ACCESSORIES**

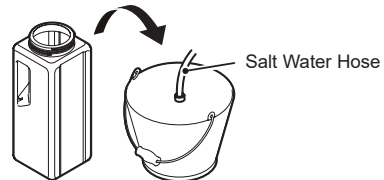
|                     |   |                             |   |
|---------------------|---|-----------------------------|---|
| Instruction manual  | 1 | Nozzle hose                 | 1 |
| Installation manual | 1 | Shower nozzle               | 1 |
| Measuring cup       | 1 | Straight nozzle             | 1 |
| Elbow               | 1 | Reducing valve [0.15MPa]    | 1 |
| Bracket B           | 1 | Connection hose assembly    | 1 |
| Nipple              | 2 | Tube [4mmDIA x 6mmDIA x 2m] | 2 |
| Cap                 | 1 | Gasket                      | 1 |
| Salt water tank     | 1 | O-ring [for shower nozzle]  | 1 |
| Anchor bolt         | 4 | pH test paper TB            | 1 |
| Wood screw          | 4 | Chlorine test paper         | 1 |
| Suction hook        | 2 | Rubber dropper              | 1 |
| Dual check valve    | 1 |                             |   |

**3. CHECKS BEFORE OPERATION**

**[a] CHECKING AND SUPPLYING SALT WATER**

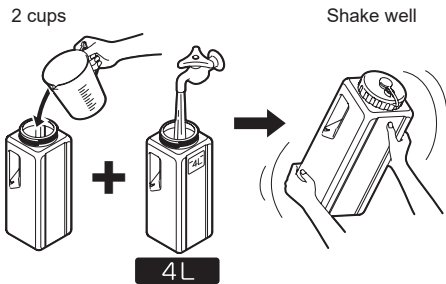
**IMPORTANT**  
Use sodium chloride (NaCl) or potassium chloride (KCl) with more than 99% purity. Any other kind of salt may cause failure, clogged pipes, or health problems.

- 1) Check the salt level in the salt water tank (accessory). If it is low, follow steps 2) to 6) below.
- 2) Pull out the salt water hose, and put it into a plastic bucket. Uncap the salt water tank.



- 3) Use the measuring cup (accessory) to add two cups of salt into the salt water tank.
- 4) Add water into the salt water tank up to the 4 L line.
- 5) Recap the salt water tank. Shake it well until salt grains completely dissolve in the water.

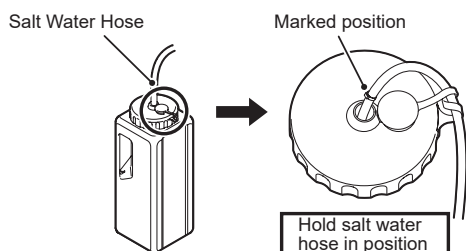
**IMPORTANT**  
If any salt grains remain in the salt water tank, the electrolyzer may not operate properly.



6) Push the salt water hose into the salt water tank all the way to the marked position. Put the salt water tank back in position.

#### IMPORTANT

1. If the salt water hose comes off easily, use the mini cap to hold the hose as shown below.
2. Install the salt water tank at the lower level than the nozzle end to prevent leakage caused by siphoning.



## 4. START UP

- 1) Plug in the unit.
- 2) Turn on the power switch (earth leakage circuit breaker).

Note: A mechanical sound is heard three times immediately after the power switch is turned on. This is not a sign of failure (initial operation).

## 5. DISPENSING

The following two dispensing modes are available.

#### Continuous dispensing mode

Once the dispensing action is started, the unit dispenses electrolyzed water continuously.

#### Portion control mode

The unit dispenses electrolyzed water for a preset time. The dispensing time is adjustable from 5 to 1800 seconds (default setting: 15 seconds). The display shows countdown during dispensing action.

- 1) To dispense sanitizing water, press the dispense button or hold a hand over the dispensing sensor.  
Default setting - Dispense button: continuous dispensing mode  
Dispensing sensor: portion control mode  
The ready lamp stops flashing and stays on.
- 2) To stop dispensing sanitizing water, press the dispense button or hold a hand over the dispensing sensor. The ready lamp goes off.

#### [a] WHEN FLUSH LAMP FLASHES

The flush lamp on the operation panel may flash while the unit is dispensing water. This means sanitizing water has been dispensed for 60 minutes in total and the unit is ready to start an automatic flush cycle for the water circuit and electrolytic cell. If the dispensing action is stopped right away or continued for 5 minutes after the flush lamp starts flashing, the unit begins an automatic flush cycle.

#### IMPORTANT

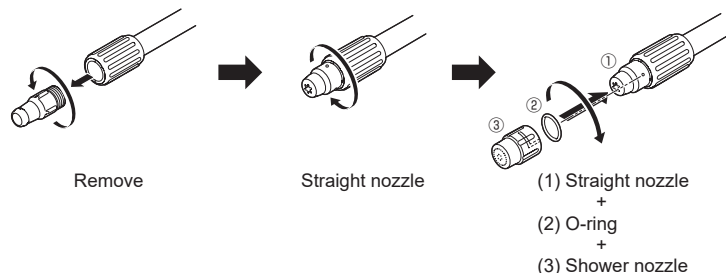
If the power switch is turned off during a flush cycle, the unit cannot flush properly and may cause a clogged circuit.

\* When the flush lamp on the operation panel stops flashing and illuminates constantly, the unit starts a flush cycle. Sanitizing water will not be available for 10 minutes (depending on the water quality).

\* During a flush cycle, water may drip from the nozzle.

#### [b] ATTACHING NOZZLE (ACCESSORY)

The two types of nozzle (accessory) are available: straight nozzle and shower nozzle. Choose according to your need.



## 6. ADJUSTMENT

#### [a] DISPENSING SENSOR

The dispensing sensor located at the bottom of the front panel enables dispensing action by sensor detection.

- 1) To enable the dispensing sensor, press the sensor button on the control panel. The sensor lamp comes on.
- 2) To disable the dispensing sensor, press the sensor button again. The sensor lamp goes off.

#### [b] PRESENT TIME

- 1) To adjust the present time, press and hold the display select button on the control panel until the display flashes the year.
- 2) Use the up/down button on the control panel to adjust the year [e.g. "2011"].
- 3) Press the display select button. The display flashes the month.
- 4) Use the up/down button to adjust the month [e.g. "03.20" (March 20)].
- 5) Press the display select button. The display flashes the day.
- 6) Use the up/down button to adjust the day [e.g. "03.20" (March 20)].
- 7) Press the set button on the control panel. The display shows the time.
- 8) Use the up/down button to adjust the time [e.g. "11.22" (11:22)]. The setting is stored after 3 seconds. The time is always adjustable only by using the up/down button.

#### [c] CHECKING AND ADJUSTING CURRENT

The current of sanitizing water can be checked and adjusted. The pH and available chlorine concentration are adjustable by changing the electrolytic current.

\* The electrolytic current is factory adjusted to 13A.

\* Adjust the electrolytic current only when the raw water quality causes the pH or available chlorine concentration go outside the specified range.

- 1) To adjust the current, press and hold the set button on the control panel until the display shows "Adj."
- 2) Press the set button. The display shows the latest adjustment number "A - -".
- 3) Use the up/down button on the control panel to indicate "A1" in the display.
- 4) Press the set button. The display shows "13.0" (13.0A).
- 5) Use the up/down button to indicate the desired current in the display [e.g. "15.0" for 15.0A].
- 6) Press the set button. The display shows the selected current [e.g. "15.0"], then "A1".
- 7) Press the up and down buttons at the same time. The display shows "Adj."
- 8) Again, press the up and down buttons at the same time. The display shows the present time.

#### [d] PORTION CONTROL DISPENSING TIME

The dispensing time in portion control mode is adjustable as follows (default setting: 15 seconds).

- 1) Press and hold the set button on the control panel until the display shows "Adj."
- 2) Press the set button. The display shows the latest adjustment number "A - -".
- 3) Use the up/down button on the control panel to indicate "A3" in the display.
- 4) Press the set button. The display shows "15" (15 seconds).
- 5) Use the up/down button to indicate the desired dispensing time in the display [e.g. "30" for 30 seconds].
- 6) Press the set button. The display shows the selected dispensing time [e.g. "30.0"], then "A3".
- 7) Press the up and down buttons at the same time. The display shows "Adj."
- 8) Again, press the up and down buttons at the same time. The display shows the present time.

#### [e] AUTOMATIC FLUSH CYCLE START TIME

The time to start automatic flush cycle for the water circuit and electrolytic cell is adjustable. When the flush lamp comes on, the unit starts flushing the water circuit first, then the electrolytic cell. The present time should be adjusted before setting the automatic flush cycle start time.

Note: The default setting is 0:00.

The automatic flush cycle takes about 10 minutes, depending on water quality. Set the start time so that the flush cycle can begin and end while no dispensing action is required.

No sanitizing water is available during the automatic flush cycle.

- 1) Press and hold the set button on the control panel until the display shows "Adj."
- 2) Press the set button. The display shows the latest adjustment number "A - -".
- 3) Use the up/down button on the control panel to indicate "A8" in the display.

- 4) Press the set button. The display shows "0.00" (0:00).
- 5) Use the up/down button to indicate the desired start time in the display [e.g. "02.30" for 2:30 am].
- 6) Press the set button. The display shows the selected start time [e.g. "02.30"], then "A8".
- 7) Press the up and down buttons at the same time. The display shows "Adj."
- 8) Again, press the up and down buttons at the same time. The display shows the present time.

## 7. SHUT DOWN

It is not necessary to shut down the unit every day. Just press the dispense button to stop dispensing electrolyzed water.

### IMPORTANT

The unit starts automatic flush cycle at the preset time (see "6. [e] AUTOMATIC FLUSH CYCLE START TIME"). To start the flush cycle properly and prevent clogging the pipes:

- \* Do not turn off the power switch.
- \* Do not close the water supply valve.

To ensure proper drainage from the sink and prevent overflow:

- \* Do not close the drain valve for the sink.

## 8. PREPARING ELECTROLYZER FOR LONG STORAGE

### [a] MORE THAN TWO DAYS

### CAUTION

When shutting down the electrolyzer for more than two days, drain out the unit to prevent foul water from causing bacterial growth and health problems.

Purge the water circuit to prevent possible freeze-up.

- 1) Turn off the power switch (earth leakage circuit breaker).
- 2) Unplug the unit or turn off the main power supply.
- 3) Close the water supply line shut-off valve and water supply valve.

Note: The water supply valve must be closed to prevent possible water leaks in case of failure.

Each installation may have different water supply connections. Locate the shut-off valve, water supply valve and drain valve in your site.

### [b] MORE THAN A MONTH

### WARNING

When shutting down the electrolyzer for more than a month, turn off the power switch (earth leakage circuit breaker), and unplug the unit to prevent electric leak, heat generation, or ignition.

- 1) Follow "[a] MORE THAN TWO DAYS" to shut down the unit.
- 2) Follow "9. MAINTENANCE" to clean the exterior and stainless steel parts
- 3) Fill the salt water tank with tap water only. Follow "11. PURGING SALT WATER PUMP" to purge the salt water pump and salt water hose.

### IMPORTANT

Be sure to drain salt water to prevent the salt water hose from clogging with crystallized salt, resulting in failure.

## 9. MAINTENANCE

### [a] EXTERIOR (AS REQUIRED)

The exterior is easily contaminated. Keep it clean.

Note: The exterior surface is painted. Do not use a commercial stainless steel cleaner.

To prevent deformation or cracking, do not spray insecticide on the plastic parts or allow them to contact oily materials.

- 1) Wipe the exterior with a cloth containing warm water and a neutral cleaner.
- 2) Wipe clean with a damp cloth.

### [b] STAINLESS STEEL (AS REQUIRED)

The stainless steel parts are easily damaged. Clean them as follows:

- 1) Wipe with a soft cloth containing a calcium chloride based liquid cleanser, tap water, and cleaning water.
- 2) Wipe clean with a damp cloth.

#### IMPORTANT

1. Do not damage the stainless steel surfaces. Use of a steel brush or steel wool may break oxide film to develop corrosion inside.
2. Use a calcium chloride based liquid cleanser to remove corrosion, dirt, and chlorides.
3. Clean the stainless steel surfaces along with their grains if any.

## 10. INSPECTION

Use a copy of "15. DAILY INSPECTION SHEET" to keep records.

### [a] pH, AVAILABLE CHLORINE CONCENTRATION (DAILY)

- 1) Sample sanitizing water from the nozzle into a container.
- 2) Use the pH and chlorine test papers to check that each value is within the following range.

| Water      | Test Paper          | pH           | Available Chlorine     |
|------------|---------------------|--------------|------------------------|
| Sanitizing | pH test paper TB    | Acidic range | —                      |
|            | Chlorine test paper | —            | 20 mg/kg (ppm) or more |

Note: See the instruction manual of each test paper for details of its proper handling.

If any of the checked values exceeds the specified range, contact an authorized Hoshizaki service company.

If water is not dispensed from its proper outlet, contact an authorized Hoshizaki service company.

### [b] SALT WATER LEVEL (DAILY)

Check the salt water level in the salt water tank (accessory) according to "3. [a] CHECKING AND SUPPLYING SALT WATER".

### [c] CELL RUN TIME, CURRENT, VOLTAGE (DAILY)

Check the present time, cell run time, current, and voltage. Press the display select button on the control panel until the desired item appears in the display.

### [d] WATER LEAKS (DAILY)

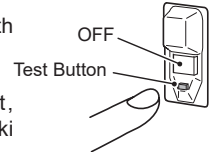
Check the unit and surrounding floor for water leaks. If any is found, contact an authorized Hoshizaki service company.

### [e] EARTH LEAKAGE CIRCUIT BREAKER (MONTHLY)

#### WARNING

Check the earth leakage circuit breaker for proper operation once a month. If it is left inoperable, it could increase the risk of electric shock in case of electric leak.

- 1) Press the test button of the power switch (earth leakage circuit breaker).
- 2) Check that the switch turns off. If not, immediately contact an authorized Hoshizaki service company.



### [f] POWER CORD, EARTH WIRE, ATTACHMENT PLUG (ANNUALLY/BIANNUALLY)

#### WARNING

Check periodically that the attachment plug blades and their vicinity are free of dust and that the attachment plug is securely plugged into the receptacle. Dusty blades or loose connection may cause electric shock or fire.

\* Check for the following problems:

| Problem  | Remedy  |
|--|---|
| The earth wire is broken or loosely connected.                                     | Ask an authorized Hoshizaki service company or licensed electrician for repair. |
| The attachment plug or power cord is too hot, damaged, weighed down, or caught in. | Immediately ask an authorized Hoshizaki service company for repair.             |
| The attachment plug blades, their vicinity, and receptacle are dusty.              | Clean.  |
| The attachment plug is plugged into a single receptacle with other equipment.      | Plug into a separate receptacle.  |
| The unit shares a single power supply with other equipment.                        | Use a separate power supply.  |

### [g] CONSUMABLE/PERIODIC REPLACEMENT PARTS

Consumable parts:  
pH test paper TB  
Chlorine test paper

Periodic replacement parts:  
Electrolytic cell (1000 hours including flush cycle time)

## 11. PURGING SALT WATER PUMP

This unit uses a pump to supply salt water. If the salt water pump contains air, electrolyzed water cannot be dispensed properly. When the add salt water lamp on the operation panel comes on and salt water tank is refilled, purge air from the salt water pump as follows:

- 1) Check that the salt water tank (accessory) is filled with salt water.
- 2) Check that the power switch (earth leakage circuit breaker) is on. If not, turn it on.
- 3) Press and hold the reset button on the control panel until the add salt water lamp flashes. After 90 seconds, the salt water pump starts running and pumping up salt water to purge the salt water hose.

4) When the salt water pump has been purged, the pump stops, water stops coming out of the nozzle, and the add salt water lamp goes off.

3) If the display shows "E22" again after operation is resumed, contact an authorized Hoshizaki service company.

## 12. BEFORE CALLING A SERVICE AGENT

If something seems wrong with the unit, check for possible causes according to the following instructions.

If the problem still exists, turn off the power switch (earth leakage circuit breaker), unplug the unit, and contact an authorized Hoshizaki service company.

Only qualified personnel may repair the unit. Do not attempt to repair it yourself.

### [a] OPERATIONAL PROBLEMS

| Problem                             | Possible Cause   | Remedy  |
|-------------------------------------|--|---|
| Abnormal noise                      | Operating sounds (water supply, pump)                                  | No problem.   |
|                                     | Unstable installation  | Adjust installation.  |
|                                     | Contact with other objects   | Keep them away from the unit.   |
| Electrolyzed water is not available | Power failure  | Wait until power is resumed.  |
|                                     | Unplugged  | Plug in.  |
|                                     | Power switch (earth leakage circuit breaker) or operation panel is off | Turn on power switch. If it turns off automatically, there is a risk of electric leak. Contact an authorized Hoshizaki service company.                 |
| Wet floor                           | Add salt water lamp (red) is on  | Add salt water to the salt water tank. See "3. [a] CHECKING AND SUPPLYING SALT WATER".<br>Purge the salt water pump. See "11. PURGING SALT WATER PUMP". |
|                                     | Water leaks  | Contact an authorized Hoshizaki service company.  |

### [b] WHEN ERROR LAMP COMES ON OR FLASHES

When the error lamp (red) on the operation panel comes on or flashes, check the error code in the display.

| Lamp  | Code | Problem                 | Possible Cause               | Remedy  |
|-------|------|-------------------------|------------------------------|---|
| Flash | E11  | Inadequate water supply | Water failure                | Restart the unit after water supply is resumed. |
|       |      |                         | Water supply valve is closed | Open.   |

\* After the problem is resolved, press the ON/OFF switch on the operation panel. The error lamp goes off. Press the ON/OFF switch again to resume operation.

| Lamp | Code | Problem                          | Remedy   |
|------|------|----------------------------------|--|
| On   | E22  | Water circuit clogged with scale | Follow the steps below to flush the water circuit. |

\* When the error lamp comes on, the display shows "E22", and the flush circuit lamp on the control panel flashes, manually flush the water circuit.

Note: The manual water circuit flush cycle takes about 3 minutes, depending on water quality.

No sanitizing water is available during the manual flush cycle.

1) Press and hold the flush circuit button on the control panel until the flush circuit lamp on the control panel and the flush lamp on the operation panel come on. The unit starts flushing the water circuit.

2) When the water circuit has been flushed, the flush lamp and flush circuit lamp go off.

| Lamp | Code | Problem                              | Remedy   |
|------|------|--------------------------------------|--|
| On   | E23  | Electrolytic cell clogged with scale | Follow the steps below to flush the electrolytic cell. |

\* When the error lamp comes on, the display shows "E23", and the flush cell lamp on the control panel flashes, manually flush the electrolytic cell.

Note: The manual electrolytic cell flush cycle takes about 10 minutes, depending on water quality.

No sanitizing water is available during the manual flush cycle.

1) Press and hold the flush cell button on the control panel until the flush cell lamp on the control panel and the flush lamp on the operation panel come on. The unit starts flushing the electrolytic cell.

2) When the electrolytic cell has been flushed, the flush lamp and flush cell lamp go off.

3) If the display shows "E23" again after operation is resumed, contact an authorized Hoshizaki service company.

When one of the following error codes appears, immediately contact an authorized Hoshizaki service company.

| Lamp  | Code | Problem                       | Possible Cause                                   | Remedy   |
|-------|------|-------------------------------|--|--|
| Flash | E13  | Nozzle hose defective         | Repair or replacement is required.               | Contact an authorized Hoshizaki service company. |
|       | E14  | Water valve defective         |  |  |
|       | E21  | Electrolytic cell replacement |  |  |
|       | E53  | Reversing relay defective     |  |  |
| On    | E12  | Flow control valve defective  | Contact an authorized Hoshizaki service company. |  |
|       | E74  | Thermistor defective          |  |  |
| Off   | EE1  | Control board defective       |  |  |
|       | EF0  |                               |  |  |
|       | EF1  |                               |  |  |

## 13. WARRANTY

Hoshizaki warrants to the original owner/user that all Hoshizaki branded products shall be free of defects in material and/or workmanship for the duration of the "warranty period". The warranty shall be effective for one year from the date of installation.

Hoshizaki's liability under the terms of the warranty are limited and shall exclude routine servicing, cleaning, essential maintenance and/or repairs occasioned by misuse and installations not in accordance with Hoshizaki guidelines.

Warranty repairs should be completed by an approved Hoshizaki dealer or service agency using genuine Hoshizaki components.

To obtain full details of your warranty and approved service agency, please contact:

e-Water Systems Pty Ltd  
TEL : 1300 EWATER  
FAX: +61(3) 9686 1377



## 14. SPECIFICATIONS

|                              |   |
|------------------------------|---|
| Model                        | WOX-40WA-EW   |
| Electrolysis System          | Membrane technology   |
| Electrolyte                  | Salt containing at least 99% sodium chloride  |
| Power Supply                 | 1 phase 220 - 240V, 50 - 60Hz   |
| Electric Consumption         | 170W / 170W   |
| Performance (Standard) *     | Sanitizing water: pH5.0 or less, available chlorine 5 - 60mg/kg                                 |
| Production Rate (Standard) * | Sanitizing water: 4.0 L/min or less   |
| Exterior                     | ABS plastic   |
| Dimensions                   | Body: 285mm(W) x 145mm(D) x 335mm(H)  |
| Weight                       | 7kg (10kg)  |
| Temperature Range            | Ambient: 5 - 35°C<br>Water supply: 5 - 30°C   |
| Water Supply                 | Comply with local water requirements<br>Pressure: 0.10 - 0.75MPa (with pressure reducing valve) |

\* Reference

|                            |     |     |
|----------------------------|-----|-----|
| Production Rate Setting    | Hi  | Lo  |
| Production Rate (L/min)    | 4.0 | 2.0 |
| pH                         | 3.0 | 3.0 |
| Available Chlorine (mg/kg) | 20  | 40  |

**15. DAILY INSPECTION SHEET**

Make copies of this page.

|   |                  |  |  |  |  |  |  |  |  |  |
|---|------------------|--|--|--|--|--|--|--|--|--|
| Date  |                  |  |  |  |  |  |  |  |  |  |
| Time  |                  |  |  |  |  |  |  |  |  |  |
| pH  | Sanitizing water |  |  |  |  |  |  |  |  |  |
| Sanitizing water available chlorine concentration |                  |  |  |  |  |  |  |  |  |  |
| Salt level  |                  |  |  |  |  |  |  |  |  |  |
| Water leaks around unit                           |                  |  |  |  |  |  |  |  |  |  |
| Drain [drain outlet (right)]                      |                  |  |  |  |  |  |  |  |  |  |
| Cell run time                                     |                  |  |  |  |  |  |  |  |  |  |
| Current (A)                                       |                  |  |  |  |  |  |  |  |  |  |
| Voltage (V)                                       |                  |  |  |  |  |  |  |  |  |  |
| Checked by  |                  |  |  |  |  |  |  |  |  |  |

|   |                  |  |  |  |  |  |  |  |  |  |
|---|------------------|--|--|--|--|--|--|--|--|--|
| Date  |                  |  |  |  |  |  |  |  |  |  |
| Time  |                  |  |  |  |  |  |  |  |  |  |
| pH  | Sanitizing water |  |  |  |  |  |  |  |  |  |
| Sanitizing water available chlorine concentration |                  |  |  |  |  |  |  |  |  |  |
| Salt level  |                  |  |  |  |  |  |  |  |  |  |
| Water leaks around unit                           |                  |  |  |  |  |  |  |  |  |  |
| Drain [drain outlet (right)]                      |                  |  |  |  |  |  |  |  |  |  |
| Cell run time                                     |                  |  |  |  |  |  |  |  |  |  |
| Current (A)                                       |                  |  |  |  |  |  |  |  |  |  |
| Voltage (V)                                       |                  |  |  |  |  |  |  |  |  |  |
| Checked by  |                  |  |  |  |  |  |  |  |  |  |

|   |                  |  |  |  |  |  |  |  |  |  |
|---|------------------|--|--|--|--|--|--|--|--|--|
| Date  |                  |  |  |  |  |  |  |  |  |  |
| Time  |                  |  |  |  |  |  |  |  |  |  |
| pH  | Sanitizing water |  |  |  |  |  |  |  |  |  |
| Sanitizing water available chlorine concentration |                  |  |  |  |  |  |  |  |  |  |
| Salt level  |                  |  |  |  |  |  |  |  |  |  |
| Water leaks around unit                           |                  |  |  |  |  |  |  |  |  |  |
| Drain [drain outlet (right)]                      |                  |  |  |  |  |  |  |  |  |  |
| Cell run time                                     |                  |  |  |  |  |  |  |  |  |  |
| Current (A)                                       |                  |  |  |  |  |  |  |  |  |  |
| Voltage (V)                                       |                  |  |  |  |  |  |  |  |  |  |
| Checked by  |                  |  |  |  |  |  |  |  |  |  |