

Instructions for Use

NaCl Acidulous Generator Model AL-790A

chlor*Organo*

Functional Electrolyzed Water



Version 1.1 | June 2021

IMPORTANT – DO NOT DISCARD

Thank you for purchasing our product.

This instruction manual contains important information for using this device safely. Read it carefully and use the product accordingly.

Read “Safety Precautions” (Pages 4 through 9) before using the device for a safe operation. Keep this manual in a secure place and continue to refer to it for safe operation and proper maintenance.

We are not responsible for product failure due to improper installation and/or use.






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Safety Precautions (Please be sure to read this section.)

Explanation of Symbols

This instruction manual and the product labels explain how to handle and operate the product safely in order to prevent harm to the operator and/or damage to property, using several symbols as follows:

Symbols	Explanation
	Not following the content of this label when operating the device can lead to a possibility of imminent death or serious injury.
	Not following the content of this label when operating the device can lead to a possibility of death, serious injury and/or damage to the device and property.
	Not following the content of this label when operating the device can lead to a possibility of injury and/or damage to the device and property.
	This mark indicates "prohibited" action or use and can be used in combination with another symbol.
	This mark indicates "mandatory" action or use.

General Precautions



	<p>DO NOT attempt to modify, disassemble, or repair this device. Such actions may cause fire or electric shock. Consult your dealer for repair.</p>
	<p>DO NOT connect to a power source that is <u>NOT</u> 120 VAC; do not connect to a DC power source. Do not connect to an overloaded socket; it will overheat and may cause a fire.</p>
	<p>DO NOT damage the power cord and plug; do not forcibly bend, pinch, or kink the cord; do not stress the cord by putting weight on it or by pulling on it to unplug from a power outlet. Use of damaged power cord or plug may cause electric shot and/or fire.</p>
	<p>DO NOT remove or insert the power plug with wet hands; it may cause an electric shock.</p>
	<p>Make sure the power plug is fully inserted into the outlet before turning on the device; incomplete insertion may cause an electric shock or fire. Do not use a damaged plug or insert into a loose power outlet.</p>
	<p>If the device is accidentally dropped into water, unplug it from the power outlet first and then touch the device; otherwise, it may cause an electric shock. Consult your dealer for repair.</p>
	<p>Remove dust, dirt, or other types of foreign material accumulated in the power plug regularly; they can cause a fire. Unplug the power plug from the outlet and wipe it down with a lint-free dry cloth.</p>
	<p>If the device is accidentally dropped into water, unplug it from the power outlet first before touching the device in the water; otherwise, it may cause an electric shock. Consult your dealer for repair.</p>
	<p>DO NOT drink the generated water of this device; ingestion of the generated water may adversely affect the physical condition.</p>
	<p>DO NOT mix the generated water of this device with medicines, pesticides, detergents, etc. Toxic substances and gases may be generated, which can lead to gas poisoning.</p>

Precautions for Selecting a Location









	Install in a well-ventilated place. Traces of gas may be generated during production of the water.
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WARNING

	<p>DO NOT install the device in the following areas as doing so may cause damage to the device:</p> <ul style="list-style-type: none"> · Areas that are exposed to outdoor air, wind, or direct sunlight. · Areas that are near the presence of explosive gas, flammable gas, or corrosive gas · Areas that are in direct line of warm or hot air exhaust from heating appliances, cookware, and other equipment · Areas that are damp and dusty · Areas that are humid, such bathrooms and agricultural greenhouses · Areas whose room temperature is higher than 104°F (40°C) · Areas that are closed with poor ventilation. · Areas that are likely to freeze · Areas where water falls directly on the device. · Areas where there is a high salt concentration in the air
	<p>Place the device on a level surface that is free from vibration and shock. Ensure that the surface is fixed firmly in place so that it does not fall or tip over; otherwise, injury and/or damage may result.</p> <p>If necessary, secure the device on a wall using the wall hook set, sold separately. Select a wall location with adequate strength to receive fasteners. securely to hold up the device. Consult a local contractor if required.</p>
	DO NOT install the device upside down or sideways; doing so may cause failure of the device.
	Position the dispensing hose head in the sink, as residual generated water will drip after use.

Precautions about the Water Supply

NOTE


Water Quality	
	Use only tap water conforming to the local water quality standards, suitable for drinking, cooking, and the flushing of toilets. DO NOT use untreated well water or industrial water.
Water Pressure	
	Use tap water with water pressure from 14.5 psi to 101.5 psi (0.1 ~ 0.7MPa). DO NOT use well water or industrial water. If required to use tap water with pressure greater than 101.5 psi, install an external pressure reducing valve.
Water Temperature	
	Use tap water with water temperature between 32°F and 95°F (0 °C to 35 °C). Freezing or hot water may cause deformation or breakage of resin parts and result in a device failure.
Water Supply Hose or Pipe	
	A bend, kink, or any other defects in the water supply hose or pipe may cause a water leak or malfunction; check the water supply hose before turning on the tap.
Water Supply Control	
	The tap or faucet of tap water is the mechanism for controlling the water supply into the device. DO NOT bend the dispensing hose or block the head during water generation as doing so will cause back pressure, resulting in leakage or device malfunction. Ensure to close the water tap after use.
In Case of Freeze Warning	
	and disconnect the device water supply hose from the tap; drain the water inside from the water supply hose.



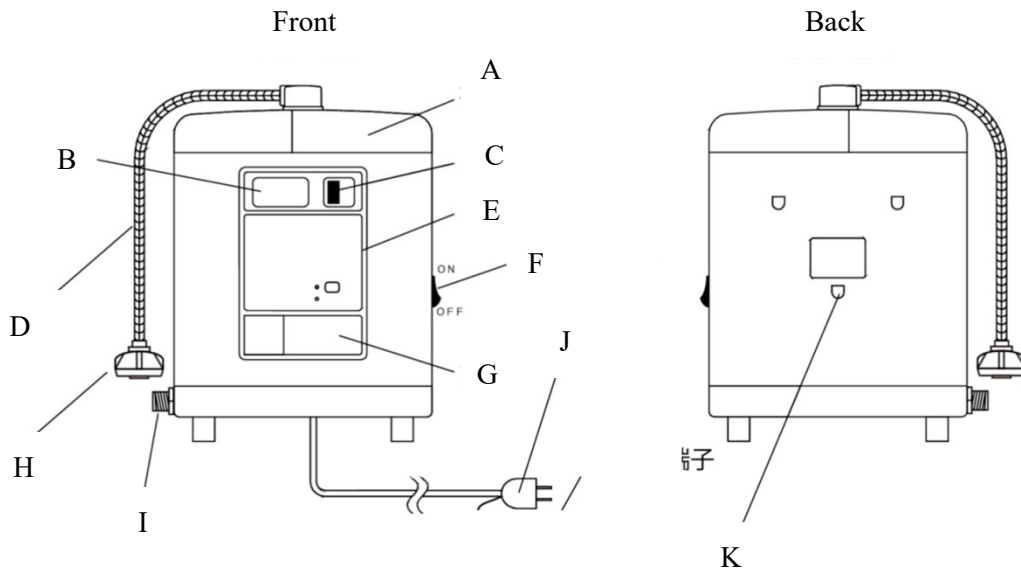
Use only the NaCl dedicated electrolyte auxiliary solution	
	DO NOT use any solution other than the NaCl dedicated electrolyte auxiliary solution as an additive; not doing so can result in production of toxic and harmful substances and toxic gases that can be life-threatening.
DO NOT mix	
	Dedicated electrolyte auxiliary solution is an acidic liquid containing NaCl sodium chloride. Never mix it with any other aqueous solutions.
DO NOT drink	
	DO NOT drink dedicated electrolyte auxiliary solution. If accidentally ingested, drink plenty of water.

Storage of Generated Water



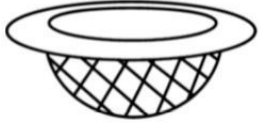
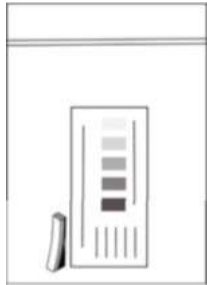
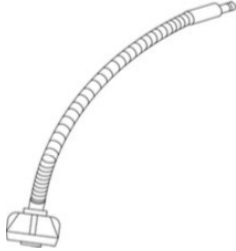

Storage of the generated water	
	<p>When storing unused generated water in a container, keep the air in the container to a minimum and keep the container in a cool and dark place. In addition, it may deteriorate due to long-term storage and the desired effect may not be obtained. Therefore, be sure to measure and confirm the effective available free chlorine concentration before use.</p>

Main Features and Accessories

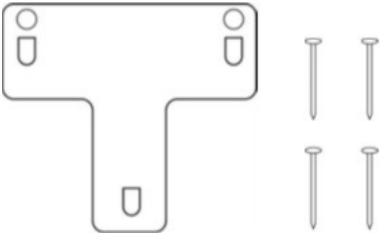
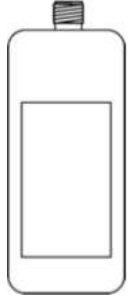


A	Electrolyte Solution Storage Tank Cover
B	Digital Display
C	Proximity Sensor
D	Dispensing Hose
E	Control Panel
F	Power Switch
G	Setting Panel Cover Door
H	Dispensing Hose Head
I	Water Inlet
J	Electrical Plug (Three-pronged)
K	Wall Hook Attachment Hole (3 Places)

Accessories (Included)

Water Inlet Strainer	Effective Chlorine Concentration Measurement Set (Disposable)	Dispensing Hose Set	Instruction for Use
			

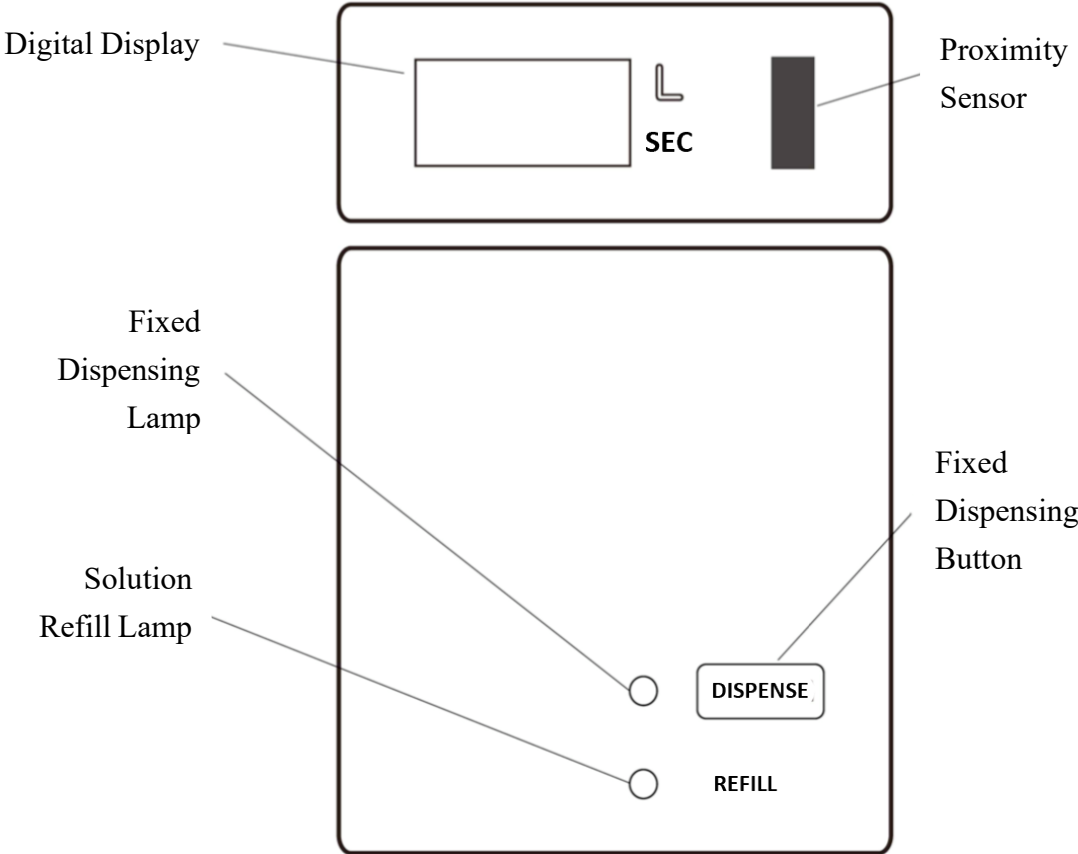
Accessories (Optional)

Wall Hook Set	Dedicated Electrolyte Auxiliary Solution
	

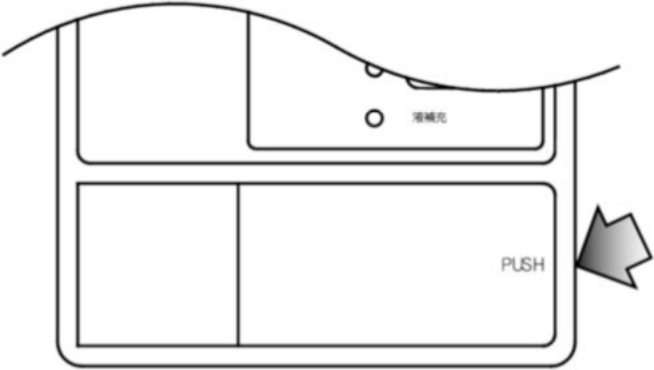
NOTE

Inlet hose can be obtained separately from a local hardware store. Select a hose that fit the mating and water supply pressure requirements. The water inlet is G 1/2 male thread.

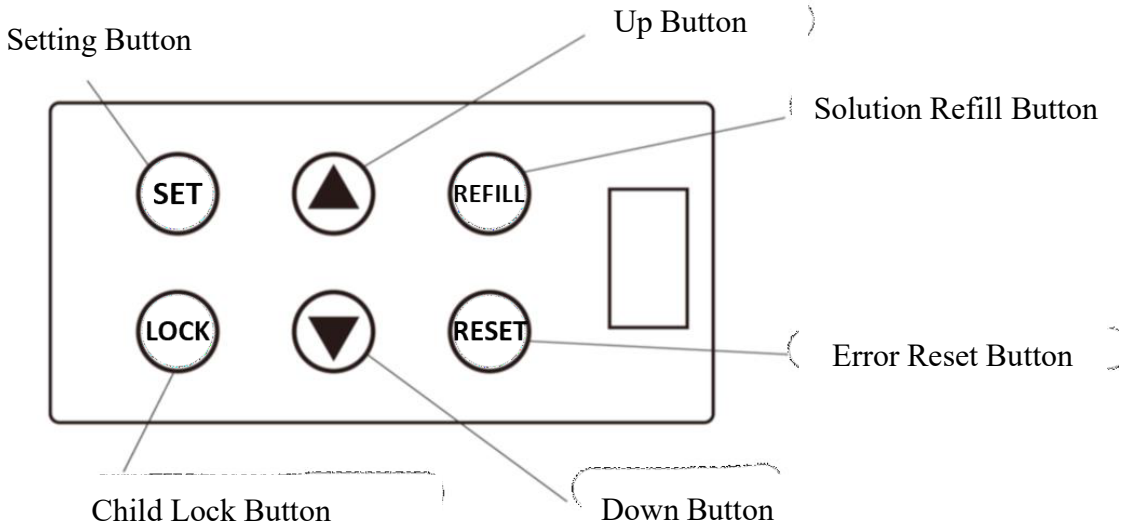
Control Panel Features



Setting Panel Features





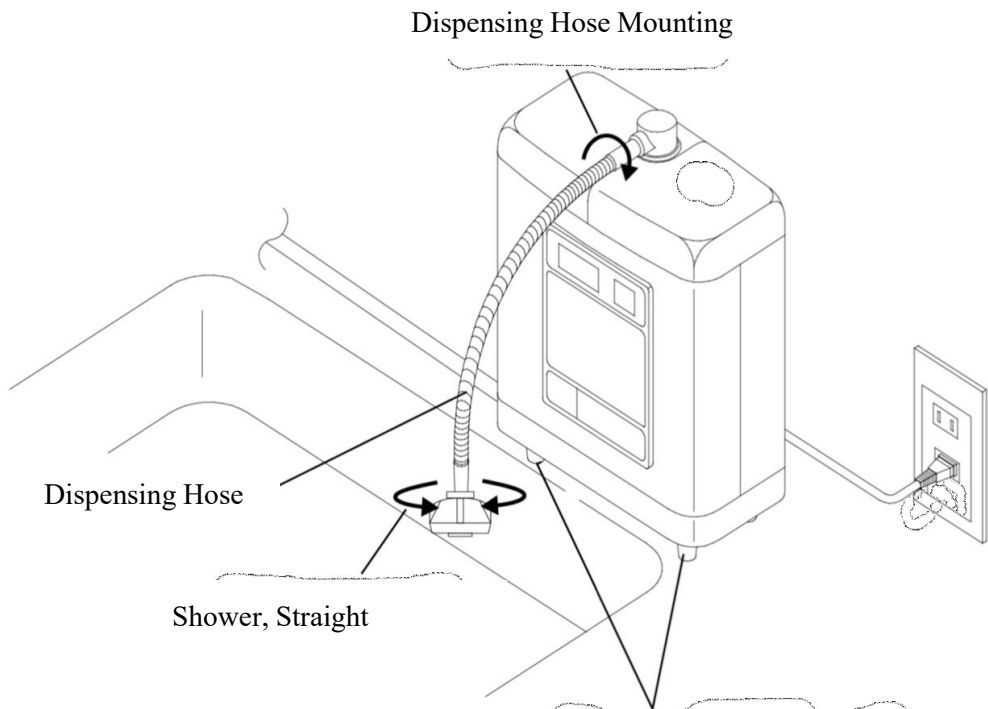
Press "PUSH" on the cover door to gain access to the Setting Panel.



How to Install

NOTE

	Consult your dealer for questions related to installation.
	Observe local regulations when disposing of unused accessories, packaging materials, and products at the end of life.



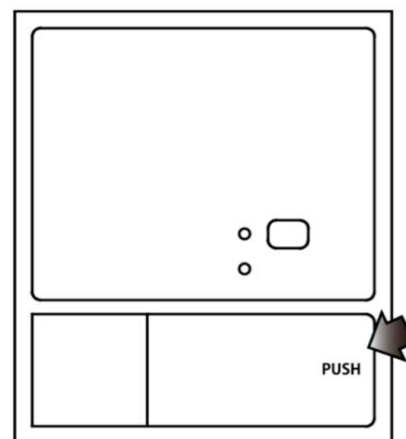
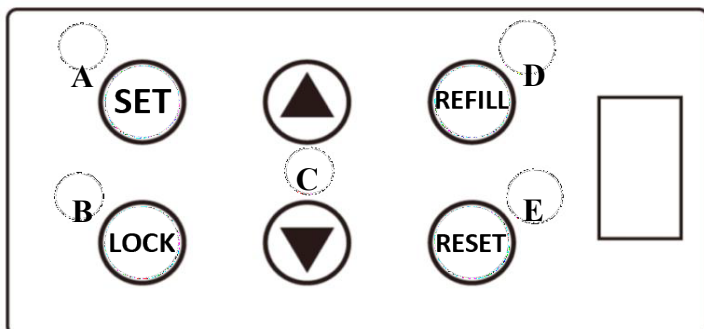
The front two legs can be adjusted in height by turning, up to approx. 0.4 inch

NOTE:
The water inlet is G 1/2 male thread. Be sure to attach the included inlet strainer to the water inlet.



How to Set for Operation

Setting Panel



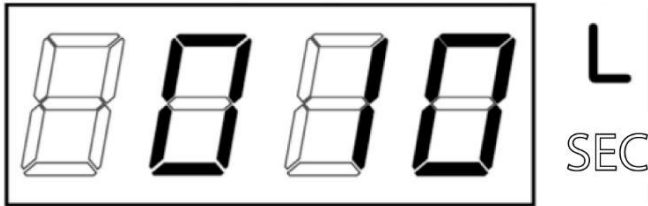
NOTE:

Gain access to the Setting Panel by pressing PUSH on the setting panel cover door. Connect the power plug to the outlet and turn on the power switch.

A	Press the SET Button each time to toggle the setting through the dispensing amount mode, dispensing time mode, generation range, and back to dispensing amount mode.
B	Hold the Child LOCK Button for more than 2 seconds to activate or deactivate the child lock feature. When the child lock is activated, dispensing time is displayed and only dispensing by the Proximity Sensor can be performed. The child lock feature is not activated when shipped from the factory.
C	Operate the ▲ / ▼ Buttons when setting dispensing amount, dispensing time, and generation range. When setting dispensing amount and dispensing time, press ▲ (up) each time to increase the level by one, and press ▼ (down) each time to decrease the level by one. If either button is held for more than 0.5 seconds, it becomes level +10 or level -10, the maximum levels, respectively. For the concentration range, the range moves up and down (from 1 to 5) each time it is pressed. Refer to "Estimate of Effective Chlorine Concentration in Each Range" on Page 17.
D	The Solution REFILL Button blinks when the electrolytic auxiliary solution is depleted and requires a refill. Press it after replenishing the electrolytic auxiliary solution to stop the blinking and turn off the button lamp. The button lamp blinks when shipped from the factory.
E	Error RESET Button comes on when an error occurs; press it to temporarily cancel the error indication. If the cause of the error is not addressed, the button lamp will come on again. To eliminate the cause of the error, refer to Troubleshooting starting on Page 28.

Setting by Dispensing Amount

Press the SET button repeatedly until the lamp "L" lights up on the Digital Display. Press ▲ (Up) or ▼ (Down) to set the desired dispensing amount in liters (L).

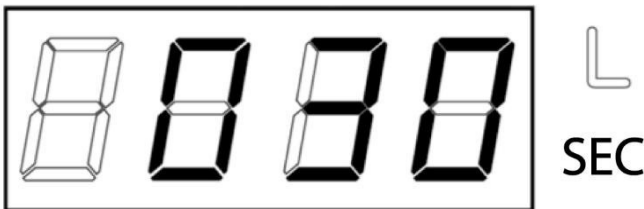


NOTE:

The amount range for dispensing is from 1 to 200 liters (L). The factory set value is 10 L.

Setting by Dispensing Time

Press the SET button repeatedly until the lamp "SEC" lights up on the Digital Display. Press ▲ (Up) or ▼ (Down) to set the desired dispensing time in seconds.

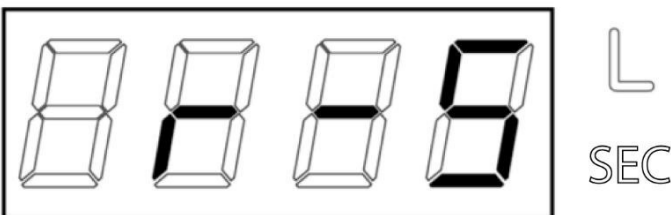


NOTE:

The time range for dispensing is from 10 to 120 seconds. The factory set value is 30 seconds

Setting by Concentration Range

Press the SET button repeatedly until both "L" and "seconds" lamps turn off on the Digital Display. Press ▲ (up) or ▼ (down) to set the desired concentration range, r-1 through r-5.



NOTE:

The concentration range for dispensing is from 30 ppm (r-1) to 50 ppm (r-5). The factory set value is r-5.

NOTE:

Immediately after powering up, the device is in the fixed dispensing amount mode. Press the SET button to toggle through different modes of display.

Estimate of Effective Chlorine Concentration in Each Range

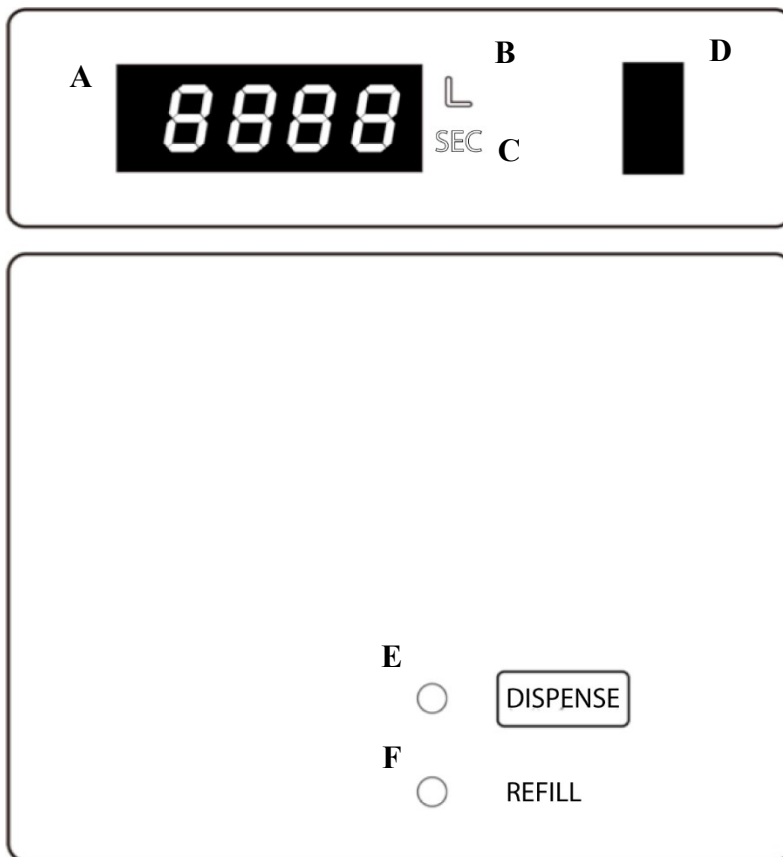
Generation Range Level	Effective Chlorine Concentration
r-1	30 ppm
r-2	35 ppm
r-3	40 ppm
r-4	45 ppm
r-5	50 ppm

NOTE:

The actual effective available free chlorine concentration levels vary depending on the tap water used as well as volume of tap water feed.

How to Use

Display and Button Operations



A	Digital Display displays the dispensing time, dispensing amount, concentration range, and error codes. During dispensing, the remaining time or amount is displayed.
B	L (liter) lamp turns on while dispensing in fixed dispensing amount mode.
C	SEC (second) lamp turns on while dispensing using Proximity Sensor.
D	Hold a hand over the Proximity Sensor to dispense for a preset time (seconds). While dispensing, hold a hand over the Proximity Sensor again or press the DISPENSE button to stop dispensing.
E	Press to dispense in the set amount. The DISPENSE lamp blinks during dispensing. Press again to stop dispensing. Note: When the child lock is activated, the DISPENSE lamp turns off and the DISPENSE button cannot be operated.
F	Solution REFILL lamp blinks when electrolytic auxiliary solution requires a refill. It stops blinking and turns off when pressed after electrolytic auxiliary solution is refilled.

To Dispense with Proximity Sensor (Automatic Method)

Simply hold a hand over the Proximity Sensor (D) for 0.5 seconds to start dispensing water from the dispensing hose. The Digital Display (A) displays the remaining dispensing time in seconds and stops automatically at 0 seconds.

To stop dispensing manually while dispensing, hold a hand over the Proximity Sensor (D) again for 0.5 seconds, or press the DISPENSE button (E).

CAUTION:

DO NOT move the hand for 0.5 seconds while holding it over the Proximity Sensor; the sensor will not detect the hand if it is in motion. Avoid touching and contacting the sensor surface, as any stains or marks may affect the sensor's capacity to detect.

To Dispense with DISPENSE Button (Manual Method)

Press the DISPENSE button (E) to start dispensing water from the dispensing hose. The Digital Display (A) displays the remaining water amount in liters (L) and stops automatically at 0 liters (L).

To stop dispensing manually while dispensing, hold a hand over the Proximity Sensor (D) again for 0.5 seconds, or press the DISPENSE button (E).

NOTE

About water intake



- DO NOT over-extend the dispensing hose from the dispensing port; doing so may cause leakage or malfunction.
- DO NOT pull the dispensing hose forcibly; doing so may cause damage.
 - Place the dispensing hose head in a sink after dispensing to let the residually produced water to drain.

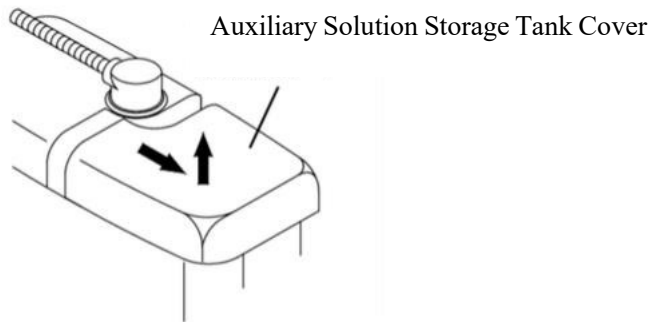
How to Replenish the Auxiliary Solution



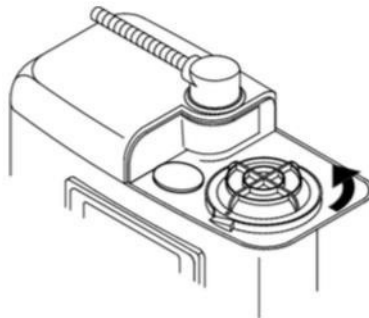
When replenishing the solution, be sure to use the dedicated NaCl electrolytic auxiliary solution.

When the solution REFILL lamp turns on, replenish the NaCl electrolytic auxiliary solution.

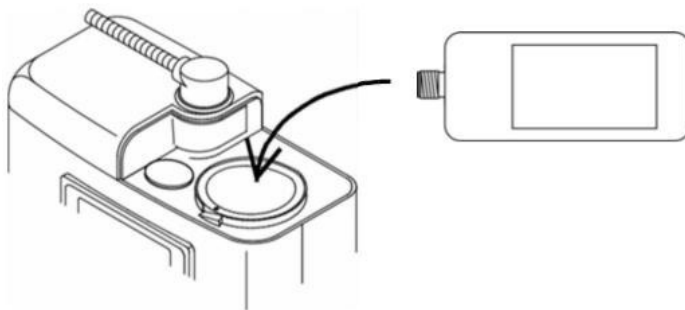
1. Slide the auxiliary solution storage tank cover on the top of the device, slightly to the right and then lift it from the body.



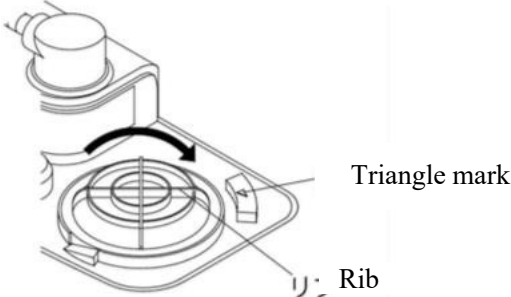
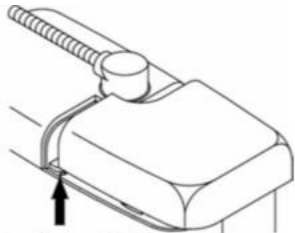
2. Turn the electrolyte auxiliary solution storage tank cap counterclockwise to remove it.



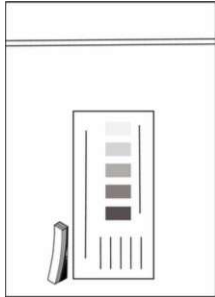


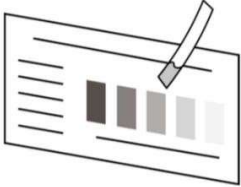

3. Remove the cap of the container containing the NaCl electrolyte auxiliary solution and replenish the NaCl electrolytic auxiliary solution to the storage tank. Take precautions not to spill the auxiliary solution.



How to Replenish the Auxiliary Solution (cont'd)

<p>4. Replace the NaCl electrolyte auxiliary solution storage tank cap by turning it clockwise to lock in place until the rib aligns with the triangle mark.</p>	 <p>Triangle mark</p> <p>リブ Rib</p>
<p>5. Replace the NaCl electrolyte auxiliary solution storage tank cover by sliding it to the left slightly to lock it in place.</p>	 <p>Align to the triangle mark</p>
<p>6. If the solution REFILL lamp continues to blink, press the REFILL button on the Setting Panel; if everything is in order, the solution REFILL lamp will turn off.</p>	
<p>CAUTION:</p> <ul style="list-style-type: none">· Refill with care to prevent an overflow of the NaCl electrolyte auxiliary solution. Wipe any overflow with a dry cloth.· Dispose empty containers of the NaCl electrolyte auxiliary solution in accordance with the local regulations.· Do not ingest the NaCl electrolyte auxiliary solution. If ingested accidentally, drink plenty of water.	

How to Measure the Chlorine Concentration

<p>NOTE:</p> <p>To check the effective available free chlorine concentration of the generated water, use the enclosed effective available free chlorine concentration measurement paper to measure. The measured concentration level may vary depending on the quality of the tap water used, the temperature, and other factors.</p>	
<p>1. Before collecting a sample of the generated water for concentration measurement, let the water dispense for about 30 seconds to reduce unwanted variation. Collect about one (1) cup of water.</p>	
<p>2. Soak the tip of the effective chlorine concentration measurement paper in the product water collected.</p>	
<p>3. Check the available free chlorine concentration by comparing the available free chlorine concentration measurement paper with the colorimetric table under a bright light.</p>	
<p>CAUTION:</p> <ul style="list-style-type: none"> As time passes, the color of the colored measuring paper changes. Compare with the colorimetric chart with short time. The concentration measurement paper and the colorimeter will change color when exposed to sunlight. Store in a cool, dark place, away from sunlight. 	
	<p>Keep the effective chlorine concentration paper away from fire. It may ignite and cause a fire.</p>

How to Clean

Warning

DO NOT pour water



Never pour water on the device for the purpose of cleaning or otherwise. If water gets inside the device, it may cause a short circuit resulting in a device failure, electric shock, or fire.

Automatic Cleaning Function

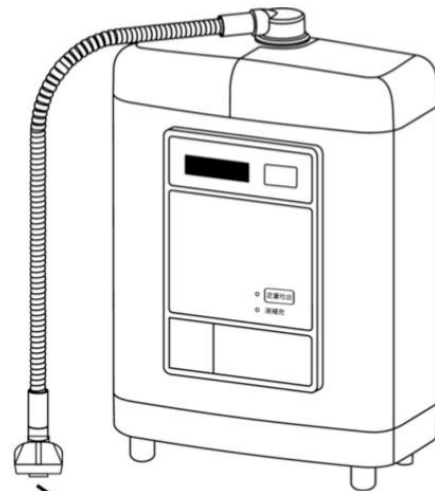
The device performs automatic cleaning function after a certain period of use to remove the dirt collection in the inside of the electrolytic cell.

How to Clean the Main Body

When cleaning the main body exterior and dispensing hose, use a soft, moist cloth to wipe down the surface firmly.

How to Clean the Dispensing Head

When cleaning the dispensing head, use a clean toothbrush to remove dirt.



Dispensing Head

CAUTION:



- DO NOT use detergents, cleansers, thinners, benzene, alcohol, etc. when cleaning the device. If any of this is used by mistake, wipe it off immediately. Otherwise, peeling, resin cracking, discoloration, deformation, or other types of damage could result to the areas of contact.
- DO NOT use metal brushes or abrasive material when cleaning the device. It may cause deep scratches.



DO NOT pour water on the device to wash it; doing so may cause a short circuit, electric shock or failure.

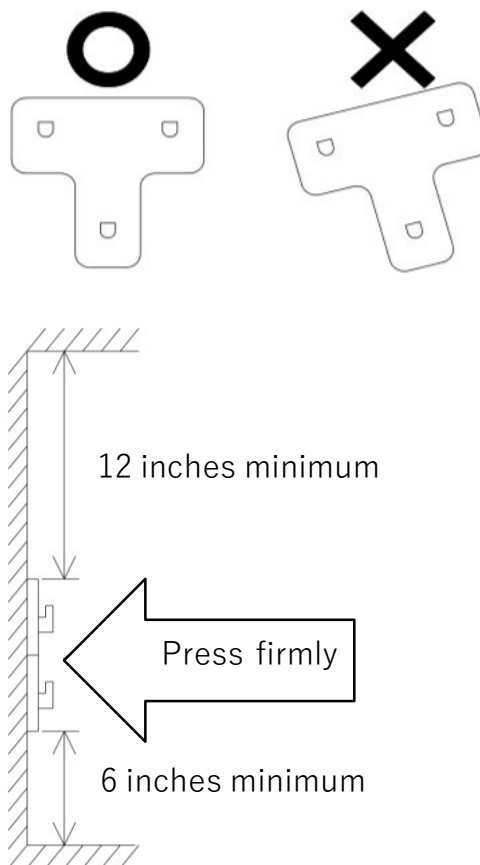
How to Wall Mount

Note

	When installing the device on a wall, seek consultation from a local contractor. If improperly installed, the device may fall and cause an accident.
	<p>DO NOT mount on a wall in the following situations; the device may fall and cause injury or damage.</p> <ul style="list-style-type: none">· If the attaching nails cannot be hammered in all the way.· When the structural condition of the wall appears to be sufficiently bad that there is a risk that the device may fall off.

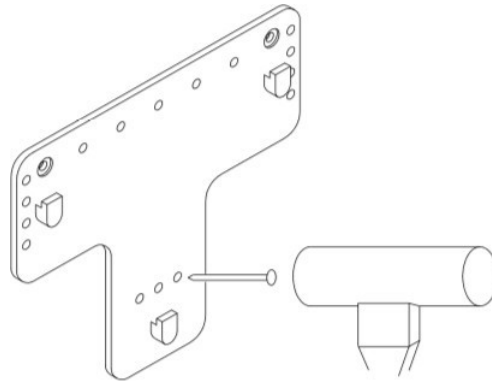
1. Thoroughly clean and dry the wall surface before installation. (If dirt or oil remains, the adhesion of the double-sided tape may not be at its full strength.)

2. Peel off the double-sided tape protective cover from the wall hook, ensure it is at level as shown, locate it on a clean wall with the minimum clearances above and below as shown, and press it firmly against the wall.

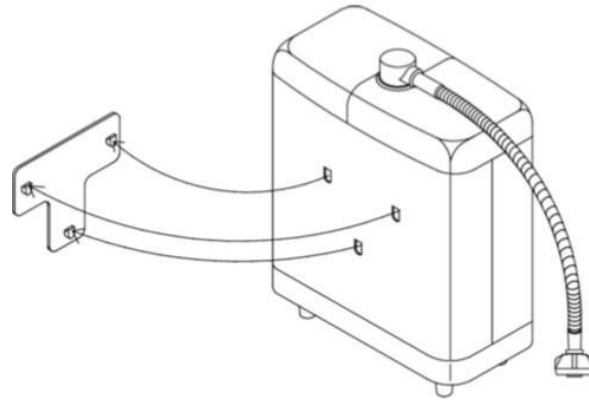


How to Wall Mount (cont'd)

3. Fasten the wall hook with nails.
(Caution: In the case of tiles, locate the nails in the mortar joints between the tiles)



4. Remove the covers of the wall hook mounting holes on the back of the device and hang it on the wall hook. Ensure that the device is securely supported by the wall hook on all three attachment holes.



How to Troubleshoot

Problem	Possible Cause and Solution
<p>The device does not display anything</p>	<ul style="list-style-type: none"> • The power plug is unplugged. Plug the power plug into an outlet (Item J on Page 10). • The power switch has not been turned on. Turn on the power switch (Item F on Page 10).
<p>When the concentration level is measured with the effective chlorine concentration measurement paper, it does not indicate any of the specified color</p>	<ul style="list-style-type: none"> • The color indication by the effective chlorine concentration measurement paper is just a guide; the actual concentration level depends on the tap water. Adjust the concentration range on the device (refer to “Setting by Concentration Range” on Page 16). • If the effective chlorine concentration measurement paper does not change color at all, contact your dealer for repair. • After the device has been used for a long time, the electrolytic cell deteriorates and its electrolytic capacity decreases, resulting in generated water with less concentration than the device is set for. Contact your dealer for repair.
<p>Dispensing amount decreases</p> <p><i>E-1</i> on Digital Display</p>	<ul style="list-style-type: none"> • Water inflow drops abnormally below the rate of 0.34 gal / min (1.5 L / min). • Cut off the water supply, turn off the switch, disconnect the power plug from an outlet, and check the water flow path along the intake and dispensing hoses. Inspect the strainer at water inlet to make sure that it is not clogged (“Strainer” on Page 14). NOTE: The amount and/or pressure of incoming water may change due to the local water supply conditions. • Calcium and other mineral deposits may precipitate in the water path inside the device, preventing a smooth passage of water. Contact your dealer for repair as the problem may be eliminated or minimized by cleaning the inside of the device. • Press the error RESET button to stop the error sound and cancel the error message on Digital Display once.

How to Troubleshoot (cont'd)

<p>Water ejecting from dispensing hose during standby</p> <p><i>E-2</i> on Digital Display</p>	<ul style="list-style-type: none"> • Solenoid valve functions abnormally when the flow rate becomes approximately 0.23 gal / min (1.0 L / min) or more during standby. Cut off the water supply. Contact your dealer with the error code for a repair. • Press the error RESET button to stop the error sound and cancel the error message on Digital Display once.
<p><i>E-3</i> on Digital Display</p> <p><i>E-4</i> on Digital Display</p>	<ul style="list-style-type: none"> • Power supply failure indication occurs when an error is detected in the power supply. • Over current indication occurs when an excessive electrolytic current is detected. Contact your dealer with the error code for a repair. • Press the error RESET button to stop the error sound and cancel the error message on Digital Display once.
<p><i>C-1</i> and normal display alternates on Digital Display during standby</p>	<ul style="list-style-type: none"> • The problem indicates a possible replacement of the pump. Contact your dealer with the error code for an inspection as a normal operation may still be possible.
<p><i>C-2</i> and normal display alternates on Digital Display during standby</p>	<ul style="list-style-type: none"> • The problem indicates a possible replacement of the electrolytic cell. Contact your dealer with the error code for an inspection as a normal operation may still be possible.

Product Specifications

Product Name	chlor <i>Organo</i> (AL-790A)
Category	Acidulous (<i>organochlorine</i>) water generator
Rated voltage and frequency	120 VAC 60Hz
Rated current	0.8 A
External dimensions (Includes projections)	10.24 in W x 14.21in H x 4.72 in D (260 mm W x 361 mm H x120 mm D)
Net Weight	Approx. 8.8 lbs. (Approx. 4.0kg)
Water supply quality	Tap water
Operating water pressure range	14.5 psi to 101.5 psi (0.1 ~ 0.7MPa)
Water temperature	32°F - 95°F (0°C - 35°C)
Operating ambient temperature	32°F - 104°F (0°C - 40°C)
Use relative humidity	85% RH or less (no condensation)
Dispense amount (water flow amount)	Approx. 0.7 gallons/min (2.6L/min)
Electrolyte auxiliary solution	Dedicated electrolyte auxiliary solution
Electrolyte auxiliary solution storage tank capacity	Approx. 17 liquid ounces (500mL)
Available Free Chlorine Concentration	30 - 50 ppm (Reference value)
Concentration setting	5-step selection formula Range 1 (30 ppm) - Range 5 (50 ppm)
Dispensing start switch	Proximity sensor (non-contact type), dispensing button
Dispensing time setting	Configurable in the range of 10 to 120 seconds
Dispensing amount setting	Configurable in the range of 1 to 200 L
Life of consumables	Pump: 1,600 hours* Electrolytic cell: 800 hours* *When the setting is range 3. Approximately, depending on the quality of the water supply.

Warranty Card

This document is a promise of repair(s) based on the warranty provision. Record the information below and keep it in a secure location. If a failure covered by the warranty provision occurs during the first 365 days within the date of purchase, present this page to your dealer for a repair.

Customer	
Name	
Address	
Phone Number	

Sales Outlet	
Name	Palm Beach Springs Water Company Inc.
Address	1551 NW 24 th Dr. Bay B Okeechobee, Florida 34972 USA
Phone Number	(561) 693-9015
Product Name	chlor <i>Organo</i> model AL-790A
Category	NaCl Acidulous Water Generator
Serial Number	
Warranty Period Ends	Main body: 1 year from the purchase date (excluding consumables)
Purchase Date	

Warranty Provision

1. For failure(s) under normal use (that is, when the device is deemed to have been installed, operated, and maintained according to the instructions in this manual) during the first year of ownership, your dealer will carry out a repair, free of charge.
2. In order to receive a free repair, present the Warranty Card to your dealer.
3. Even within the warranty period, there may be charges associated with the repair under the following conditions:
 - A. If the Warranty Card is not presented.
 - B. If the information on the Warranty Card is not properly entered or if the information is altered.
 - C. If the repair is required because of user errors, failures caused by other devices, or failures and damage due to improper repair or modification.
 - D. If the repair is required because of failure and damage due to mishandling after purchase.
 - E. If the repair is required because of failure and damage due to disasters, earthquakes, storms, floods, lightning strikes, pollution, salt damage, abnormal voltage, and other catastrophes.
 - F. If the repair is required for replacement of consumable accessories and built-in pump.
4. This warranty is valid only in the USA.
5. Keep this Warranty Card in a secure location as it will not be issued again.

NOTE:

This Warranty Card guarantees free repair(s) under the terms and conditions specified in this document. Therefore, this warranty does not limit your legal rights. If you are unsure about repairs after the warranty period, please contact your dealer.