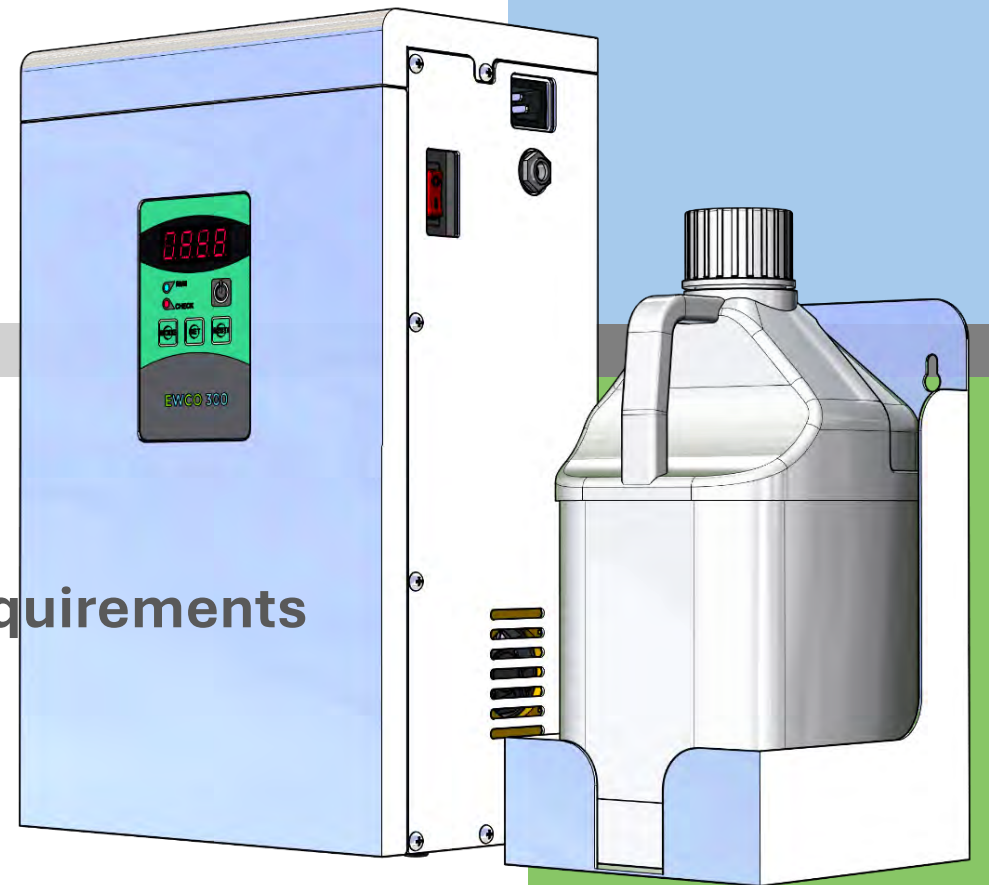


EWCO 300

Users manual



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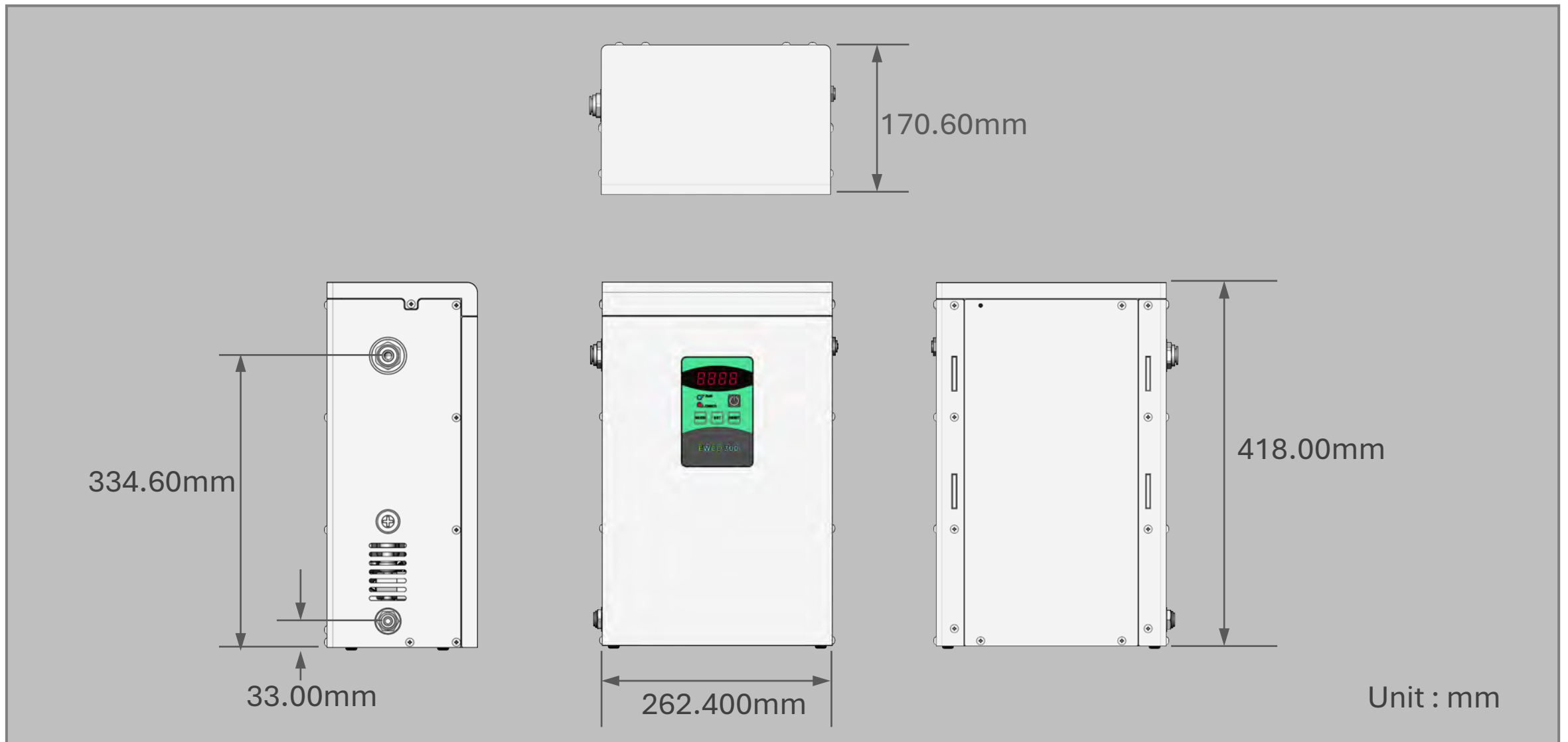
- Formula 1 (Water and Food Grade Salt)
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Dimensions



Specifications

Model name	EWCO 300	
Installation type	Wall Mounted (brackets included)	
Dimension / Weight / Material	W262.4mm x H418.0mm x 170.6mm / 11.8Kg / SUS 316	
Product water	Hypochlorous Acid (HOCl)	
Concentration Range	20 to 300 ppm of free available chlorine (FAC)	
Power	AC 110/220V 50/60HZ 180W	
Ampere Settings	13 to 22 amp	
Additive Pump Speed	0 to 19 (min. to max. setting)	
Production Cell Type	Single cell electrolysis for generating	

Requirements

Ambient Temperature	5 °C to 50 °C (41°F to 122 °F)	
Feed Water & Brine Temperature	10°C to 30 °C (50°F to 86 °F)	
Feed Water & Brine Water Quality	Water Hardness < 80 ppm (total Calcium + Magnesium)	
Humidity	Less than 96% Relative Humidity (RH)	
Minimum Flow Rate	1.5 L/min	
Maximum Water Pressure	87 PSI	

3

Overview

Names and descriptions of each part



CAUTION

Before installation, Do not damage or cut the additive hose while removing cable tie tied around the additive hose on the right side of product.

CAUTION

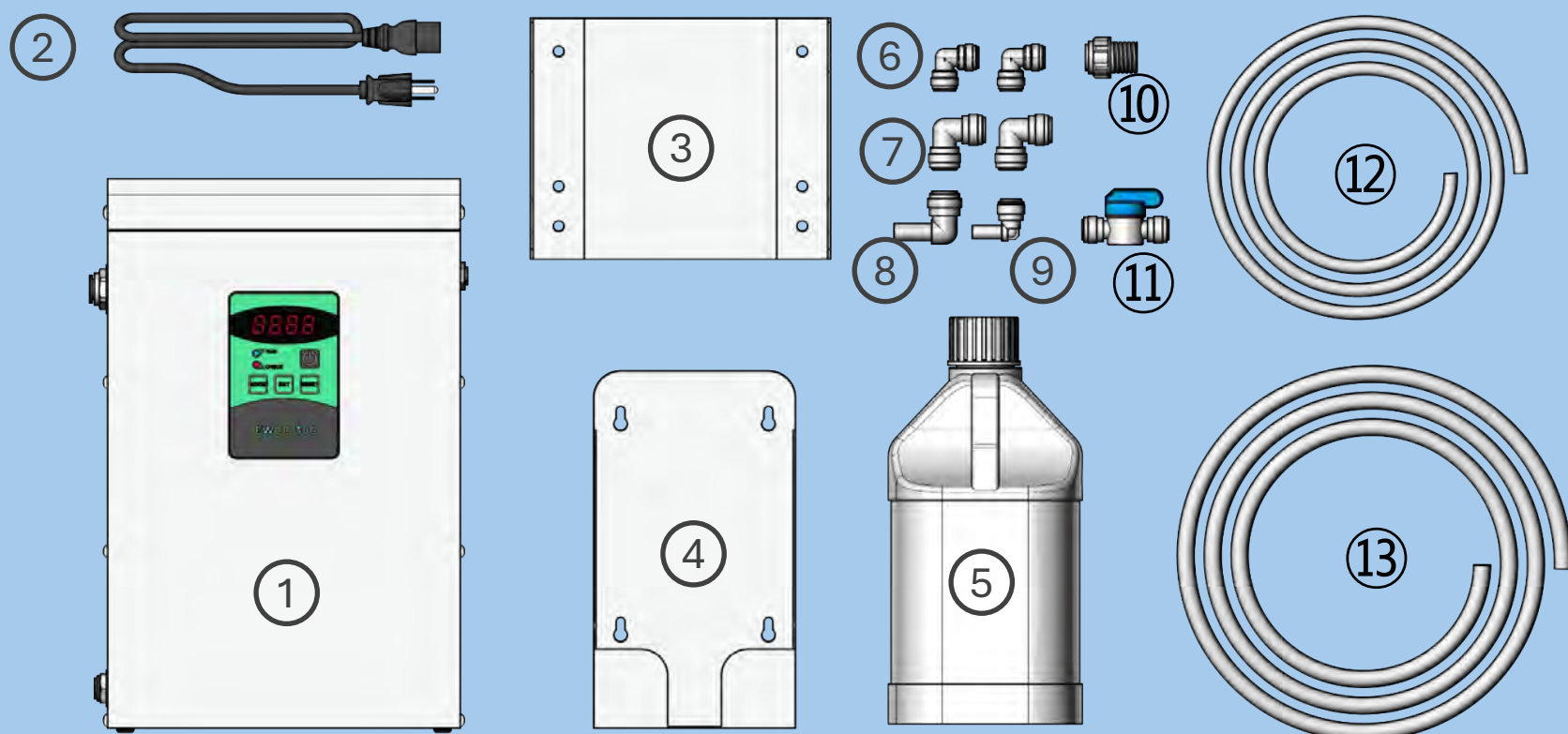
Before installation, Do not pull out or remove the additive hose after removing cable tie tied around the additive hose.

CAUTION

Do not pull the electrolyte suction hose fixed to the hose clamp. It is connected to the pump inside the system and pulling it may cause the electrolyte to not be suctioned or result in leakage.

4

Included accessories and components

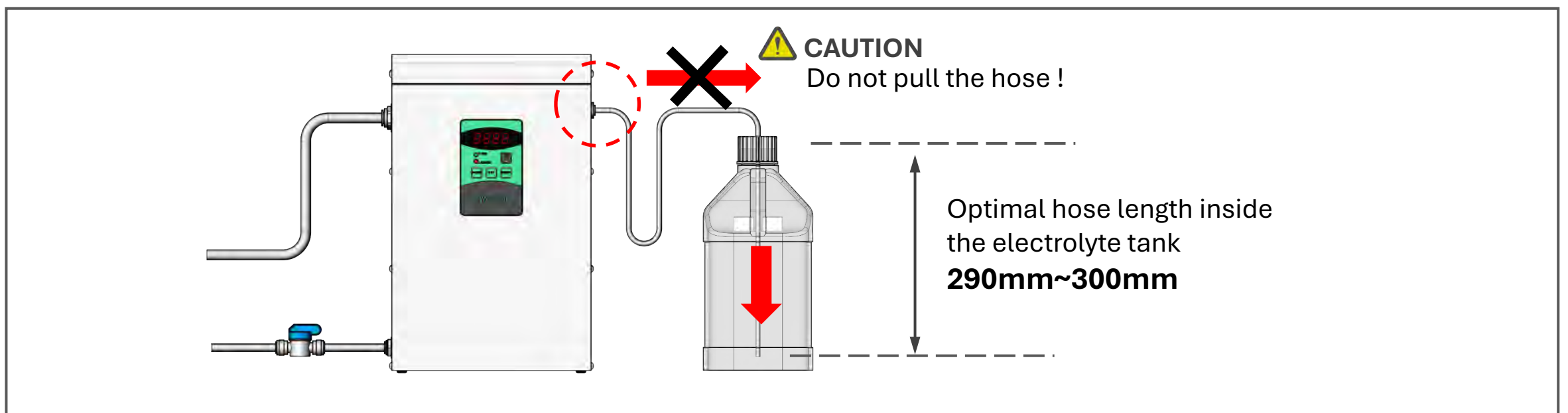
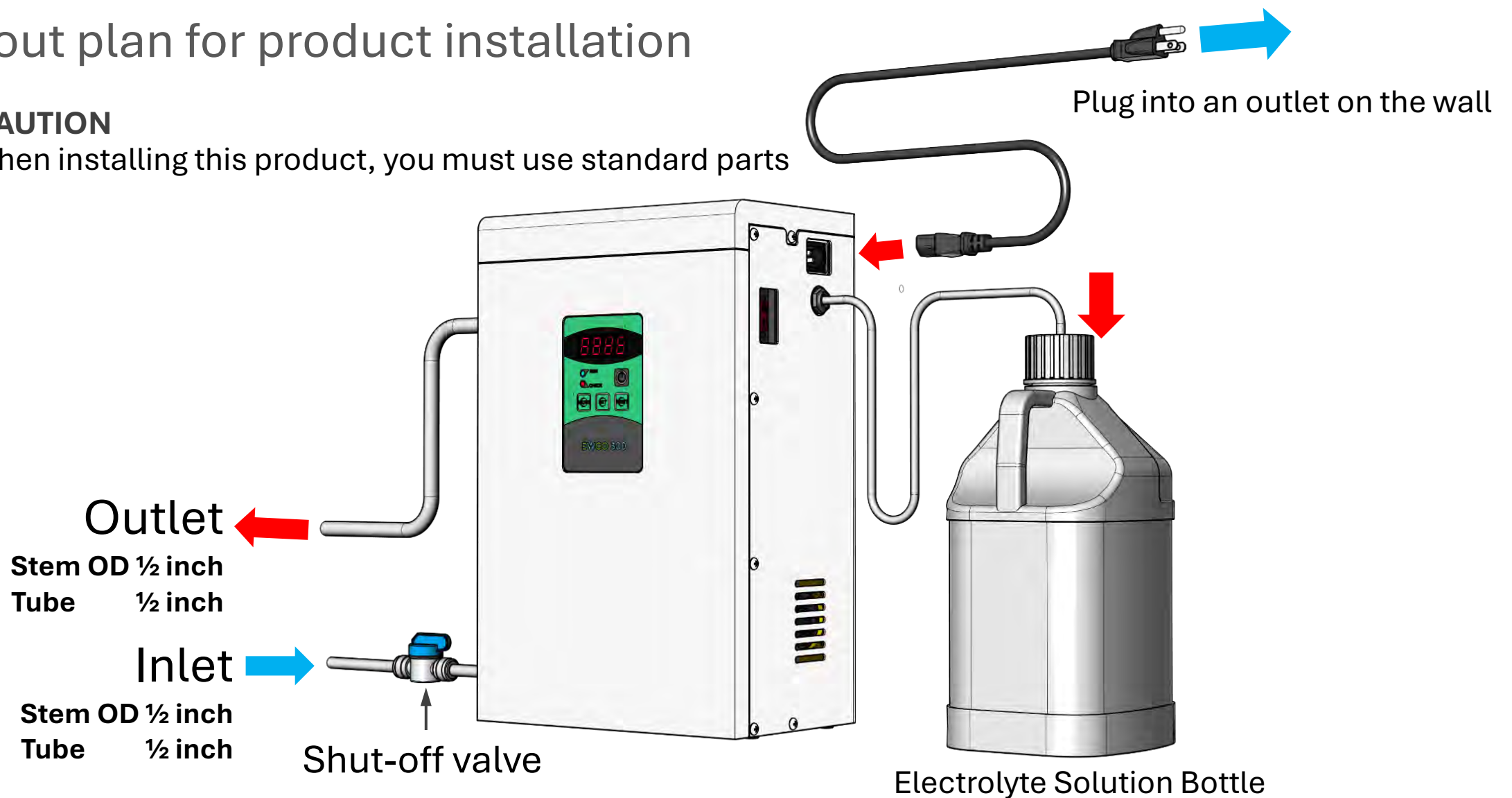


1	EWCO 300	1	8	Stem elbow 1/2 inch	1
2	Power cord (US plug)	1	9	Stem elbow 3/8 inch	1
3	Wall mount bracket	1	10	Straight adaptor	1
4	Bracket for Salt Brine Additive Tank	1	11	Shut-off valve	1
5	Salt Brine Additive Tank (4L)	1	12	Tubing 3/8 inch OD	1M
6	Push-fit elbow 3/8 inch	2	13	Tubing 1/2 inch OD	1M
7	Push-fit elbow 1/2 inch	2	14	EWCO 300 Manual	1

Layout plan for product installation

**CAUTION**

When installing this product, you must use standard parts

**CAUTION**

This product must be operated or managed by a designated responsible person who has received professional technical training on the proper use and emergency procedures of the device.

**CAUTION**

Securely fasten the device to the wall to prevent it from falling due to its weight .
(recommended using screws and adhesive tape).

**CAUTION****Ventilation Risks**

Electrolyzed water contains small quantities of hydrogen gas (H₂), chlorine dioxide gas (ClO₂), and ozone gas (O₃) that is released from solution into the air.

These gases, if accumulated, can be explosive. Electrolyzed water contains free chlorine molecules.

Free chlorine molecules have the potential to form chlorine gas (Cl₂) when the pH of the solution becomes acidic.

Chlorine gas, if inhaled, can cause respiratory irritation or injury and is a health risk.

Equipment must be installed in a ventilated area to avoid the accumulation of gases.

Do not install equipment near heat sources over 400°C (750°F)

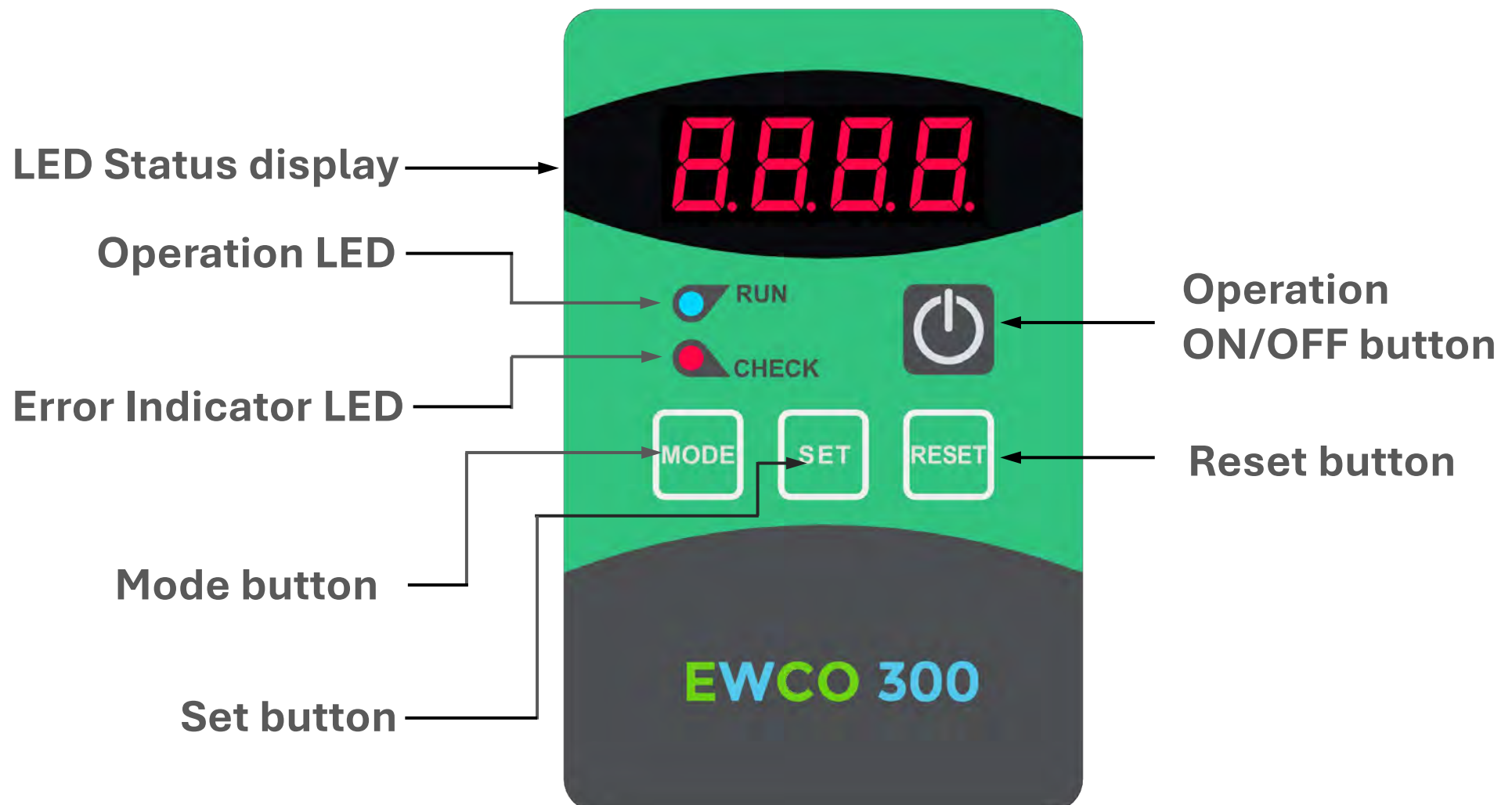
**WARNING**

Electrical shock hazard : Located on the power controller and inside the electrical cabinet.

The electrical cabinet may never be opened when the system is producing water.

Unless advised to do so.

Control and status panel



⚠ CAUTION

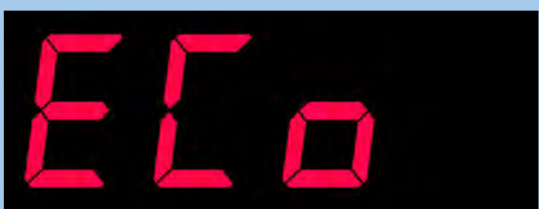
This product must be operated or managed by an individual who has received sufficient technical training on the proper and safe use of this equipment

⚠ CAUTION

Due to the importance of the purpose and performance of the installation site, the operation and adjustment of the device should only be performed by individuals who have received professional training on the use of this product or by designated administrators.

Operational modes

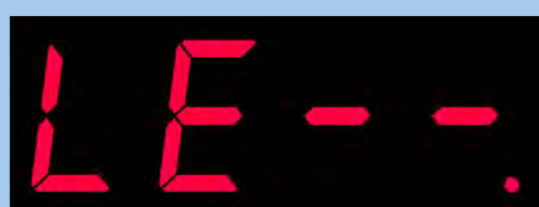
■ Standard mode



The standard mode is the default and should be used unless connecting system to a holding tank with a float sensor.

1. Press and hold **"SET"** button for 3 seconds and release
2. Press **"RESET"** button once
3. Press and hold **"MODE"** button for 3 seconds and release

■ Level mode (Mode for water level control in storage tank installation)



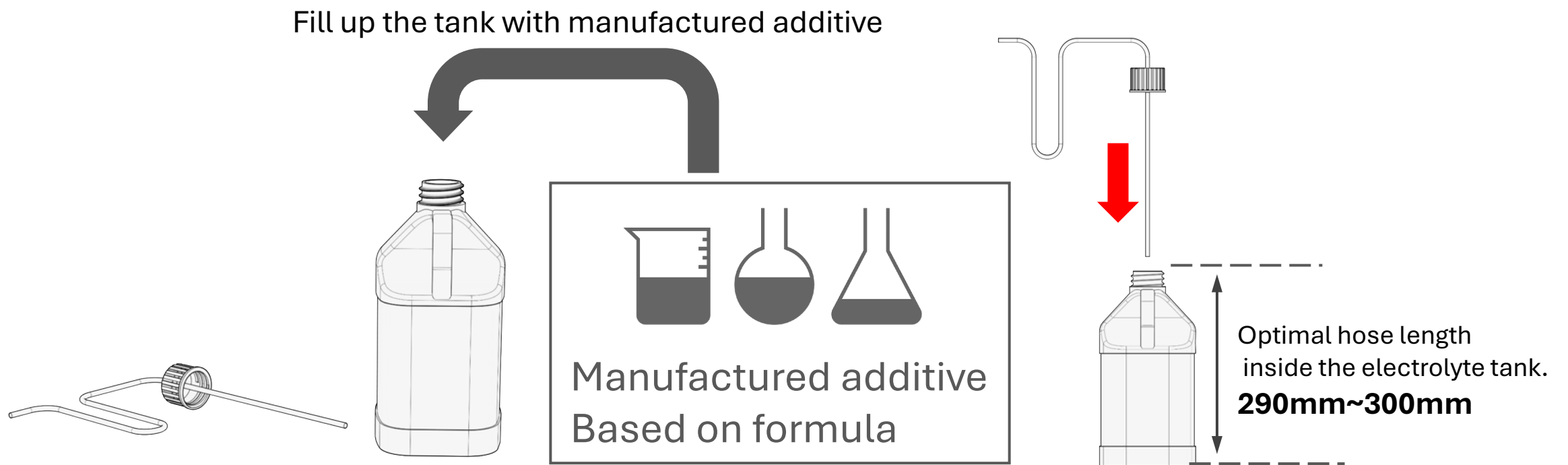
This mode must be used when connecting the system to a holding tank using a float sensor. The system will automatically stop running when the water level rises to the level to activate the float sensor.

1. Press and hold **"SET"** button for **3 seconds** and release
2. Press **"SET"** button once
3. Press and hold **"MODE"** button for **3 seconds** and release

⚠ CAUTION

This product must be operated or managed by a designated responsible person who has received professional technical training on the proper use and emergency procedures of the device.

Select the formula and manufacture the additive based on the conditions of installation environment, And then fill up the tank with manufactured additive.



⚠ WARNING

When handling hydrochloric acid, it is essential to wear protective gear (such as safety goggles and gloves) for safety before proceeding with preparation.

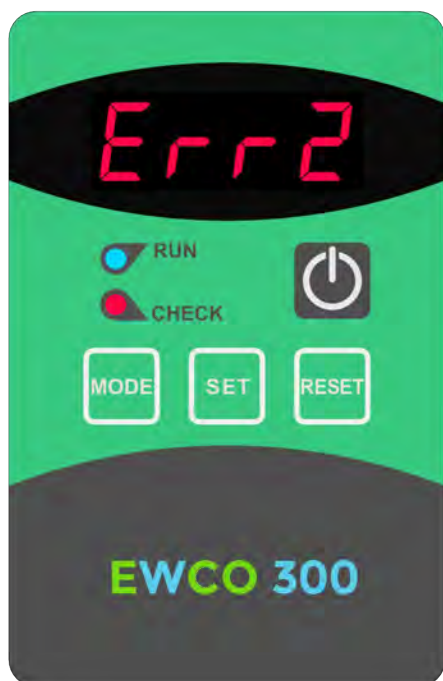
Sample formulas for making salt brine additive

	Solution specificity	Formula Instructions
Sample Formula 1	Using Formula #1 the system will generate a free chlorine solution in which over 25% of the chlorine molecules will be hypochlorous acid (HOCl). pH ≈ 7-8 **GOOD**	Formulation 28% Food Grade Salt (NaCl). 72% Water (tap water, reverse osmosis or distilled) When preparing 2-Liter additive tank: 1. Add 550 g (2 cups) of salt* 2. Fill remainder with water (1400 mL) 3. Shake until salt fully dissolved * No iodine or other additives (ie. kosher salt)
Sample Formula 2	Using Formula #2 the system will generate a free chlorine solution in which over 70% of the chlorine molecules will be hypochlorous acid (HOCl). pH ≈ 6-7 **BETTER**	Formulation 28% Food Grade Salt (NaCl). 72% Food Grade 5% White Distilled Vinegar When preparing 2-Liter additive tank: 1. Add 550 g (≈2 cups) of salt* 2. Fill remainder with 5% distilled vinegar (1400 mL) 3. Shake until salt fully dissolved * No iodine or other additives (ie. kosher salt)
Sample Formula 3	Using Formula 3 the system will generate a free chlorine solution in which over 90% of the chlorine molecules will be hypochlorous acid (HOCl) . pH ≈ 5-6 **BEST**	Formulation 72% Water (tap water, reverse osmosis or distilled) 19% food grade salt (NaCl). 9% hydrochloric acid (HCl). When preparing 2-Liter additive tank: 1. Add 380 g of salt* 2. Add 1440 mL of water 3. Shake until salt fully dissolved 4. Add 180 mL of hydrochloric acid (HCl)** * No iodine or other additives (ie. kosher salt) * Use technical grade HCl (32%) for general sanitation. * For food contact, must use FCC grade HCl (35-37%).

9 How to deal with additive while operating

■ Cause of **Error 2**

1. Lack of additive - Supplement additive based on the formula
2. Malfunction of pump inside the system - Replace the busted pump with a new one
3. Poor additive hose connection- Check hose connection and assembly

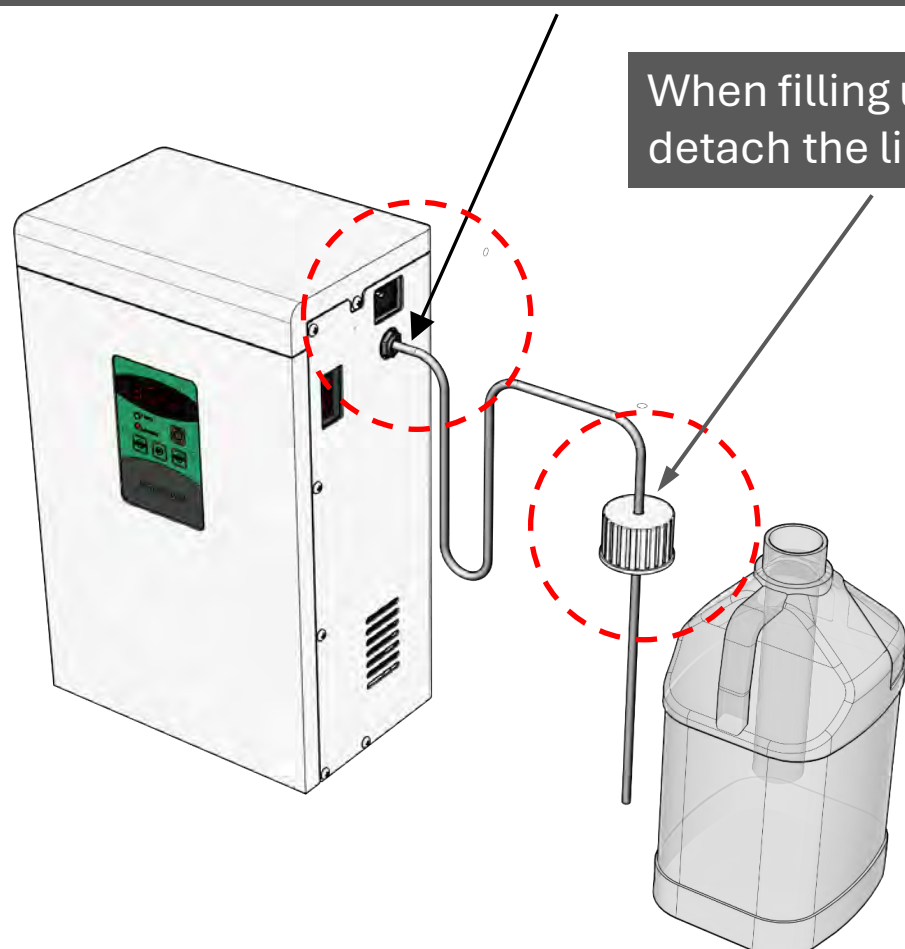


Replenish additive tank when low. If additive runs out, the system will stop and display **Error 2**. Follow the instruction below to change or add additive.

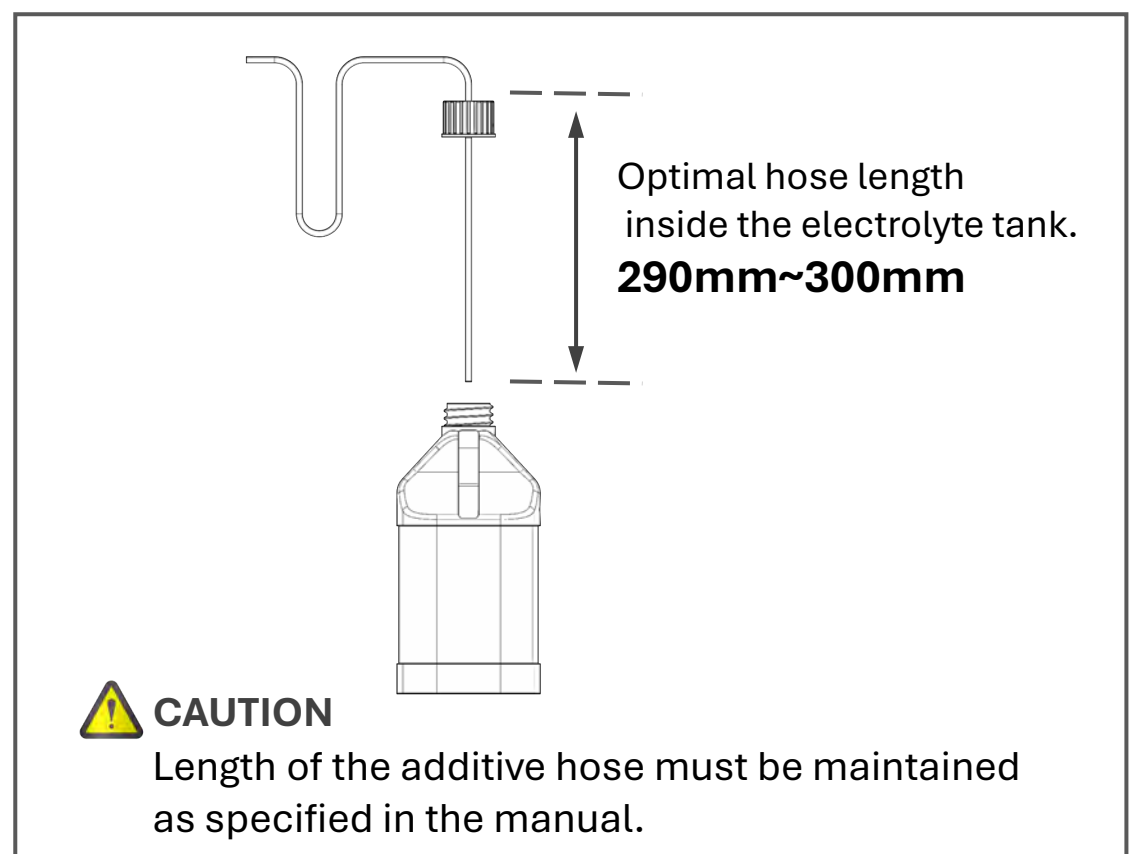
- Power Off system
- Remove suction line and cap from additive tank
- Fill additive tank with additive manufactured based on formula below.
(Or add 2 cups of salt to additive tank and fill it with tap water)
- Replace cap and shake until dissolved
- Replace suction line
- Power On system and press “**RESET**” button

■ Separation of the Container for electrolyte solution replenishment

Do not pull the electrolyte suction hose fixed to the hose clamp. It is connected to the pump inside the product, and pulling it may cause the electrolyte to not be suctioned or result in leakage.



When filling up the solution, detach the lid and hose together



⚠ WARNING

When handling hydrochloric acid, it is essential to wear protective gear (such as safety goggles and gloves) for safety before proceeding with preparation.

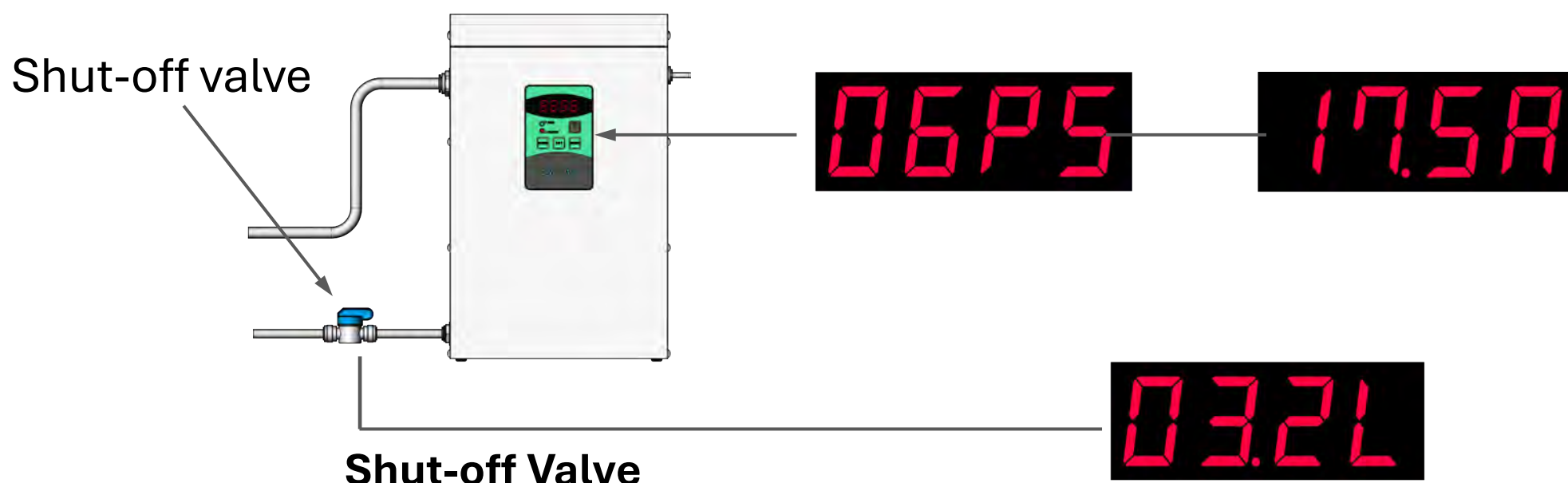
⚠ CAUTION

This product must be operated or managed by an individual who has received sufficient technical training on the proper and safe use of this equipment.

<p>Flow Rate measured in Liters per minute (L)</p>	<p>The flow rate can be controlled by tightening or loosening the inflow water valve located on the left side of the machine. A higher flow rate will decrease the concentration of free available chlorine (FAC) and a lower flow rate will increase the concentration of FAC.</p> <p>Displaying the flow rate:</p> <ol style="list-style-type: none"> 1. Press and hold "SET" button for 3 seconds and release. 2. Display will begin to blink. 3. Press "MODE" button until liters per minute (L) setting is displayed.
<p>Voltage (v)</p>	<p>The voltage is a performance measurement and is not adjustable.</p> <p>Displaying the voltage:</p> <ol style="list-style-type: none"> 1. Press and hold "SET" button for 3 seconds and release. 2. LED display will begin to blink. 3. Press "MODE" button until voltage (v) setting is displayed.
<p>Ampere (A) Max. ampere : 22 Min. ampere : 13</p>	<p>The ampere is an adjustable setting. The range is from 13 to 22 ampere. Higher settings will increase the concentration of free available chlorine (FAC).</p> <p>Adjusting the ampere:</p> <ol style="list-style-type: none"> 1. Press and hold "SET" button for 3 seconds and release. LED display will begin to blink. 2. Press "MODE" button until ampere (A) setting is displayed. 3. Press "SET" button to increase the ampere. Press "RESET" button to decrease the ampere. 4. Press and hold "MODE" button for 3 seconds and release to complete.
<p>Pump Speed (PS) Min. speed : 0 Max. speed : 19</p>	<p>The pump speed is an adjustable setting. The range is from 0 to 19. Higher settings will increase the pump speed and thus increase the additive dosed into the electrolysis cell. For most purposes, the pump speed should be kept in mid-range.</p> <p>Adjusting the pump speed:</p> <ol style="list-style-type: none"> 1. Press and hold "SET" button for 3 seconds and release. LED display will begin to blink. 2. Press "MODE" button until pump speed (PS) setting is displayed. 3. Press "SET" button to increase the pump speed. Press "RESET" button to decrease the pump speed. 4. Press and hold "MODE" button for 3 seconds and release to complete.

The following settings are recommendations for reaching approximate concentrations of free available chlorine (FAC) in solution measured in parts per million (ppm). The 3 variables below can be adjusted to change the concentration.

1. Flow Rate (L/min) - controlled by blue valve allowing feed water to flow into system
2. Ampere (A) - controlled by system settings
3. Pump Speed (PS) - controlled by system settings



11

Controlling concentration

The following chart is a guide. Actual performance can vary based on salt additive formulations, additive pump speed settings and water quality.

	Flow Rate	Setting Current (Ampere)	
		17.5 A	22.0 A
Sample Formula 1 (salt and water)	1.5 L/min	170 ppm	200 ppm
	2.0 L/min	127 ppm	150 ppm
	3.0 L/min	85 ppm	100 ppm
	4.0 L/min	74 ppm	75 ppm
	5.0 L/min	51 ppm	60 ppm
	6.0 L/min	43 ppm	50 ppm

	Flow Rate	Setting Current (Ampere)	
		17.5 A	22.0 A
Sample Formula 2 (salt, water and vinegar)	1.5 L/min	136 ppm	160 ppm
	2.0 L/min	102 ppm	120 ppm
	3.0 L/min	68 ppm	80 ppm
	4.0 L/min	51 ppm	60 ppm
	5.0 L/min	41 ppm	48 ppm
	6.0 L/min	34 ppm	40 ppm

	Flow Rate	Setting Current (Ampere)	
		17.5 A	22.0 A
Sample Formula 3 (salt, water and HCl)	1.5 L/min	255 ppm	300 ppm
	2.0 L/min	191 ppm	225 ppm
	3.0 L/min	128 ppm	150 ppm
	4.0 L/min	95 ppm	112 ppm
	5.0 L/min	77 ppm	90 ppm
	6.0 L/min	64 ppm	75 ppm

12 How to handle malfunctions

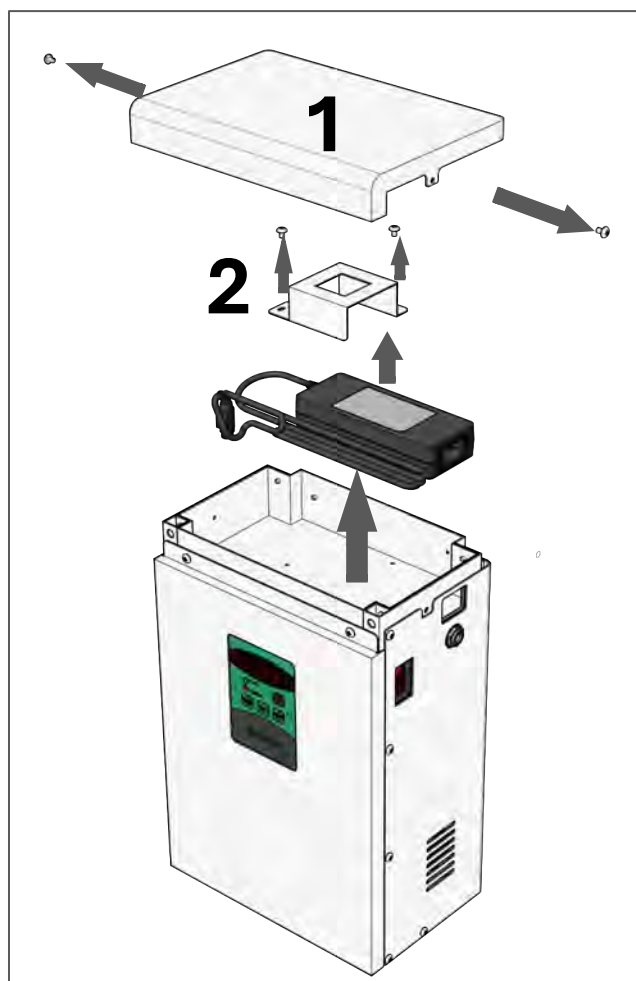
System alarms

Err 1	Low Flow	Check the flow of the feed water into the equipment. Once corrective action has been taken to sustain the water flow above 1.5 L/min, press the “ RESET ” button to cancel the alarm. If unresolved, contact the service center.
Err 2	Low Current	Disconnect additive tank and refill with a new brine. Re-attach the tank once completely dissolved. Press the “ RESET ” button to cancel the alarm. If unresolved, contact the service center.
Err 3	High Current	Disconnect additive tank and refill with a new brine. Re-attach the tank once completely dissolved. Press the “ RESET ” button to cancel the alarm. If unresolved, contact the service center.
Err 4	Low Voltage	The voltage is abnormally low. Please contact the service center for further assistance.
Err 5	Fan Error	The cooling fan is not functioning. contact the service center for further assistance.

Disassembly of the external case for component replacement

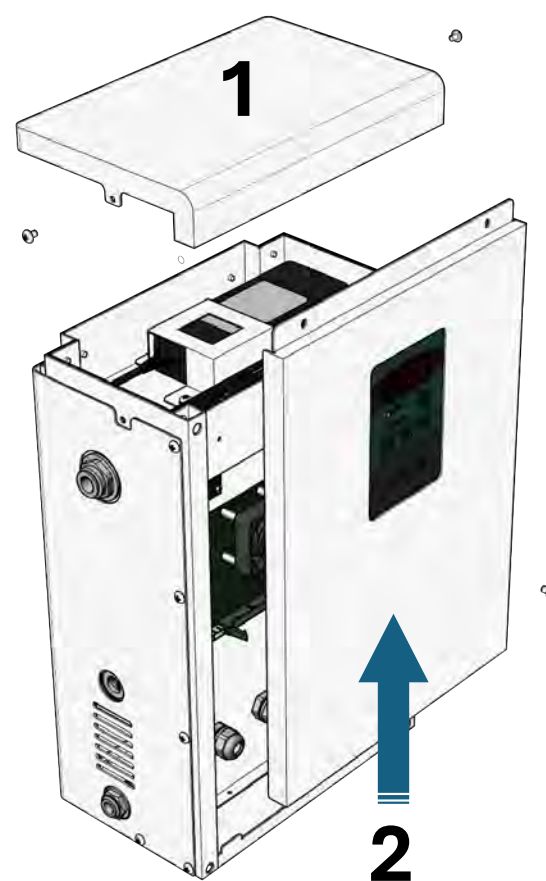
WARNING

To avoid the risk of electric shock and equipment damage, always turn off the power before separating or disassembling



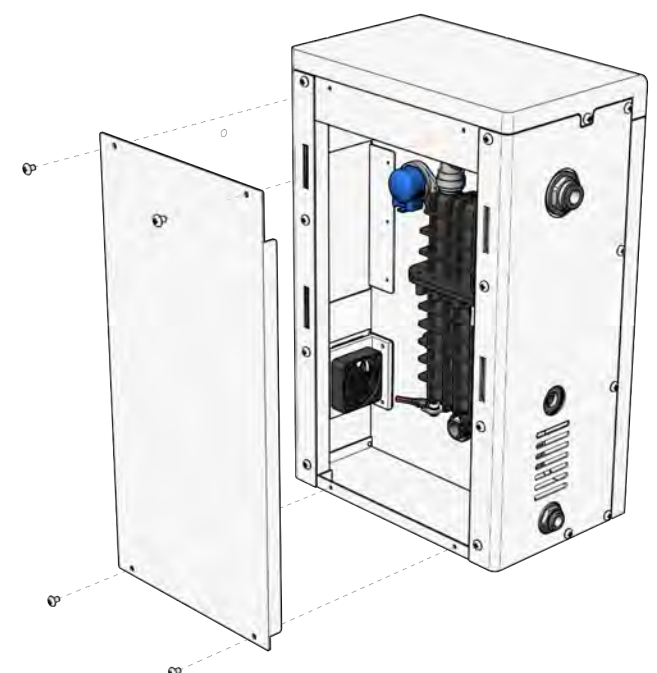
When Replacing the Power Adaptor

Loosen the screws on both sides(1) of the top cover, detach the bracket(2) securing the internal power adaptor, and then replace it



Separation of the front cover

To open the front cover, first remove the top cover, then loosen the screws securing the top of the front cover and lift it upwards. Be careful with the display PCB connection cables.



Separation of the rear cover

WARNING

Do not operate equipment if electric cord is damaged.

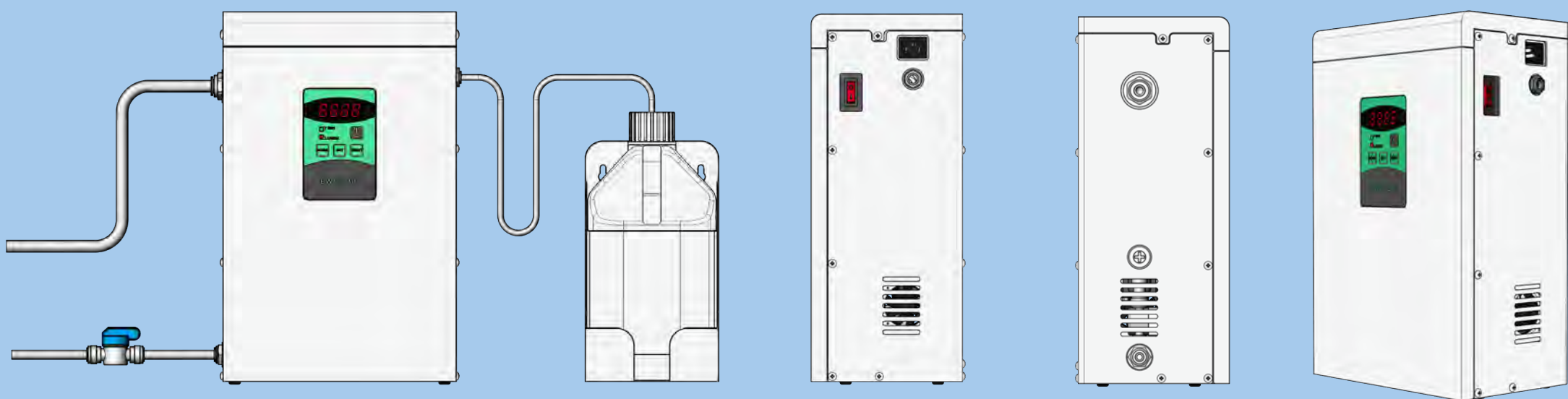
CAUTION

This product must be operated or managed by a designated responsible person who has received professional technical training on the proper use and emergency procedures of the device.

- ▶ HOCL LLC and its affiliates, officers, directors, shareholders, employees, and agents shall not be liable for any responsibility or obligation to compensate for any damage, loss, failure, malfunctions caused by inappropriate usage/operation, careless storage and maintenance, unconventional or unreasonable towards/about the EWCO300 system, access or usage of unauthorized personnel.
- ▶ Under the premise of accurate and safe usage of EWCO 300 system, as outlined in this manual's usage and maintenance instructions, the warranty period for free quality assurance is one year. After this period, any malfunctions or damages incurred will require payment for repairs and maintenance. Even within the warranty period, damages and losses caused by inappropriate usage, careless storage, deliberate damage, or other unreasonable usage are excluded from free warranty and compensation.
- ▶ The manufacturer or seller of EWCO300 is not responsible for any damage or accidents, loss caused by inappropriate installation or improper placement for installation or failure to follow the manual.

Sites for purchasing parts needed for installation or repair

<https://store.hocl.com>



⚠ CAUTION

The recipient/user must acknowledge all risks inherent in the use of the EWCO300 system and knowledge about proper usage and maintenance.

HOCL LCC

1680 MICHIGAN AVE STE 700 MIAMI BEACH, FL, 33139

Tel : 1-754-800-4020

<https://store.hocl.com>