



# Preparing Stock Solutions

Salt Solution: Mix 1 L of water with 256 g of salt and 26 g of baking soda. Pour this mixture into the salt tank. Add an additional 5.4 L of water.

Vinegar Solution: Mix 858 mL of water with 142 mL of 45 wt% vinegar. Pour this mixture into the vinegar tank. Add an additional 2.2 L of water.

Stock solutions in these amounts will last 90 batches of 5 L of 200 PPM HClO product.



# Using the Generator

1. Power on
2. Check salt, vinegar, and water solution levels. Refill solution compartments if needed
3. Settings → Initialize
4. Pump out excess product and dispose
5. Settings → Select PPM to run the generator
6. The product is ready to use when the system has finished generation. Pump out the product as needed and use within 2 weeks
7. Periodically check the pH and chlorine levels with the provided test strips

# Cougar Creek's On-Site, On-Demand, Portable, Medium-Size HOCL Generator



## User's Manual



# Contents

<b>Getting Started .....</b>	<b>2</b>
Preparing Solutions .....	2
Powering On/Off .....	4
Default Screen .....	5
Setting .....	6
<b>Generating HCLO .....</b>	<b>7</b>
Initialize .....	7
Setting (Concentration) .....	8
Solution Quality .....	10
<b>Additional Settings .....</b>	<b>11</b>
Time Settings .....	11



# Getting Started

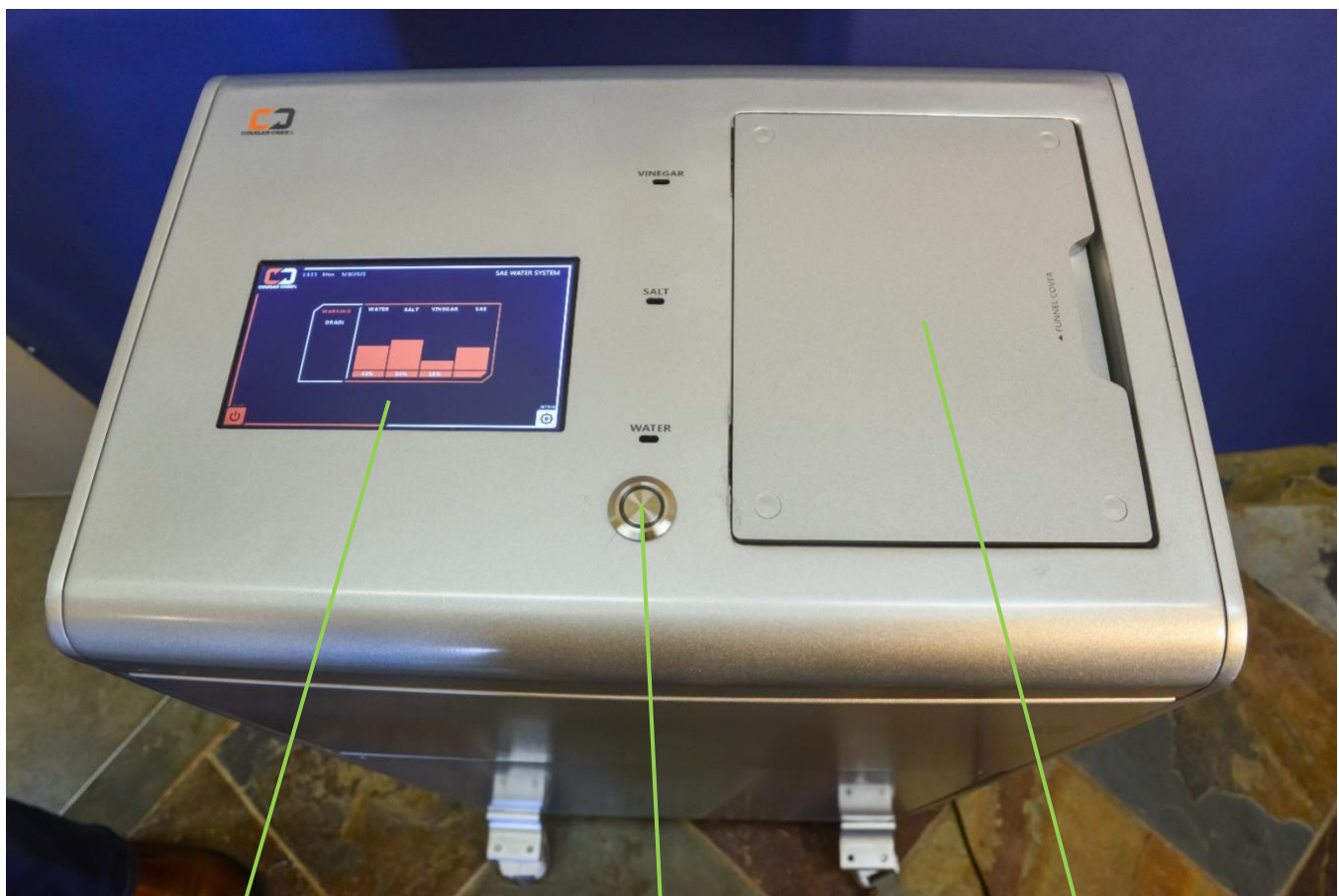
## Preparing Solutions

Cougar Creek's HClO generator requires solutions that can be easily made from over-the-counter materials. For the salt and vinegar solutions, a concentrated precursor solution must be made for each before diluting them with water. Once prepared, pour these solutions into their respective compartments. To make the solutions the user will need **salt, 45 wt% vinegar**, and **soda ash (sodium carbonate)**.

- **Salt Solution:** Prepare 1 L of 20 wt% NaCl, 2 wt% Na<sub>2</sub>CO<sub>3</sub> precursor salt solution by mixing 1 L of water with 256 g of salt and 26 g of baking soda. Dilute the precursor salt solution by adding 5.4 L of water. **\*This will yield 6.4 L of 3 wt% NaCl, 0.3 wt% Na<sub>2</sub>CO<sub>3</sub> solution.**
- **Vinegar Solution:** Prepare 1 L of 6.4 wt% vinegar precursor solution by mixing 858 mL of water with 142 mL of 45 wt% vinegar. Dilute the precursor vinegar solution by adding 2.2 liters of water. **\*This will yield 3.2 L of 2 wt% Vinegar solution.**
- **Water:** 27 liters

Once prepared, pour these solutions into their respective compartments.

\*The salt and vinegar solutions in these amounts can produce 450 liters of HClO product and will not need to be refilled regularly.



This screen can be used to control the generator.

This button can be used to pump out excess or product.

The covering can be lifted to fill the compartments with solution.



## Powering On/Off

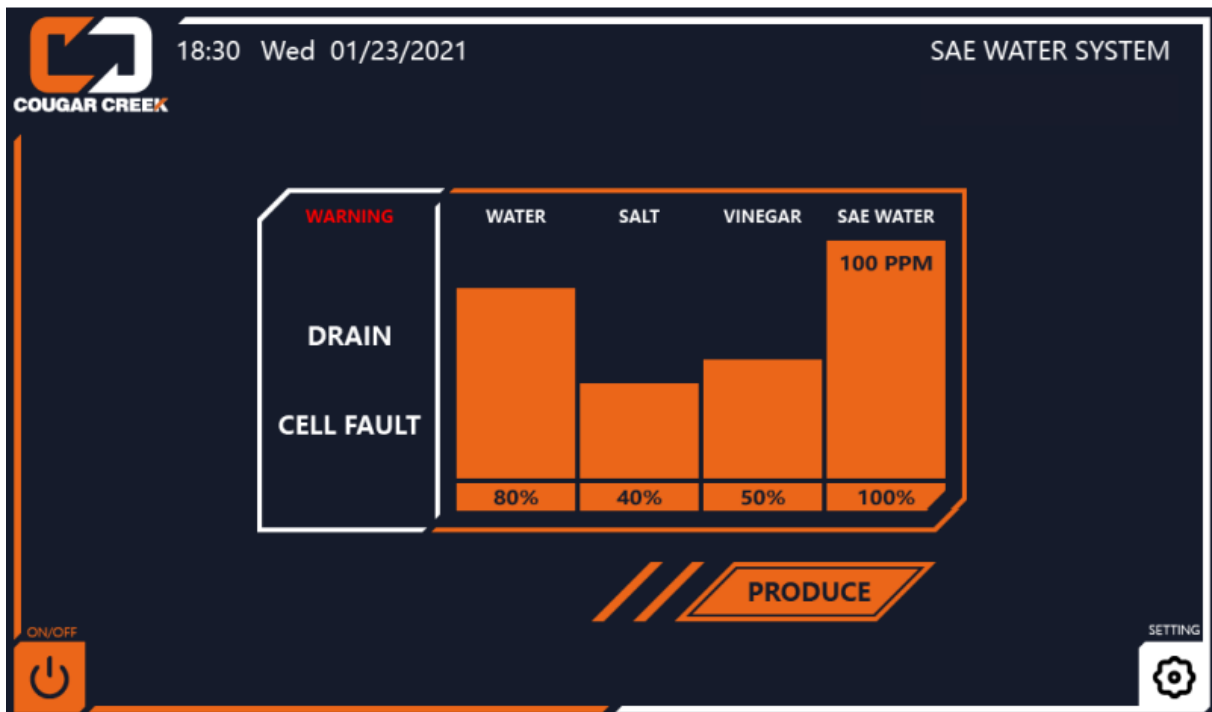
Once powered on, the screen will display “SAE WATER SYSTEM”. Select the ON/OFF button in the lower left corner of the screen.



## Default Screen

The default screen displays the volume levels of each solution monitored by sensors.

The message “Warning: Drain” appears whenever a solution is getting low and needs to be refilled.

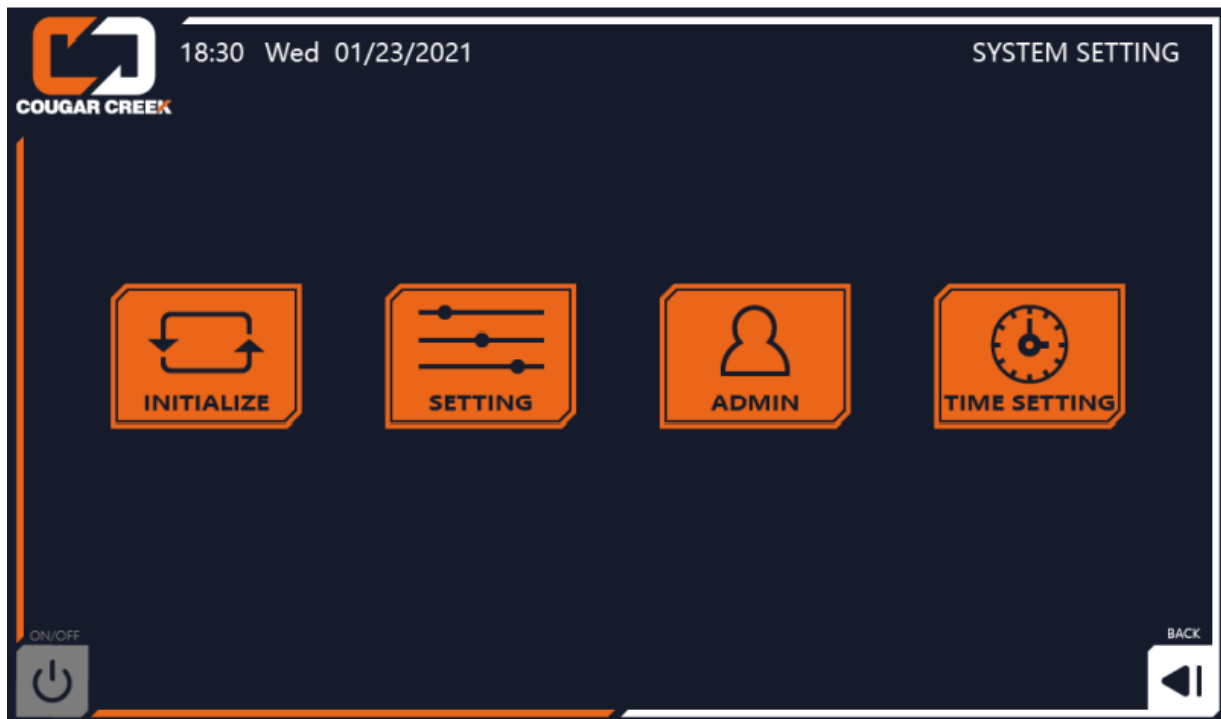




## Setting

Press “SETTING” in the bottom right corner of the screen to bring up the selection screen.

Once at the selection screen, the user can select from three options: “INITIALIZE”, “SETTING”, and “TIME SETTING”.

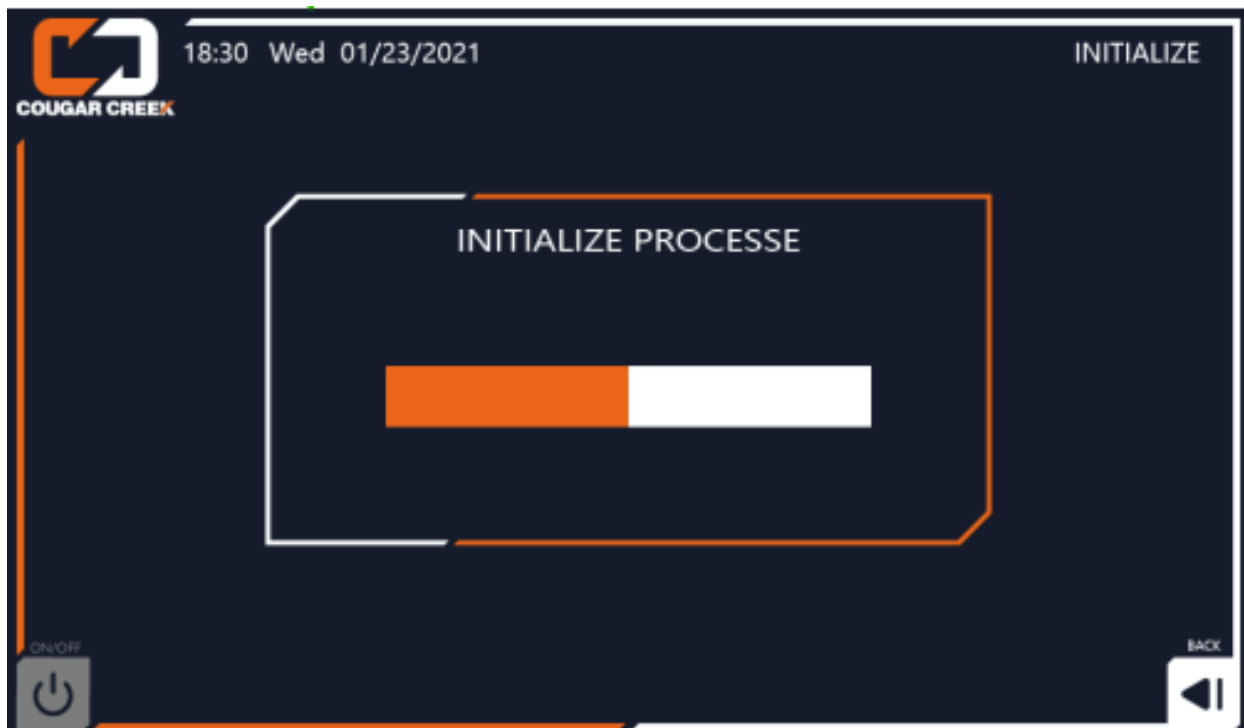


# Generating HCLO

## Initialize

The “INITIALIZE” option needs to be selected prior to generating a batch. When prompted press “OK” to continue. The user can track the system’s progress via the loading bar.

Once complete, the excess liquid from the initialization process should be pumped out and disposed of.



## Setting (Concentration)

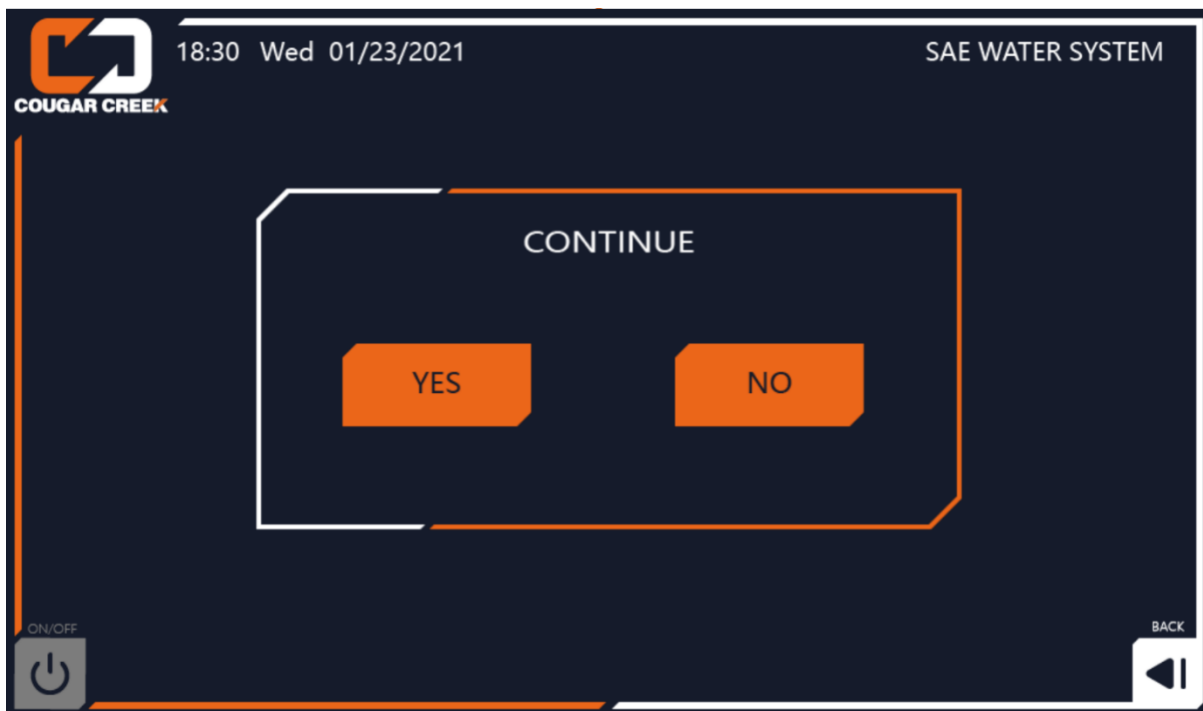
The user will have three concentration options to select from.

- 60 PPM (lowest concentration)
- 100 PPM
- 200 PPM (highest concentration)



Once an option is selected, **the system will begin generation of product.** The user can track the system's progress via the loading bar.

Once complete the user will be asked to “CONTINUE”. Select “YES” if the user wants to generate another batch of the same concentration. Select “NO” to finish the process, or if the user wishes to generate a batch of a different concentration later.



Press and hold the button to pump out the HCLO.

## Solution Quality

After generating solution, the user should check its quality to ensure it is ready to use. The user is provided with pH and chlorine indicator strips. Appropriate readings for the pH level are 4-6. The PPM reading should match the user's selection.



pH Indicator



Chlorine Indicator

# Additional Settings

## Time Setting

The user can set the “MONTH”, “DAY”, “YEAR”, “HOUR”, “MINUTE”, and “SECOND”.



The screenshot shows a dark blue interface for setting time. In the top left corner is the Cougar Creek logo. In the top right corner, the text "TIME SETTING" is displayed. The main area contains two rows of settings. The first row has three items: "01 MONTH", "23 DAY", and "2020 YEAR". The second row has three items: "18 HOUR", "35 MINUTE", and "26 SECOND". Each item consists of a number in a small orange-bordered box followed by the unit name. In the bottom right corner, the word "BACK" is written above a white left-pointing arrow icon.

Field	Value
MONTH	01
DAY	23
YEAR	2020
HOUR	18
MINUTE	35
SECOND	26