

# STREAM Disinfectant Generator

## Quick Start Guide



### STEP 1 - PREPARE THE BRINE SOLUTION

To begin generating disinfectant solution, one must first make the brine solution. Gather the following materials:

- Salt
- Cool, clean water
- Wooden spatula for mixing
- 2 x 20-liter buckets

To prepare a 20-liter brine solution, follow the steps below. Refer to the table below for mixing different volumes.

- 1 Fill the bucket with 20L of water.
- 2 Add 300 grams of salt.
- 3 Stir until salt is dissolved.

Note: Refer to the table below for additional guidance on various brine volume preparation.

Volume: Water liter (gallon)	Volume: Salt gram (oz)	Volume of Brine Solution
<b>1 (0.26)</b>	<b>15 (0.4)</b>	<b>1L</b>
<b>5 (1.3)</b>	<b>75 (2)</b>	<b>5L</b>
<b>10 (2.6)</b>	<b>150 (4)</b>	<b>10L</b>
<b>20 (5.3)</b>	<b>300 (8)</b>	<b>20L</b>

### STEP 2 - SET UP

- 1 Open the STREAM system case.
- 2 Plug into a power source.
- 3 Unwrap the clear plastic tubes.
- 4 Disconnect the small tube from the large tube at the connector.
- \* Caution: Do not let the small tube supports come off of the tubes.
- 5 Attach brine suction strainer to the small tube.
- 6 Place the small tube into the brine solution bucket, made in Step 1.
- 7 Take the large tube and place it in the second bucket.
- \* Ensure that the disinfectant bucket is the same size or larger than the brine bucket.

### STEP 3 - START UP

- 1 Turn on the system by pressing the start button. A green LED light circling the ON/OFF button should appear.
- 2 The system will begin drawing fluid from the brine solution and begin generating disinfectant.
- 3 The pump will adjust speed so that the disinfectant produced is constantly at 5,000 parts per million (ppm) mg/L.
- 4 If a fault is detected, look at the color of the LED light circling the ON/OFF button and find the corresponding cause and solution.
- 5 Push the ON/OFF button and restart.
- 6 Once you have generated the volume of disinfectant you wish to make, push the ON/OFF button to stop the device, or alternatively the system will shut down automatically when the brine is empty.

#### STEP 4 - SHUTDOWN & STORAGE

- 1 Turn off the STREAM system by pressing the ON/OFF button.
- 2 The disinfectant solution produced by the STREAM system should be stored in opaque bottles in a cool/dark location.
- \* If you are finished producing disinfectant and ready to store the system, complete the following steps:
- 3 Remove brine filter from small tubing and place it in storage tube. Be sure the small tube supports stay on the tubes. Replace cap securely, and place in black mesh bag in the lid of the STREAM.
- 4 Connect the smaller and larger tube to make a closed loop.
- 5 Secure tubing and electrical cord into STREAM case and close.

#### STEP 5 - DILUTION

- \* The STREAM system produces 5000 mg/L (0.5%) of available chlorine through a consistent flow system. Dilution of the STREAM disinfectant solution depends on the final desired use of the disinfectant.

Purpose	Volume of Water Added to 1L of Disinfectant	Concentration
Disinfection for Highly Contaminated Healthcare Settings	0L	5000 mg/L
Hand Washing & Food Preparation	10L	500 mg/L
Ground & Surface Water Sources	2000L	2.5 mg/L

#### STEP 6 - CLEANING

- \* Cleaning will be required when calcium carbonate scaling is evident in the outlet tubing of the cell (white substance) or no flow is noted coming from the disinfectant tube.
- 1 Check the tee fitting at the cell for scale forming (white substance) remove any visible scaling.
  - 2 Replace tubing and proceed to acid wash the cell.
  - 3 Obtain 0.5L (1 pint) of acetic acid or white distilled vinegar and place in a 1L plastic container.
  - 4 Place the small tube with the brine filter into the acetic acid or vinegar container.
  - 5 Place the larger tubing - outlet tubing - into the same container.
  - 6 Push the ON/OFF button and let the system run until a fault is indicated.
  - 7 Push the ON/OFF button to turn off the system.
  - 8 Repeat 3 times using the same vinegar solution.
  - 9 Fill a container with 0.5L of clean water.
  - 10 Place the small tube with the brine filter in the 0.5L of clean water.
  - 11 Place the large outlet tube in a separate container to collect the discard liquid.
  - 12 Push the ON/OFF button and let the system run until a fault is indicated.
  - 13 Dispose of the discard liquid.
  - 14 The system should now be clean and ready for use or storage.

#### STEP 7 - TROUBLESHOOTING GUIDE

Problem	Mitigation Approach (See STREAM Operational Manual)
Loss of Power to the Cell	<ul style="list-style-type: none"><li>– Check power source.</li><li>– Check power cord to ensure device is plugged in.</li><li>– Check ON/OFF button.</li></ul>
Leaking Tubes or Fittings	<ul style="list-style-type: none"><li>– Turn off power.</li><li>– Identify source of leak.</li><li>– Ensure connections are tight and small tube support connectors are in the correct orientation.</li></ul>
No Flow Through the Cell	<ul style="list-style-type: none"><li>– Clean strainer and hose fitting.</li><li>– Check for leaks in strainer or hoses.</li></ul>
Pump Not Working	<ul style="list-style-type: none"><li>– Clean hose lines.</li><li>– Remove hose from pump head. Run clean water through tubes.</li><li>– Remove hose from pump and stretch the hose. (The hose can become tight during storage.)</li></ul>
System overheating	<ul style="list-style-type: none"><li>– Check hose for scale formation</li><li>– Clean the cell.</li></ul>