

The **X1 Liquid Dosing Pump** is the latest state of the art controllable dosing system from Kamoer. Each unit includes a Bluetooth connection, which allows the doser to be controlled via most mobile devices.

INSTALLATION

1. Attach the dosing pump head to the main unit by lining up the center of the exposed side of the dosing head on to the front of X1 unit and push the head in until it snaps into place. You can install the head with the tubing down, up, to the left or right. Just choose the option that better suits your setup.



2. The location of your X1 should be easy to access; it should be close to an electrical power source, close to sump or location where the dosing tubing will be installed and also have easy access to dosing containers that will hold the solutions. The unit should also be installed higher than the sump but not directly above water.

3. Connect the tubing by attaching the included PVC clear tubing to the unions already attached to the doser head and we are ready to configure the X1. The intake is the right most tube and the output to the left when installed facing downwards.

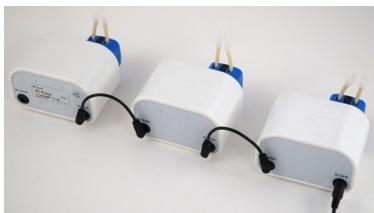
OPERATION

1. Download and install the **"X1 Pump"** App from the Google Play or Apple App Store and make sure that the bluetooth on our mobile device is set to on.



2. Start the app and click on the upper left-hand corner **"Plus Symbol"** to add a new device. Tap on the Bluetooth symbol to let the app scan the surrounding area and find your X1 pump. All done! Your X1 device is now connected.

3. Name your pump by tapping on the three dots to the right of the pump and select **"Set Nickname"**. Type in your new name and tap **"Confirm"**.



If you have multiple X1 Pumps, you can easily assign them to different groups to make things a little more organized. To create or assign an X1 pump to a group, just tap on the three dots to the right of the X1 pump and tap on **"Group Select"**. Type in or select your already created group name. This feature is great if you have multiple systems with multiple X1 Pumps.

CALIBRATION

1. After connecting to the X1 Pump, the next step in the process is to calibrate it. Tap on the pump name to load the configuration page. Now tap on **"Settings"** located on the upper right-hand corner. Now select **"Flow Calibration"**.

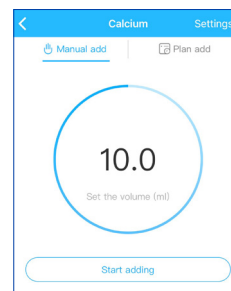
2. Prime the line and purge out any excess air. If not, the calibration will be off. Once you see all air has been purged from the line and water starts to pour out, tap on Stop.

Using the included 10ml beaker, insert the output line into the beaker and tap on **"Start Adding"**. The pump will run for 10 seconds and then automatically stop.

3. Enter the volume of liquid in the testing beaker and tap on Complete. For increased accuracy, we recommend that you calibrate the X1 pump every 4-6 weeks.

DOSING METHODS

The X1 has two methods of operation, Manual for single one-time dosing and Planned for a custom 12 stage, 24 hour dosing schedule.



MANUAL ADD

To dose manually, select **"Manual Add"** from the **"Main"** screen. Tap the center of the circle to enter your volume amount in milliliters. Tap on **"Confirm"** and then tap on **"Start adding"**. The screen will show you a real-time countdown as the solution is being added.

PLANNED ADD

Planned Add allows you to create a more intricate schedule of up to 12 different time points in a 24 hour period or to automate a single dosing on a daily basis at the same time each day.

To create a new plan, just tap on the pump name you wish to configure and from the top menu, select **"Plan Add"**.

At the top of the screen you will see the container section. This is a really handy section that allows you to approximate how much solution there is left in the container based on your current dosing schedule. In order for this to work correctly, you must enter the volume of your container to the best of your ability.

The next section is the cycle. Here you are able to determine if you want to dose on a daily basis or as infrequent as once every 31 days.

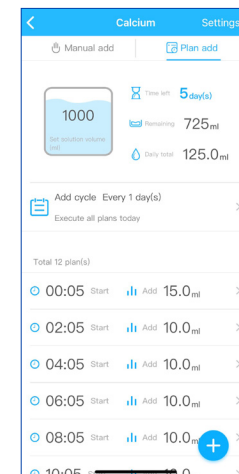
You can also set the pump to dose on a weekly basis which allows you to then select which days of the week you want to dose.

To select the days of the week you want to dose, just tap on the day until a blue checkmark is added to the right side.

The final and bottom section is your actual schedule. Here you can tell the doser to administer a daily total volume and spread it evenly 12 times in a day.

To create a repeating schedule, tap on the **"Plus Symbol"** at the bottom right of the app.

For an automated single dose regimen that repeats itself daily, select **"Add Plan"**. To create a more intricate schedule that divides a total volume into multiple equal amounts, then select **"Quick Plan"**.



The **Antichemical interference setting** allows you have another plan or pump dosing at the same time, one pump will delay administering the chemical by 5 minutes to ensure that the two chemicals do not mix.

Once you have configured all settings, tap on **"Save"** at the upper right hand corner. The main screen will now show your entire dosing regimen and is now set to begin dosing.