

# *ekcoral*

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eK Doser

User Manual 2020



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## 1.0. Creating an eKoral Account

To begin, please download the eKoral app from the App Store (Apple iOS) or the Google Play Store (Android). You may also use the QR codes provided. Search for “**eKoral**”, and download the app specified for aquarium use (*Pg. 1*).

Once downloaded, please open the eKoral app and create an account either using your email address or Facebook account.

**Please note:** there are two settings when you are creating an account, these are explained below.

### 1.1. International

If you are an international user (i.e. are located outside of mainland China), please be sure to select the “**International**” setting when creating your account and logging into the eKoral app.

### 1.2. China

If you are a user from mainland China, please be sure to select the “**China**” setting when creating your account and logging into the eKoral app. This will ensure that you are logged onto our Chinese servers.

**Please note:** The version of the app will be clear as it will be displayed in the top right-hand corner once downloaded.

*Once an account is created, you are ready to start pairing to a device.*

## 2.0. Packaging Contents

### 2.1 eK Doser

- ★ Dosing Pump
- ★ *Specifications:* Automatic dosing system. Use the eK Doser with regulated dosing schedules to provide an ideal environment for your reefs to live and grow. Each dosing pump has the ability to dose at **3 different rates** (20-40ml/min). Main features include **Delay-time Protection**, where pumps can delay dosing schedules based on different programmed pump activities.
  - Size: 329x200x140mm (12.6"x17.87"x5.51")
  - Weight: (US) 1600g (3.52lb)
  - Working Environment: Temp: 0°C ~ 40°C / 32°F ~ 104°F Relative humidity: <80%

### 2.2. Doser Tubing

- ★ *Specifications:* 6m tube that has the dimensions of 2.0mm x 4.0mm

### 2.3. Dosing Tube Holder

- ★ *Specifications:* Holds 4 dosing tubes measuring 2.0mm x 4.0mm

## 2.4. Power Adapter

- ★ *Specifications:* US/AU/CN versions available
- ★ Input is 12V, equivalent to 1A.

## 2.5. Graduated Cylinder (10 mL)

# 3.0. Safety Precautions

When using the eK Doser, as is the case for all electronic equipment operated around water, it is essential to take steps to **maintain the integrity and functionality** of the devices.

**Standard precautions should be taken to minimize risks:**

1. Ensure that the outlet you are using can **support the voltage level required by the eK Doser and its associated devices**. If needed, check with a licensed electrician or your local power company to establish that the power consumption is safe.
2. Choose an outlet that is not within the immediate vicinity of your tank (i.e. within the **“splash zone”**, where water splashes or droplets may land on your devices, or **“salt creep”** may occur).
3. Be sure to **“drip loop”** all power cords emerging from your aquarium so that water that may run down cords will not reach the outlet.
4. Regularly inspect all your electronic equipment to account for **“salt creep”** and algae/sponge buildup.

# 4.0. eK Doser Set Up

## 4.1. Pairing

Once you have successfully logged into your eKoral account, you will need to pair your eK Doser to your eKoral account using either your mobile phone or tablet. You can establish a connection using online (Soft AP) or offline (Direct Connect) pairing.

### 4.1.1. Online Pairing (Soft AP)

When you are pairing your device to your eKoral account through Soft AP, you are also configuring the WiFi on your eKoral device.

1. By clicking on the **“+”** button at the bottom of the screen it will allow you to select which device you wish to pair. In this case, it is the eK Doser (*Fig. 1 & 2, Pg. 9*).
2. To start connecting, follow the instructions shown on the app. Confirm the Status LED is off and the WiFi LED is flashing. To activate Soft AP mode, press and hold the **reset button for 1 second**, causing the WiFi LED to flash slowly. Once complete, click **“Next”** (*Fig. 3 & 4, Pg. 9*).

3. Connect your mobile device to the eK Doser's built in network, shown on your WiFi list as '**eK-Doser-SERIAL NUMBER**'.
4. Scan the QR code on the back of the device and wait for validation.
5. Name the device.
6. Select the **WiFi network** that the device will be connected to. Enter the correct details and save.

#### *4.1.2. Offline Pairing (Direct Connect)*

When pairing with a device via Direct Connect, it is connecting to the device's local hotspot. This hotspot will always be formatted in the form [eK-Doser-SERIAL NUMBER] on your mobile device's WiFi list (e.g. eK-Doser-AHbAAA000).

In this situation, please note that your phone or tablet will not be connected to the Internet and will therefore be unable to control the tank or receive notifications once out of range of the eK Doser.

1. By clicking on the “+” button at the bottom of the screen, you will be able to select which device you wish to pair. In this case, select the eK Doser (Fig. 1, pg. 10).
2. **Select “Direct Connect”** and follow the instructions shown on the app. Confirm the Status LED is off and the WiFi LED is flashing.
3. Connect your mobile device to the eK Doser's built in network, shown on your WiFi list as '**eK-Doser-SERIAL NUMBER**'.
4. Scan QR code on the back of the device and wait for validation.
5. Name the device.

Complete.

**Please Note: The default password for the eK Doser hotspot is “HieKoral” (case-sensitive)**

#### *4.1.3 Troubleshooting*

If you are having difficulty connecting your mobile device to your ekoral device, the following steps are a workaround to re-establish connectivity.

1. Create a new mobile hotspot using your phone, and name it “**mp**”. Set the password to be “**ekoprosolutions**”. On an Android device, you can name your hotspot irrespective of your phone's name. On an iOS (Apple) device, you will have to rename your phone “**mp**” for this workaround to function as needed.

2. Access your eKoral device through the eKoral app. Select the “i” icon next to your device name.
3. On the page that follows, select “**Configure WiFi**”. Proceed with onscreen instructions to **configure the WiFi to the “mp” hotspot** you have just created. Even when you are experiencing connectivity issues, this should allow your eKoral device to come back online.

#### 4.2. Calibration

You will need your graduated cylinder and your tubing to calibrate. Remember to ensure that your connectors and tubing fit snugly before proceeding with the calibration (Fig. 1, pg. 11).

Your eK doser is capable of three dosing speeds (20-40mL/min). If you ever want to change your dosing speed, you will need to recalibrate.

In order to ensure that the dosage is accurate, it is important to make sure that there is liquid already within the tube. The app will prompt you to initiate a brief period of manual dosing to ensure that this occurs.

You will be calibrating at your preferred dosing speed. The app will prompt you to initiate a 10-second dosing period, after which you will be able to enter the amount dosed measured by the graduated cylinder. Calibration is now complete.

## 5.0. If/Then Rules

Ensure you have other outlets connected to your eK Doser (e.g. the eK Lite, eK Core or eK Power Lite). **This feature can only be used on an eK Doser if it is connected to an eKoral controller (e.g. the eK Lite or eK Core).**

1. Select the “**Rules**” function on the homepage and then select “**IF**” (Fig. 1 & 2, pg. 12).
2. Choose the device that the rule is attached to (e.g. eK Core). Then, you can decide which parameter is the independent trigger (e.g. temperature or pH).
3. Select the “**Then**” tab. This is when you select the dependent clause--what will change when the independent clause is triggered (e.g. the eK Power 6, the eK Doser, or any associated eKoral Sync device). From the selection, choose the output (Fig. 6, Pg. 19).
4. Now add details to the IF/THEN rule--you can be as specific as you wish. After you finish, click Save.
5. You will then be prompted to set a lock time, which is an aspect of our “**Fail-Safe**” feature. For more information on this feature, please refer to section 10.0 of the eKoral Lite or eKoral Pro manual.

**Please Note:** Remember to check that you have activated the rule.

## 6.0. Schedule

### 6.1 eK Doser

1. After selecting the schedule tab, select the pump that the schedule will apply to and then tap on the '+' icon at the bottom of the page to start a new schedule.
2. Here you can select the amount of element you wish to **dose into your tank for your selected amount of time** (Fig. 3 & 4, pg. 13).
3. Choose a time frame you wish for the schedule to take place; ranging from anywhere between **12:00am and 11:59pm**. You can preview your planned schedule before saving by tapping **"Start"**.
4. Select the day(s) of the week you wish for this schedule to occur. This can be as many or as few as you wish.
5. Select the delay protection time you prefer. Tap **"Save"** to finish the schedule (Fig. 7, pg. 13).

**Delay-Time Protection:** The "Delay-Time" functionality delays both **BEFORE** and **AFTER** the dose occurs. For example, if you set a 10-minute delay time on a dose, there will be a 10-minute delay BEFORE the dose, and a 10-minute delay AFTER the dose, for a total of 20 minutes, in addition to the time that the dosing takes.

If you dose frequently, we recommend that you account for this in your calculations.

## 7.0. Resetting your eK Doser

Attached to your system on delivery will be a reset pin. This is the piece of equipment that enables you to reset the device (Fig. 1, pg. 8).

1. **Ensure that you want to reset** your eK Doser before proceeding with this process. Once it is done you cannot restore the settings back to their original state.
2. Get the reset pin and locate the reset hole on your device. On the eK Doser it is on the top next to the Status LED light.
3. Press onto the reset pin for **10 seconds** and wait for the WiFi and Status LED lights to turn off and start flashing slowly.
4. If the lights are flashing quickly (once or twice per second), press down into the hole again for 1-5 seconds, until the WiFi light starts flashing slowly (approximately every 2 seconds). It is now ready to pair again.

## 8.0 Connecting eKoral Sync Supported Third-Party Devices.

The eKoral sync program is an approval process that certifies third-party hardware that has the capability to work flawlessly with the eKoral system. All approved products have to pass a strict testing and validation process by eKoral engineers, and only the very best are certified as eKoral sync approved products.

### 9.1. Identifying eKoral Sync products

All eKoral certified products come with an identifiable “**eKoral Sync**” logo attached to the product itself, the packaging or in the marketing materials (*Fig. 1, pg. 15*).

### 9.2. Connecting an eKoral Sync device to your eKoral account

All eKoral Sync devices have their own entry in the “Devices” tab. Depending on the type of device, adding your eKoral Sync device may require different navigation routes.

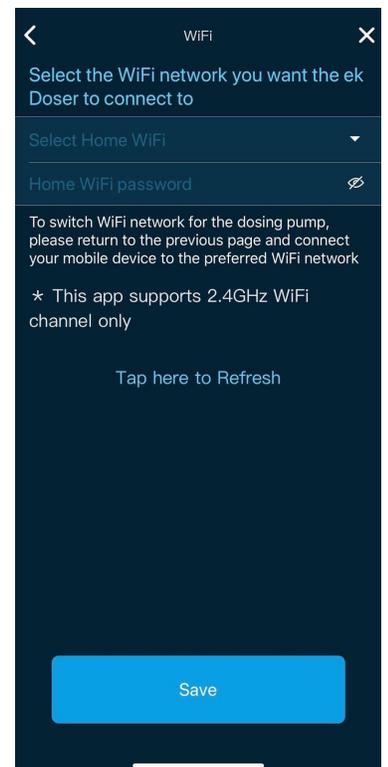
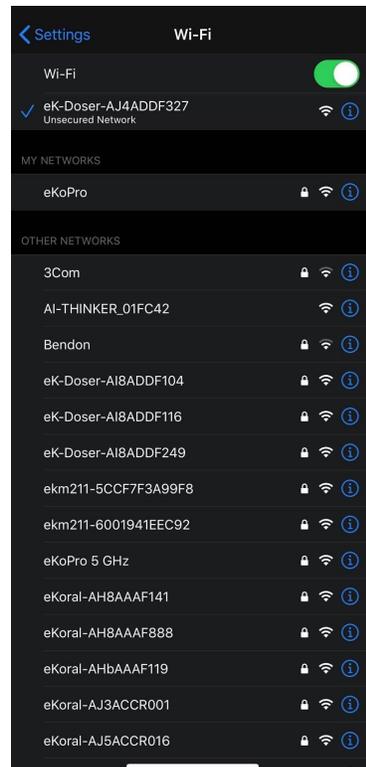
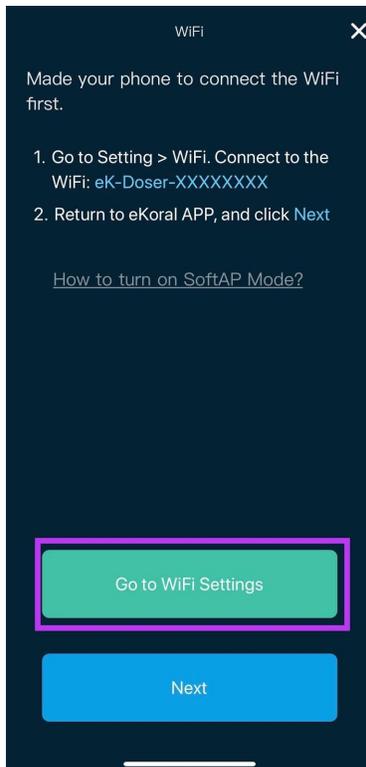
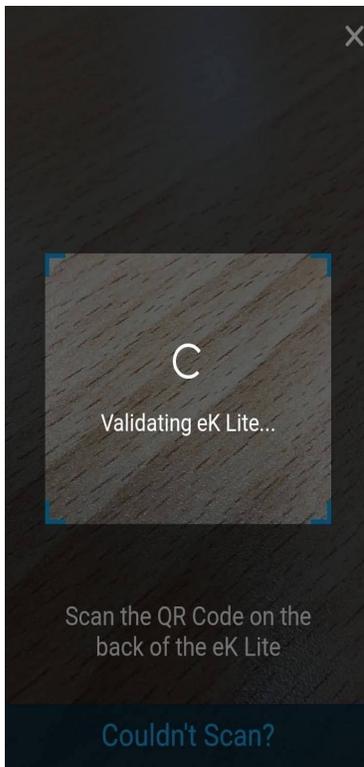
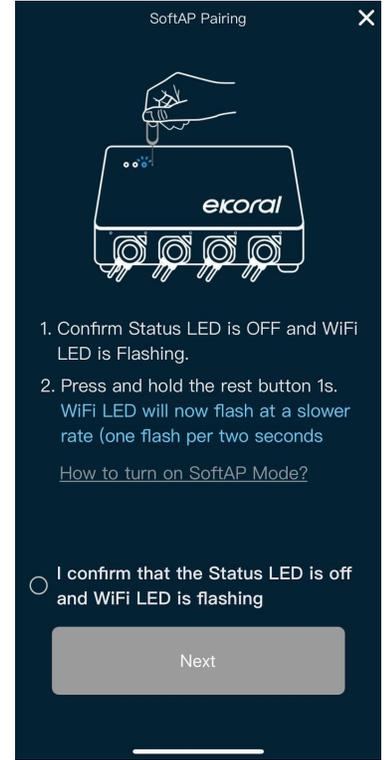
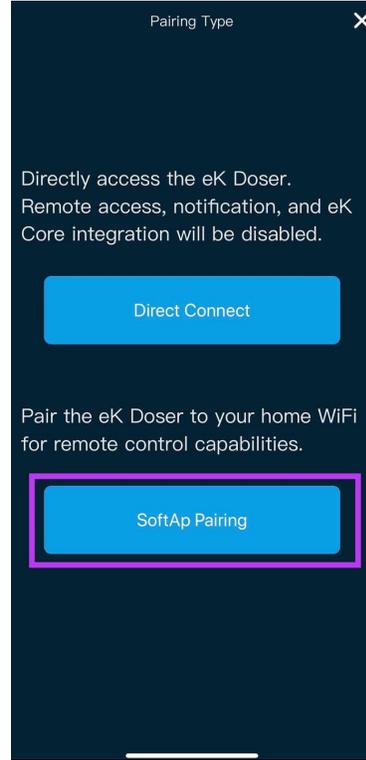
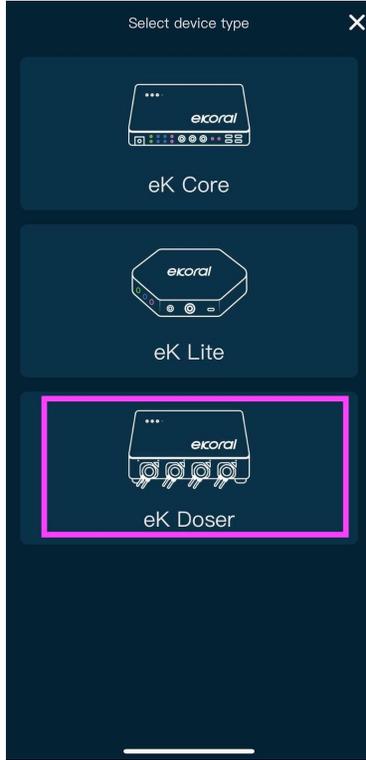
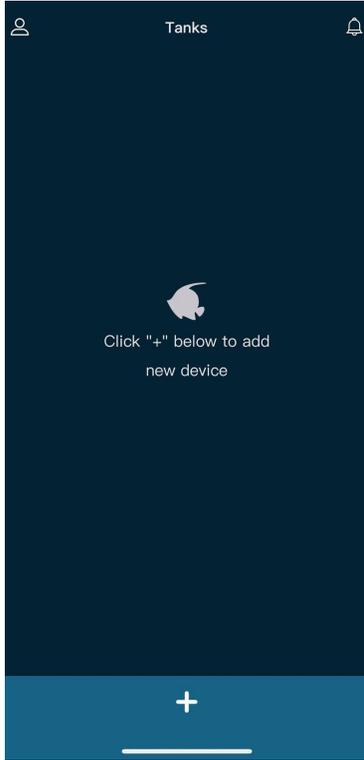
## 9.0. Figures of Products:

1. Reset Pin

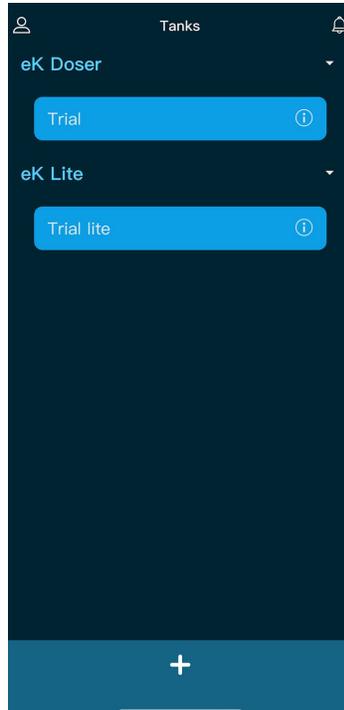
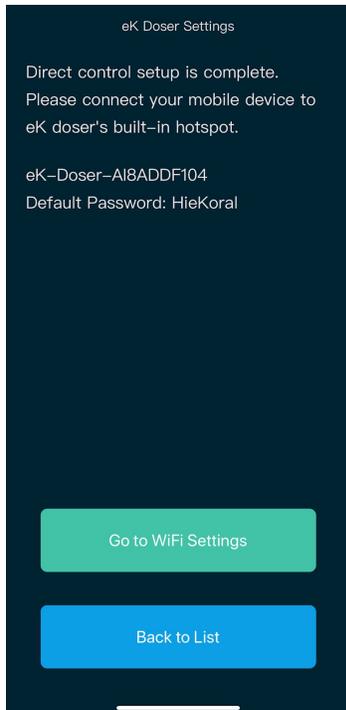
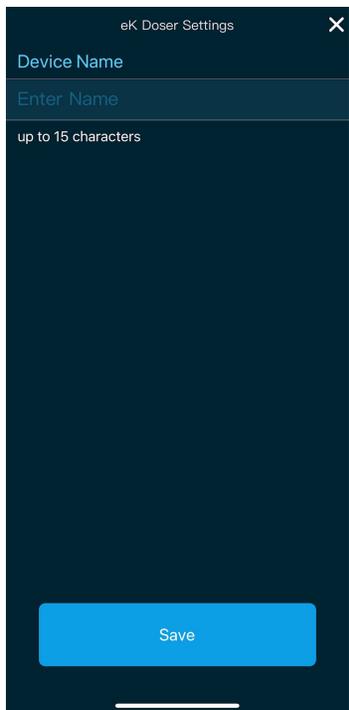
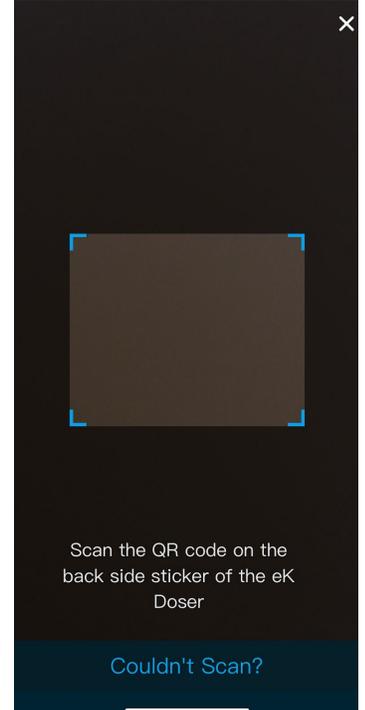
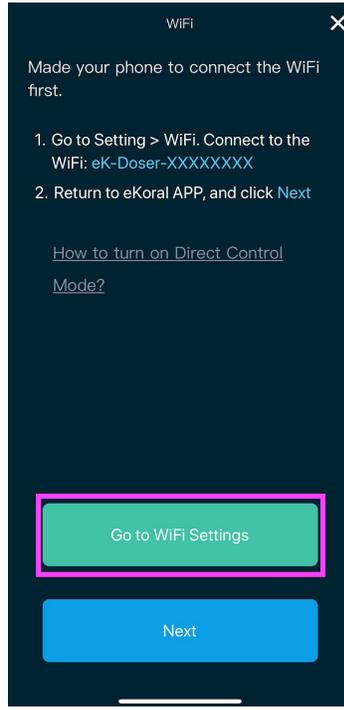
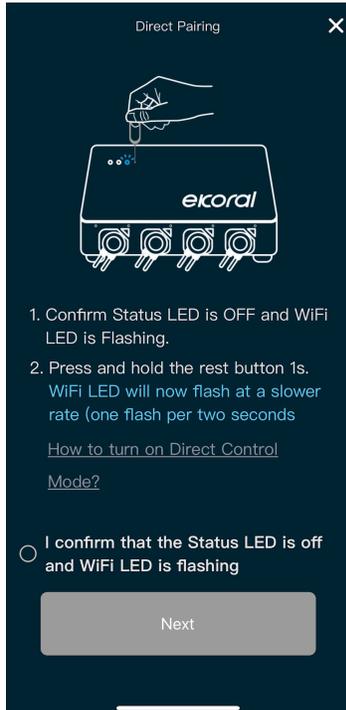
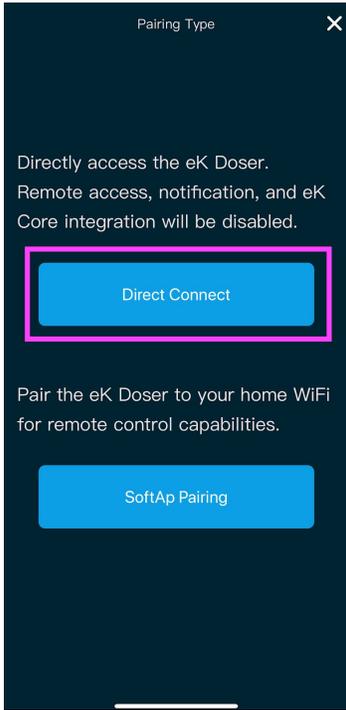


## 9.0. Figures of Products:

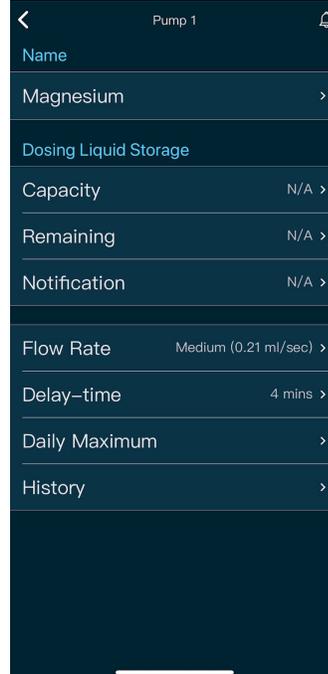
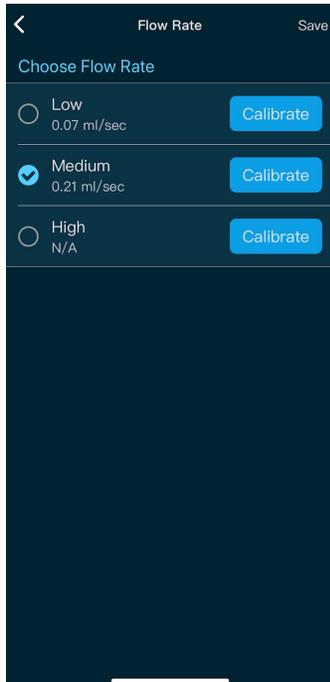
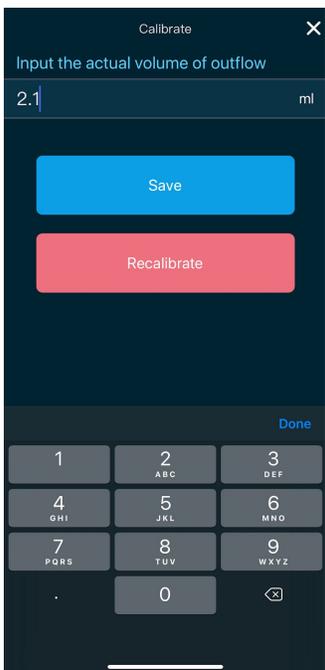
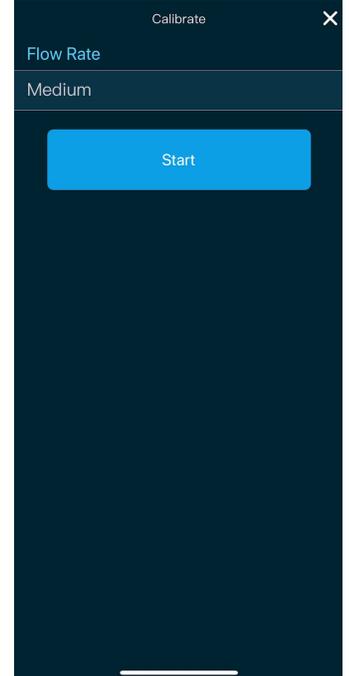
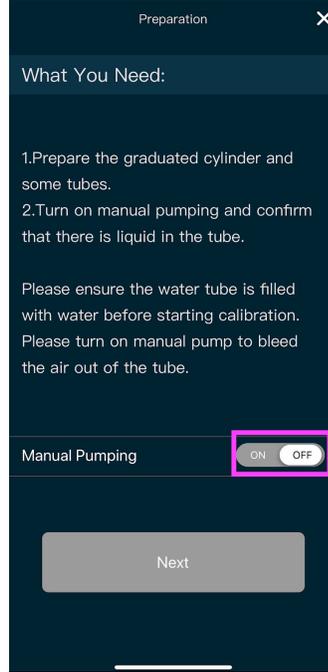
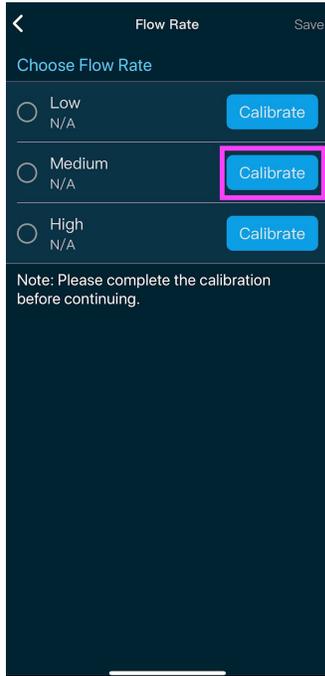
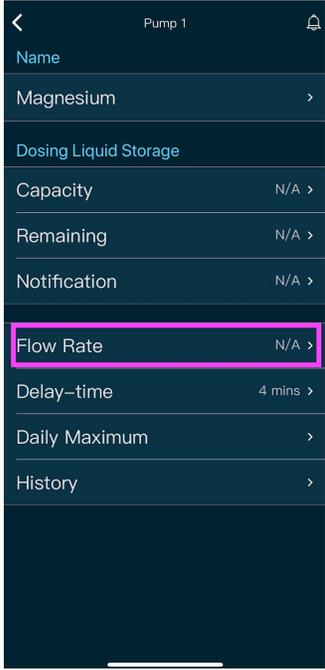
### 4.1.1. eK Doser (Soft AP) Pairing



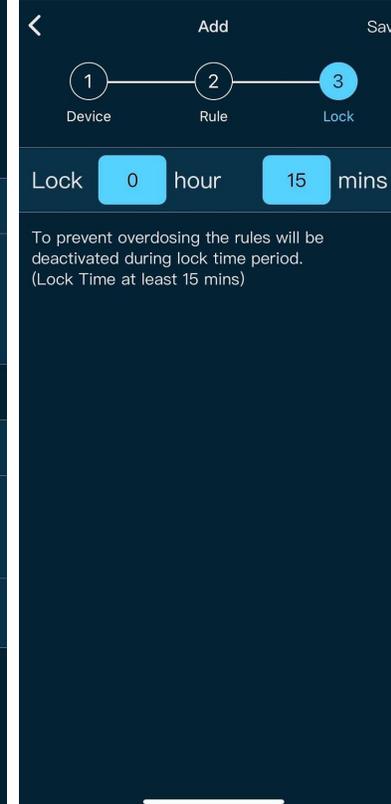
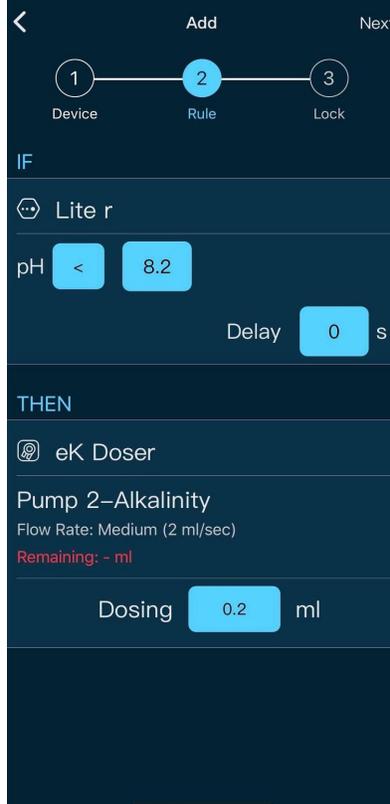
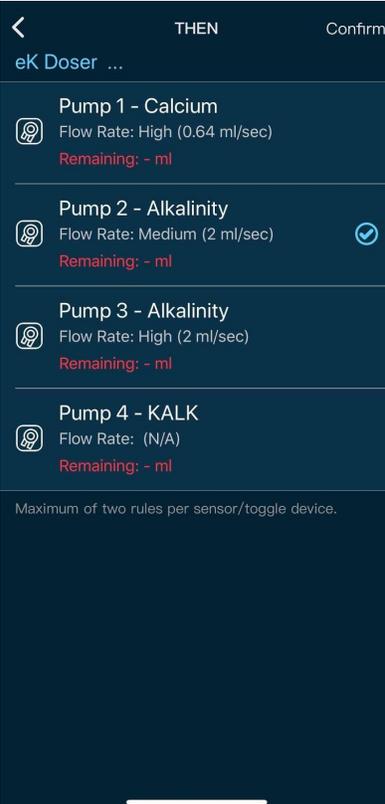
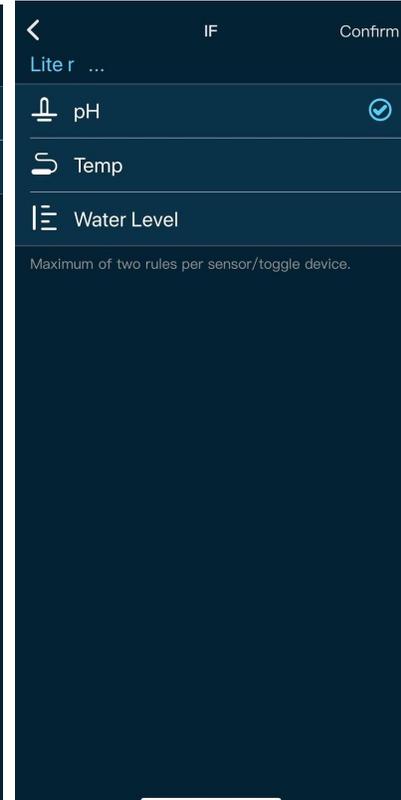
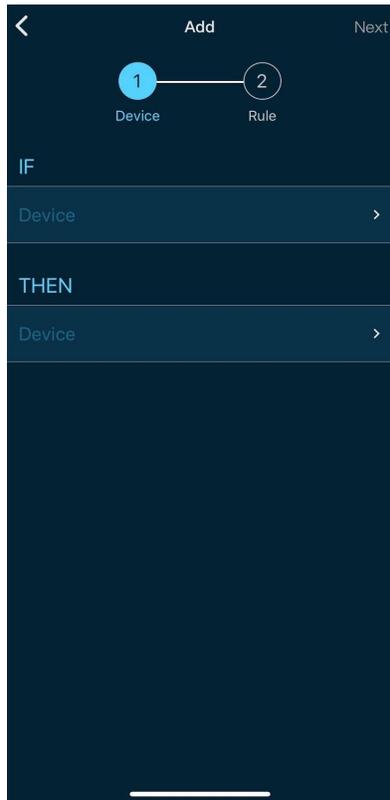
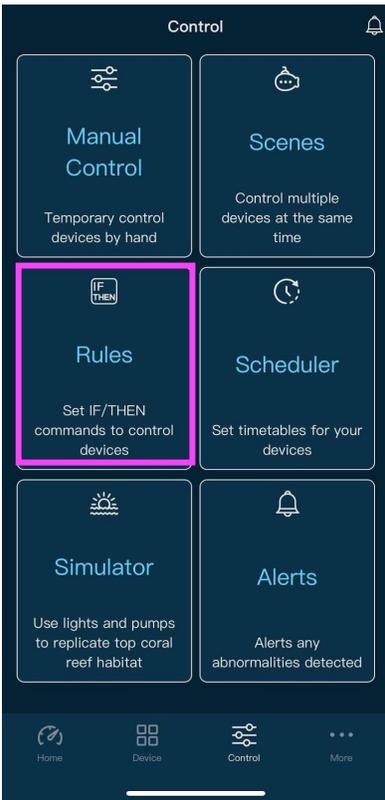
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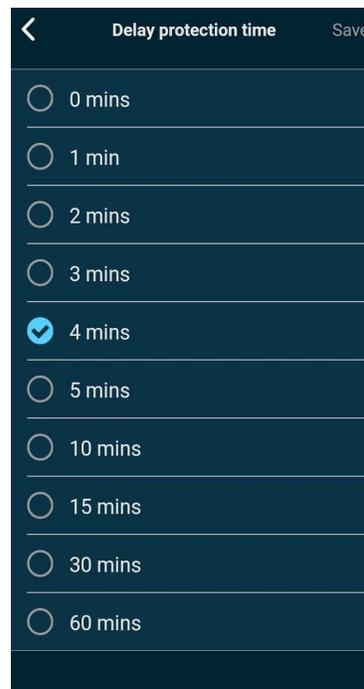
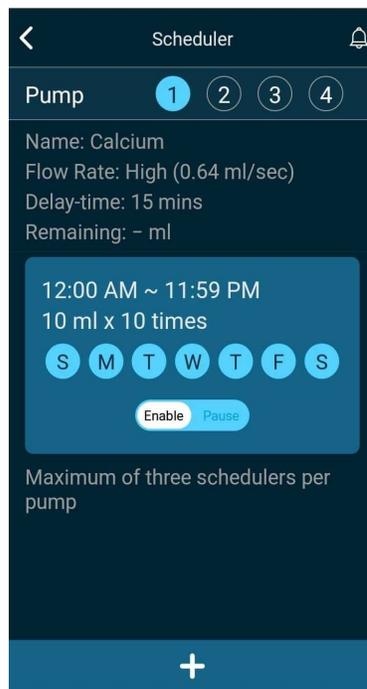
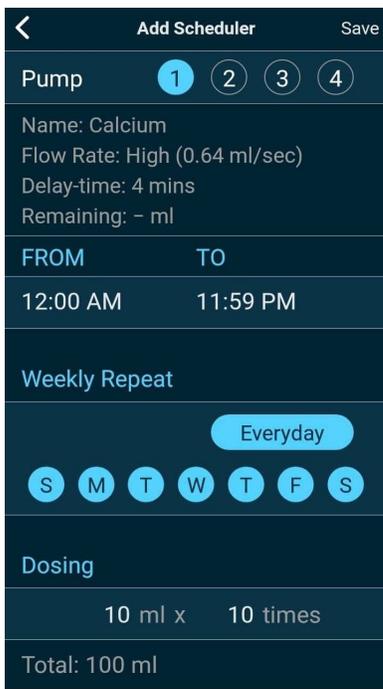
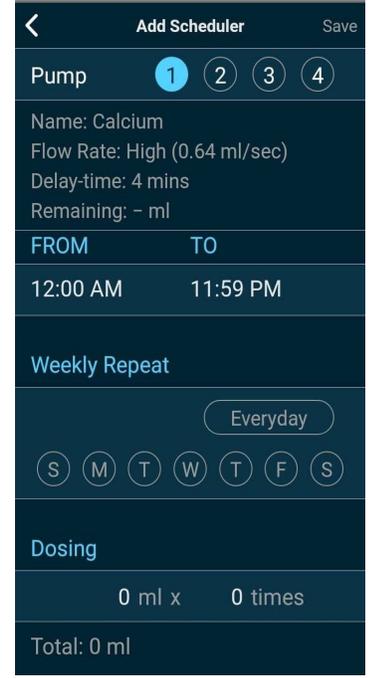
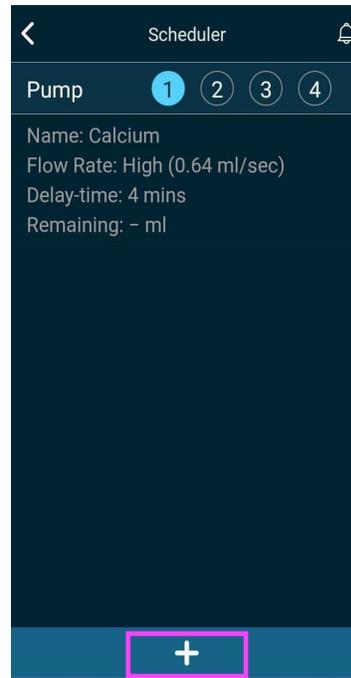
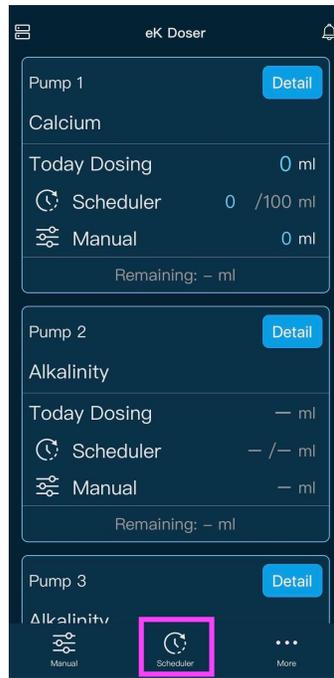
## 4.2. eK Doser Calibration



## 5.0. If/Then Rules



## 6.1. eK Doser Schedule



## 8.0. Resetting eK Doser



10.1. Identifying eKoral Sync Products

