SQUID

PORTAMIX™

MIXING WITH THE BEST

SQUID™

OPERATING MANUAL

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Operating manual

Original version of the operating instructions (English)
Version: 1
Date: 03/2025

Imprint

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Follow these instructions to ensure proper and safe use of the SQUID™ water dosing device. Keep these instructions in a safe place for future reference.

Contents

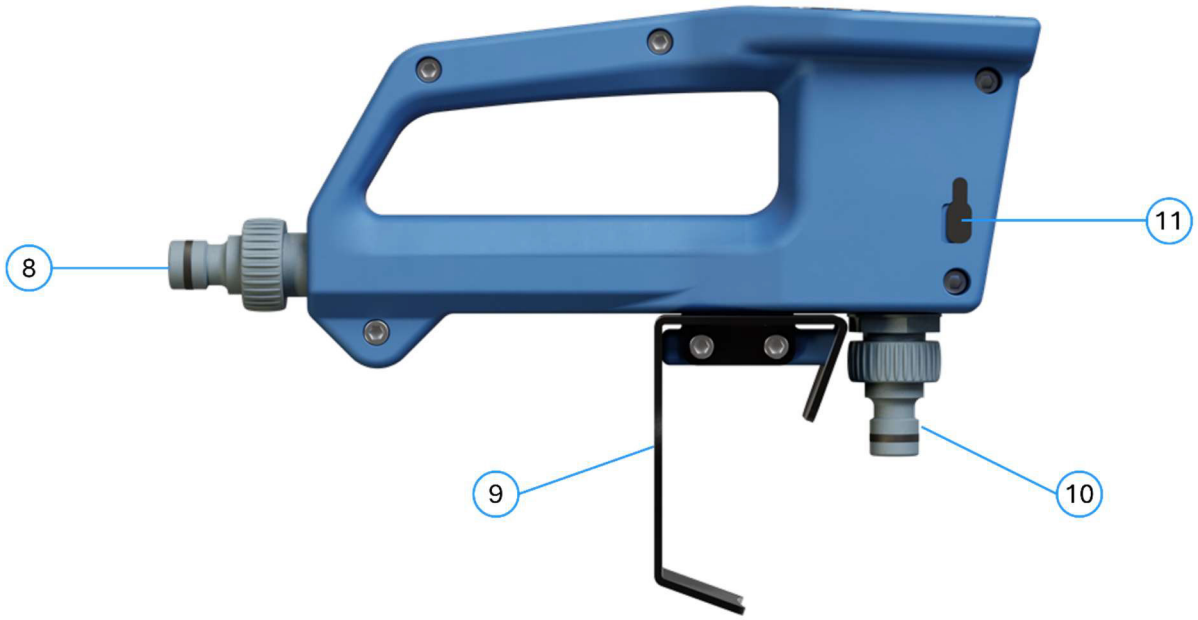
1 Scope of delivery

- SQUID™ water dosing device
- Charging cable USB-A to USB-C
- Carrying case with insert
- Operating manual

2 Technical data

- Water pressure: 2 - 6 bar
- Flow rate: 10 - 25 l/min
- Dosing volume: 1 - 100 l
- Measuring accuracy: +/- 3%
- Hose connection: 1/2” quick connector
- Display: illuminated LC display, 2.01”, 128x64 pixels
- Battery: 3,500 mAh lithium-ion battery
- Battery life: approx. 20h
- Charging time: approx. 4h
- Charging connection: USB-C
- Charging voltage: 5V
- Dust and water protection: IP64

3 Description



1. Display **6**
2. Mode button
3. BT button
4. Memory button
5. Play/Pause button
6. Minus button **Item list**
7. Plus button
8. Water inlet with quick connector
9. Bucket holder
10. Water outlet with quick connector
11. USB-C charging socket

4 Waning notice

- Never expose SQUID™ to temperatures <0° C and >50° C. Frost can freeze residual water in the device and cause damage. Heat and cold can damage the electronics and battery.
- Make sure that the water pressure does not exceed 6 bar to prevent damage to SQUID ™.
- Do not charge SQUID™ when the device is connected to water! There is a risk of electric shock.
- Do not leave SQUID™ unattended during the dosing process.
- Always disconnect SQUID™ from the water source or close the tap when the appliance is not in use.
- Only use SQUID™ with pure tap water at max. 35° C! Other liquids and/or higher temperatures can damage SQUID™.
- Regularly check the accuracy of the water dosing by checking a set quantity after the dosing process with a suitable measuring vessel. If necessary, use the calibration function (see chapter 13.3 Calibration) to increase the accuracy of SQUID™.
- Regularly record the calibration check in the log on page 17 of the instructions.
- Never connect a hose to the water outlet (no. 10) of SQUID™ and never allow water to flow into the water outlet. This will damage the valve and flow sensor.
- Regularly check the condition of the inlet filter (see chapter 13.1 Cleaning the filter in the water inlet).

5 Getting started

5.1 Connecting SQUID™ to the water

Connect your water hose to the water inlet (no. 8). Make sure that the quick-connector of the water hose is firmly attached to the water inlet of SQUID™. Open the water tap.

5.2 Venting before use

Switch SQUID™ on by pressing Play/Pause (no. 4). The SQUID™ logo appears on the display. SQUID™ always starts in the mode in which it was last used. Now hold SQUID™ over a bucket or drain and press Play/Pause for a few seconds. The valve opens and water comes out of the water outlet. Keep the button pressed until the water flows evenly. When you release Play/Pause, the valve closes. SQUID™ is now vented and ready for use.

6 Dosing water

SQUID™ has various modes in which it can be used. After switching on, SQUID™ always starts in the mode in which it was last used. You can switch between the different modes “Manual” and “Bag mode” via mode (no. 2). For more flexibility, there is also the “free quantity” option.

6.1 Manual mode

In manual mode, SQUID™ shows a number of liters on the display. This can be adjusted to the desired quantity in 0.1 liter increments using + and - (no. 6 + 7). Press and hold the +/- button for rapid progress in 1 liter increments.

Once the desired quantity has been set, SQUID™ can be attached to the edge of the bucket using the metal hook (no. 9). Press Play/Pause to start the dosing process. SQUID™ counts down the remaining liters on the display and ends the dosing process when the desired number of liters has been reached. SQUID™ returns to the quantity just dosed in manual mode after the dosing process has ended. The dosing process can be adjusted or restarted.

6.2 Bag mode

The bag mode is used to quickly set the amount of water if the same product is to be mixed several times in different quantities. When starting the bag mode, SQUID™ displays 0 x 0.0L, with the 0.0L flashing. The +/- buttons can now be used to set the amount of water per bag (e.g. 6.5 liters per bag) that the product to be mixed requires. Once the desired quantity has been reached, confirm with Play/Pause. The multiplier now flashes and the desired number of bags can be set using the +/- buttons (e.g. 3 x 6.5

liters). Once the desired number has been reached, the dosing process is started with the Play/Pause button. After completing the dosing process, SQUID™ returns to the setting for the number of bags. The set liters per bag remain unchanged so that further dosing processes for this product can be started quickly. If you subsequently want to change the number of liters when setting the number of bags, you must change the mode using the mode button until the bag mode reappears. The number of liters can now be changed.

6.3 Pausing a dosing process

To pause an ongoing dosing process, press the Play/Pause button. SQUID™ pauses the dosing process until the process is continued by pressing the Play/Pause button again. The pause is indicated by the number of liters flashing and “Paused...”.

6.4 Cancelling a dosing process

To cancel a started dosing process before the set number of liters is reached, it must first be paused by pressing the Play/Pause button. The paused process can then be canceled by pressing and holding the mode button (approx. 2 seconds). The display jumps back to the previously set mode, which can now be edited.

6.5 Free quantity

The valve can be opened at any time by pressing and holding the play/pause button. The valve is closed when the button is released. While the water is flowing, SQUID™ shows the amount of water dispensed on the display. This means that water can be dispensed quickly without having to change the settings or disconnect SQUID™ from the hose. The settings do not have to be changed first.

6.6 Water temperature and flow rate

While the valve is open and water is flowing, SQUID™ displays the water temperature at the bottom left and the flow rate in L/min at the bottom right.

It takes a few minutes for the SQUID™ to acclimatize and display the actual water temperature!

6.7 Switching off SQUID™

SQUID™ switches offautomatically after a few minutes if no buttons are pressed. SQUID ™ does not switch off if there is an active app connection (BT is constantly shown on the display) or if an active dosing process has been paused.

7 Memory area

The mem button (no. 4) can be used to call up the last 10 settings in order to switch between different products as easily as possible. The desired value can be selected using the +/- buttons, with + moving the pointer downwards for the selection and - moving it upwards. Press Play/Pause to confirm the selection.

To exit the memory area without selecting a setting, briefly press the mem button again.

8 Basic settings

Press the mem and mode buttons simultaneously to access the basic settings of the device. Navigation is via the +/- buttons (+ moves the pointer downwards, - moves it upwards), Play/Pause is used to select and confirm.

8.1 Language

You can choose between German, English, French and Spanish.

8.2 Units

SQUID™ can be switched from metric units (liters, liters/min, degrees Celsius) to imperial units (gallons, gallons/min, degrees Fahrenheit, quarts).

8.3 Information

The software version and BT ID of the device are displayed under Information.

8.4 Reset

The reset function can be used to reset SQUID™ to the factory settings. This deletes all stored data, such as transmitted products and stored dosing processes. The current calibration is also deleted. Press Play/Pause to start the reset, press mode to exit the function without performing a reset. After a reset, SQUID™ must be recalibrated (see p. 14).

9 Firmware update

SQUID™ is able to download firmware updates. To do this, SQUID™ must be connected to the Internet via Wi-Fi. To do this, follow the steps below:

1. briefly press BT and mode at the same time to activate the SQUID™ Wi-Fi hotspot.
2. search for the Wi-Fi “SQUID-WIFI-MANAGER” generated by SQUID™ with a Wi-Fi-capable device (smartphone, tablet, laptop, etc.) and connect to the SQUID™ Wi-Fi.

3. enter the IP address **192.168.4.1** in the web browser of your device **10**
4. enter the name (SSID) and password of your Wi-Fi in the page that opens.
5. SQUID™ restarts. Now press BT and mode again. SQUID™ connects to the update server via the specified Wi-Fi.
6. SQUID™ now checks whether a firmware update is available and downloads it automatically if necessary.
7. SQUID™ shows the update progress on the display while the update is being downloaded and installed. SQUID™ cannot be used during the update.

If SQUID™ cannot establish a connection to the specified Wi-Fi, e.g. because incorrect data was entered or the Wi-Fi is not within range, SQUID™ deletes the stored data. The update process must then be started again from the beginning.

10 Using the Mixometer® app

You can download the Mixometer® app from your smartphone app store or at https://portamix.com/product/squid

SQUID™ APPLICATION ROADMAP

- Q3 2025
  - Add Industry Standard Products to user access
- Q4 2025
  - Portamix App Launch
  - Built-in Registration
- Q1 2026
  - Product Training

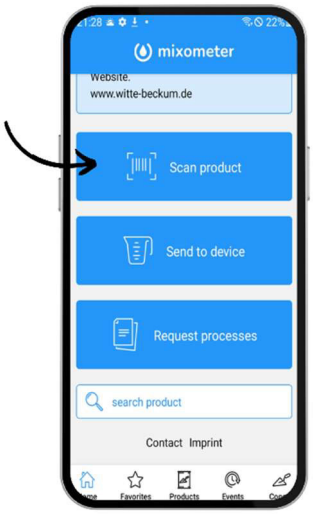
10.1 Establishing a connection

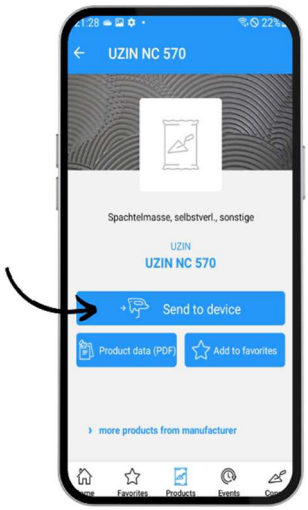
Make sure that Bluetooth is activated in the settings of your smartphone. Briefly press the BT button on the SQUID™. “BT” flashes in the top left of the display and the blue status LED flashes on the left.

When using the app for the first time, the app must be given permission to search for devices in the vicinity. Then SQUID™ can be paired with your device.

10.2 Selecting a building material

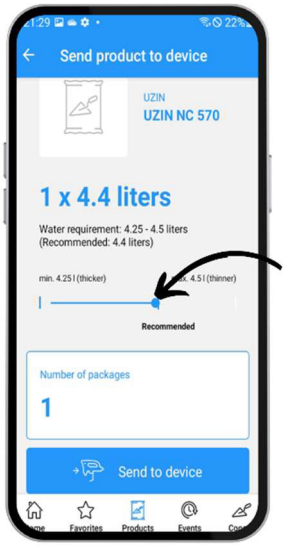
The easiest way to select the product you are using is with the app's scanner. To do this, tap on “Scan product”. When using the app for the first time, you may need to grant permission to use the camera. Now you can use the camera to scan the barcode/QR code on the product you are processing.

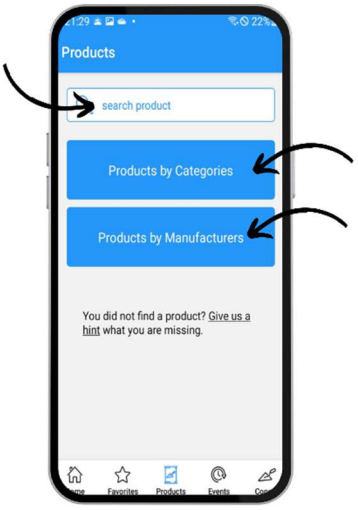




If the product is listed in the SQUID™ database, the Mixometer® app will now show you the product and you can transfer the product data directly to SQUID™ via “Send to device”.

For products for which the manufacturer has defined a range from which the amount of water can be selected (e.g. 5-6 liters), you can select the right mixing ratio for your needs on the controller before you set SQUID™ to this product.





As an alternative to the product scanner, you can also select the desired product using a full-text search or from the list of available products.

10.3 SQUID™ in app mode

As soon as a product is transferred from the app to SQUID™, SQUID™ switches to app mode. The manufacturer's name now appears in the top line of the display and the product name of the selected product in the bottom line. The liters per bag are now set to the correct value for this product and cannot be changed. The desired number of bags can be selected using the +/- buttons.

10.4 Activity history in the app

Whenever a dosing process is completed and there is a connection to the app, SQUID™ transmits the following information to the app: number of liters (manual mode), the number of bags and liters per bag (bag mode) or the number of bags, manufacturer and product name (app mode) and the time of the dosing process. The completed dosing processes can be viewed in the history, summarized into construction sites or also sent as an export, e.g. for invoicing or as proof by e-mail.

If there is no connection to the app (“BT” in the display and the blue LED is on), the completed dosing processes are first saved on SQUID™. These saved processes can either be called up manually in the app via “Call up processes” on the start page or are automatically transmitted to the app when the next dosing process is completed with an existing app connection.

11 After use

Close the water tap to which the SQUID™ is connected. With the SQUID™ switched on, press and hold Play/Pause until the valve opens and the remaining pressure is released from the hose.

When SQUID™ is disconnected from the hose, water may continue to drip out of the appliance for some time. Shake the device well to remove most of the water from the device before storing SQUID™ in the case. The shaking out should be particularly thorough if SQUID™ is to be stored for a longer period of time. When shaking out, it can also be helpful to temporarily open the valve by pressing and holding Play/Pause.

Do not store SQUID™ with a low battery. Charge the battery if SQUID™ will not be used for a longer period of time.

12 Charging SQUID™

The battery level is shown in the top right-hand corner of the display. When the charge level is low, the red status LED starts to flash. SQUID™ should be charged promptly to avoid interrupting work.

To charge SQUID™, remove the protective cap from the USB-C port (no. 11) on the right-hand side of the housing and connect the device to a power source using the USBC to USB-A cable supplied. Other cables, such as USB-C to USB-C, may not work as charging cables for SQUID™.

As long as SQUID™ is connected to the power supply, the device cannot be used.

During the charging process, the red status LED lights up and goes out when the battery is fully charged.

SQUID™ can be disconnected from the mains and used again at any time before it is fully charged without risk to the battery.

Do not leave SQUID™ unattended while it is charging. If the device becomes hot, starts to smoke or is otherwise abnormal, disconnect it from the power source immediately. Do not use damaged charging cables and/or power plugs.

13 Maintenance and calibration

13.1 Cleaning the sieve in the water inlet

The water inlet (no. 8) of SQUID™ is fitted with a sieve that prevents coarse dirt from getting into the sensors of the device. Check at regular intervals whether dirt has

collected here. If necessary, remove the sieve and clean it. To do this, unscrew the quick coupling from the water inlet and remove the strainer.

13.2 Check accuracy

Check at regular intervals that the accuracy of SQUID™ meets the specifications. To do this, use either a suitable measuring vessel or a scale and check that the amount of water dispensed is within the tolerance range.

13.3 Calibration

Note: To minimize fluctuations in precision, SQUID™ should be calibrated at regular intervals. The calibration protocol on page 17 can be used for this purpose.

SQUID™ has the option of automatic calibration. To do this, the device must first be connected to the water. Make sure that there is a container under SQUID™ to collect the water. Press the mode and mem buttons simultaneously to access the menu, in which you can select Calibration using the -/+ navigation buttons and select with Play/Pause. The appliance will now let out an assumed 5 liters of water. Check this amount of water using an accurate scale or a suitable measuring bucket with known accuracy. In the next step, enter the actual amount of water into the device. SQUID™ then adjusts the calibration automatically. You should now dispense 5 liters from manual mode to check accuracy after calibration. If there is a deviation of >3%, refer to chapter 14 Troubleshooting for the appropriate solution.

Caution! Make sure that the scales or measuring bucket are sufficiently precise to determine the deviation correctly. Measuring buckets in particular can have inaccuracies of up to 15% in the measuring scale!

13.4 Cleaning

SQUID™ can become dirty during use on the construction site. As the device is dust-tight and splash-proof (IP64), SQUID™ can be easily cleaned with a damp cloth.

14 Troubleshooting

Error description	Cause	Solution
Inaccurate dosing	Strainer in the water inlet is blocked	Remove the strainer, clean it and reinsert it.
	Strongly fluctuating flow rate	Change the water connection.
	SQUID is not accurately calibrated	Use the calibration function to improve accuracy (p. 14)
“Error in water flow”	SQUID™ is not connected to a water source	Connect SQUID™ to a water source..
	The water tap to which SQUID™ is connected is not open at all or not open wide enough	Open the water tap fully.
	The flow rate of the water connection is too low	Change the water connection.
	Strainer in the water inlet is clogged.	Remove the strainer, clean it and reinsert it.
SQUID™ does not turn on	Battery empty	Charge SQUID™ using the USB cable supplied.
SQUID™ does not switch off	SQUID™ switches off automatically after 1 minute. If SQUID™ is paired with the Mixometer® app (blue status LED lights up, BT is permanently shown on the display), SQUID™ does not switch off.	Disconnect SQUID™ from the app by pressing the BT button. Do not press any button for several minutes, SQUID™ should now switch off.
Red LED flashes	Battery low	Charge SQUID™ using the USB cable supplied.
Red LED lights up constantly	SQUID™ is charging	During the charging process, the red LED lights up constantly. When SQUID ™ is fully charged, the red LED goes out.
Blue LED flashes	SQUID™ is in BT pairing mode and can be connected to the Mixometer® app SQUID™ is	Either connect SQUID™ to the Mixometer® app or deactivate BT by pressing the BT button again.
Blue LED lights up constantly	connected to the Mixometer® app	

Red and blue LEDs are flashing	Water flow error, probably due to insufficient flow rate.	See “Water flow error”

If you are unable to rectify a fault using this overview, please get in touch with us (see page 18).

15 Calibration protocol

Date	Water volume before calibration	Water volume after calibration	Calibration perfomed by (surname, first name)

15 Calibration protocol

Date	Water volume before calibration	Water volume after calibration	Calibration perfomed by (surname, first name)

16 Contact

Please contact us if you have any questions, suggestions or feedback:

- General questions and technical support: support@portamix.com

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