

# WaterStop Jeweller

Remotely controlled water shut-off valve.  
It is a component of the automated anti-flood system based on Ajax.

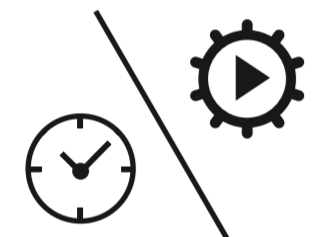


An Ajax hub is required for operation.  
The detailed information on the device:

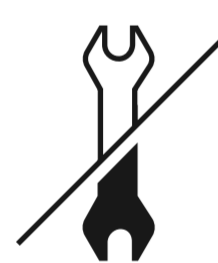
 [ajax.systems/support/devices/waterstop/](https://ajax.systems/support/devices/waterstop/)



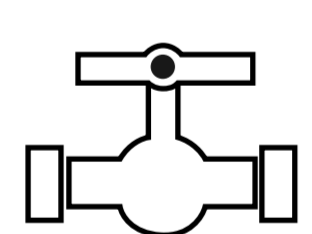
## Key features



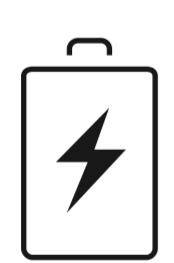
Automation scenarios by alarm of the leak detector, security mode change, and schedule



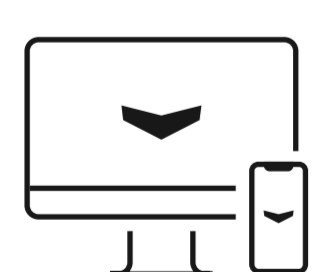
The prevention against jam-up is adjustable with intervals from 1 week to 3 months



Bonomi shut-off valve  
½, ¾, or 1" provided



Up to 3 years of operation on pre-installed batteries



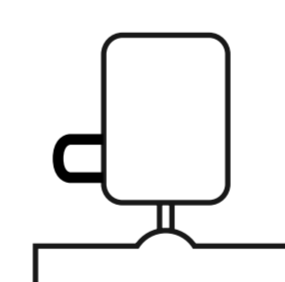
Remote control and configuring via Ajax apps



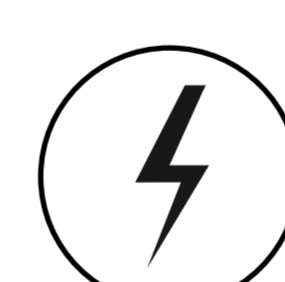
Water shut-off is controlled with a button on the electric drive and a lever on the shut-off valve



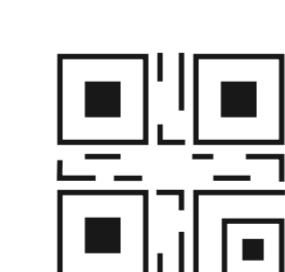
Radio signal range between the device and a hub or radio signal range extender without obstacles



Mounting brackets to complicate unauthorized disassembly of the electric drive



Optional connection of a third-party power supply unit 9 V $\overline{=}$ , 2 A



Pairing with the system via QR code

# A part of the anti-flood system



WaterStop was designed for remote control of the water supply at the facility. The device combines a shut-off valve in one of three variations and an electric drive. WaterStop can be controlled from anywhere where there is an Internet – Ajax apps allow checking the status and changing the position of the valve at any time.

Upon the alarm of LeaksProtect or a third-party leak detector, WaterStop will automatically shut off the water in 5 seconds. All system users receive notifications on the alarm and activation of the scenario. In addition to the scenario by the leak detector alarm, the installer can configure water shut-off by schedule or by security mode change.

## Powerful electric drive and manual control

WaterStop electric drive features a maximum torque of 10 N•m. This power allows closing a jammed-up shut-off valve without breaking it. And under normal conditions – shut off water 5 seconds after the command.

The water supply can be controlled not only through apps and scenarios but also manually. For this, there is a button on the WaterStop enclosure and a lever on the shut-off valve mounting platform. This is convenient, for example, when replacing an electric drive or during the plumber's work.



The valve's status can be seen in Ajax apps, defined by the colour of the Ajax logo on the WaterStop enclosure or by the position of the lever.

## Standard type of shut-off valve



The device is equipped with a Bonomi shut-off valve suitable for hot and cold water. WaterStop is presented in three versions: with a ½, ¾, or 1" valve.

WaterStop is compatible with shut-off valves manufactured according to the ISO 5211 standard. Therefore, a plumber can install a standardized shut-off valve, and an installer can then add the device to the system.

The tamper is triggered when the electric drive is removed from the shut-off valve. The hub regularly (with a specified frequency) checks the status of connected devices and informs about the loss of communication with any of them. All users and the CMS of the security company receive notifications about these events.

## Smart design

WaterStop is a wireless device that runs on pre-installed batteries. The installer can connect a third-party power supply 9 V $\Rightarrow$ , 2 A if necessary.

The electric drive is mounted on the shut-off valve in four positions. The casing of the electric drive does not need to be disassembled for installation. It is fixed on the valve with a mounting locker without tools. This way, there is no risk of damaging the electronics.



## Easy installation and connection



WaterStop is installed by two specialists: a plumber and an installer. We ensured that both of them were comfortable working with this product.

A plumber can install a standard compatible shut-off valve without an installer. He only needs to know the dimensions of the electric valve. An installer can come on another day, install the electric drive and integrate it into the Ajax security system.

Pairing the device with the Ajax security system takes less than a minute. An installer needs to open the Ajax app, scan the QR code, and add a detector to a room and group.

When moving, an installer can easily dismantle the WaterStop and install another compatible valve at a new location. The electric drive is removed from the shut-off valve in a few seconds – without any tools.

## Automation scenarios

Scenarios allow minimizing the routine actions and automatically shut off the water. Scenarios can be used to control the water supply in the following cases:

- By alarm – in case of an alarm of the LeaksProtect leakage detector.
- By schedule – to shut off the water at a certain time.
- By security mode change – in case of arming and disarming.
- Upon pressing LightSwitch – for example, when the last employee leaves the office premises.
- By pressing Button – for manually shutting off water in the event of an emergency.
- By temperature – to shut off water in the heating pipes for the winter.



**Jeweller** is a radio protocol to provide fast and reliable two-way communication between hubs and connected devices. The protocol provides a wireless radio communication range of up to 1,100 m, which allows using the smart valve not only in a large house but in basements, offices, or warehouses.


Jeweller transmits all necessary information. Users always have access to smart valve control in Ajax apps, regardless of the number of system devices. And also, at any moment, they can check the valve's status – whether it is open or closed.

## Anti-sabotage protection



WaterStop can be installed in offices, restaurants, cafés, and other public places. An alternative mounting locker is included to protect against unauthorized disassembly. This locker is installed instead of the standard one to prevent disassembly of the electric drive. Unlike a standard locker, it cannot be removed without tools.

# Technical specifications

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| <p>Communication with control panel or range extender</p> <p> <b>Jeweller communication technology</b></p> <p><b>Frequency bands</b><br/>       866.0–866.5 MHz<br/>       868.0–868.6 MHz<br/>       868.7–869.2 MHz<br/>       905.0–926.5 MHz<br/>       915.85–926.5 MHz<br/>       921.0–922.0 MHz<br/>       Depends on the region of sale.</p> <p><b>Maximum effective radiated power (ERP)</b><br/>       ≤ 20 mW</p> <p><b>Hub communication range</b><br/>       up to 1,100 m<br/>       Without obstacles.</p> <p><b>Polling interval</b><br/>       12–300 s<br/>       Adjusted by the PRO or user with admin rights in the Ajax app.</p> <p><b>Protection against spoofing</b><br/>       Device authentication</p> | <p>Compatibility (TBC)</p> <p><b>Hubs</b><br/>       Hub Plus<br/>       Hub 2 (2G)<br/>       Hub 2 (4G)<br/>       Hub 2 Plus<br/>       Hub Hybrid (2G)<br/>       Hub Hybrid (4G)</p> <p><b>Radio signal range extenders</b><br/>       ReX<br/>       ReX 2</p> |
| <p>Operating components</p> <p><b>Electric drive</b><br/>       Controls the position of the shut-off valve: opens and closes it.</p> <p><b>Shut-off valve</b><br/>       Bonomi valve ½, ¾, or 1" provided.</p>  | <p>Water shut-off</p> <p><b>Scope of application</b><br/>       water supply<br/>       heating systems</p> <p><b>Operating fluid</b><br/>       hot and cold water<br/>       non-aggressive liquids</p>  |

Operating components

**Mounting platform**

It is installed between the shut-off valve and the electric drive.

**Mounting brackets**

Complete with two brackets. The first one is for quick attachment of the electric drive to the shut-off valve. The second is installed if you need to protect the device in public places.

Water shut-off

**Shut-off valve material  
brass**

**Connection type and  
thread of shut-off valve**

female–female

Thread size:

1/2" (15 mm)

3/4" (20 mm)

1" (25 mm)

**Operating pressure**

40 bar

**The temperature range of  
liquids with which the shut-  
off valve works**

from +5°C to +120°C

**Flange for connecting the  
electric drive**

mounting platform

Made according to the ISO 5211 standard.

**Electric drive torque**

up to 10 N·m

**Speed of water shut-off**

up to 5 seconds

May take longer if the shut-off valve is contaminated.

**Remote control**

**Manual control**

- button on electric drive casing
- lever on platform

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| <p>Anti-sabotage protection</p> <p><b>Protection against spoofing</b><br/>device authentication</p> <p><b>Detection of communication failure</b><br/>every 36 s<br/>The interval for detecting the loss of communication depends on the hub settings.</p> <p><b>Tampering alarm</b></p> <p><b>Alternative mounting bracket</b><br/>Protects against the dismantling of WaterStop. Installed if it is necessary to secure the device in public places.</p>   | <p>Water shut-off</p> <p><b>Protection against jam-up</b><br/>the device periodically opens and closes the shut-off valve<br/>The prevention period is set in Ajax apps from 2 weeks to 3 months.</p> <p><b>Temperature protection</b><br/>up to 60°C at the place of installation</p>                         |
| <p>Additional features</p> <p><b>Scenarios</b></p> <ul style="list-style-type: none"> <li>• alarm reactions</li> <li>• security mode change reactions</li> <li>• scheduled actions</li> <li>• by pressing Button</li> <li>• by temperature</li> <li>• by pressing LightSwitch</li> </ul> <p><b>Protection against jam-up</b><br/>the device periodically opens and closes the shut-off valve<br/>The prevention period is set in the range from 2 weeks to 3 months.</p> <p><b>Temperature protection</b><br/>60°C at the place of installation</p> | <p>Power supply</p> <p><b>Battery</b><br/>4 × CR123A batteries<br/>Pre-installed.</p> <p><b>Battery life</b><br/>up to 3 years</p> <p><b>Optional external power supply</b><br/>9 V<math>\overline{=}</math>, 2 A<br/>When external power is connected, the batteries become a backup power supply source.</p> |

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| <p>Additional features</p> | <p><b>Indication of the shut-off valve status</b></p> <p><b>LED indication</b><br/>The color of the LED illumination of the Ajax logo indicates the electric drive status.</p> <p><b>Lever position</b><br/>The lever position indicates whether water supply is open or shut.</p>   | <p>Installation</p> | <p><b>Operating temperature range</b><br/>from 0°C to +60°C</p> <p><b>The temperature range of liquids the shut-off valve is suitable for</b><br/>from +5°C to +120°C</p> <p><b>Operating humidity</b><br/>up to 95%</p> <p><b>Protection class</b><br/>IP56</p> |
| <p>Enclosure</p>           | <p><b>Colours</b><br/>white<br/>black</p> <p><b>Dimensions</b><br/>93 × 70 × 95 mm<br/>Dimensions of the electric drive.</p> <p><b>TBC</b><br/>Dimensions of the ½" Bonomi shut-off valve.</p> <p><b>TBC</b><br/>Dimensions of the ¾" Bonomi shut-off valve.</p> <p><b>TBC</b><br/>Dimensions of the 1" Bonomi shut-off valve.</p> <p><b>Weight</b><br/>536 g<br/>Electric drive weight.</p> <p><b>333 g</b><br/>The weight of the ½" Bonomi shut-off valve.</p> | <p>Complete set</p> | <p>WaterStop Jeweller<br/>4 × CR123A battery<br/>Pre-installed.<br/>½, ¾, or 1" Bonomi shut-off valve<br/>Depends on the selected kit<br/>2 brackets for securing the electric drive<br/>Quick Start Guide</p>   |



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| <p>Enclosure</p> <p><b>476 g</b><br/>The weight of the ¾"<br/>Bonomi shut-off valve.</p> <p><b>800 g</b><br/>The weight of the 1"<br/>Bonomi shut-off valve.</p> |  |
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