



HERO LABS

SONIC[®] Wi-Fi

Product Manual

Table of contents

Page

Introduction

1. General Information.....	2
2. About Sonic.....	3
3. Box Contents.....	4

Installation

4. Preparation.....	5
4.1 Space Accommodation.....	6
4.2 Flow Direction.....	7
4.3 Tools.....	8
5. Installation Guide.....	8

Maintenance and Safety

6. Maintenance & Cleaning.....	11
7. Safety.....	11
8. Warranty.....	13

1. General Information

1 Description

Sonic is designed to detect abnormal water use (e.g. water leaks) in conventional potable water systems. It uses sophisticated machine learning and robust signalling to present insights into your water installation in a user-friendly form.

2 Standalone functionality - COMING in Q3 2023

Sonic is preconfigured with automatic shut-off functionality, which is available as soon as the device is powered up and is based on the following thresholds:

High Volume	
Maximum continuous water volume that can flow through Sonic.	200 l

Long Time	
Maximum time for continuous water flow through Sonic.	60 min

These limits **can be changed in the mobile app settings** once the Sonic is set up and connected to the Internet using Wi-Fi.

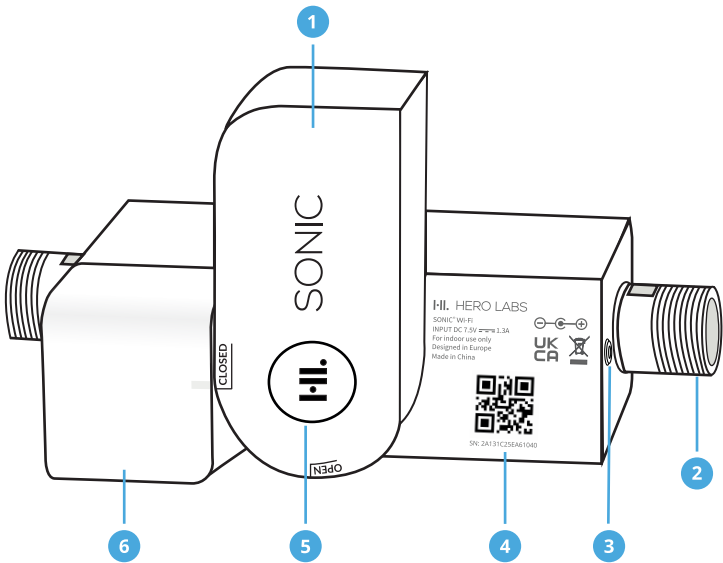
3 Mobile app

The app links with Sonic to show alerts, helpful hints and insights into your water usage statistics. It presents your current system state, allows you to remote control the valve, schedule the check-ups to detect microleakage and notify you of abnormal water use in the property.

To download the Sonic mobile app scan this QR code or visit hero-labs.com/app



2. About Sonic



- 1** **Shut-off valve handle** - In the case of a power cut-out, you can change the valve position manually.



The internal valve position may differ from the physical handle. The handle should only be used in emergency. In all other cases please use the Mobile App to open or close the valve.

Search for valve position in our Help section at hero-labs.com

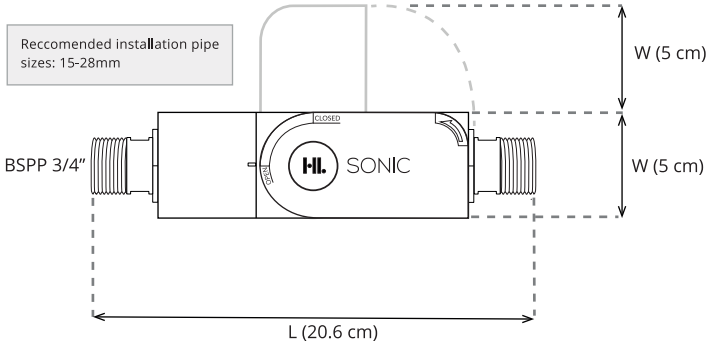
- 2** **Pipe connection thread** - a 3/4" BSP Parallel thread type is used to connect Sonic to your plumbing system.
- 3** **DC Power Socket** - the main power source for Sonic.
- 4** **QR Code** - the Serial Number used during the device setup process.
- 5** **Button and status light indicator** - a detailed description can be found in the mobile app Help section of our Mobile App or website hero-labs.com
- 6** **Battery cap** - remove this part to insert four AA lithium-type batteries for a backup. The cap uses magnets to attach to Sonic's body.



Battery backup is for emergency situations only and allows Sonic to operate for a few days. For normal operation, Sonic must be connected to the main power supply.

3. Box Contents

1 Sonic



Dimensions:

L: 20.6 cm

W: 5.0 cm

D: 11.4 cm

Operating conditions:

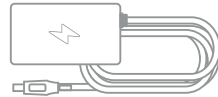
Sonic must be installed indoors: 0°C to 40°C

water temperature: 0°C to 40°C

water pressure: 0 to 10 bar

2 AC-DC Power Supply

Comes with US plug with UK/EU adaptor (varies by market) and 180cm power cord.

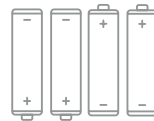


3 4 x 1.5V AA Lithium Batteries



Lithium batteries must be used.

These may not be supplied in some markets.



4. Preparation

1 Online resources

Installation video



hero-labs.com/installation-video

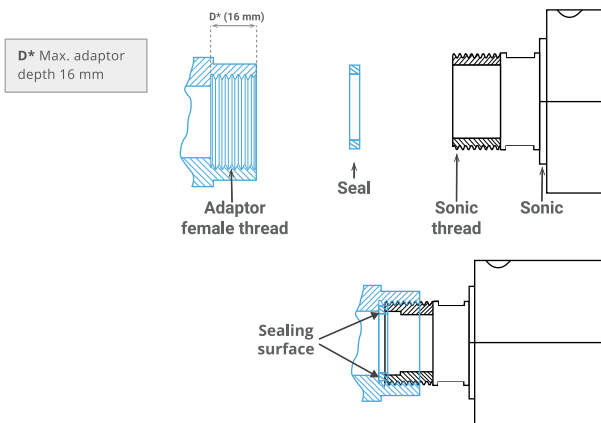
Online guide



hero-labs.com/plumbers-guide

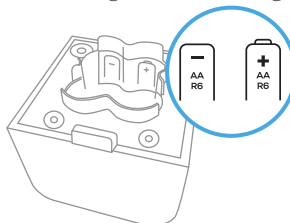
2 Selecting proper adaptor

Make sure that adaptors have BSP Parallel 3/4" female thread to connect to the Sonic, and include seal rings to do the sealing. Please check the drawing below. Examples of suitable adaptors are shown in the online Plumbers Guide (hero-labs.com/plumbers-guide).



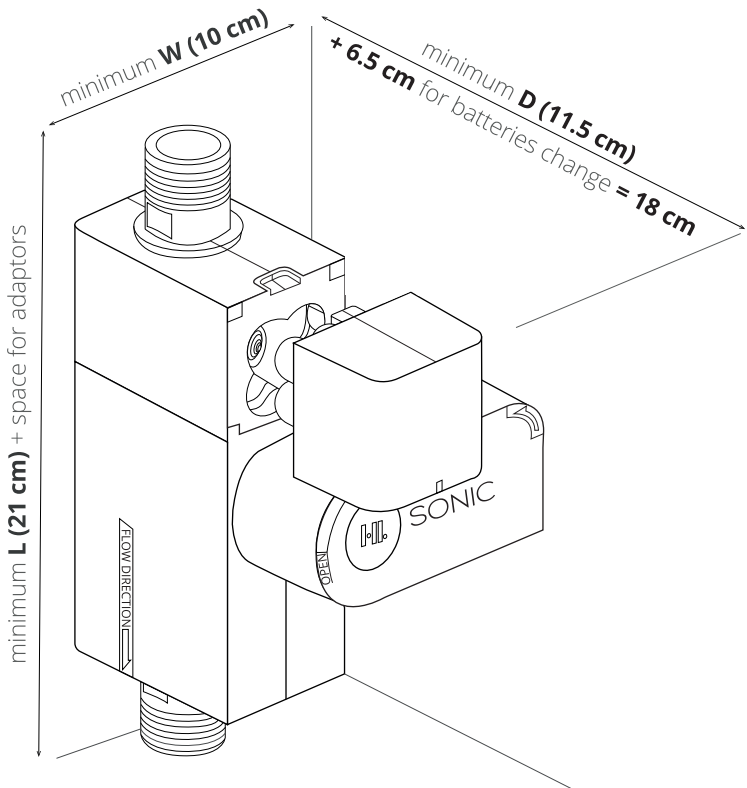
3 Battery installation

Sonic is designed to use 4 x 1.5V AA Lithium batteries. Be sure to insert the batteries according to the markings inside of the removable cap.



4.1 Space Accommodation

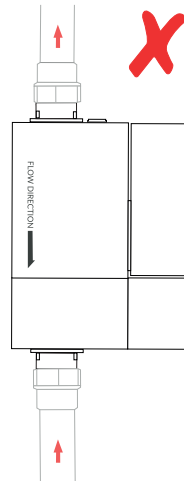
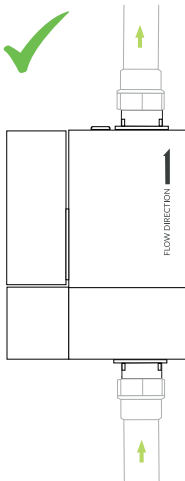
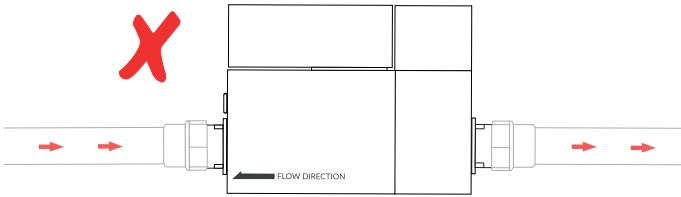
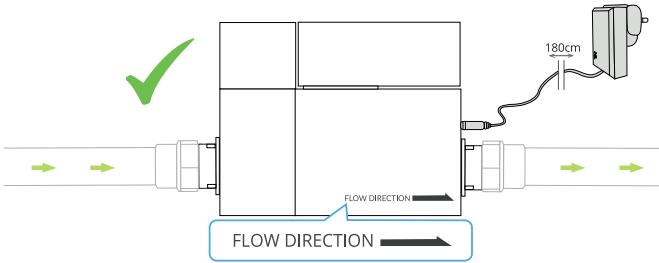
Sonic works with most standard plumbing and its compact, rugged form factor fits in most spaces. Do make sure that there is enough space for Sonic's arm lever to fully open and close, preferably, 21 cm tall, 10 cm wide and 18 cm deep, and that you can access the battery compartment to replace the batteries.



4.2 Flow Direction

Sonic measures flow in one direction. Sonic can be mounted vertically or horizontally.

Ensure there is a 13A mains socket nearby (within 180 cm).



4.3 Tools

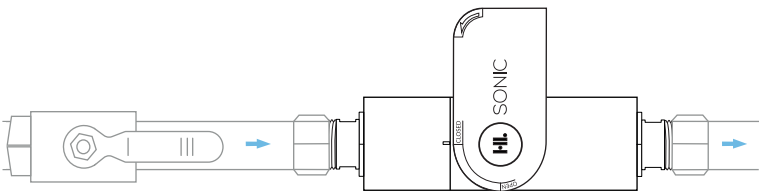
Installation requires basic hand tools such as a **pipe cutter, spanner and/or split-joint pliers**. Due to the nature of the installation, we recommend using a professional plumber to install Sonic.



When installing Sonic on suspended pipes or when there is a risk of torsional forces being transmitted to the unit, it is necessary to securely fix the pipes to the wall, for example, using pipe clamps.

5. Installation Guide

- 1 **Locate the property's existing shut-off valve on the main water supply pipe.**
 - Sonic should be installed downstream, as close as possible to the existing shut-off valve, before any branches or appliances (except fire-suppression sprinklers).
 - Double-check the direction of flow before you begin the installation. The flow of water must match the arrow indicator on the Sonic unit itself.
 - Make sure there's enough space for Sonic's lever arm to fully open and close. You'll typically need a space at least 25 cm tall, 18 cm wide and 10 cm deep. Remember to factor in space for adaptors if required. Also check that you can access the battery compartment.



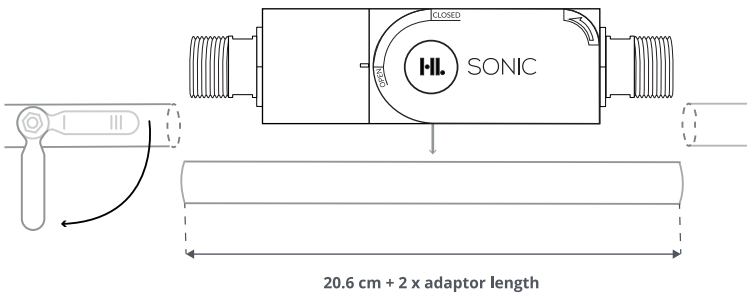
2 Close the main valve and drain the pipe system

Close the property's existing shut-off valve and remove as much water from the system as possible. The shut-off valve may have its own drain valve, or you can run taps and flush toilets until the flow stops.

If water continues to flow indefinitely, this shut-off valve may not be capable of totally isolating the incoming supply. You may need to turn off the mains supply in the road outside (after checking that the property doesn't share a main with its neighbours).

3 Cut the pipe

Carefully cut the pipe with your pipe cutter and remove a large enough section to accommodate the Sonic unit and adaptors. You'll typically need to remove at least 21cm of pipe. Clean and deburr the ends as normal, clean the pipe to remove chips and then terminate the appropriate adaptors onto the pipe.



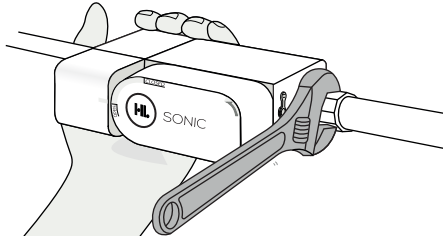
In case of other installations (e.g. plastic), make sure to use suitable adaptors, which will enable connection with Sonic's 3/4" BSP Parallel thread.

4 Physical installation

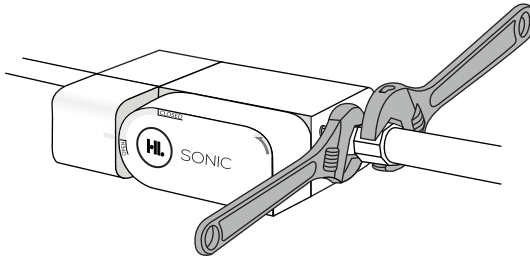
Install Sonic in the space you have created and tighten the nuts onto each end of the unit, taking care to avoid cross-threading. Make sure to clean all threads before mounting the adaptors (e.g. sand, copper chips).



Do not hold Sonic's body during the installation.



Use counter-holds to install Sonic.



- Remember, do not over-tighten. Maximum fixating torque 10N·m.
- Do not remove the rubber flap over the DC power connector before finishing the installation to protect the device from water splashes.
- Do not use thread-based sealings like PTFE tape.

5 Open the main property shut-off valve and test for leaks

Open the property's main shut-off valve and check leak tightness according to local/country pressure check procedures.

In case of leaks, please check that the seals were not damaged during the installation.

Congratulations!

You have successfully installed Sonic. Let the property owner know they should launch the **Sonic app** on their smartphone and follow the steps to get started.

6. Maintenance & Cleaning

If the unit has been turned off for longer than one month you should manually perform an open/close cycle with the valve in Sonic.

Any cleaning of plastic parts should be done with a soft cloth slightly moistened with water, taking care, to ensure no moisture gets into any opening.

7. Safety

General Guidance

In this Warranty and Safety Information, “you” means the customer and “Hero Labs” means Hero Labs Sp. z o. o.

This product is designed to aid in the detection of unusual water use in conventional potable water systems installed in line with the prevailing European and British Standards Codes of Practice. It should not be used for any other purpose, or as a substitute for regular inspection and maintenance of the system in which it is installed. It should only be used in good order and good condition, in adherence with the operating instructions and this guidance. In addition to and separate to this guidance, best health and safety practices, legislation and regulations should always be followed. No liability is assumed by Hero Labs for any damage or costs incurred as a result of loss of connectivity. No liability is assumed by Hero Labs for any damage owing to non-compliance with the instructions and guidance provided (for the avoidance of doubt, nothing in this Warranty and Safety Information excludes or limits liability for death or personal injury resulting from negligence). Modifying the device in any way, or using spare parts or accessories not supplied by Hero Labs, will result in voiding the warranty and the CE marking, and could even result in injury.

Installation Guidance

Installing this product involves making material changes to the potable water system of your property. It should only be installed by a trained and accredited plumbing professional. It is strongly recommended that your appointed installer reads all of the enclosed documentation before commencing the installation. Installers should verify that there is enough space for the Sonic unit before making material changes to the water system. The water supply must be isolated and as much water drained from the system as possible prior to installation. Installers should check for leaks after completing the installation.

All parts supplied by Hero Labs that are intended for use in contact with potable water are WRAS BS 6920 accredited (or equivalent). Where third-party materials are used in contact with potable water (such as adaptors) they must be WRAS BS 6920 accredited (or equivalent). The installer is responsible for ensuring that any materials they use are compliant with the relevant British or European Standards.

Sonic should be installed on the main potable water supply pipe for the property, immediately downstream of the property's existing potable water shut-off valve. Where multiple entities share a potable water supply pipe, such as multiple tenants of a single property, or neighbours sharing a potable water supply pipe, you must obtain the approval of such other entities before installing this product. Similarly, if you do not own the property, you must obtain the owner's permission to make the material changes required to install this product.

Sonic is capable of shutting off the incoming water supply to the property. Therefore, it **MUST NOT BE INSTALLED UPSTREAM OF FIRE SUPPRESSION SPRINKLER SYSTEMS**, or any safety system that relies on the supply of water. There must be a branching of the supply line upstream of Sonic to supply sprinklers or any other critical system in order to ensure their uninterrupted operation in an emergency.

Further information is provided in the Installation Guide for Plumbing Professionals. In addition to and separate to these instructions, best practices for safety should always be observed.

Power and radio emissions guidance

Sonic has the option to operate from mains power (~240V AC) via the included power supply. As with any mains appliance, care should be taken to avoid mains cables becoming frayed or damaged. In the event that any mains cable becomes damaged in any way you should immediately stop using the device and contact Hero Labs for a replacement cable. The included power supply is designed to be used with a conventional switched wall outlet. It should always be possible to switch the power supply on or off independently. The power supply is intended for indoor use only, and only the included power supply should be used to power Sonic from the mains. When servicing Sonic or making any change to the water system Sonic should always be turned off at the outlet (if powered by mains), and ideally unplugged, to avoid the dangers associated with water and electricity.

Sonic contains wireless radios that broadcast information. Hero Labs declares that this radio equipment is in compliance with the EU Radio

Equipment Directive (2014/53/EU) and the UK Radio Equipment Regulations 2017.

The full text of the EU and UK Declaration of Conformity can be found at <https://www.hero-labs.com/legal/declarations-of-conformity>



RF Frequency and power:

This device uses the following frequency bands and power:

Bluetooth:

2402-2480 MHz; max output power < 10dBm.

Wi-Fi:

2412-2472 MHz; max output power <20dBm.

This equipment must be installed and operated in accordance with the provided instructions, with a separation of at least 20cm from people and other sources of radio transmission. Sonic is designed to work with a companion app, available in the Apple App Store and Google Play Store. In order to ensure full functionality, Sonic, and a compatible smartphone with the companion app installed should remain connected to the internet at all times. The companion app should be regularly updated to the latest version as updates are released. Use of the companion app is subject to Hero Labs' Privacy Policy.

FCC Regulatory Compliance

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation. Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment. This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no

guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

RF Exposure Compliance

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20 cm between the radiator and your body. This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

Waste reduction

This product should not be disposed of in landfill. To protect the environment and help to support the effective use of resources, please return this product to a nearby authorised WEEE Collection Centre or recycling facility.



8. Limited Warranty

Hero Labs warrants this product to be free of defects in materials and workmanship for a period of two years from the date of purchase by the original purchaser-owner. Hero Labs will repair or replace defective products at our own expense. Repair or replacement may be performed by an authorised third party of Hero Labs' choosing. If the product is no longer available at the time of a warranty claim, Hero Labs reserves the right to replace it with one of equal or greater value, or refund the original purchase amount (at our sole discretion).

To submit a warranty claim, the original purchaser-owner should submit the following information to hi@hero-labs.com:

- Product name or model number
- Proof of purchase including the date of purchase, such as an invoice or receipt
- Proof of installation by a trained, accredited professional
- A description of the problem with supporting documentation such as photographs or videos.

If proof of the date of purchase cannot be supplied, the warranty period will be considered to have started from the date of manufacture.

This warranty applies only if the product was professionally installed by a trained and accredited plumber, operated and maintained in accordance with these instructions, guidance, and the relevant British and European Standards and health and safety legislation and regulations. It does not apply to second-hand products, ex-display products, to any consumable part of products (such as seals or batteries); to products damaged due to environmental influences such as exposure to chemicals, limescale, excessive temperature or humidity, storm, flood or frost, or power spikes; or due to unreasonable usage or negligence by you or anyone other than Hero Labs. Normal wear and tear is not covered by the warranty.

This warranty will be voided if you modify the product in any way using spare parts or accessories other than those supplied or approved by Hero Labs.

This warranty replaces all other warranties and you agree that no other warranty, express or implied, or representation may be relied upon by you. Save for a valid warranty claim as set out above, Hero Labs will not be responsible for any loss, damage, expense or incidental or consequential damage of any kind, including but not limited to alleged liability under warranty, contract, negligence or other tort, arising in connection with the sale, installation, use or repair of any products or parts (save that nothing in this Warranty and Safety Information excludes or limits liability for fraudulent misrepresentation, or death or personal injury resulting from negligence). Hero Labs' liability will not exceed the contract price paid for the product claimed to be defective.

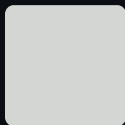
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Hero Laboratories © 2022

SONIC

INSTALLATION CODE



Keep this code safe.

You will need it to complete the installation
in the Mobile App.

For more information visit
help.hero-labs.com