

AQUASENTRA

SMART WATER SYSTEMS

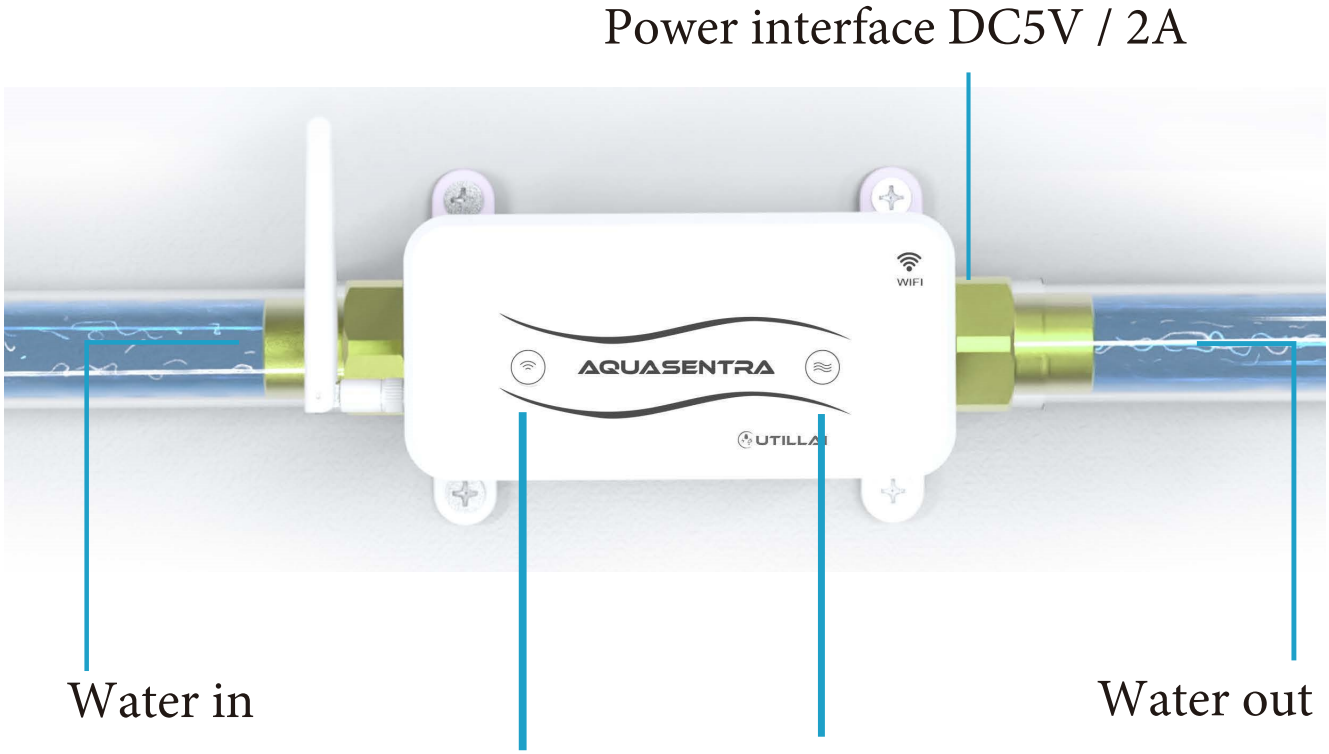
Installation Manual

UTILLAI

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Product



Requirements

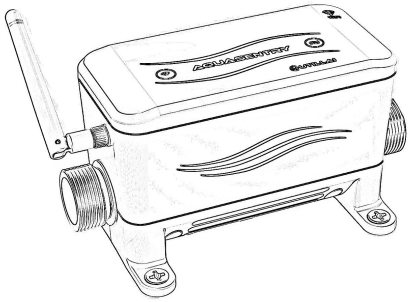
The AquaSentra module is designed to be installed in the main water supply of a property or business and is more than capable of handling water requirements with a flow capacity of up to 700 gallons per hour.

The unit requires a 5V DC power supply, which is provided by the included 110V–240V AC adapter. Alternatively, it can be equipped with an external 5V battery module to ensure functionality during power outages.

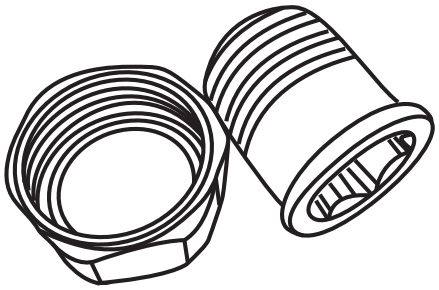
An internet connection is essential for AquaSentra's home/business protection service. It is recommended to have a Wi-Fi router or repeater within 10 meters of the unit for optimal performance.

Parts

1 - Aquasentra Module



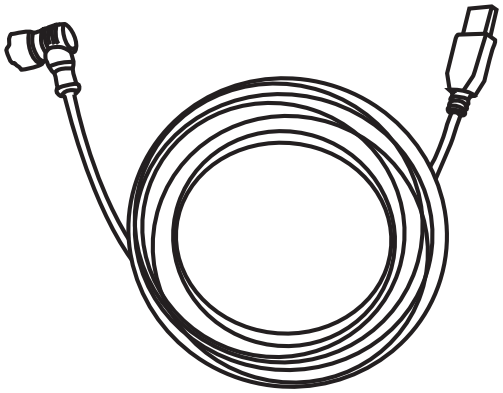
2 - Water Adaptors



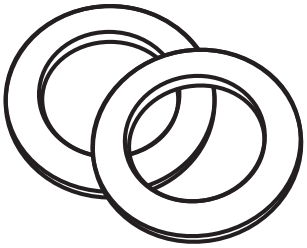
3 - Teflon Tape



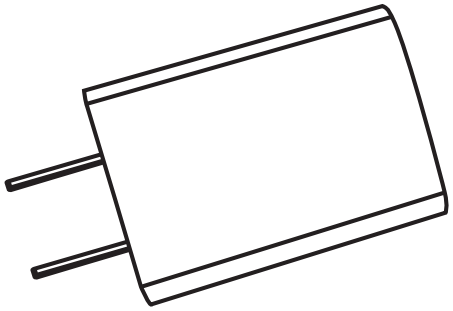
4 - Power Cable



5 - Teflon Washers



6 - Adaptor Plug

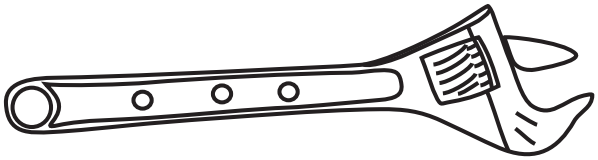


Installation

Water Pipe connection

>>> Prepare Tools

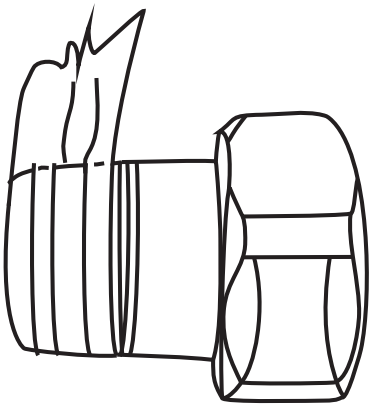
Adjustable Wrench



Screw Driver

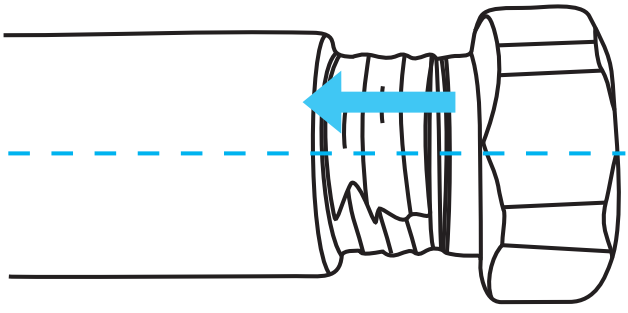


1 - Wrap water adapters with telfon tape

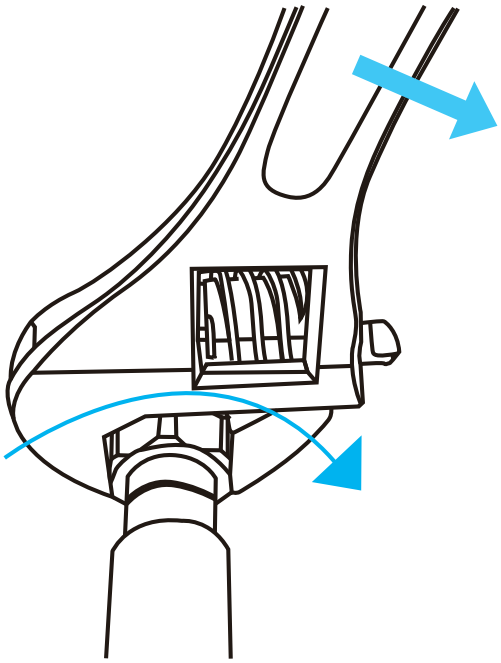


2 - Connect water adapter to municipal pipe connection

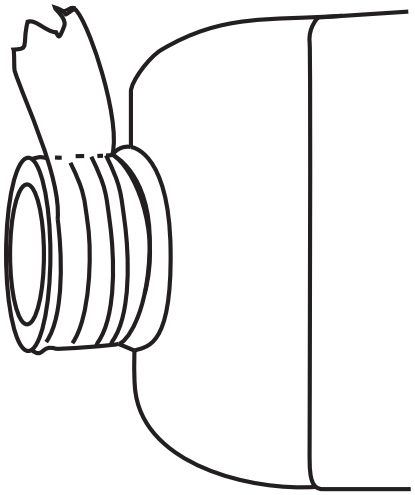
Tip: Flexible hose makes installation easier



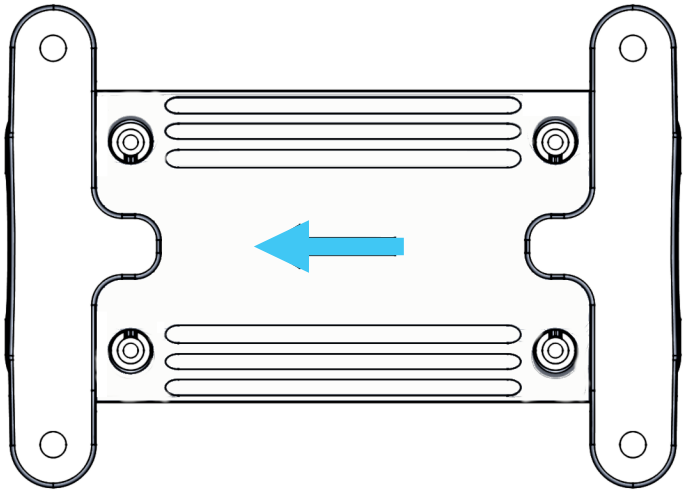
3 - Tighten Hose connector with wrench



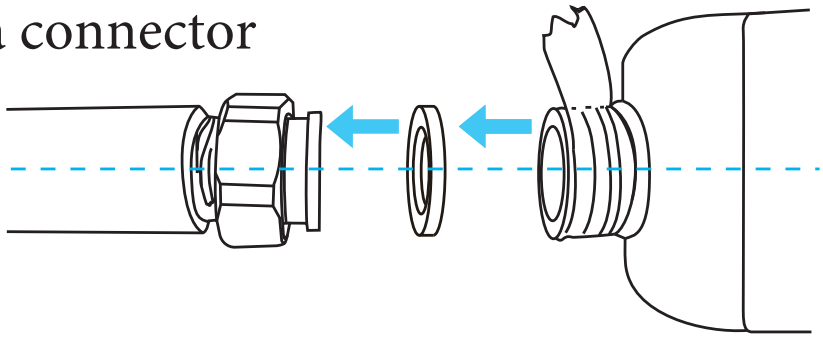
4 - Wrap Aquasentra valve ends with Teflon tape



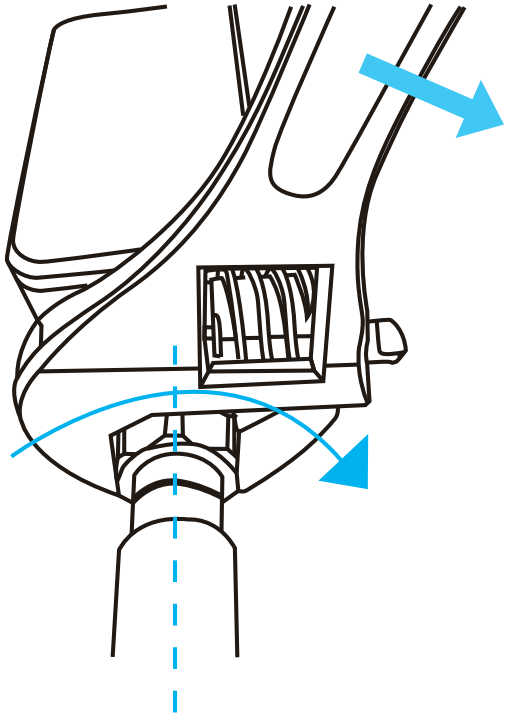
5 -Mount Aquasentra with supplied hole template found on page 29 and pay attention to the water flow arrow. This is Important!



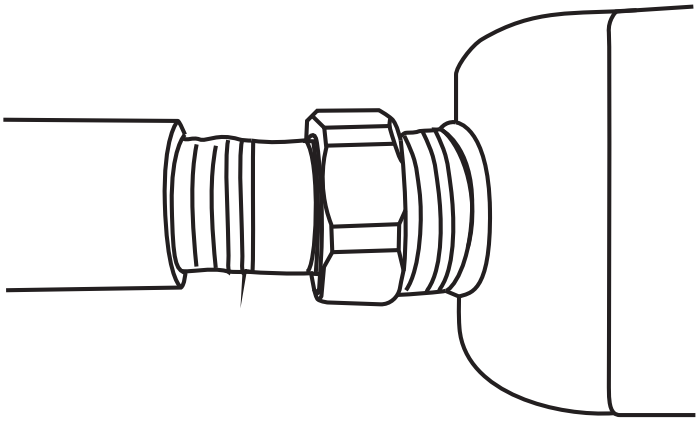
6 - Put washer between adaptor connector and Aquasentra connector



7- Tighten the adapter nuts with the wrench



8 - Single-sided installation completed

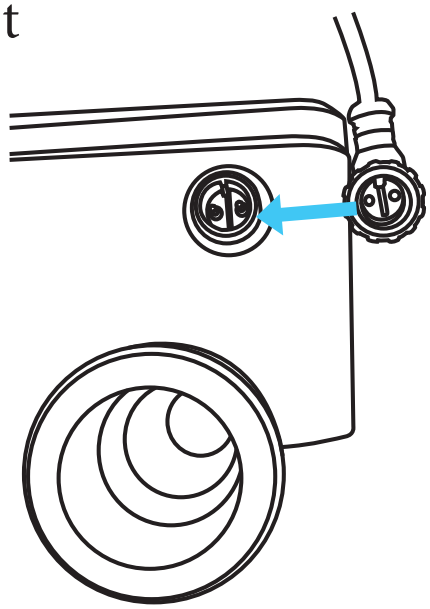


9- Install the water connection on the other side of the water valve using the same method until installation is complete.

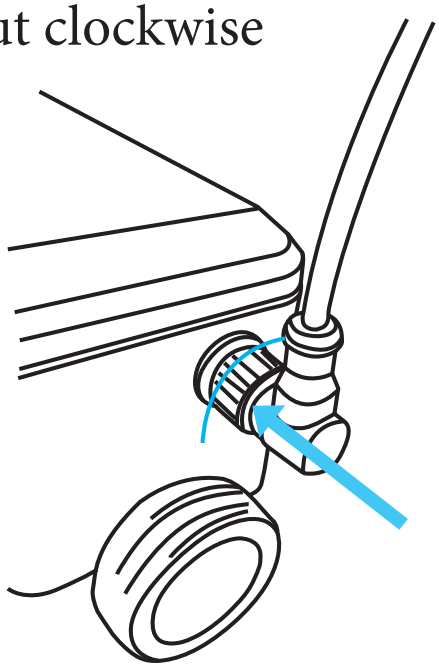


Power installation

Step 1. Check the power supply interface slot



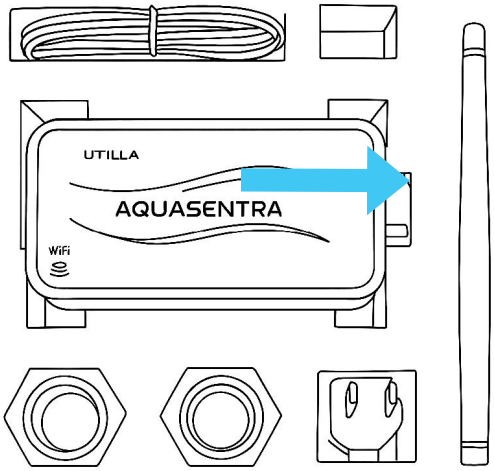
Step 2. Align at the interface, push the connector in and turn the nut clockwise

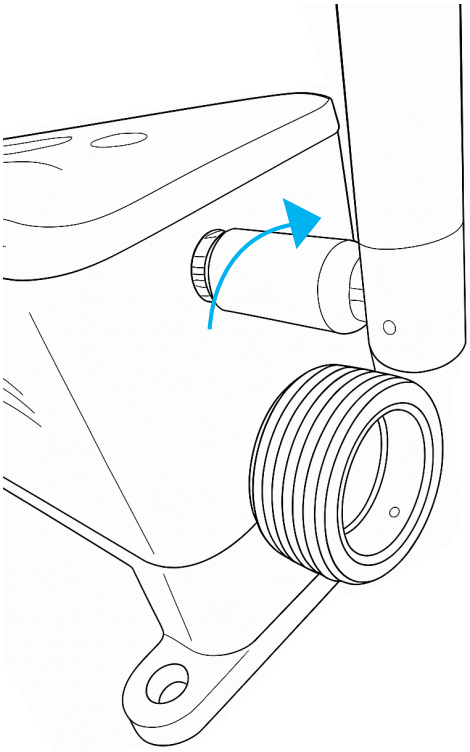


Tip: The device can be powered by a power bank or external battery backup if required, for more info email Support@utillAI.com

Antenna installation

Remove the antenna from the box and screw the antenna clockwise into the Aquasentra device as shown.





LED State

Device state	Indicator status
Wi-Fi /Server connected	The blue indicator light is solid
Water valve switch status	Water valve indicator light (green:on / red: off)
Reset / Pairing	Press the communication/reset button for 10s, the reset button indicator will flash slowly (device is waiting for configuration)

Notes on Installation:

(1) The minimum water temperature detection temperature is-10℃. When the water temperature is below 0℃ and frozen , the water valve cannot be switched.
(2) When installing the water valve, be sure to wrap fittings with teflon tape to prevent water leakages.
(3) Recommended installation location: Max 20m from wifi router.
(4) Make sure to shut off all the water source before installation, and turn it on after the installation is completed.

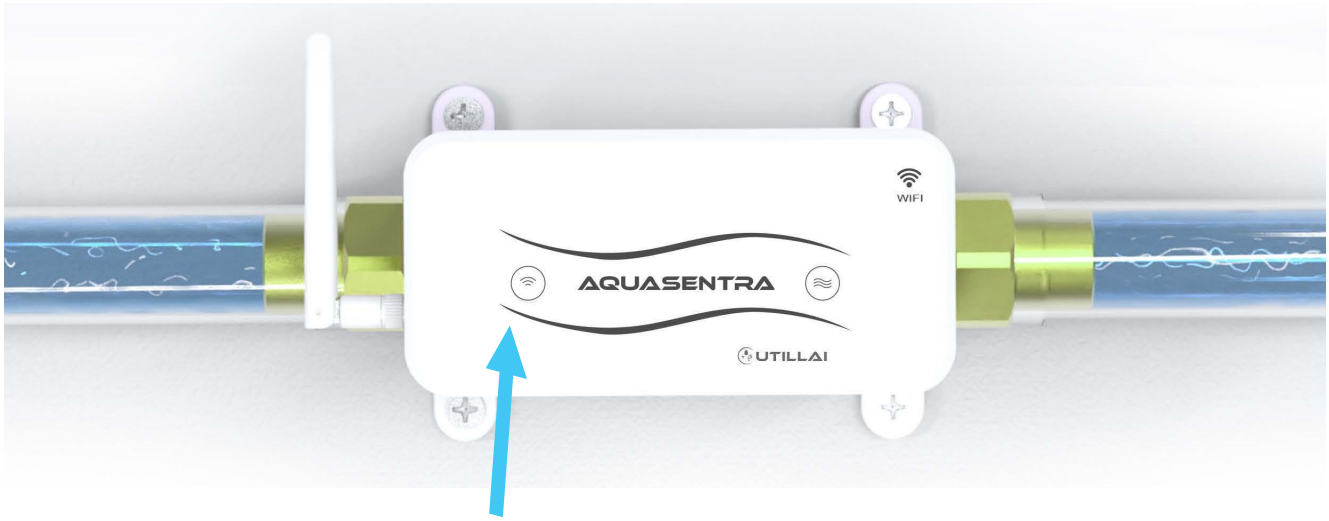


Water valve on/off indicator:

Touch the on/off button to turn the valve manually ON or OFF.

When the water valve is "on", the indicator is green.

When the water valve is off, the indicator is red.



Communication/Reset button indicator:

Flashing blue is default mode (Waiting for configuration).

Solid blue is connected to mobile device and server.

NOTE: The Pressure switch for the Comms button maybe slighty under the Wifi logo. When shortly pressing it should bring a blue LED on to know the button has be pressed.

Get Started

Download APP

Download the **"Aquasentra"** app from APP Store or Google Play to your mobile.

Download on the App Store

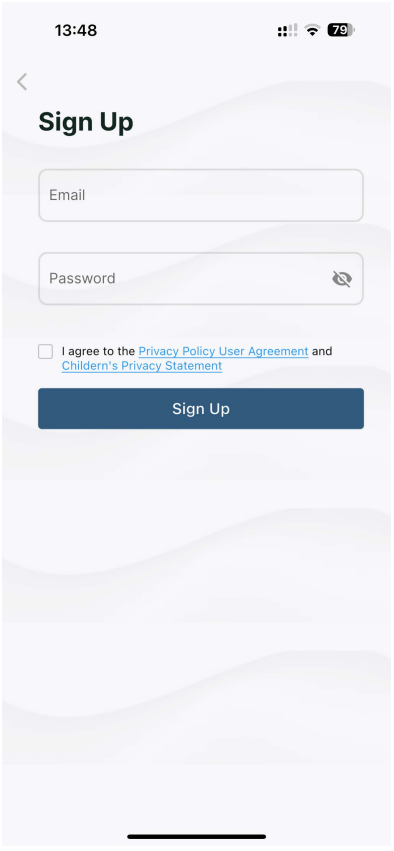
Available on the Google Play

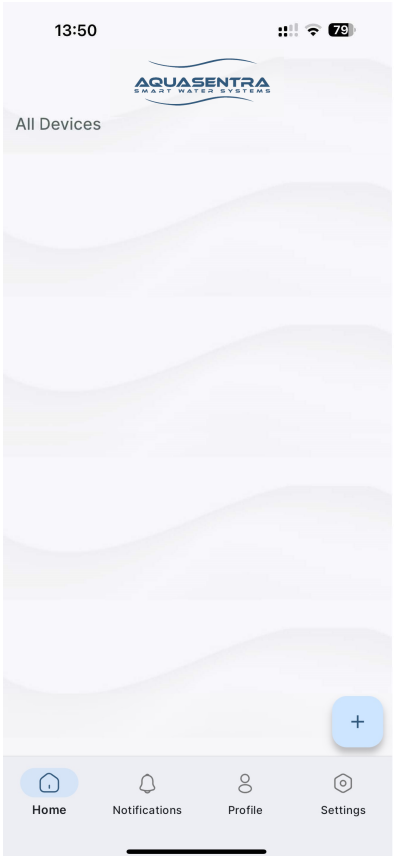
Register and Login

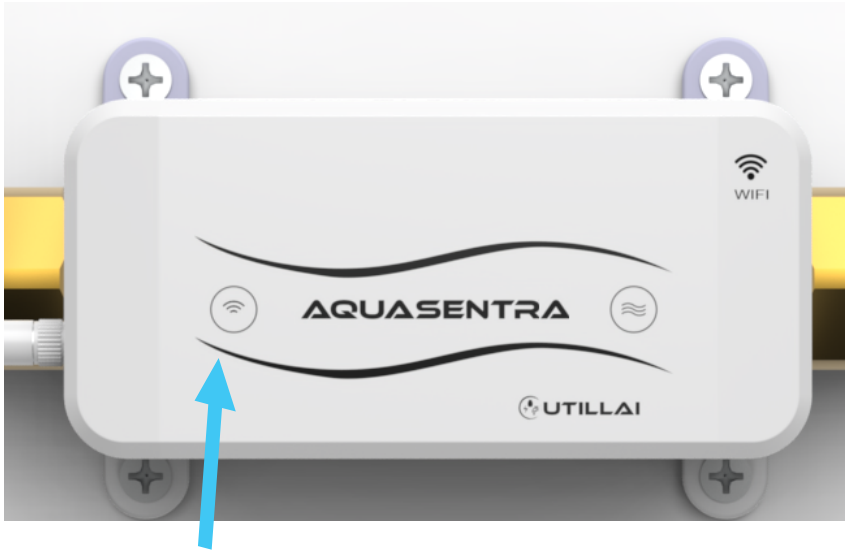
Open the Aquasentra application on your smartphone. If you are not registered then open an account by selecting the **Sign Up button**. The email used will be the address used for Alert Notifications and for the web access at web.utillai.com. If already registered then proceed to **Log in**.

PLEASE NOTE: Email and Password entries are Case Sensitive









Communication button

Add device button

Adding Device

New device installations require the Aquasentra unit to be put into pairing mode, this is done by holding down the communication button while turning on the power to the Aquasentra unit. This will cause the blue LED to flash in 1 second intervals.

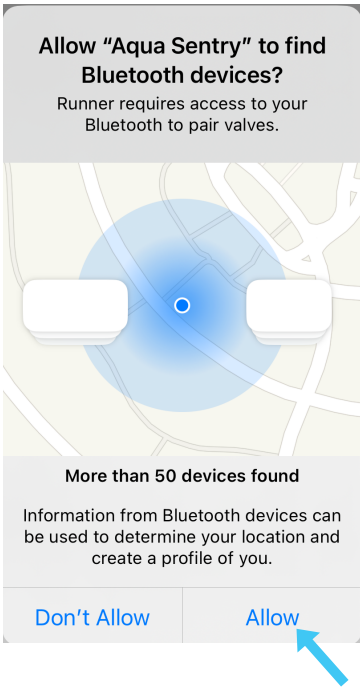
Note: The Pressure switch for the Comms button maybe slighty under the Wifi logo. When shortly pressing it should bring a blue LED on to know the button has be pressed.

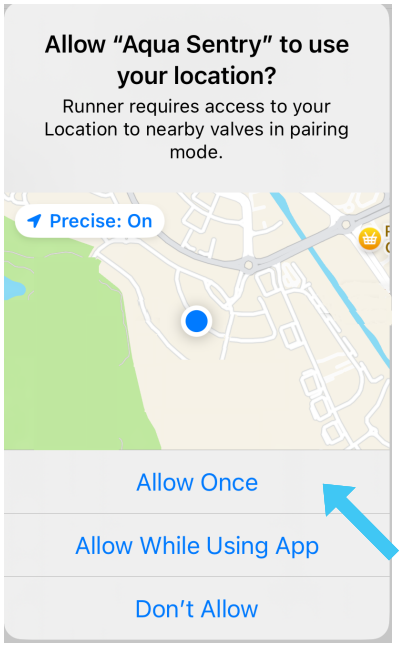
Proceed to click the + symbol in the Aquasentra app to add a new device at this point.

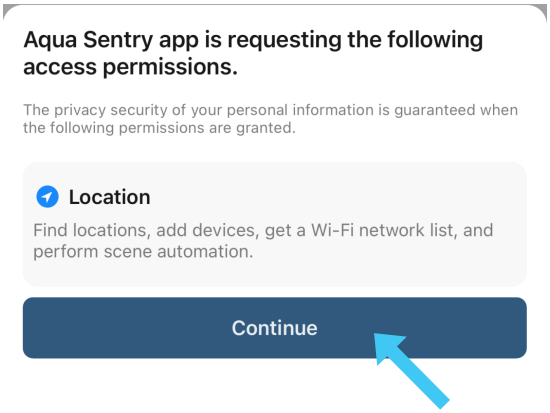
Note: *The device only supports the 2.4GHz Wi-Fi Frequency.*
Note: *Ensure Bluetooth and WIFI is enabled on Mobile Device.*
Note: *If the Blue LED doesn't flash. Power Off, wait 10 seconds and Power On while holding the communication button until the blue LED flashes steady in 1 Second intervals*

2. After selecting the + symbol you will be presented with 2 permission requests if pairing with an Apple Device.

First is to allow the Aquasentra app to access your Bluetooth Devices and second is for location use. Both of which are needed for the app to function.

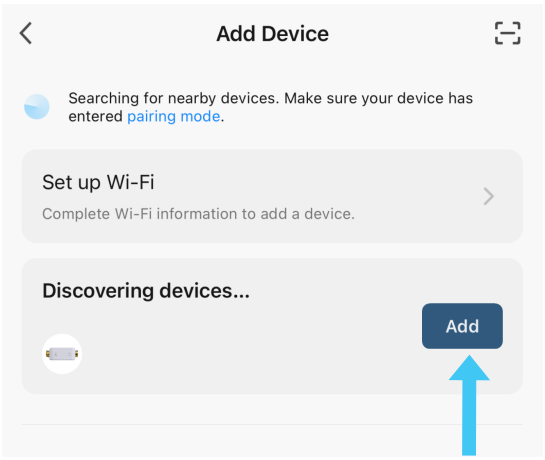


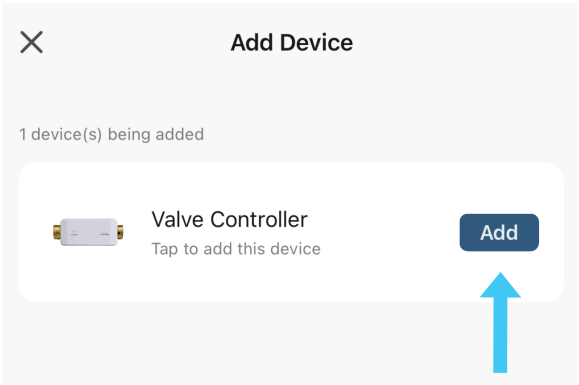




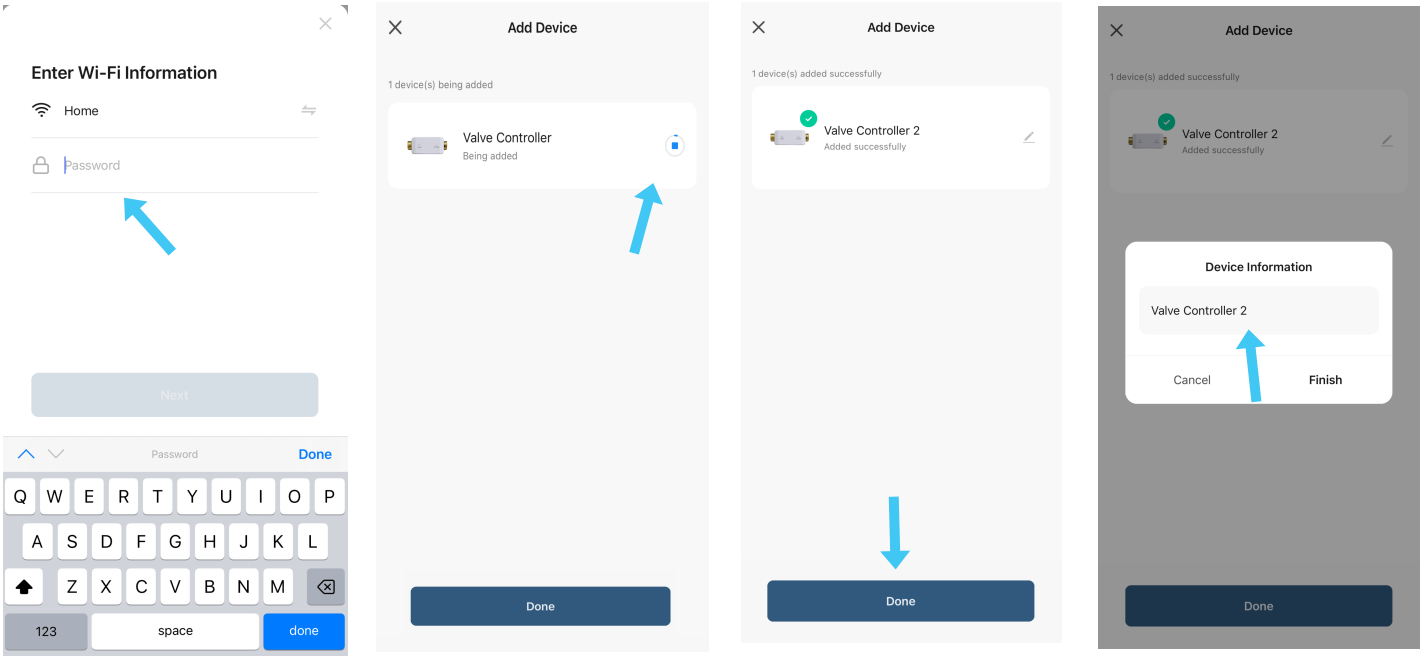
3. The application should then find the Aquasentra device which as default will be called ***Valve Controller*** *(Can be renamed, see Page21)*, if it doesn't make sure the device is in pairing mode.(*Power Off, wait 10 seconds and Power On while holding the communication button until the blue LED flashes steady in 1 Second intervals*)

Click the Add button twice



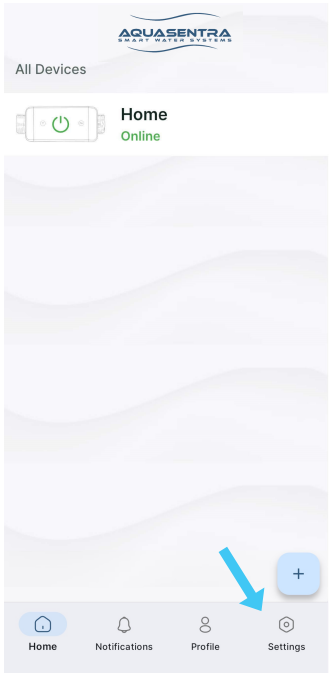


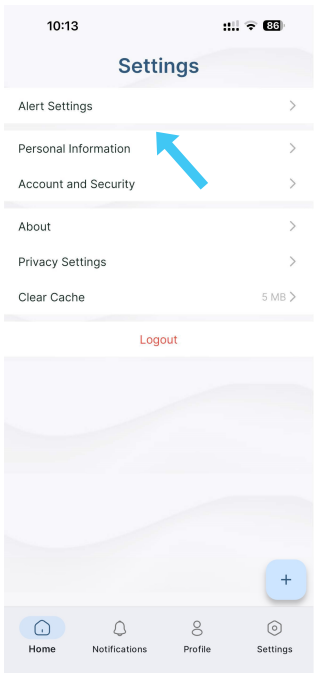
When prompted enter the password for the wifi network and allow the Aquasentra server to pair the device. When the pairing is finished, it will state **Added succesfully**. At this point rename the valve to your address or installation location.



The new device will be present now in the home screen of the Aquasentra app. At this point its wise to setup the Alert settings which can be found in the settings section from the home area.

Alert settings allow owners to set how different levels of alerts are treated.





Alert Settings

The alerts on the Aquasentra system are critical for warning owners about issues and protecting the property.

Three levels of alerts are present with Aquasentra for different scenerios.

Minor - Low Temp, High Temp, High Pressure

Major - Low Pressure, Device Off-line, Valve Malfunction, Small Leak Detected, Leak Test Failed, AI High Consumption

Critical - High Flow, AI Abnormal Water Flow

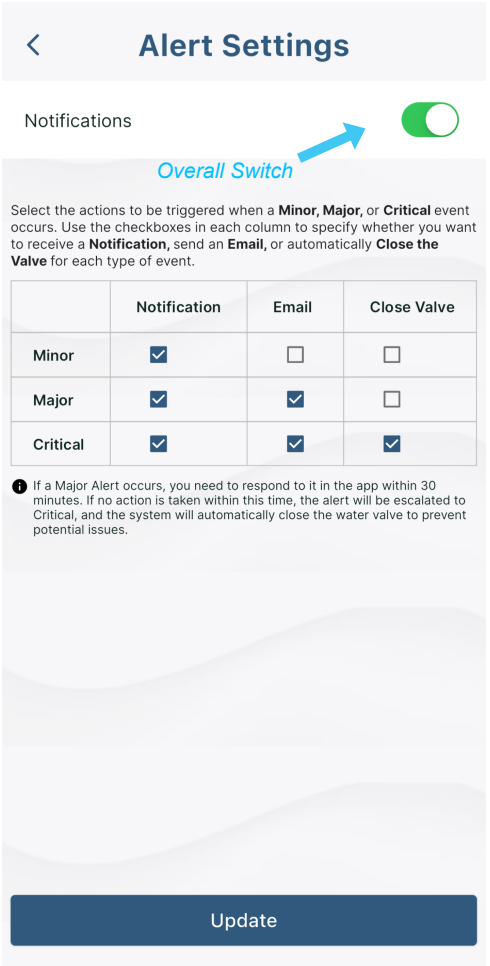
Settings

Users can alter how they are notified about different alerts here (*default settings recommended*). There is also an overall switch to disable notifications completely which is highlighted.

Note: The alert settings are global for all devices on the registered account

Notification - Alert gets displayed on the mobile device.
Email - The registered email for the account gets contacted in event of alert.
Close Valve - The valve inside the Aquasentra unit closes to shut off water.

Any changes require the update button to be clicked.



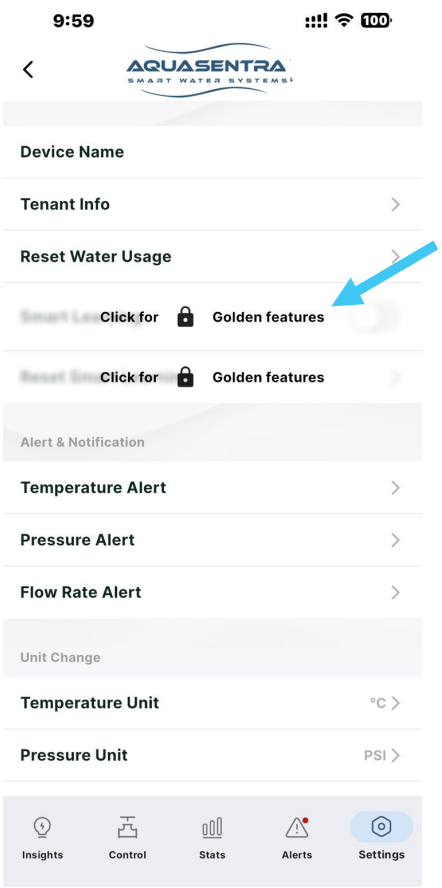
Subscription Activation

When the Aquasentra app is first installed, it provides basic water monitoring so you can see live status information from the valve.

To unlock active protection and prevent water damage, you need to enable the Protected Plan. Once enabled, Aquasentra continuously monitors your water system and automatically responds to abnormal behavior.

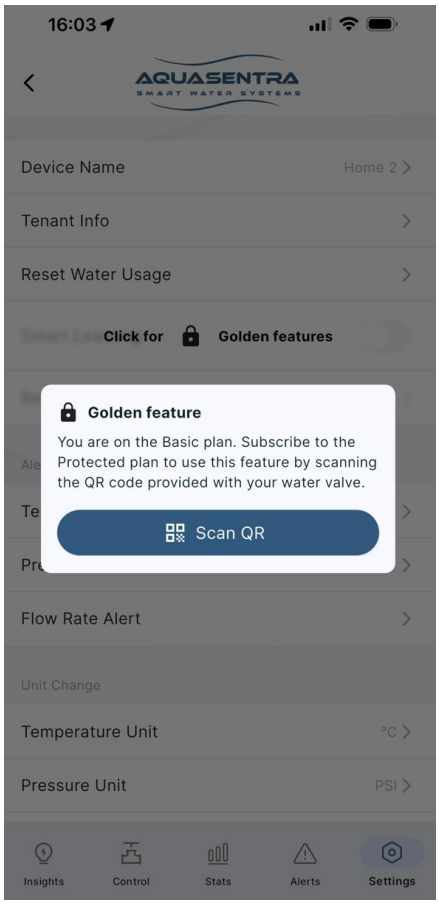
Protect Features Include:

- **Away Mode** - Automatically increases protection when the property is unoccupied.
- **Automatic Leakage Checks**- Regular background checks to detect hidden leaks.
- **Water Usage Statistics** -Detailed insights into daily, weekly, and monthly consumption.
- **AI Smart Learning** - Learns normal water usage patterns to reduce false alerts and improve accuracy.
- **Maximum Flow Alert Limit**- Triggers alerts if unusually high flow is detected.
- **Automatic Valve Closure** - Shuts off the water supply instantly when a serious leak is detected.
- **Micro-Leak Testing** - Detects slow pressure loss and small leaks that traditional meters miss.



Click on Padlock symbol to activate subscription

Click Scan QR



Activating Protect Features

Inside the Aquasentra box you will find an activation QR code.

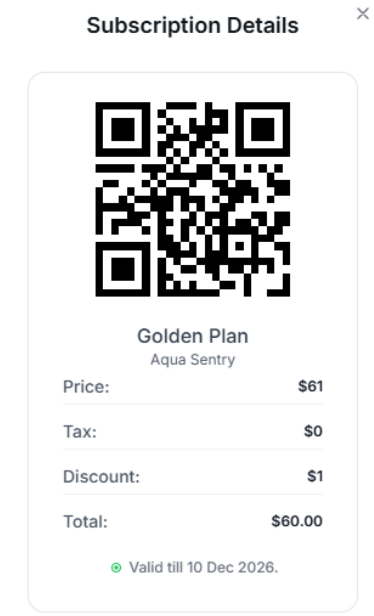
Scan the QR code using your phone's camera

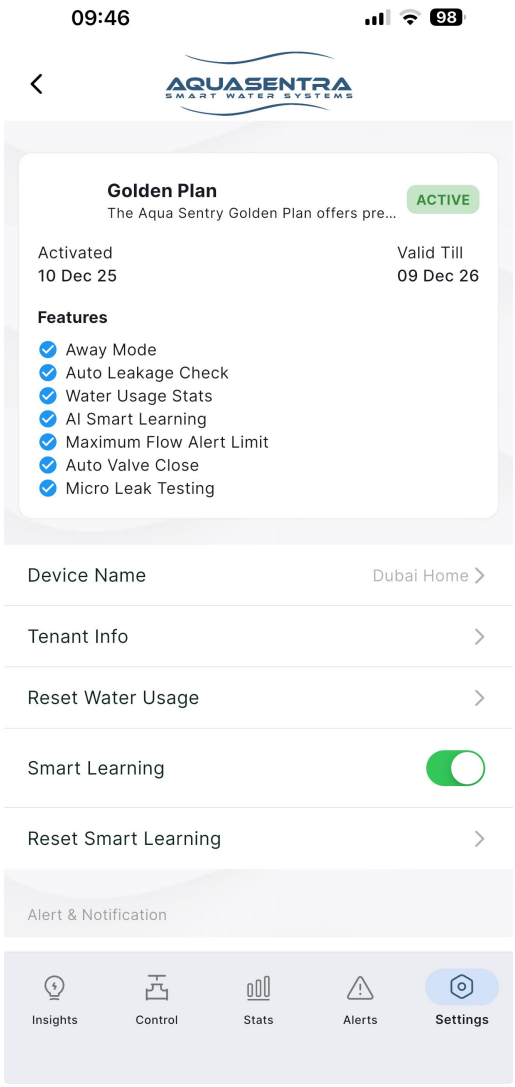
Follow the on-screen instructions to activate the Protect features for your device

If the QR code does not work, please contact support:
Email: support@utillai.com
Include either:
Your order number or device serial number (*located on the bottom of the Aquasentra valve*)

Our support team will provide a new QR code

Example QR Code





Once activated, the settings tab inside the valve area will show the plan is active and also the expiry date.

When the plan is near expiration, aquasentra will notify you and our server email you.

Notifications

The notification tab at the bottom of the home area is the alert notifications for all valves fitted on the logged in account. A red dot next to the bell states alerts are present (see image1)

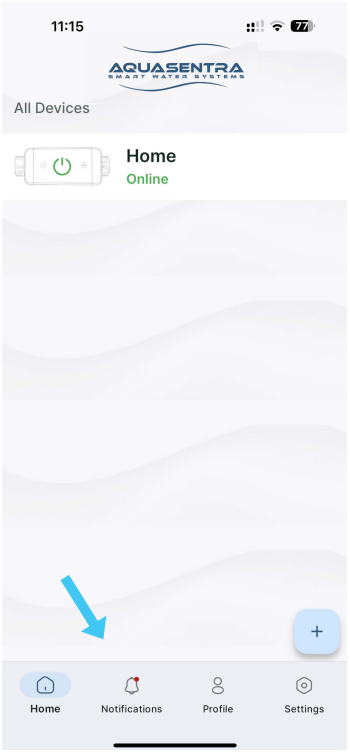


Image1

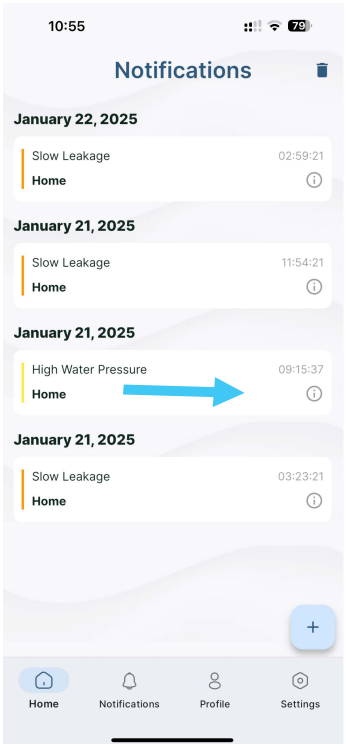


Image 2

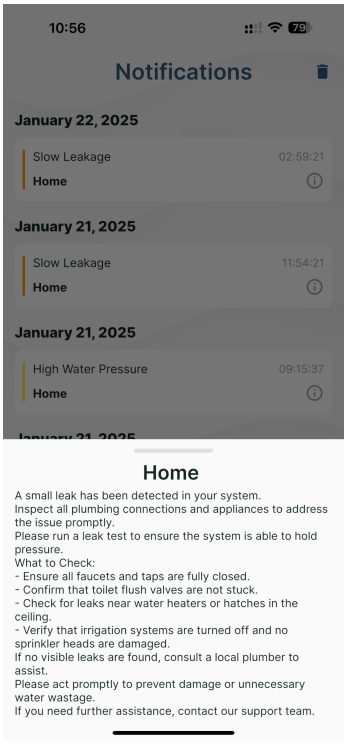
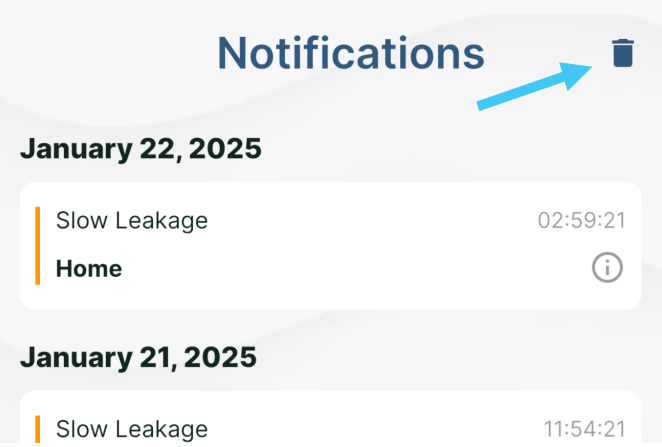


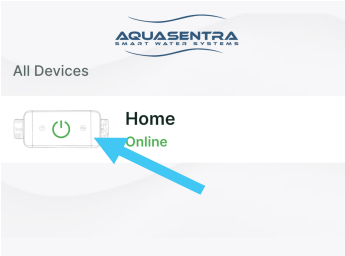
Image 3

The alerts are then listed based on the date and time of event. Help on the alert can be found by clicking the (i) symbol. (see image 2)

Alerts are cleared by clicking the bin symbol in the top right

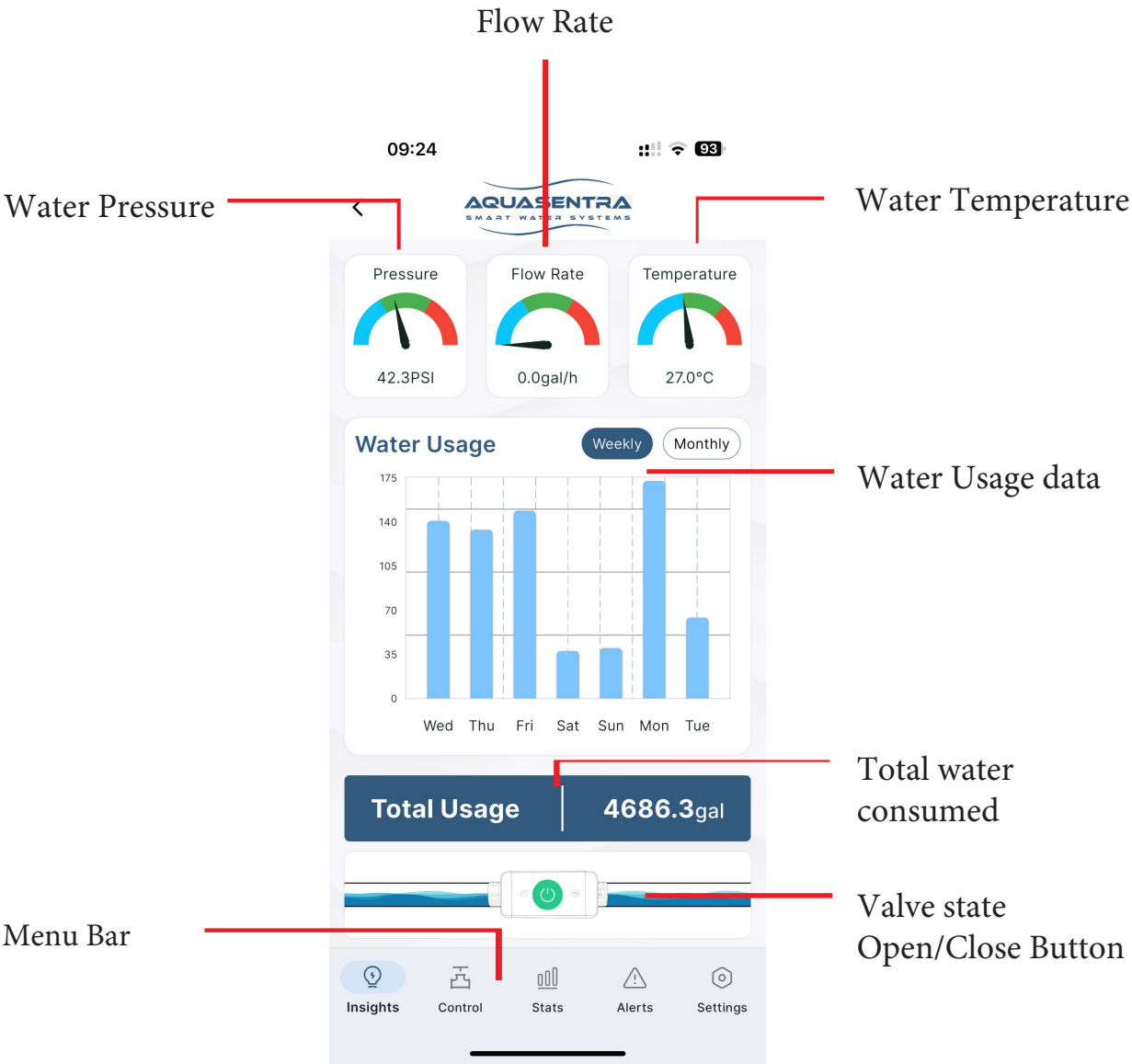


Controls and Data



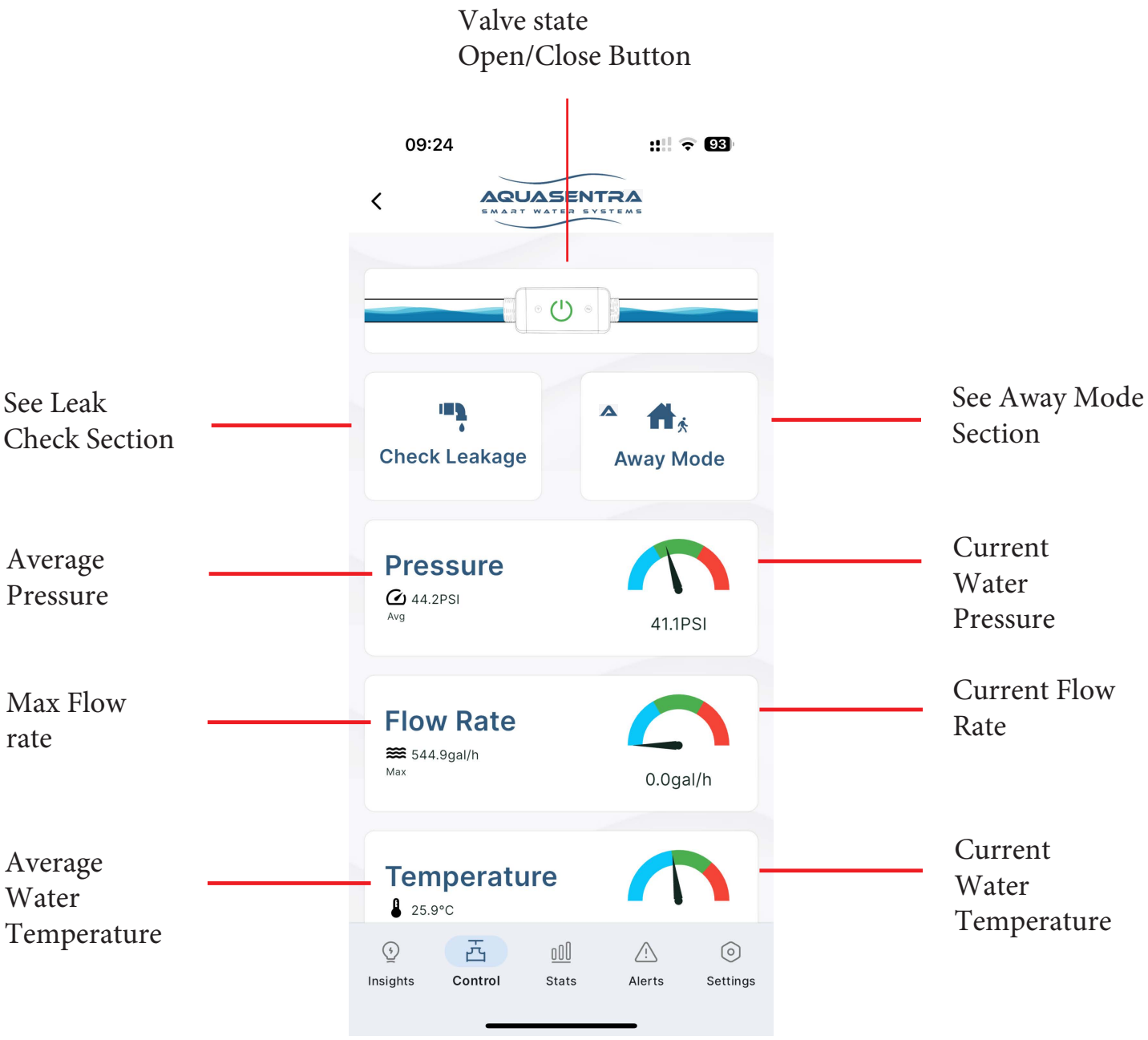
Opening the valve in the home area allows access to all the data and controls for the aquasentra unit.

Insights Screen



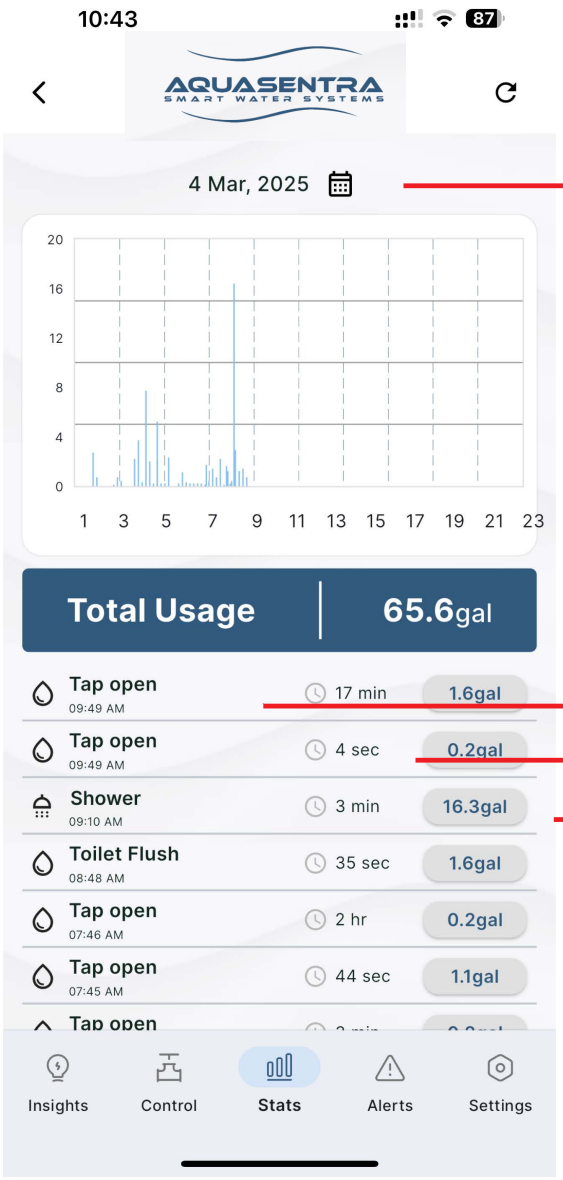
Control Screen

Units for all the data can be changed in Settings, see page 21



Stats Screen

All water usage is logged in the stats section per day and records are recorded in the server which are used for analysis by UtillAi Servers for logic and alerts.



Date for Stats

Can click to select previous dates.

Total Usage for day

Source of usage

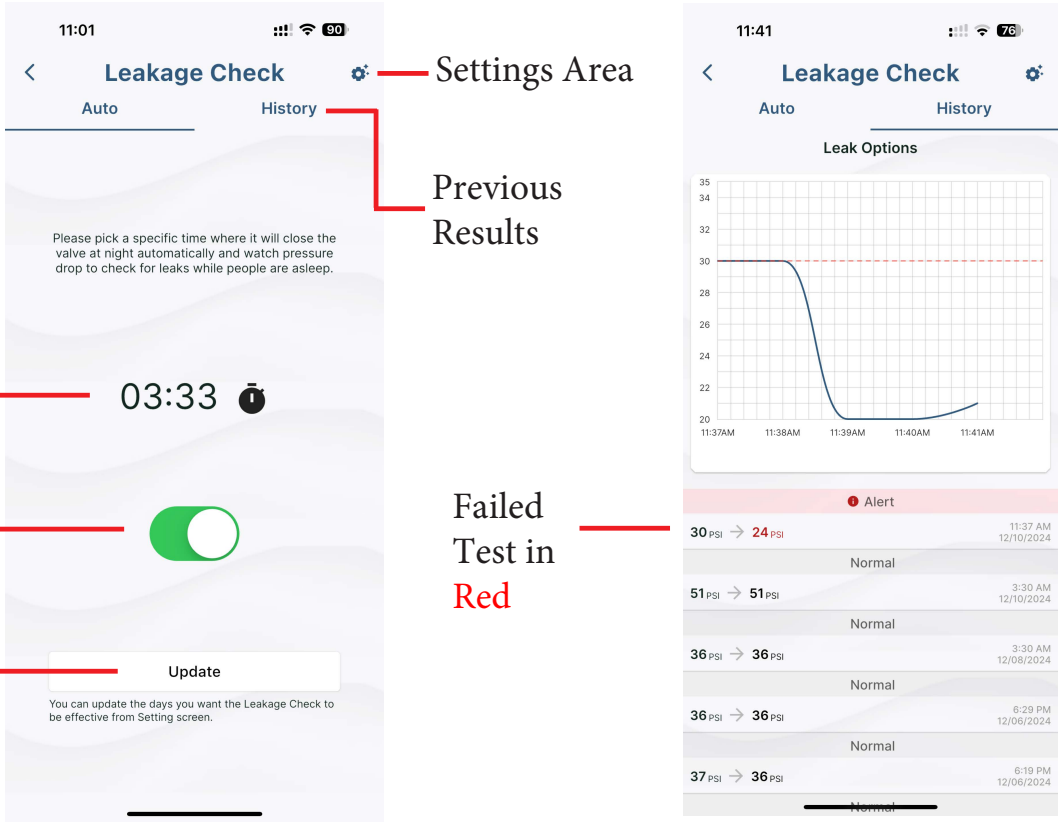
Time of usage

Amount of usage

Leak Checks

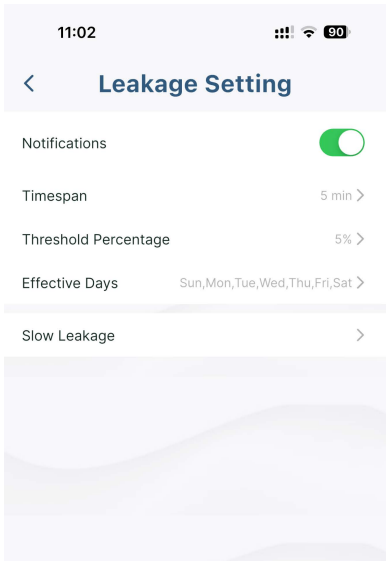
The Aquasentra has the option for finding micro leaks in the system by closing off the water system during periods of low activity (night) and then monitors for any drop in system pressure.

Users need to first set the desired time for this to occur, highlighted below and then enable the ON Switch. Any changes here require the Update button to be pressed so the servers are updated.



Leak Check Settings

The AquaSentra leak check function offers flexibility in its logic, allowing users to adjust the days on which tests are performed and the thresholds for detection. It is recommended to leave these values at their default settings and only adjust the effective days if there are no periods of low activity in your installation



Enable for Alert System

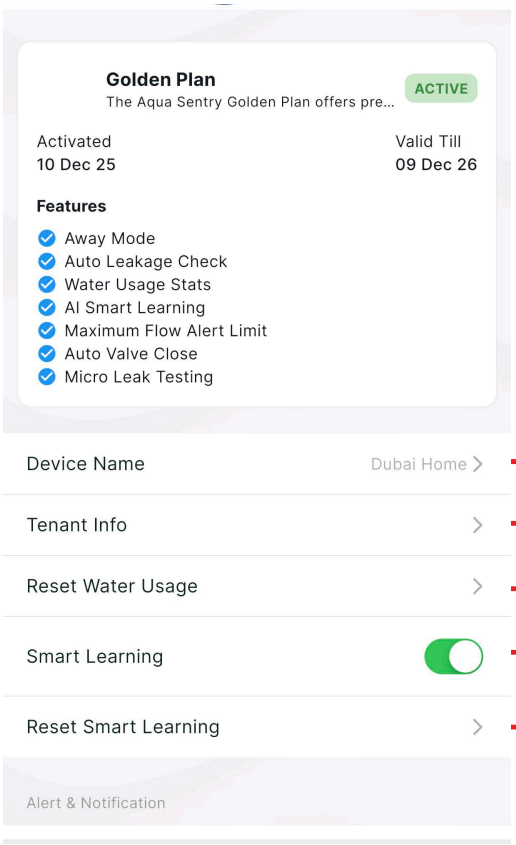
Length of Test

Threshold Percentage - *pressure is logged at start of test and the threshold percent sets the trigger point for alert point that the pressure has to drop* past.

Days which test are performed, users can change to have select days the test is run.

Device Settings

Settings here are just applied to the **device** you are active on, this is not a global settings area for all Aquasentra devices in your account.



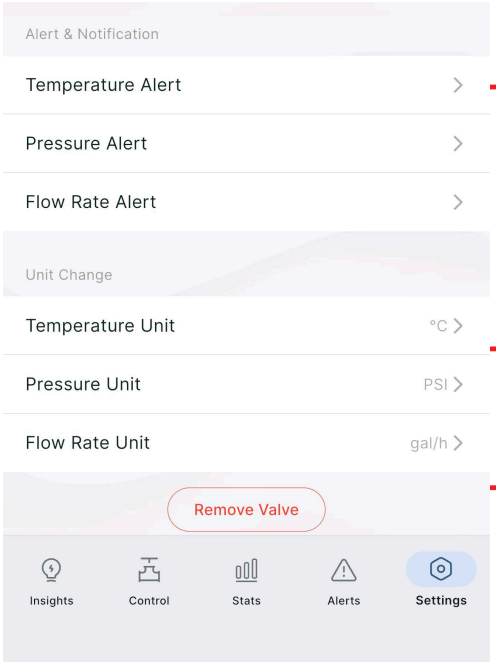
Customize the name of the Aquasentra device

Enterprise Use - Tenant Name

Reset overall water usage

Enable AI Learning

Reset AI Data learning, *useful if moving property or have introduced a new large source of water consumption like irrigation system or another bathroom to the property.*



See Alert threshold Section

Select Unit choices for your region

Remove valve, *if the valve is no longer used then users can remove the valve here from the account*

Reset Device

Users can remove a device from their account by clicking the Remove Valve button shown in the image above. After doing so, the valve must be reset before it can be paired again.

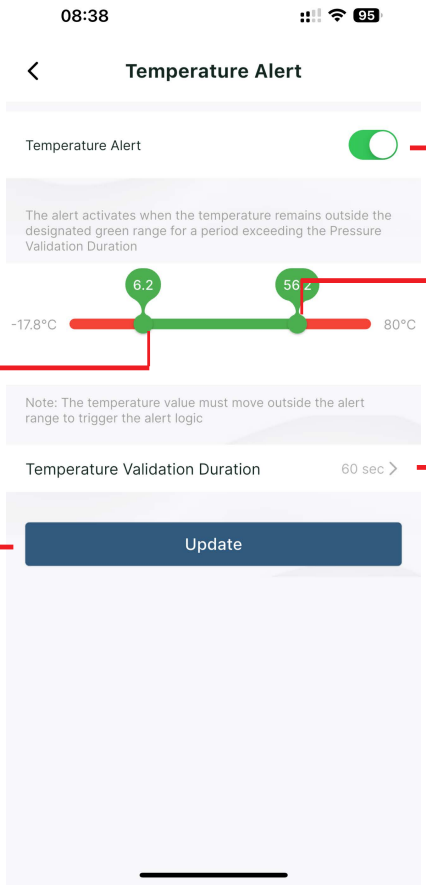
Reset Procedure:

1. Power off the valve and wait 10 seconds.
2. Power it back on while holding the communication button.
3. Continue holding until the blue LED flashes steadily at 1-second intervals.

Refer to Page 12 for the location of the communication button.

Temperature/Pressure Alert Threshold Settings

These are advanced settings, and the default values are recommended to remain unchanged. However, customization is available for different installation environments if needed.



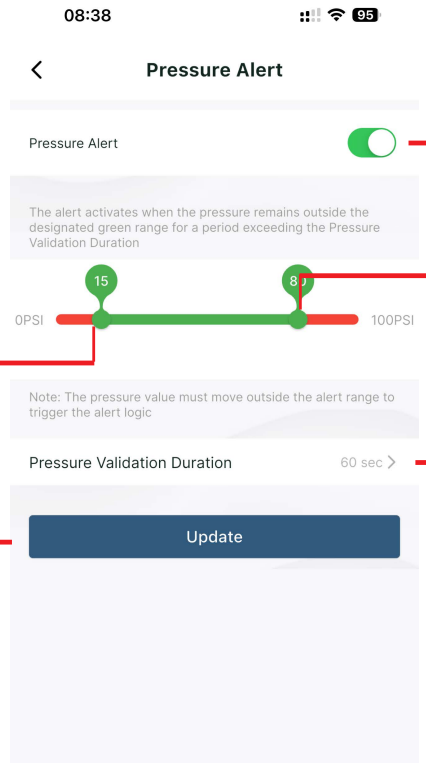
Overall Enable of Alert

Max Temperate Alert Threshold

Min Temperature Alert Threshold

Update - *Any changes need the update button pressing*

Validation time - *Sets the time in which the temperature needs to be outside alert window before alert activates*



Overall Enable of Alert

Max Pressure Alert Threshold

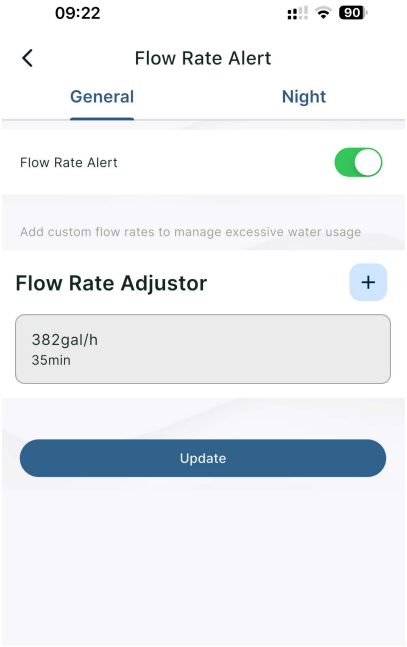
Min Pressure Alert Threshold

Update - *Any changes need the update button pressing*

Validation time - *Sets the time in which the pressure needs to be outside alert window before alert activates*

Flow Alert Threshold Settings

The default units are recommended but customizing is available also.



Overall Enable of Alert

Add new Flow Rate Limit threshold.

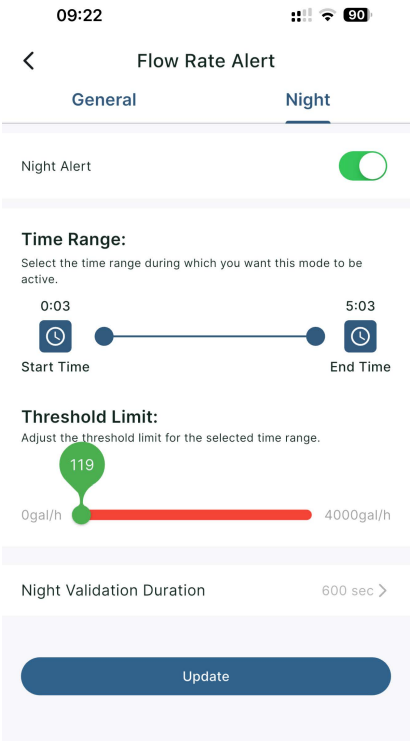
Threshold removal - *Drag threshold to left*

Saved Thresholds

Update - *Any changes need the update button pressing*

Night Alert Settings

Water consumption at night is significantly lower in most home installations, so AquaSentra offers the option to lower threshold limits to detect leaks more quickly.



Overall Enable of Alert

Time Activate - *Set the start time and end time of night mode.*

Threshold - *Flow levels above this value will trigger duration check.*

Time threshold - *duration of flow above threshold before alert activates*

Update - Any changes need the update button

Web Interface

Aquasentra also provides a web-based interface for both end users and enterprise customers, allowing secure access from any desktop or tablet.

Web Portal: https://web.utillai.com

You can log in using the same username and password used for the Aquasentra mobile application.

Web Interface Features

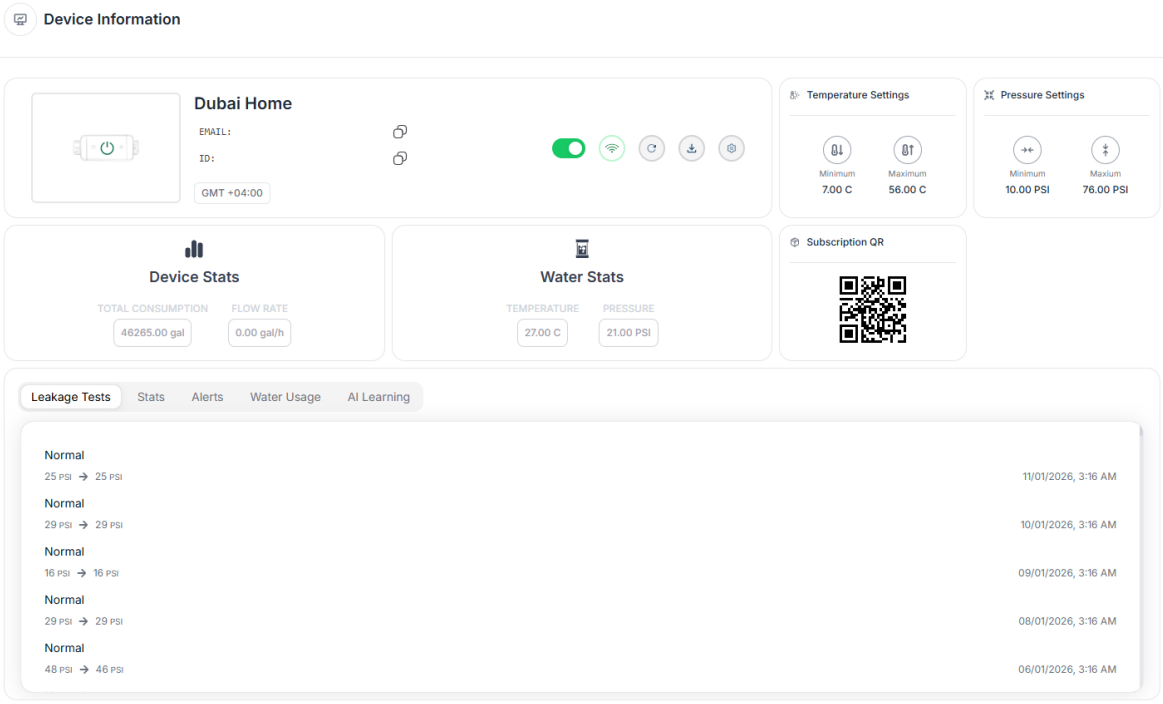
End users can:

*View the live status of valves and sensors
*Monitor alerts and notifications
*Review previous leak and micro-leak tests
*Access water usage and consumption statistics
*Manage multiple valves under a single account

Enterprise & Multi-Unit Capabilities

For enterprise users and property managers, the web interface also enables:

*Monitoring of all valves within a building or portfolio
*Consumption reports per unit or across all units
*Exportable usage reports for billing and reconciliation
*Individual billing of tenants based on actual water consumption
*Remote Valve Control
*Authorized users can remotely close or open valves directly from the web interface, providing instant control and protection without needing access to the property.



Frequently Asked Questions

General Information

What is AquaSentra?
AquaSentra is a smart water valve that monitors your water usage, detects leaks in real time, and helps protect your home or business from costly water damage. It uses advanced ultrasonic sensors, pressure sensors, and temperature sensors combined with AI-powered analysis to spot leaks, abnormal usage, and even small drips.

How does AquaSentra detect leaks?
AquaSentra continuously monitors water flow, pressure, and temperature. Its AI algorithms and alert strategies analyze these data points to detect even the smallest irregularities — from dripping taps to burst pipes — and sends instant alerts to your phone via the AquaSentra App and /or your registered email address.

Can AquaSentra automatically shut off my water?
Yes! When AquaSentra detects a serious leak or abnormal water flow, it can automatically close the valve to prevent further damage. You can also manually control the valve from anywhere using the AquaSentra app.

Can I monitor more than one property in the app?
Yes! AquaSentra allows you to manage multiple valves across different properties, all from a single app.

Can AquaSentra be used in rental properties?
Yes! AquaSentra is perfect for rental properties, whether for landlords or tenants. Landlords can install AquaSentra across multiple properties to remotely monitor water usage and detect leaks early, helping to avoid expensive damage.

Installation & Compatibility

Is AquaSentra difficult to install?
Not at all! AquaSentra is designed for easy installation and can fit most standard plumbing systems. A qualified plumber can install it in under an hour.

Is AquaSentra compatible with all plumbing systems?
AquaSentra is compatible with most standard plumbing systems, including copper, PEX, and PVC pipes. It supports a range of adapter sizes to fit different installations.

Does AquaSentra limit water flow into the home or business?
The internal body size of 25mm allows a large flow of water to pass through the AquaSentra unit, supporting up to 700 gallons per hour, ensuring no noticeable reduction in water flow.

My property has a water tank and pump system. Will AquaSentra work with this?Certainly! AquaSentra is designed to work with systems that include water tanks and pumps. It can monitor pump activity to spot unusual patterns and alert owners when something appears abnormal.

Will AquaSentra work in my climate?
Yes! AquaSentra is built to withstand temperatures from -20°C to +55°C, making it suitable for use in both hot and cold climates.

Do I need Wi-Fi for AquaSentra to work?
Yes, AquaSentra requires a stable Wi-Fi connection to communicate with the internet to send alerts, provide remote control, and log water usage data to our servers. Its recommended to have the Aquasentra unit within 10 metres of your router/repeater.

Is AquaSentra safe to use on drinking water supplies?
Yes! AquaSentra is made from high-quality, drinking-water safe materials, compliant with global drinking water safety standards, ensuring no contamination of your water supply.

Installation & Compatibility

Is AquaSentra difficult to install?
Not at all! AquaSentra is designed for easy installation and can fit most standard plumbing systems. A qualified plumber can install it in under an hour.

Is AquaSentra compatible with all plumbing systems?
AquaSentra is compatible with most standard plumbing systems, including copper, PEX, and PVC pipes. It supports a range of adapter sizes to fit different installations.

Does AquaSentra limit water flow into the home or business?
The 25 mm / 1-inch internal bore allows a high volume of water to pass through the AquaSentra unit, supporting flow rates of up to 1,830 gallons per hour at pressures above 75 psi.

Features & Functionality

Can AquaSentra help me save on my water bill?
Absolutely! By identifying leaks, abnormal usage, and excessive consumption, AquaSentra helps you reduce unnecessary water waste — saving both water and money.

What types of leaks can AquaSentra detect?
AquaSentra can detect sudden pipe bursts, slow leaks and drips, leaking toilets and faucets, underground pipe leaks, hot water tank leaks, and more.

How do I get notifications?
You'll receive real-time alerts through the AquaSentra app, including notifications for detected leaks, unusual water usage, temperature changes, and more. Email notifications are also available.

What happens if I get an alert but don't have access to my mobile device or emails?
In the event that AquaSentra detects an issue with your system, it will send an alert notification via push notification to your mobile device and an email. If the alert is classified as major and no action is taken by the owner, the alert will escalate to critical after 30 minutes, at which point AquaSentra can be set to automatically close the water valve.

Does the AI Engine still learn when I enable Away mode?
During away more the AI Engine will not be active as Aquasentra will alert on any water consumption unless put into the Away mode schedule.

Connectivity & App Support

Which devices are compatible with the AquaSentra app?
The AquaSentra app is available for iOS and Android devices.

What happens if my Wi-Fi goes offline?
If your Wi-Fi connection is lost, AquaSentra will continue to monitor locally and sync data when the connection is restored. Remote alerts and control will be unavailable until Wi-Fi is back online.

Can multiple users access the same AquaSentra valve?
Only one users at a time can monitor the valve from a mobile device, but multiple units can be viewed via our business web interface where users can see alerts, data, and actuations for each unit. Contact support@utillai.com for info.

Subscription & Costs

Is there a subscription fee?
AquaSentra includes 1 year of free monitoring with your purchase. After the first year, a small annual subscription fee covers the advanced leak detection, AI analysis, and cloud storage. This is found in the mobile device app store subscriptions.

What happens if my subscription expires?
After the subscription ends, you can still view live data from the valve. However, leak protection, automatic shutoff, and notifications will be disabled. You can easily reactivate the subscription through the Aquasentra app.

What to Do in the Event of an Alert

Low Temperature Alert
Allow slight water flow and insulate pipes to prevent freezing. Contact support if needed.

High Temperature Alert
Check your hot water system and ensure all components can handle high temperatures.

Low Pressure Alert
Ensure mains supply and external valves are open, check pumps and tanks, contact a plumber if needed.

High Pressure Alert
Check system for blockages and failed regulators, consult a plumber if needed.

High Flow Alert
Inspect taps, toilets, heaters, and irrigation for leaks. Run a leak test via the app.

Leak Detected
Run a leak test, inspect all visible plumbing, ceilings, and floors. Contact support if needed.

Small Leak Detected
Similar to Leak Detected – investigate slow leaks before they worsen.

Abnormal Water Flow
If no new appliances were installed, check for leaks and run a leak test.

High Consumption Alert
Review recent water usage, inspect all plumbing, and run a leak test.

Device Offline
Check power, Wi-Fi, and restart the device. Contact support if needed.

Valve Malfunction
Inspect valve for obstructions, restart the unit, and contact support if unresolved.

Pressure Sensor Failure
Contact support for sensor diagnostics or replacement.

Away Mode Leak Detected
Shut off water remotely if needed, run a leak test, and contact support.

Leak Test Failed
Plumbing isn't holding pressure. Inspect all plumbing, and contact a plumber if needed.

Environmental & Climate Resilience

Can AquaSentra handle outdoor installations?
Yes, the valve was designed to cater for indoor and outdoor installations

Is AquaSentra suitable for coastal or humid environments?
Yes, AquaSentra is built with corrosion-resistant materials suitable for humid and coastal conditions.

Troubleshooting & Support

What should I do if AquaSentra loses connection?
Check Wi-Fi, device power, and restart the valve. Contact support@utillAi.com if the issue persists.

The Aquasentra valve has closed by i dont have access to the Mobile App, how can i reopen the valve?
The Aquasentra unit has a manual open/close button which can be pressed to override the server control, see page 2 in user manual for the button.

How do I reset my AquaSentra?
See user manual page 21 on how to reset the device pairing

My Aquasentra is not reading flow in the app?
Check the valve is fitted in the correct orientation. On the bottom of the valve is an Arrow which shows the direction the water must flow in your system.

How do I contact support?
You can reach the AquaSentra Support Team through the app or via email Support@utillAI.com

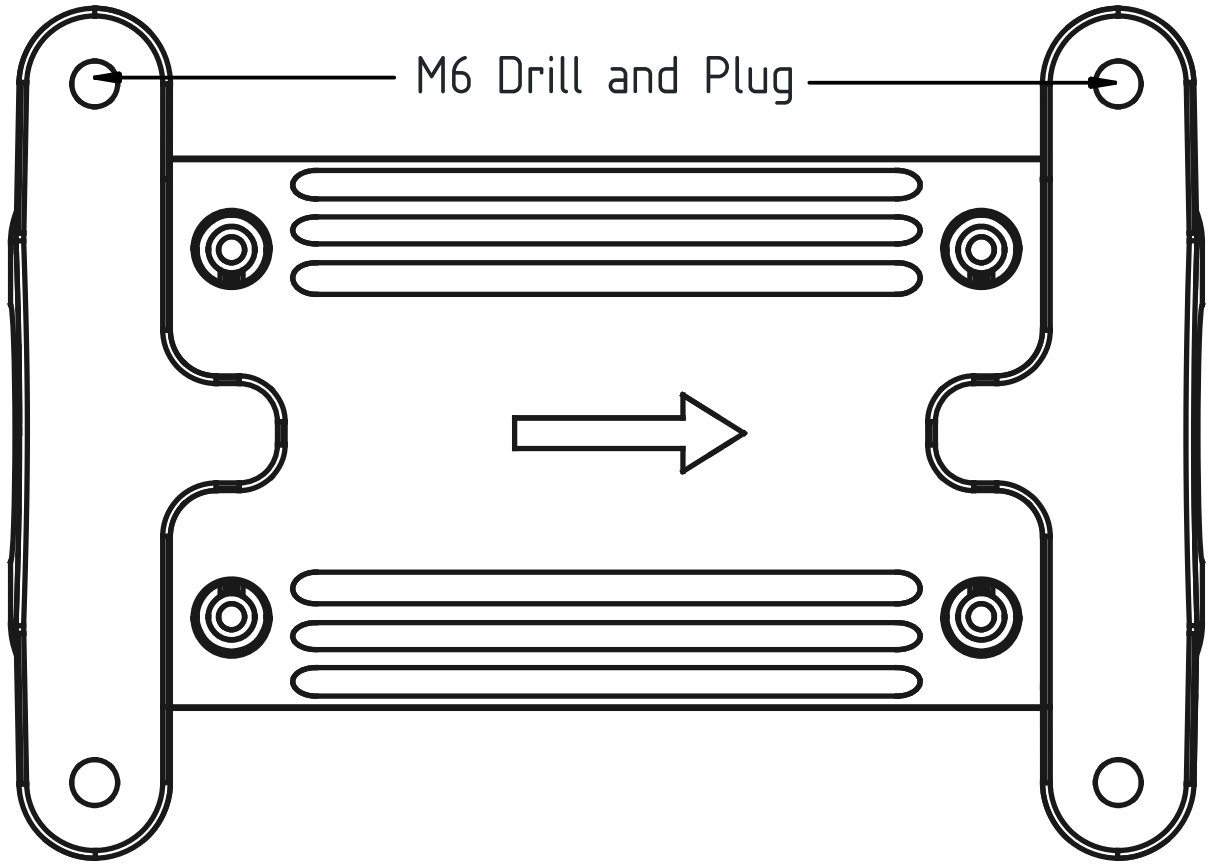
My Aquasentra is still reading pressure even though valve is closed and no pressure in system?
Check the valve is fitted in the correct orientation. On the bottom of the valve is an Arrow which shows the direction the water must flow in your system.

Since returning from holiday i keep getting 100% and 500% consumption alerts?
If away mode was not set, then the Aquasentra server will learn the new lower consumption amounts. Please reset smart learning in device settings.

Warranty & Insurance Benefits

What warranty does AquaSentra offer?
AquaSentra comes with a 1-year manufacturer's warranty covering defects in materials and workmanship.

Can AquaSentra help with insurance claims?
Yes! Many insurers offer discounts for installing smart leak detection devices like AquaSentra, and the logged data can help support claims.



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DESIGNED BY: UtillAI DATE: 31/03/2025		AquaSentry Drill Sheet Subtitle		
SIZE A4				
SCALE 1 : 1	WEIGHT (kg) Weight	DRAWING NUMBER 0011	SHEET 1 / 1	

This drawing is our property; it can't be reproduced or communicated without our written consent.

Specifications

Category	Specification
Power & Connectivity	
Adapter Input	100~240V ~ 50/60Hz, 0.3A max
Output	5V 1.0A
Standby Power Consumption	0.3W
Wireless Standard	IEEE 802.11b/g/n @ 2.4GHz
Plumbing Compatibility	
Main Water Supply Line	1 inch
Thread Pitch/Pattern	DN25 - 1" BSP - Metric 26/34
Performance	
Water Flow Rate	30.5 gal/min (1,830 gal/h) at ≥75 psi. Typical flow at 45 psi: 17.8 gal/min (1,070 gal/h).
Water Flow Accuracy	0.1 m^3/min
Valve On/Off Time	8 seconds
Water Pressure Range	20-200 psi
Water Pressure Accuracy	±1 kPa
Water Temperature Range	-10°C ~ 65°C (14°F ~ 149°F)
Relative Humidity	10-80%
Product Life	>90,000 hours (~10 years)
Environmental	
Ingress Protection	IPX7 Rated
Operating Temperature	0°C ~ 50°C (32°F ~ 122°F)
Physical Dimensions	
Size	195 mm (L) × 70 mm (M) × 90 mm (H)