WaterTapp

Installation and User Guide

LeakSafe™

PLEASE READ BEFORE STARTING TO INSTALL WATERTAPP

A. General

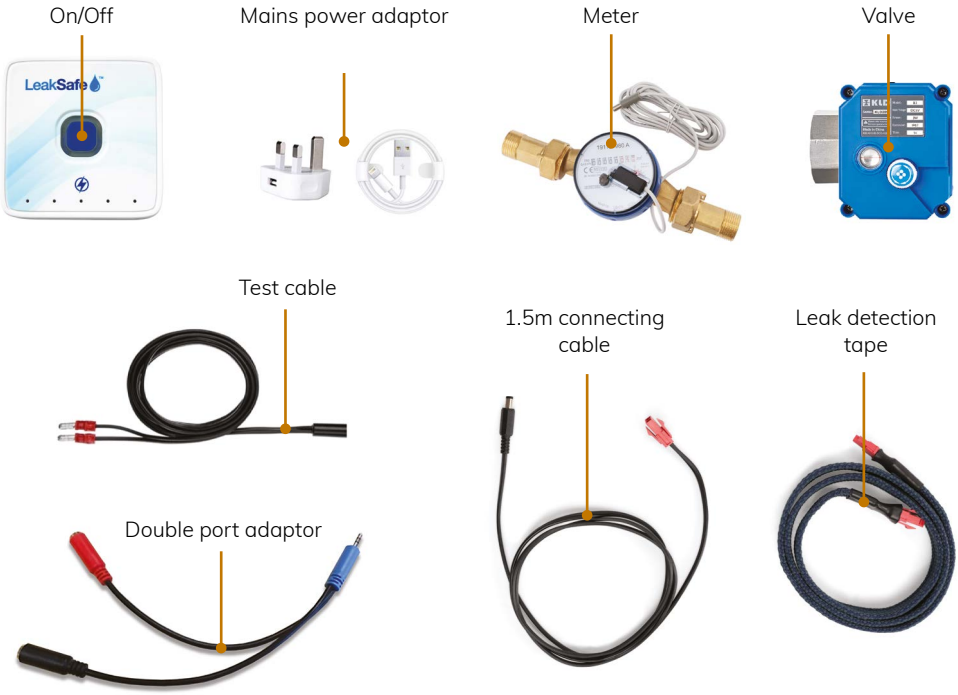
WaterTAPP is a manual water 'On/Off' system, a flow monitoring automatic water shut off system and (optional) 4-zone leak detection system. Leaksafe recommend you turn your water off whenever you leave your property as this provides the best possible protection against leaks and bursts.

WaterTAPP will automatically shut your water off if it senses water flowing for more than a pre-set period or if a leak detection tape (optional) gets wet. The system will also shut the water off if it detects NO flow of water in the property indicating that the property is empty.

WaterTAPP comes with a dedicated Leaksafe APP that requires WiFi connection. The APP is used for system configuration, leak notification, water usage data and to turn your water off and on remotely. WaterTAPP will operate as a stand-alone leak detection system without the use of the APP.

B. Components

Figure 1.



C. Installing the WaterTAPP Control Panel, shut off valve and meter

The WaterTAPP operates on mains power with ER26500 lithium battery backup.

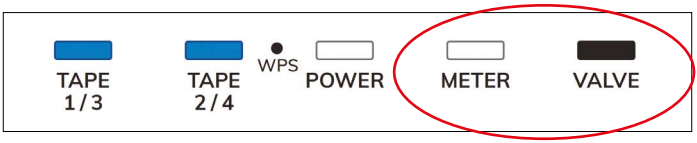
Install the lithium battery in the battery compartment at the back of the control panel and connect the mains power cable and plug to the USB-C port marked 'Power'. A green LED will light above the power port when the mains is switched on. The panel will take a minute to be fully powered.

The WaterTAPP control panel needs to be positioned within 1.5m of the proposed location of the shut off valve. Use the backplate supplied to fix. Slide the control panel upwards to release from the backplate.

The valve and flow meter should be installed by a qualified plumber.

Install the Leaksafe 22mm (DN20) or 28mm (DN25) motorised shut off valve on the incoming main/ supply. The valve can be installed on either horizontal or vertical pipes. Ensure that the top of the actuator with the valve status window and manual override button can be seen and reached. Connect the valve lead to the port marked 'Valve' on the WaterTAPP control panel. (see Figure 2).

Figure 2.



Install the Meter on the incoming supply ensuring that it is installed with the water flow in the indicated direction on the barrel of the meter. If installing a DN25 (28mm / 1") meter with clip on pulse module, ensure that the pulse module is fixed in place with the retaining screw provided, and as shown in the installation instructions sent with the meter. Plug the meter lead into the port marked "Meter" on the control panel.

PLEASE ALSO SEE SECTION E REGARDING FLOW TESTING.

D. Testing the shut off valve

To test the valve function, press the blue On/Off button (see Figure 1). The LED around the blue button will flash once, green if the control is opening the valve, red if it is closing the valve. The small red LED above the valve port will light to indicate that the command has been sent, and the valve will open/close.

If the valve is not in sync with the control panel i.e., the control flashes green when the valve is already open, wait 5 seconds, press the 'On/Off' button again, the valve will close and the system will be synchronised.

If the valve is closed the red LEDs on either side of the 'On/Off' button will flash once every few seconds to give a visual indication of the valve status.

E. Testing the flow and no flow shut off feature

The WaterTAPP is supplied in Engineers Mode that allows you to run a 5 minute test of the valve shut off on 'continuous flow' and a 15 minute 'no flow' test.

As soon as the control panel detects that a meter is connected it will start the test sequences and will continue to run the sequence until you put the system into User Mode.

To test, run cold water for approx. 5 minutes and the valve will close. Reopen the valve and make sure no water is being used for approx. 15 minutes. The valve will close.

Once the tests are complete you MUST put the system into User Mode. PRESS and HOLD the 'On/Off' button for approx. 10 seconds and until all the LEDs flash. This will put the system into User Mode and the system will default to factory settings that will shut the water off after 30 minutes of continuous flow and 24 hours of no flow.

PLEASE NOTE: If Engineer Mode is needed again, repeat the press and hold sequence and the system will toggle between Engineer Mode and User Mode.

The Continuous Flow and No Flow parameters can be changed in the APP. To use the APP the WaterTAPP must be connected to WiFi. See the 'Quick Guide' for WiFi connection and APP instructions.

The options available are as follows:

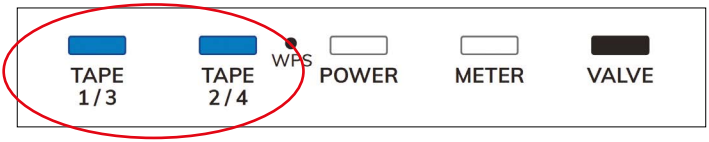
Continuous Flow	No Flow
30 minutes (Factory default)	6 hours
1 hour	12 hours
1.5 hours	18 hours
2 hours	24 hours (factory default)
4 hours	36 hours
6 hours	48 hours
OFF	**OFF**

F. Installing the leak detection tape

Install/position any leak detection tape (optional) under pipework connections and wastes and connect using the connecting cable to the TAPE ports on the WaterTAPP (see Figure 3). The connecting cable can be extended using 2 core audio or YY cable and connectors (not supplied).

If more than 2 leak detection zones are to be installed, two zones can be connected to one port by using a Leaksafe double adaptor. Zone 1 and 3 are grouped in port 1, zone 2 and 4 in port 2 (see Figure 3).

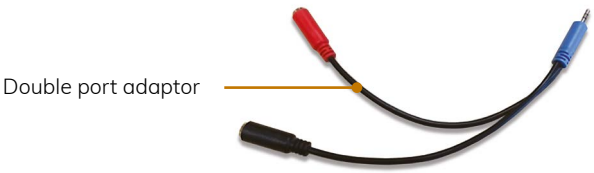
Figure 3.



Zones 1, & 2 are plugged into the black port on the double adaptor and zones 3 & 4 are plugged into the red port.

It is essential that the correct cable is plugged into each port to ensure that the correct leak location is transmitted.

Figure 4.



PLEASE NOTE: The maximum combined length of tape, YY cable and the cable that plugs into the control panel is 25m. Exceeding this limit may result in false alarms. The entire length should be tested for continuity prior to any areas e.g., bathrooms being sealed.

The tape can be laid directly on a floor or surface with or without retaining clips depending on the location of the tape and whether it is likely to be disturbed. Leaksafe use either Hellerman Tyton or RS self-adhesive clips if needed.

Tape can also be contained within pre-drilled 16mm x 25mm mini trunking if appropriate, ensuring that there are sufficient holes of adequate size so that if a leak does occur, the water would quickly soak into the leak detection tape.

We recommend that the leak detection tape is labelled 'LEAK DETECTION TAPE DO NOT MOVE OR DISCONNECT' so that it is easily identified.

G. Testing the leak detection ports

To test the leak detection ports on the control panel, simulate a leak by plugging a test cable into the first port that is to be used and hold the two male test pins together for 20 seconds or drop the pins into water.

The red LEDs associated with the port and the valve will illuminate and the valve will close. If the WaterTAPP has been connected to WiFi, immediately after the valve closes the blue LED will light to indicate that a 'LEAK DETECTED' message is being transmitted. Once the blue LED has gone out disconnect the test cable and open the valve. Repeat the process for any other ports that will be used.

H. Connecting to WiFi and registering a WaterTAPP system

See the Quick Guide for step by step instructions on downloading the Leaksafe APP and connecting your WaterTAPP to your WiFi.

TURNING YOUR WATER 'ON' AND 'OFF'

On the WaterTAPP control panel, press the Blue 'On/Off' button or press the 'On/Off' slider on the APP. The LED around the blue button will flash once, green if the control is opening the valve, red if it is closing the valve. The small red LED above the valve port will light to indicate that the command has been sent, and the valve will open/close.

If the valve is closed, the red LEDs will flash every few seconds to show that the valve is closed.

If you have downloaded and registered your system on the APP and connected the control panel to WiFi, once the valve has opened or closed, a blue LED around the blue button will light to indicate that the system is sending data to change the status of the valve on the APP. You must wait till the blue LED goes out before you can open or close the valve again. The new valve status may take a few minutes to refresh on the APP depending on WiFi or network connectivity.

If you are using the APP, you can open or close the valve remotely from the APP.

LEAK DETECTION

Continuous Flow:

WaterTAPP measures continuous flow of water through the flow meter to determine abnormal flow that indicates a leak and will turn the valve on the supply 'OFF' if it exceeds the set parameters. If you are using the APP you will receive a push notification that a leak (abnormal flow) has been detected.

Please note that the factory default for Continuous Flow is set at 30 minutes. Washing machines and dishwashers do not pull water continuously and will not trigger an alarm if their cycle exceeds 30 minutes.

The Continuous Flow parameter can be changed in the APP if you regularly use water for more than 30 minutes at a time. In the APP click on your system then on 'EDIT DEVICE' to access the drop-down selection. The options are as follows:

Continuous Flow
30 minutes (Factory default)
1 hour
1.5 hours
2 hours
4 hours
6 hours
OFF

Leak detection tape:

If you have installed lengths of leak detection tape and it gets wet, the WaterTAPP will immediately close the valve on the supply. The Red LED above the leak detection tape zone port will light.

If you are using the APP you will receive a push notification that a leak has been detected and which zone has been activated.

PLEASE NOTE: that the leak detection tape is deliberately sensitive and will activate with just a few drops of water.

RESPONDING TO A LEAK ALARM

If a leak alarm is raised due to continuous flow and you have checked the property for leaks or know the reason why the alarm has been triggered, then you can open the valve either on the Control Panel or APP by pressing the 'On/Off' button.

If a zone (leak detection tape) alarm is raised, the red Zone LED on the WaterTAPP into which the wet tape is plugged will be lit. If you get a notification but when you look at the WaterTAPP the Zone LED is not on, please still check the area, but no LED signifies that the tape has dried since the alarm was raised.

When you find the source of the leak, and if the leak detection tape is still wet, disconnect the tape by unplugging it from the bottom of the WaterTAPP, and if safe to do so open the valve by pressing the 'On/Off' button on the Control Panel or APP.

Repair the leak and let the tape dry completely before plugging it back in. If an alarm is raised as soon as you plug the tape back in, then it is not yet dry. Disconnect and leave for a further period to dry then re-connect.

PLEASE REMEMBER: to re-connect the tape as soon as possible once it is dry. The location where the tape was activated is not protected unless it is plugged into the WaterTAPP.

WATER SHUT OFF AS A RESULT OF NO FLOW

If the system does not sense any water going through the meter for 24 hours it is programmed to shut the valve as the property is likely unoccupied. To re-instate the water simply press the 'On/Off' button on the Control Panel or on the APP.

The No Flow setting can be changed in the APP if you wish to either shorten or lengthen the time parameter.

In the APP click on your system then on 'EDIT DEVICE' to access the drop-down selection. The options are as follows:

No Flow
6 hours
12 hours
18 hours
24 hours (factory defualt)
36 hours
48 hours
OFF

WATER USAGE

If you are using the APP, then your WaterTAPP transmits data every hour with the current water meter reading that will be shown as a total usage since installation.

VALVE DECALCIFICATION ROUTINE

WaterTAPP is programmed to automatically part close then open the valve once a week at 03:00 hours to prevent any possible build-up of calcium on the ball of the valve.

LOW TEMPERATURE ALARM

If you are using the APP your WaterTAPP transmits data every hour with the ambient temperature reading in the location where it is installed. If the ambient temperature falls below 4°C and you are using the APP you will receive a push notification LOW TEMPERATURE warning.

MAINS POWER OR INTERNET (BROADBAND) FAILURE

If there is a power outage the leak detection and manual 'On/Off' functions on your WaterTAPP will still work, powered by the lithium back up battery. Therefore, if continuous flow or a wet leak detection tape is sensed during an outage, the system will turn the valve off. However, if you have a power outage or your WiFi or internet connection is not working for any reason, then data will not reach your APP and any notifications or status changes will not be received.

We recommend that when mains or internet is restored you check your APP and run a valve 'On/Off' cycle using the APP to make sure the device has reconnected to your WiFi.

If you have a power outage for more than 48 hours we also recommend you change the lithium battery back-up battery type ER26500. This is NOT a rechargeable battery.

Manual Override

If needed, the valve can be opened or closed manually. To manually operate the valve, lift and turn the operating button (Figure 5). The button must be fully out. When the valve is open the red line in the valve status window is parallel to the water pipe and at right angles when closed. Push the operating button down when finished.

Figure 5.

Maintenance

The WaterTAPP is mains powered with lithium battery backup that will last for up to 7 days. If you are using the APP you will receive a LOW BATTERY warning if the battery strength falls below a certain level.

If you have a power outage for more than 48 hours we recommend you change the battery type ER26500. This is NOT a rechargeable battery.

To change the battery, slide the Control Panel upwards to release it from its wall bracket and reveal the battery compartment on the back. Lithium battery type ER26500.

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