

WIRELESS WaterSwitch

INSTALLATION & USER GUIDE

SECTION 1 - LeakSafe WaterSwitch Components



Water Valve Control and 4 x AA batteries



Wireless Switch



Motorised Valve and integrated cable



LeakDetector Tab,
LeakDetector Wireless
Transmitter,
3 x AAA batteries

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SECTION 2 - Testing components before installation

2.1: Installing batteries in the Water Valve Control

1. Lift and remove the catch cover (Fig 1). Press the catch to release the front panel.
2. Remove the battery holder, insert 4 x AA batteries as shown and re-fix into the front section of the Water Valve Control using the velcro strips provided (Fig 2). Reassemble

Fig 1
Valve Control:
Open catch cover



Fig 2
Valve Control: Battery position



2.2: Installing batteries in the LeakDetector Wireless Transmitter

1. Remove the top cover of the transmitter by placing the unit on a flat surface, holding the back plate firmly down and snapping off the cover.
2. Insert 3 x AAA batteries as shown on the battery holder, and reassemble.

2.3: Connecting and testing the Water Valve Control and Motorised Valve

Note: When operating the buttons on the Water Valve Control apply light pressure for approximately 2 seconds.

1. Connect the Motorised Valve to the Water Valve Control using the integrated cable (Fig 3).
2. Initialise the Valve and the Water Valve Control, by pressing the "Water Off" button and holding for 2 seconds. Then press the "Water On" button for 2 seconds - the green "Valve Operating" LED will flash for 10 seconds.
3. Once the LED has stopped flashing press the "OFF" button on the Water Valve Control - the "Valve Operating" green LED will flash and the valve will close. If the valve is closed, test by pressing the "ON" button.

Fig 3 Valve Control: Valve connection



Connect valve cable

WARNING: Do not insert fingers or any other object into the valve whilst it is operating.

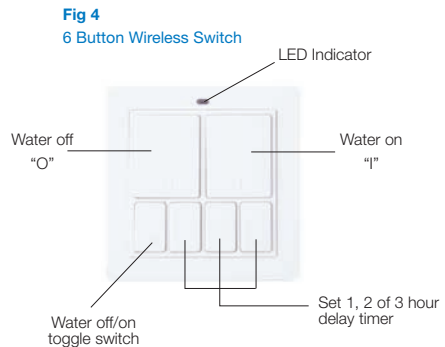
2.4: Wireless Signal Tests

READ THESE IMPORTANT NOTES:

1. Each Water Valve Control, its Wireless Switch and LeakDetector Transmitter are paired and packaged together at the factory. Do not mix Water Valve Controls and switches or transmitters from different packages. **Occasionally components can become un-paired in transit and the tests below will be unsuccessful. Instructions for pairing components are available at www.leaksafe.com/support.**
2. The Water Valve Control operates the Motorised Valve by receiving a wireless signal from the Wireless Switch or LeakDetector Transmitter. When it does, the "Valve Operating" LED on the Control flashes green for approximately 10 seconds. **WHILST THE LED IS FLASHING GREEN THE WATER VALVE CONTROL CANNOT RECEIVE ANOTHER WIRELESS SIGNAL. PRESSING THE WIRELESS SWITCH DURING THIS PERIOD WILL NOT ACTIVATE THE VALVE.**
3. When operating the buttons on the Water Valve Control or Wireless Switch apply light pressure for approximately 2 seconds

2.4.1: Testing the Wireless Switch

1. Ensure the switch on the back of the Wireless Switch is in the "O/I" position.
2. Check the valve is open.
3. Ensure the Wireless Switch is at least 1 metre away from the Water Valve Control, press the "O" button on the Wireless Switch (Fig 4). The Water Valve Control will beep, the "Valve Operating" green LED will flash, and the valve will close.



2.4.2: Testing the LeakDetector Wireless Transmitter and Leak Detector

1. Plug the LeakDetector tab or tape in to the Wireless LeakDetector Transmitter. (Fig 5).
2. Check the valve is open.
3. Ensure the transmitter is at least 1 metre away from the Water Valve Control.
4. Wet the green sensing plate of the LeakDetector tab or the test pins at the end of the LeakDetector tape. The red LED "Leak Alarm" on the Water Valve Control will flash, the Water Valve Control will beep and the valve will close.
5. Press "OFF" on the Water Valve Control to mute the alarm, dry the sensing plate or test pins and press "ON" on the Water Valve Control to reset the system and open the valve.

NB. If you inadvertently wet the tape rather than its test pins, you will need to dry the tape before resetting the system. This can be done using a hairdryer on a medium setting.

Fig 5
LeakDetector and Transmitter

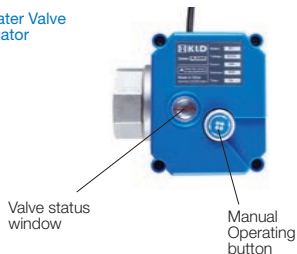


SECTION 3 - Installation

3.1: Installing the Motorised Valve and Water Valve Control

1. Install the Motorised Valve as close to the incoming stopcock on the incoming water main as possible, on the property owner's side.
2. LeakSafe recommend the use of compression joints when installing the Motorised Valve although soldered, speed fit or similar couplings can be used.
3. Install the valve with the blue actuator positioned for easy access to the manual operating button and a clear view of the window that shows if the valve is open or closed (Fig 6).

Fig 6 Water Valve and Actuator



4. Locate the Water Valve Control at the highest practicable point off the floor to maintain a strong wireless signal.
5. Using the back plate of the Water Valve Control as a template, fix two screws (not supplied) on which to hang the unit. It is important to be able to remove the Water Valve Control by lifting it off the screws.
6. Connect the valve to the Water Valve Control (Fig 3).

3.2: Installing the Wireless Switch

The Wireless Switch can be installed up to 25 metres away from the Water Valve Control. The distance over which the wireless signal will work will depend on a number of factors including building construction, position of the Water Valve Control and Wireless Switch and in some instances the effect of interference from other wireless or electronic devices.

Test the wireless signal between the Wireless Switch and the Water Valve Control before installation by temporarily positioning them in the location where they are intended and repeating the wireless signal test given in Section 2.4.1. All components should be positioned as high as possible off the ground to maximise the wireless signal.

The Wireless Switch can be screwed to a surface or a standard back box, or fixed to the wall using the double-sided adhesive fixing pads supplied. The switch should be positioned with the LED light at the top.

1.

Install using adhesive fixing pads

Ensure the switch is positioned where it can be removed without damaging wallpaper or other delicate surfaces.

2.

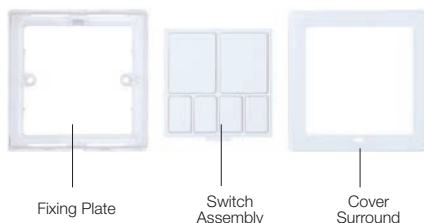
Install using screws

N.B. Screwing the switch to an uneven wall can result in cracking the Fixing plate.

Ease the cover surround (Fig 7) off the fixing plate by inserting a fingernail between the cover surround and the transparent fixing plate along the bottom edge.

Press the white switch assembly forward from the back of the fixing plate.

Fig 7 6 Button Wireless Switch



Screw the fixing plate to the back box/surface using the screws supplied.

Press the switch assembly into the fixing plate and click into place. Press the cover plate onto the fixing plate and over the switch assembly and click into place.

3.3: Installing the LeakDetector Wireless Transmitter and LeakDetector

The LeakDetector Wireless Transmitter and LeakDetector tab or tape can be installed up to 25 metres away from the Water Valve Control. The distance over which the wireless signal will work will depend on a number of factors including building construction, position of the Water Valve Control and Wireless Transmitter and in some instances the effect of interference from other wireless or electronic devices.

Test the wireless signal between the LeakDetector Wireless Transmitter and the Water Valve Control by temporarily positioning all the components in the location where they are intended and testing in those locations before installation (Section 2.4.2). Position the transmitter as high as possible off the ground to maximise the wireless signal.

Installation

Fix a screw (not supplied) where the Wireless Transmitter is to be located leaving the head of the screw proud, and hang the Wireless Transmitter on it, or fix using self-adhesive fixing pads (not supplied).

Ensure that the transmitter's wire aerial is vertical and the LeakDetector green sensing plate or tape can be positioned where needed.

SECTION 4 - Operation

4.1: Turning water on/off from the Wireless Switch

Turning the water OFF

Press the switch marked "O". The LED indicator on the switch will flash once, the Water Valve Control will beep twice to confirm a wireless signal has been received, and the valve will close.

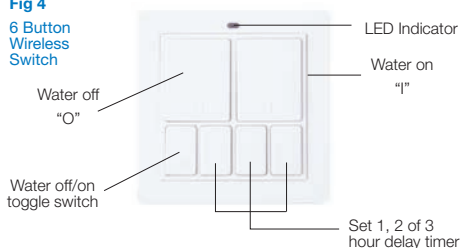
To turn the water ON

Press the switch marked "I". The LED indicator on the switch will flash once, the Water Valve Control will beep once to confirm a wireless signal has been received, and the valve will open.

You can also turn the water OFF/ON by pressing the Toggle Switch – See Fig 4

Fig 4

**6 Button
Wireless
Switch**



IMPORTANT:

When the Water Valve Control receives a signal from the Wireless switch the "Valve Operating" LED on the Water Valve Control flashes green for approximately 10 seconds, and the Motorised Valve will operate

WHILST THE LED IS FLASHING GREEN THE WATER VALVE CONTROL CANNOT RECEIVE ANOTHER WIRELESS SIGNAL. PRESSING THE WIRELESS SWITCH DURING THIS PERIOD WILL NOT ACTIVATE THE VALVE.

4.2: Turning water on/off from the Water Valve Control

Turn the water off by pressing the “Water Off” button, the Water Valve Control will beep twice and the valve will close.

Turn the water on by pressing the “Water On” button, the Water Valve Control will beep once and the valve will open.

4.3: Setting a delay timer

The Wireless Switch incorporates a 1, 2 or 3 hours valve shut off delay function for instances when appliances using water need to complete their program.

Activate the delay timer by pressing one of the three switches *(1 hour), ** (2 hours) or *** (3 hours) (Fig 4).

The LED indicator on the switch will flash, the Water Valve Control will beep three times to confirm the wireless signal was received, and the valve will close after the chosen delay.

To override a programmed delay press either the “O”, “I” or the “O/I” toggle switch. See Fig 4.

4.4: Manual override on the Motorised Valve

To manually operate the valve, lift and turn the operating button (Fig 6). 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.

Fig 6 Water Valve and Actuator



4.5: If an Alarm Sounds/Resetting the Water Valve Control

Please refer to Section 6.1: Indicators and Alarms.

SECTION 5 - Essential Maintenance - PLEASE READ THIS SECTION

LeakSafe recommend that you test your system every six months and always before you leave a property for a period of time.

5.1: Test procedures

1. Turn the water off using the wireless on/off switch. Check the water is off by opening a cold water tap. Turn the tap off, turn the water back on and check that the water is now running. If you do not have a wireless on/off switch installed, perform this test by pressing the “Water Off” and “Water On” buttons on the Water Valve Control.
 2. If you have wireless leak detector transmitters and either leak detector tabs or tape installed, check each transmitter by wetting either the metal tab or the test pins at the end of the tape. Check the transmitter emits an alarm beep, and that the valve has closed and an alarm is sounding on the Water Valve Control. Dry the tab or test pins on the tape, reset the Water Valve Control (See section 6.2) and turn the water back on. Repeat this for each LeakDetector transmitter you have installed.
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5.2: Replacing Batteries

Replace the batteries in your Water Valve Control and LeakDetector Wireless Transmitter every 6 months to ensure continuous operation.

Replace the CR2032 lithium battery in the Wireless Switch every 2 years.

General

The batteries in the Valve Control Unit and LeakDetector Transmitter are checked once a day. If battery power is low an alarm will sound/flash on the Water Valve Control Unit for up to 3-4 weeks. If the batteries in the Water Valve Control are not changed, the valve will remain in the position it is in when the batteries are exhausted.

5.2.1: Replacing the batteries in the Water Valve Control:

1. Unplug the valve and lift the Water Valve Control off its retaining screws.
2. Replace batteries - refer to Section 2.1 "Installing batteries in the Water Valve Control".
3. Reassemble, reconnect the valve and test – Section 2.3

5.2.2. Replacing batteries in the LeakDetector Transmitter

1. Remove the Transmitter from the wall/surface.
2. Replace batteries - refer to Section 2.2 "Installing batteries in the LeakDetector Wireless Transmitter".
3. Reassemble, test (Section 2.4.2) and rehang the Transmitter.

5.2.3. Replacing the battery in the Wireless Switch

If the switch is fixed using self adhesive strips, carefully ease the switch off, and install a new CR2032 lithium battery in to the battery compartment on the back of the switch. Reposition using new adhesive strips.

If the switch is screwed to a back box or directly on to a surface, ease the cover surround (Fig 7) off the fixing plate by inserting a small flat bladed electrical screwdriver into the opening at the bottom of the switch and turning gently. The cover surround and switch assembly will come away from the fixing plate.

To separate the cover surround and the switch assembly, insert the screwdriver between the bottom of the switch assembly and the cover surround and turn gently. The switch assembly will "pop" clear of the cover surround.

Install a new CR2032 lithium battery in to the battery compartment on the back of the switch assembly, reassemble and test (Section 2.4.1).

5.3: Decalcification routine

Once a week the LeakSafe Motorised Valve performs a decalcification routine by automatically closing the valve by one quarter, and then immediately re-opening it. This routine only part closes the valve and will not interfere with any appliances that are using water at the time.

SECTION 6 - Troubleshooting

6.1: Indicators and alarms Please refer to these tables to identify the type of alarm.

Audible Alarm	LED Indicator	Colour	Frequency	Reason	Resolution
None	Valve Operating	Green	1 slow flashing	Water Valve Control operating on battery power	N/A
None	Valve Operating	Green	Fast flashing	Valve operating	N/A
None	Valve Operating	Green	On	Mains adaptor connected	N/A
Fast beeping	Leak Alarm	Red	Fast flashing	Water leak detected	Resolve cause of leak & reset (Section 6.2)
Slow beeping	Leak Alarm & Warning	Red & yellow	Slow flashing	Motorised Valve fault	Check cable connection to Water Valve Control, retest (Section 2.3) and reset (Section 6.2)
1 slow beeping	Warning	Yellow	Slow flashing	Low battery warning on Water Valve Control	Change batteries in Water Valve Control (Section 2.1), retest (Section 2.3) and reset (Section 6.2)
2 slow beeping	Valve Operating & Warning	Green & yellow	Slow flashing	Low battery warning in LeakDetector Wireless transmitter	Change batteries in LeakDetector Wireless Transmitter. (Section 2.2) and reset (Section 6.2)
3 slow beeping	Leak Alarm	Red	Slow flashing	Alarm active for more than 30 minutes	Repair leak & reset (Section 6.2)
4 slow beeping	Warning	Yellow	Fast flashing	Mains failure, valve closed	Only applicable if mains adaptor connected.

ALARM DESCRIPTION

Audible/Visual Alarm	Frequency
Fast beeping or flashing	1 beep / flash per 5 seconds
Slow beeping or flashing	1 beep / flash per 15 seconds
1 slow beeping & flashing	Once per minute
2 slow beeping & flashing	Twice per minute
3 slow beeping & flashing	Three times per minute
4 slow beeping & flashing	Once per 30 seconds

6.2: Reset and opening the valve after a leak alarm

The Water Valve Control will shut the valve on the incoming water main or pipe if a leak detection tab or tape is in contact with water.

Press the "OFF" button on the Water Valve Control to mute the alarm – the valve remains closed. If the alarm continues, and you have a detection tab or tape directly connected to the Water Valve Control, disconnect the tab or tape then press the "OFF" button on the Water Valve Control to mute the alarm.

Identify where in the property the leak has occurred.

If you have wireless leak detector transmitters installed the one that has instigated the alarm will be beeping. If none of the Transmitters are beeping but you have a leak detection tape or tab directly connected to the Water Valve Control then this is where the leak is.

Repair the leak and dry the leak detection tab or tape. Tabs can be wiped, tapes should be unplugged and dried either naturally, or with a hairdryer on a medium setting held 1M away from the tape, or on a warm (not hot) radiator. Reposition and reconnect the tab or tape once dry.

Press "ON" on the Water Valve Control to open the valve.

Please Note: If the leak alarm has been active for 30 minutes the fast beeping and flashing on the Water Valve Control will stop, however the red Leak/Alarm indicator will continue to flash and the beep 3 times per hour until the "OFF" button on the Water Valve Control is pressed.

The valve cannot be opened after an alarm is activated, by pressing the "ON" button on the 6 button Wireless On/Off Switch.

Support and FAQ's are available to view or download at www.leaksafe.com/support