



WaterSentry

Installation Instructions



WaterSentry Components



Water Valve Control



Flow Sensor



Valve

1. PROGRAMMING & INITIAL SET UP

1.1: Programming the Water Valve Control

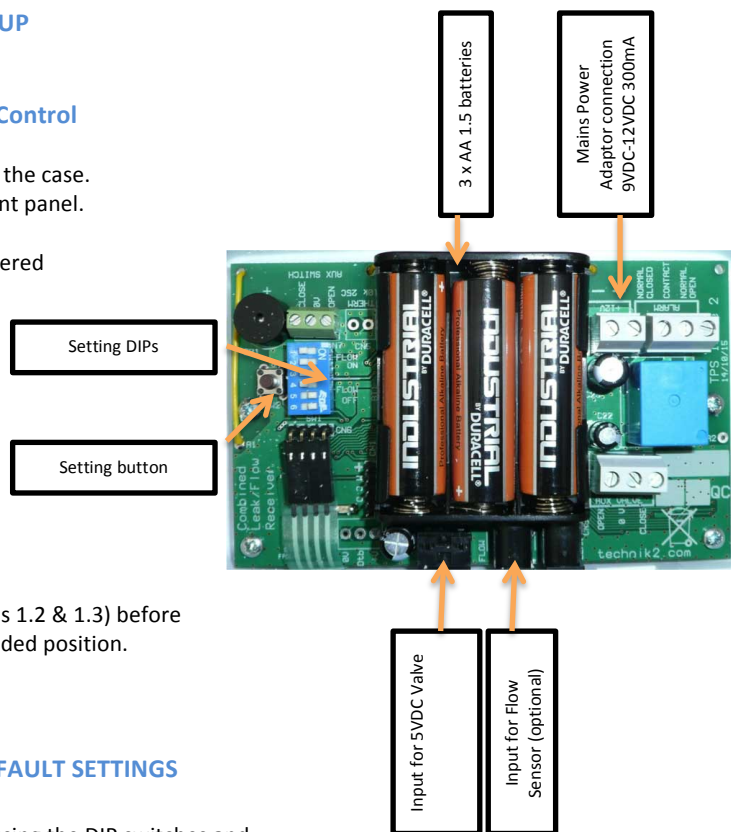
Lift and remove the catch cover on the top of the case. Press the catch underneath to release the front panel.

If the Water Valve Control is to be mains powered cut out cable paths and connect the optional mains power adaptor to terminals 12VDC +/- shown.

Install 3 x AA batteries (the Water Valve Control will beep 3 times to indicate correct installation).

Plug in to mains supply if a power adaptor is being used.

Follow the programming Instructions (sections 1.2 & 1.3) before mounting the Water Valve Control in its intended position.



1.2: Programming Instructions – DEFAULT SETTINGS

Set Water Valve Control DEFAULT SETTINGS using the DIP switches and Setting Button on the PCB.

1. To set Auto Check that a valve is connected in Input V set DIP 1 ON. All other DIPs OFF. DEFAULT = do not check (DIP 1 OFF).

2. To set Valve Auto Close on mains power failure (when using the optional mains power adaptor) set DIP 2 ON. All other DIPs OFF. DEFAULT = do not close valve on mains power failure (DIP 2 OFF).

Once the DIPs are set, press and hold the Setting Button UNTIL the Yellow LED comes on and then flashes. Release the Setting Button. The Water Valve Control will beep twice to confirm that the settings are stored in memory.

1.3: Programming Instructions – FLOW OR NO FLOW VALVE AUTO CLOSE (Requires installation of a Water Flow Sensor).

Set Water Valve Control “Flow” or “No Flow” settings using the DIP switches and Setting Button on the PCB and the table below.

Once the DIPs are set, press and hold the Setting Button UNTIL the Yellow LED comes on and then IMMEDIATELY release the Setting Button. The Water Valve Control will beep once to confirm that the settings are stored in memory.

DO NOT HOLD THE BUTTON ANY LONGER AS THIS WILL RESET ANY CHANGES MADE TO THE DEFAULT SETTINGS in Section 1.2.

Reassemble Water Valve Control – attach front panel to back box.

Set the allowed Continuous Flow Time Limit

Set DIPs 1, 2 & 3 to set the amount of time water may flow continuously before the Valve closes:

Time	DIP 1	DIP 2	DIP 3
30 minutes	0	0	0
1 hour	1	0	0
1.5 hours	0	1	0
2 hours	1	1	0
4 hours	0	0	1
6 hours	1	0	1
OFF	0	1	1
5 minute test (for engineer use)	1	1	1

0 = OFF / 1 = ON

If set time is exceeded the Valve will close and the Water Valve Control will alarm.
FACTORY DEFAULT IF A WATER FLOW SENSOR IS FITTED = 30 MINUTES

Set the allowed No Flow Time Limit

Set DIPs 4, 5 & 6 to set the time delay before the Valve closes when no water flow is detected

Time	DIP 4	DIP 5	DIP 6
6 hours	0	0	0
12 hours	1	0	0
18 hours	0	1	0
24 hours	1	1	0
36 hours	0	0	1
48 hours	1	0	1
OFF	0	1	1
10 minute test (for engineer use)	1	1	1

0 = OFF / 1 = ON

If set time is exceeded the Valve will close but the Water Valve Control will NOT alarm.
FACTORY DEFAULT = OFF

READ THESE IMPORTANT NOTES:

When the Water Valve Control operates the Motorised Valve 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 COMMAND. PRESSING THE “WATER ON” OR “WATER OFF” BUTTONS DURING THIS PERIOD WILL NOT ACTIVATE THE VALVE.

When operating the buttons on the Water Valve Control apply light pressure for approximately 4 seconds

1.4: Initialising the Water Valve Control and testing the Valve Open & Close functions

NB. THE “WATER ON”, “WATER OFF” AND “TEST” BUTTONS (FIG 1) MUST BE HELD DOWN FOR APPROX 4 SECONDS TO OPERATE.

To initialise the system for the first time:

1. Ensure a Valve is connected to input “V” on the bottom of the Water Valve Control.
2. Press and hold down the WATER OFF button until it beeps twice.
3. Press and hold down the WATER ON button until it beeps once. The green VALVE OPERATING LED will flash for 10 seconds.

Once the green VALVE OPERATING LED stops flashing the Water Valve Control is ready for testing.

1.5: Testing the manual Valve Open & Close function

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

1. Press and hold down the WATER OFF button on the Water Valve Control until it beeps twice. The green VALVE OPERATING LED will flash for 10 seconds and the Valve will close.
2. Once the green VALVE OPERATING LED stops flashing, press and hold down the WATER ON button until it beeps once. The green VALVE OPERATING LED will flash for 10 seconds and the Valve will open.

2: INSTALLATION INSTRUCTIONS

2.1: Installing the Motorised Valve and Water Valve Control

Install the Motorised Valve as close to the incoming stopcock on the incoming water main as possible, on the property owner’s side.

LeakSafe recommend the use of compression joints when installing the Motorised Valve although soldered, speed fit or similar couplings can be used.

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 3). **DO NOT** hold or use the blue actuator when tightening any connections as this will damage the valve assembly.

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.

Connect the valve to the input marked “V” on the bottom of the Water Valve Control.

2.2: Installing the Flow Sensor

The Flow Sensor is usually installed after the Valve, but can be installed either before or after the valve depending on the available amount of room on the pipe. If room permits the Flow Sensor can be connected directly to the valve as shown.

If space is limited the Sensor can be located on the pipe separately to the valve. However, it must be positioned before any tee off points and its’ connecting cable must be able to reach the Water Valve Control. It can be mounted horizontally or vertically.




THE FLOW SENSOR MUST BE ALIGNED SO THAT THE FLOW IN THE PIPE IS IN THE SAME DIRECTION AS THE ARROW ON THE SENSOR BODY.


Important notes: The correct pipe-sealing compound must be used for sealing metal to plastic threads. The sealant used must be recommended for use on plastic as some sealant products can damage plastic over time which may in turn result in a leak. LeakSafe recommend PTFE tape for use with the plastic Flow Sensor.

Please also note that great care must be taken when tightening both the plastic Flow Sensor and the water Valve. Do not hold the blue Valve motor assembly while assembling. Connect the Flow Sensor (if installed) to the input marked “F” on the bottom of the Water Valve Control.


3: INDICATORS AND ALARMS


ALARM

 1 red flash & 1 beep every 20 seconds
VALVE CLOSED DUE TO MAINS POWER FAIL (if this option was selected)


 3 red flashes & 3 beeps every 20 seconds
VALVE CLOSED DUE TO WATER CONTINUOUS FLOW TIMER BEING EXCEEDED


WARNING


 1 yellow flash & 1 beep every 60 seconds
LOW BATTERIES, CHANGE BATTERIES ASAP

 2 yellow flashes & 2 beep every 60 seconds
VALVE HAS BECOME DISCONNECTED FROM WATER VALVE CONTROL (if this option was selected)

VALVE OPERATING

 Green flashing every second & 2 beeps
VALVE CLOSING

 Fast green flashing every 0.5 second & 1 beep
VALVE OPENING

 Solid green
WATER VALVE CONTROL OPERATING ON MAINS POWER

4: RESETTING AND OPENING THE VALVE AFTER AN ALARM

4.1: Resetting the system after No Flow or Continuous Flow limits are exceeded

The Water Valve Control will shut the valve on the incoming water main or pipe if either the No Flow or Continuous Flow set times are exceeded.

1. Press the “WATER OFF” button on the Water Valve Control to mute the alarm – the valve remains closed.
2. Press “WATER ON” on the Water Valve Control to open the valve.

5: MANUAL OVERRIDE ON THE MOTORISED VALVE

NB: If the Water Valve Control is mains powered, disconnect from the mains before using the manual override.

To manually operate the valve, lift and turn the Manual Operating Button on the valve. 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. Depress the button once you have finished opening/closing the valve.

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