

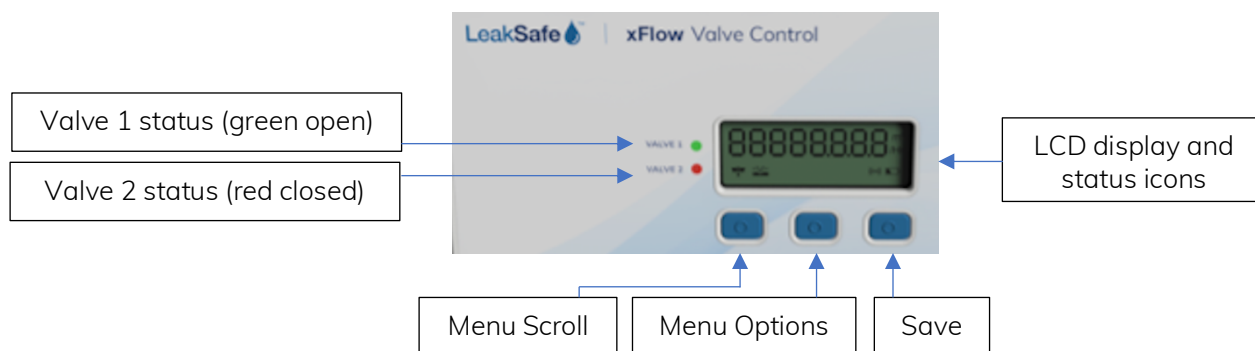


xFlow

User Instructions

LeakSafe ™

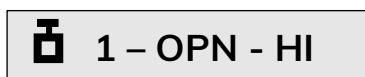
Section 1: User Display & User Menu



1. Opening and closing the valve(s)

In default the User Display will show the Valve 1 status and current RUN mode e.g.:

Valve 1 is OPEN, and the system is in HI use mode.



To open or close the valve(s) press the Menu Options (middle) button to show either OPEN or CLOSE as required, then press the Save (right hand) button.

If you have 2 valves connected, use the Menu Scroll (left hand) button to select the valve you want to open/close.

DO NOT open a valve if the system has closed the valve due to Excess flow, Continuous flow or it has detected a Leak until you have checked the property or know a reason why there has been more water used than specified in the system programming and are sure it is safe to open the valve again. See Leak Alarm section below.

2. RUN mode and changing the RUN mode

RUN modes:

There are 5 possible RUN modes. Default is **HI-LO**

- 1. ON-OFF:** valve opens & closes at pre-set times.
NB. If you open a valve when it has turned OFF on a timed program, the system will allow use of water for the **OVERRIDE** period that has been pre-set and then turn the valve off again.
- 2. HI-LO:** (Default). The system changes from HI use to LO use at pre-set times, set in the Engineer Menu (see Section 2). Valve(s) stays open all the time (unless a leak is detected) but the volume thresholds vary depending on whether the system is in a HI use or LO use period.
- 3. HI:** keeps the valve open (unless a leak is detected) and uses the Hi use volume threshold set for that mode. You would use this mode if the property is permanently occupied.

4. **LO:** keeps the valve open (unless a leak is detected) and uses the LO use volume threshold set for that mode. You would use this mode if the property was going to be unoccupied for a period.
5. **OVER:** Override. Overrides the volume threshold set in the Advanced Menu for the period specified and allows unlimited use of water during that time.

To change the RUN mode, use the Menu Scroll button to get to the RUN mode display e.g.:

The current RUN mode is HI-LO:

R	HI-LO
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Press the Menu Options button to select the chosen RUN mode, then press the Save button.

Other information available on the User Display

Meter reading

The system will tell you how much water has gone through the meter(s) e.g:

2037 Litres (2.037 cubic meters) of water has gone through Meter 1.

M1	2.037	m³
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If you have 2 meters connected use the Menu Scroll button to view the value for meter 2.

Flow rate

The system will tell you how much water has gone through each meter in the last hour e.g:

50 Litres has gone through meter 1 in the last hour.

F1	0.050	m³
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If you have 2 meters connected use the Menu Scroll button to view the value for meter 2.

Pipe temperature (optional)

You can have up to 2 pipe temperature sensors installed. If you do the system will tell you the pipe temperature and alarm if the temperature drops below 4°C. E.g:

Sensor 1 shows a pipe temperature of 18.5°C

T1	18.5
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If you have 2 temperature sensors connected use the Menu Scroll button to view the value for sensor 2. **NB.** If you don't have temperature sensors installed this display will not appear.

Battery level


Battery level is 24.03

B 24.03

The xFlow battery is rechargeable. If the battery depletes below a value of 16.00 a low battery icon will display.


Date

Date is 18th February 2024

 **18.02.24**

Time

Time is 16:36 and 54 seconds

 **16.36.54**

System serial number

The xFlow control panel serial number is 50281178

S 50281178

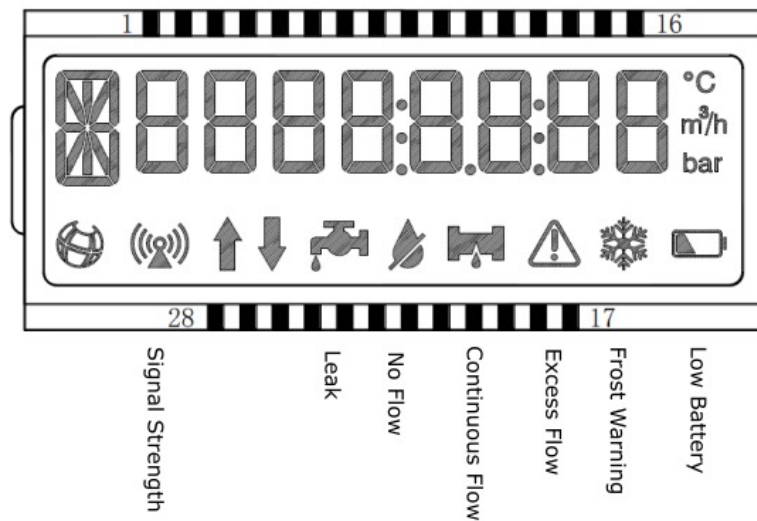
Firmware version

The xFlow control panel firmware version





FU 1.55




LCD display icons

If an alarm sounds or your water turns off, the icons at the bottom of the LCD display will indicate which system alarm has been triggered:



What the icons mean & LEAK ALARMS:

	NBLoT SIGNAL STRENGTH	NBLoT signal strength (if the system is connected to the Vodafone NBLoT network).
	LEAK	The directly connected tape is wet (tape optional)
	Action	Disconnect the wet tape from the xFlow control panel. If the leak can be safely contained, open the valve. Repair the leak, dry the tape and once completely dry, reconnect to the Xflow panel.
	NO FLOW	The valve shut for No flow because the meter recorded no water flow for the period specified in the engineer menu.
	Action	Open the valve from the xFlow control panel.
	CONTINUOUS FLOW	Valve shut because the meter recorded continuous flow for the period specified in the engineer menu.
	Action	Action: If you know why the continuous flow period has been exceeded and it is safe to do so, open the valve. Otherwise, check the property for taps and appliances that may have been left on or are running continuously due to a stuck valve or similar e.g., storage tanks, WC cisterns. If you turn the valve on and something is still running, then the system will shut the valve again after another continuous flow period has elapsed.

	EXCESS FLOW	Valve Shut because the meter recorded more than the specified volume of water allowed over a rolling 1 hour period as selected in the engineer menu.
	Action	If you know why the volume threshold has been exceeded and it is safe to do so, open the valve. Otherwise, check the property for leaks. If you turn the valve on and something is still running, then the system will shut the valve again if the volume threshold is exceeded.
	PIPE FROST WARNING	The temperature of the pipe is less than 4°C (temperature sensor optional).
	Action	The system does not shut the valve if the temperature drops below 4°C but you should take action to ensure that the pipe does not freeze.
	LOW BATTERY	The rechargeable battery is low - less than value 16.
	Action	Make sure the xFlow is connected to the mains supply so that the battery can recharge.

Manually opening a valve

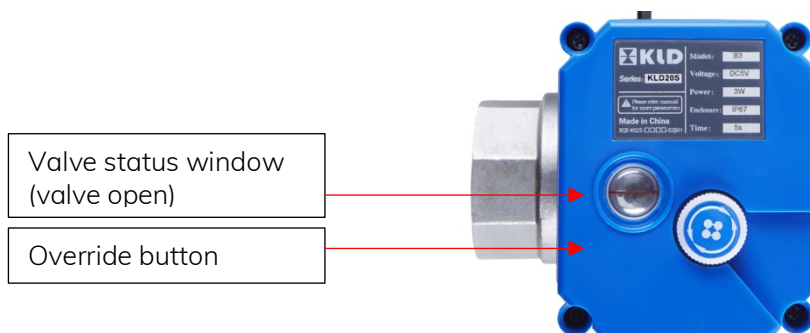
If the xFlow system control panel has failed, it is possible to manually open or close the valve(s).

Turn the mains power off to the xFlow control panel.

The valve actuator may have a valve status window and an override button similar to the ones shown below. If the red line in the valve status window is parallel to the pipe on which the valve is installed, the valve is open. If the red line is across the pipe, then the valve is closed.

To manually open the valve, pull the override button out from the actuator body (it is like a watch winder) and turn the button until the red line is parallel with the pipe. It will take several turns to get to this position. Keep the button out all the time you wish to manually override. If you push the button back in it will revert to its original state.

When override is no longer needed, push the Override button back in.



Alternatively, on larger valves, the manual override is with an Allen (hex) key clipped to the side of the valve. Insert the Allen key in the hole on the front of the actuator and turn the valve until the arrow of the valve status display shows “open” or “off”.

Section 2: CONFIGURE (Engineering) MENU

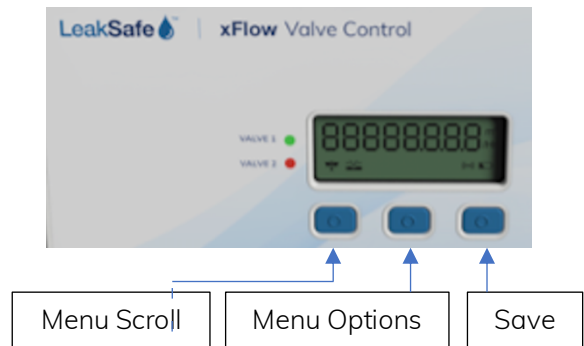
To ENTER the CONFIGURE MENU press and hold the Menu Scroll button until the display reads – CONF – (configure) then release button.

Menu Scroll button scrolls down the menu options.

Menu Options button rotates the choices for each option.

Save button saves the chosen option. -SAVE-

WHEN YOU HAVE FINISHED ALL PROGRAMMING, PRESS AND HOLD MENU SCROLL BUTTON (LH BUTTON) TO SAVE ALL CHOICES AND EXIT THE CONFIGURE MENU.



N.B: If you do not press any buttons for a few minutes whilst in CONF, the system will timeout to USER display. Any setting that was chosen but NOT saved with the RH button will be lost.

Scroll through the following settings that will be set by the installer:

K1
K2
V1
V2
Vt

Run Modes:

- M RUN:** Normal use (default)
- M ENG:** Engineer test mode – allows you to test No Flow and Continuous Flow functions. Make sure no water is used for 15 minutes and the valve will close. Open valve and test continuous flow by running water continuously for either 5 minutes or until 10L has been used – the valve will close.
- M OOS:** Out of Service mode – disables ALL monitoring and is a way of overriding the system without the need to disconnect cabling or isolating the mains and disconnecting the battery.
- M AUD:** Audit mode – measures the maximum amount of water used in a rolling hour and automatically adjusts the HI volume threshold to the value above the maximum measured amount e.g., if the maximum use was 250L in a rolling hour, the system will set the threshold at 300L. See threshold options below. The audit will run for a maximum period of 7 days after which it will adopt the maximum setting and revert to RUN mode. Audit mode can be entered and exited at any time during the 7 days. Once you are happy that a representative period has been monitored and a threshold stored for normal property use, put system back in to RUN mode.

To change Run Mode, with the current mode shown on the display, press the Menu Options button to choose the Run Mode and press Save, to save setting.

[Timings Menu](#)

This menu is ONLY used if you want to change the system mode from HI use to LO use at specific times of day OR turn the valve on and off at specific times of day. The RUN mode chosen from the USER Display menu will be either HI – LO or ON - OFF.

There are three menus for timings.

[All Day Start / All Day Finish](#)

If you want the system to change mode at the same time every day, you only need to set the All Day Start / All Day Finish times that are the first two options in this menu block. Use MENU OPTIONS button to choose start time and press SAVE to SAVE. Use Menu Scroll button to move to finish time and repeat.

All Day Start: Display shows: **ADS** (default 06:00) - Moves in 30 minute segments

All day finish: Display shows: **ADF** (default 18:00) - Moves in 30 minute segments

[Weekday start / Weekday finish & Weekend Start / Weekend Finish](#)

If you want one set of timings for weekdays and another set for weekends, ignore the All Day start / All day Finish menu but edit the Weekday Start / Weekday Finish and Weekend Start / weekend finish times. Use MENU OPTIONS button to choose start times and press SAVE to SAVE and repeat for end (finish) times.

Weekday start: Display shows: **WDS** (default 06:00) - Moves in 30 minute segments.

Weekday finish: Display shows: **WDF** (default 18:00) - Moves in 30 minute segments

Weekend Start: Display shows: **WES** (default 06:00) - Moves in 30 minute segments

Weekend finish: Display shows: **WEF** (default 18:00) - Moves in 30 minute segments

[Different times for different days](#)

Use this section if the times vary from day to day e.g.,

0600 – 1800 Monday & Tuesday
0600 – 1300 on Wednesday
0600 – 1800 Thursday & Friday
1000 – 1200 Saturday & Sunday.

Use MENU OPTIONS button to choose start times and press SAVE to SAVE and repeat for end (finish) times.

NB. Day 1 is NOT the first day the system is programmed, it is ALWAYS Monday. In the example above the programming would be as follows:

Day 1 Start (Monday): Display shows day 1 start: **D1S** (default 06:00)
Day 1 finish: Display shows day 1 finish: **D1F** (default 18:00)
Day 2 Start (Tuesday): Display shows Day 2 start: **D2S** (default 06:00)

Day 2 finish: Display shows Day 2 finish **D2F** (default 18:00)

Day 3 Start (Wednesday) Display shows day 3 start: **D3S** (default 06:00)
 Day 3 finish: Display shows day 3 finish: **D3F** (default 18:00) use Menu Options button to toggle to 1300 and press SAVE button – SAVE

Day 4 Start (Thursday): Display shows Day 4 start: **D4S** (default 06:00)
 Day 4 finish: Display shows Day 4 finish **D4F** (default 18:00)

Day 5 Start (Friday) Display shows Day 5 start: **D5S** (default 06:00)
 Day 5 finish: Display shows Day 5 finish **D5F** (default 18:00)

Day 6 Start (Saturday) Display shows Day 6 start: **D6S** (default 06:00) use Menu Options button to toggle to 1000 and press SAVE button – SAVE

Day 6 finish: Display shows Day 6 finish **D6F** (default 18:00) use Menu Options button to toggle to 1200 and press SAVE button – SAVE

Day 7 Start (Sunday): Display shows Day 7 start: **D7S** (default 06:00) use Menu Options button to toggle to 1000 and press SAVE button – SAVE

Day 7 finish: Display shows Day 7 finish **D7F** (default 18:00) use Menu Options button to toggle to 1200 and press SAVE button – SAVE

[Factory Reset](#) Display shows **F-RESET**
 Press SAVE button to start factory reset - resets all values to default settings.

Default settings:

Parameter	Default
Meter 1 value	K1
Meter 2 value	OFF
Valve 1 & Valve 2	ENABLED
Valve type	FO-FC
Run mode	RUN
Volume threshold Hi Use	100L
Volume threshold LO use	10L
No flow threshold Hi use	24 hours
No flow threshold Lo use	24 hours
Continuous flow threshold HI use	30 minutes
Continuous flow threshold LO use	30 minutes
Override period	60 minutes
All Day start	0600
All Day finish	1800
Weekday start	0600
Weekday finish	1800
Day 1-7 start	0600
Day 1-7 finish	1800

WHEN YOU HAVE FINISHED ALL PROGRAMMING AND SAVED YOUR OPTIONS, PRESS AND HOLD MENU SCROLL BUTTON (LH BUTTON) TO SAVE ALL CHOICES AND EXIT CONFIGURE MENU. DISPLAY WILL SHOW – SAVE-

Setting the date and time

Setting the date and time must be initiated from the User display.

With the user display showing the incorrect date (default starts at 01.01.2023), press and hold the LH button until the display changes to show -CONF-. Release the button - the display will show:

YE XX: use middle button to select correct year, then RH button to save. Scroll down.
MO 01: use middle button to select correct month, RH button to save. Scroll down.
DA 01: use middle button to select correct day, then RH button to save. Scroll down.
HO xx: use middle button to select correct hour, then RH button to save. Scroll down.
MI xx: use middle button to select correct minute, then RH button to save.

Press LH button to -SAVE- and exit the date & time menu.

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